





**Motivation under Uncertainty and Risks: Evaluation of the
Effects of China's Employment and Wage Reforms**

Brenda C. Sun

Thesis submitted in fulfillment of the requirements of the PhD
London School of Economics and Political Science

UMI Number: U615636

All rights reserved

INFORMATION TO ALL USERS

The quality of this reproduction is dependent upon the quality of the copy submitted.

In the unlikely event that the author did not send a complete manuscript and there are missing pages, these will be noted. Also, if material had to be removed, a note will indicate the deletion.



UMI U615636

Published by ProQuest LLC 2014. Copyright in the Dissertation held by the Author.
Microform Edition © ProQuest LLC.

All rights reserved. This work is protected against
unauthorized copying under Title 17, United States Code.



ProQuest LLC
789 East Eisenhower Parkway
P.O. Box 1346
Ann Arbor, MI 48106-1346



T H E S E S

F

8568

1087105

Abstract

This dissertation is set out to evaluate the effectiveness of China's wage and employment reforms against a major objective – the revival of motivation among individuals to adapt to new and changing environmental demands and challenges in their jobs in the face of intensifying global competition and increased resource constraints. It extends existing motivation research in several important ways. First, although the reforms began as early as the late 1970s and have had a profound impact on the nation's 100 million-strong industrial workforce, their dual impact on motivation was only empirically explored *for the first time* in this study due to extremely high research barriers. Second, since motivation research tends to focus on pay systems and especially rewards, this thesis also represents the first empirical attempt assessing the simultaneous motivational impact of wage *and* employment systems reform in the world.

Third, with the advantage of an interdisciplinary approach, I developed a research model that accounts for uncertainty and risks, thus setting the model apart from existing frameworks. By testing a primary dataset of more than 1,000 units of analysis on the proposed framework of *Environmental Perception and Adaptive Motivation* against leading theories, I was able to establish that the proposed model is a superior and, indeed, more fitting framework for predicting individuals' motivation to adapt to new demands and challenges in their jobs in a fast-changing and turbulent workplace. These results in turn lend confidence to my concluding argument for the future role of risks in motivation research.

With gratitude to God, the Eternal Father:

I wanted a PhD. He gave me humility.

**If uncertainty and risks allowed us to walk in faith and draw closer to God,
perhaps we could learn to not be bothered so much by their presence.**

献给神 - 永恒之父:

一个学生的愿望是能够学有所成，而我最大的收获是在苦读的过程中

重新学习谦卑。

生活中的不确定性和风险性的价值在于启发我们更接近神，

并凭借对祂的信心，感受生命无穷的力量，

无所畏惧地勇往直前！

CONTENTS

<i>List of illustrations</i>	x
<i>Acknowledgements</i>	xii
<i>List of abbreviations</i>	xiii

Chapter 1 Introduction

1.1 Overview	2
1.2 Sectional Summaries of the Thesis	7

Chapter 2 Context

2.1 Context of China's Employment and Wage Reforms	10
2.1.1 Strategic Overview	10
2.1.2 Historical Summary of the Two Reforms	16
2.2 Uncertainty and Risks under "Deepening of Reforms"	29
2.2.1 Employment Risks at The Steel Conglomerate	36
2.2.2 Compensation Risks at The Steel Conglomerate	41
2.3 Conclusion	48

Chapter 3 Literature Review: Work Motivation

3.1 Motivation Theory and Research	51
3.1.1 Expectancy, Goal Setting, Equity, and Reinforcement	52
3.1.2 Causal Uncertainty and Between-Concept Ambiguity	76
3.2 Research on Performance-Related Pay	80
3.2.1 Theoretical Justification and Empirical Findings	82
3.2.2 Review of Impact, Objectives, and Motives	88
3.3 Research on Incentives in Chinese Industry	92
3.4 Discussion and Conclusion	102

Chapter 4 Uncertainty and Risks

4.1 Reality of Uncertainty and Risks in the Workplace	106
4.1.1 Employment Risks for all	109
4.1.2 Compensation Risks for all	112
4.2 Research on Employment and Compensation Risks	118
4.2.1 Study of Employment Risks	119
4.2.2 Study of Compensation Risks	123
4.3 How Work Motivation Theory Fares under Uncertainty and Risks	127
4.3.1 Adversity and Expectancy Theory	129
4.3.2 Risk Aversion and Goal Setting Theory	130
4.3.3 Environmental Uncertainty and Reinforcement Theory	133
4.3.4 Interaction Complexity and Equity Theory	134
4.3.5 Significance of the "Flexible Firm" for Motivation Theory	136
4.4 Discussion and Conclusion	138

Chapter 5 Toward A Model of Environmental Perception and Adaptive Motivation

5.1	Existing vs. Proposed Views of Motivation	143
5.1.1	Assumptions about the Environment	146
5.1.2	Assumptions about the Person	151
5.1.3	Theoretical Approach	152
5.1.4	Conceptualization of Motivation	158
5.2	A Model of Environmental Perception and Adaptive Motivation	163
5.2.1	Threat and Opportunity Perceptions and Adaptive Motivation	168
5.2.2	Proposed Concept of Threat Perception	170
5.2.3	Proposed Concept of Opportunity Perception	175
5.2.4	Testable Propositions	180
5.3	Discussion and Conclusion	182

Chapter 6 Antecedents of Threat and Opportunity Perceptions

6.1	Introduction	186
6.2	Proposed Antecedents of Threat Perception	187
6.2.1	Risk of Noncompliance	191
6.2.2	Pressure to Perform	192
6.3	Proposed Antecedents of Opportunity Perception	194
6.3.1	Perceived Organizational Support	196
6.3.2	Willingness to Bear Cost	197
6.4	Proposed Antecedents of Perceived Organizational Support and Willingness to Bear Cost	200
6.4.1	Overall Situation Enhancement	201
6.4.2	Reward Consistency	203
6.4.3	Expectancy	205
6.4.4	Organizational Commitment	206
6.5	Organizational Commitment as a Mediating Variable	207
6.6	Discussion and Conclusion	209

Chapter 7 Methods and Measures

7.1	Methodology in a Research-Averse Setting	212
7.1.1	Research Strategy	213
7.1.2	Data Collection Preparatory to Main Study	217
7.1.3	Main Study	222
7.2	Measures	227
7.2.1	Scale Development	228
7.2.2	Measures	229
7.2.3	Reliability	237
7.2.4	Validity	240
7.3	Conclusion	247

Chapter 8 Analyses and Results

8.1	Effects of Employment and Wage Reforms on Adaptive Motivation	251
8.2	Antecedents of Adaptive Motivation	252
8.2.1	Testing of Hypotheses 1 – 2	252
8.3	Antecedents of Threat Perception	255
8.3.1	Testing of Hypotheses 3 – 4	255
8.3.2	Testing of Hypothesis 5	257
8.4	Antecedents of Opportunity Perception	259
8.4.1	Testing of Hypotheses 6 – 7	259
8.4.2	Testing of Hypothesis 8	261
8.5	Antecedents of Perceived Organizational Support	265
8.5.1	Testing of Hypotheses 9, 11 – 12	265
8.5.2	Testing of Hypotheses 13 – 14	268
8.6	Antecedents of Willingness to Bear Cost	270
8.6.1	Testing of Hypotheses 10, 15 – 18	270
8.7	Antecedents of Organizational Commitment	274
8.7.1	Testing of Hypotheses 19 – 20	274
8.8	Mediating of Organizational Commitment in Adaptive Motivation	277
8.8.1	Testing of Hypothesis 21	277
8.8.2	Final Testing of Hypotheses 1 – 2, 21	278
8.9	The Proposed vs. Existing Models	281
8.9.1	Summary of Findings of the Proposed Model	281
8.9.2	How It Compares to Existing Theories in Explanatory Power	285
8.10	Conclusion	289

Chapter 9 Discussion

9.1	Implications of Key Findings	291
9.1.1	Environmental Perception and Adaptive Motivation	293
9.1.2	Superior Explanatory Power of Threat and Opportunity Perceptions	298
9.1.3	Factors Conducive to Threat and Opportunity Perceptions	299
9.2	Implications of Related Findings	306
9.2.1	Role of Existing Concepts in Adaptive Motivation	308
9.3	Limitations and Extensions	322
9.4	Conclusion	325

Chapter 10 Conclusion and Outlook

10.1	Summary of this Research	328
10.2	Implications	332
10.2.1	Rethinking Organizational Approaches to Motivation	333
10.2.2	The Future Role of Risks in Work Motivation Research	341
10.3	Conclusion and Directions for Future Research	346

<i>References</i>	349
-------------------	-----

<i>Appendix A: Questionnaire</i>	382
----------------------------------	-----

<i>Appendix B: Questionnaire (English Translation)</i>	388
--	-----

ILLUSTRATIONS

Tables

2.1	Sample Monthly Pay Slip of a Production Worker	43
2.2	Monthly Position-Based Pay Scale at The Steel Conglomerate	44
2.3	Monthly Skill-Based Pay Scale at The Steel Conglomerate	45
2.4	Monthly Standard Base Pay Scale at The Steel Conglomerate	46
2.5	Monthly Bonus and Penalty Calculations	47
3.1	Representative Studies of Expectancy Theory	56
3.2	Representative Studies of Goal Setting Theory	62
3.3	Representative Studies of Equity Theory	67
3.4	Representative Studies of Reinforcement Theory	73
3.5	Representative Studies of Performance-Related Pay (PRP)	85
3.6	Representative Studies of Incentives in Chinese Industry	94
4.1	Limitation of Existing Theory in Predicting Motivation under Uncertainty and Risks	128
5.1	Differences between Existing and Proposed Views of Motivation	145
5.2	Empirical Study of Change in Work Motivation Research	154
5.3	Schema of Threats and Opportunities in Social Sciences Research	168
5.4	When Reward is Not Perceived as “Opportunity”	176
6.1	Definitions of Key Variables	188
7.1	Components of Data Collection	217
7.2	Descriptive Statistics, Reliabilities, Variances Extracted, and Pearson Correlations	238
7.3	Factor Loadings for Pattern Matrix of Explanatory Variables of Environmental Perception	242
7.4	Results of Mediated Regression Analysis	246
8.1	Results of Regression Analysis: Antecedents of Adaptive Motivation	254
8.2	Results of Regression Analysis: Antecedents of Threat Perception	256
8.3	Results of Regression Analysis: Relationship between Risk of Noncompliance and Pressure to Perform	258
8.4	Results of Regression Analysis: Antecedents of Opportunity Perception	261
8.5	Results of Regression Analysis: Relationship between Perceived Organizational Support and Willingness to Bear Cost	262
8.6	Results of Regression Analysis: Antecedents of Perceived Organizational Support	266
8.7	Results of Regression Analysis: Relationship between Reward Consistency and Overall Situation Enhancement	269
8.8	Results of Regression Analysis: Antecedents of Willingness to Bear Cost	272
8.9	Results of Regression Analysis: Antecedents of Organizational Commitment	276

Tables (contd.)

8.10	Final Results of Regression Analysis: Antecedents of Adaptive Motivation	279
8.11	Summary of Results of Regression of Dependent Variables	282
8.12	Results of Regression Analysis of Existing Theories: Antecedents of Adaptive Motivation	287
9.1	Key Findings and Implications	292
9.2	Other Related Findings and Implications	307
10.1	Existing and Emergent Patterns of Organizational Approaches to Motivation	335
10.2	Some Characteristics of the Changing Contemporary Workplace	343

Figures

1.1	Dissertation Outline	6
2.1	Reward and Punishment System (<i>jiangcheng zhidu</i>) at The Steel Conglomerate	30
6.1	Proposed Antecedents of Environmental Perception and Adaptive Motivation	189
7.1	Evolution of my Research on China's Employment and Wage Reforms	214
7.2	Map of the People's Republic of China	216
8.1	Outcome in Adaptive Motivation	251
8.2	Tested Model of Environmental Perception and Adaptive Motivation	264
8.3	Tested Antecedents of Environmental Perception and Adaptive Motivation	284

ACKNOWLEDGEMENTS

The biggest thanks go to my thesis supervisor Professor John Kelly, who was quick to identify my strengths and weaknesses in helping me become strong, confident, and productive. Without his first-class supervision and strategic input, this thesis would have no life.

I am also indebted to my advisors and research collaborators in China, including President Yang Jingyün (杨静云 校长), Professor Wang Lizhen (王立真 教授), Professor Dong Keyong (董克用 教授), and the many government officials, experts, and friends in the enterprises they brought my way to expand my knowledge and understanding as well as help and sustain me in my fieldwork. I am most grateful and privileged to have had my earlier supervisor Dr. Ray Richardson, faculty members at the Department of Industrial Relations and especially Professor Richard Hyman, Convenor of Doctoral Program, and my bubbly colleagues at LSE.

I owe my heartfelt thanks to my friends and families for being there for me when I needed them. In particular, my brave little Oliver, Joyce and Eron, Adam and Kenny, Professor Harold Oaklander, Sue Fernie, Elsie Wan, Jenna Ko, Jeanne Lai, Xufang, Wu Yuanmin, Ho Kar-Mei, Zeng Yongqin (Piao Piao), Charlotte Beaupere, Yvonne Douglas, Helen Cheung, Agnes Au, Nancy Chung, May Hung, Alexandra Beauregard, Eva Jedut, Renata Paxton, Jason Smith, Cui Jie, Patricia Lawrence, my church leaders, and their friends and families.

ABBREVIATIONS

CASS	Chinese Academy of Social Sciences (<i>zhongguo shehui kexue yanjiuyuan</i>)*
CCP	Chinese Communist Party (<i>zhongguo gongchandang</i>)*
CCPCC	Chinese Communist Party Central Committee (<i>zhongguo gongchandang zhongyang weiyanhui</i>)*
CBE	Competition-Based Employment (<i>jingzheng shanggang</i>)*
COE	Collective-Owned enterprise (<i>jitiqiye</i>)*
FIE	Foreign-invested enterprise (<i>waiziqiye</i>)*
ICT	Information and Communication Technologies
IDD	Income Data Services (U.K.)
ILO	International Labor Organization
ILE	Independent Legal Entities (<i>duli faren</i>)*
IPM	Institute of Personnel Management (U.K.)
LDC	Limited Duration Contract (<i>guding laodong hetong</i>)
JTC	Job Transfer Center (<i>juanggang jidi</i>)*
JV	Joint Venture
MNC	Multinational Corporation
NMO	Nonmember-based organizations (as in unionism)
PFN	Pay for Needs (<i>anxi fenpei</i>)* (as against PFL)
PSP	Position- and Skill-Based Pay (<i>gangwei jineng gongzi</i>)*
OECD	Organization for Economic Cooperation and Development
PFL	Pay for Labor (<i>anlao fenpei</i>)* (as against PFN)
PSP	Position- and Skill-Based Pay (<i>gangwei jineng gongzi</i>)*
RPS	Reward and Punishment System (<i>jiangcheng zhidu</i>)*
RMB	Unit of Currency (<i>renminbi</i>)*
RSC	Reemployment Services Center (<i>zaijiu ye fuwuzhongxin</i>)*
SSB	State Statistical Bureau (<i>guojia tongjiju</i>)*
STOU	Second-Tier Operation Unit (within the SOE) (<i>erji danwei</i>)*
SOE	State-Owned Enterprise (<i>guoyou qiye</i>)
SBP	Standard Base Pay (<i>biaozun gongzi</i>)*
SSB	State Statistical Bureau (<i>Zhongguo tongjibu</i>)*
TVE	Township and Village Enterprise (<i>xiangzhen qiye</i>)*
WRPS	Worker Representation and Participation Survey (U.S.)
WTO	World Trade Organization

* Chinese term

Chapter 1

Introduction

This chapter consists of two components. Section 1.1 provides an overview of the research question and the theoretical background of the research framework. Section 1.2 presents the sectional summaries of the thesis, which is organized into five parts consisting a total of 10 chapters.

1.1 Overview

Research Question

My research, entitled, “*Motivation under Uncertainty and Risks: Evaluation of the Effects of China’s Employment and Wage Reforms*”, is aimed at exploring the individual-level impact of the accumulative employment and wage systems reform over the last two decades. Although the reform approach has been incremental and experimental, the reform measures represent some of the most extensive and radical changes in employment and wage policies. First, the reforms affect China’s 100 million-strong “army of workers” (*zhigong duiwu*), representing the largest industrial workforce of a nation to ever to join the WTO. Second, they brought about an unprecedented level of instability and turbulence in the organizational setting of the state enterprise. In essence, these changes involve a fundamental shift from lifetime employment and need-based egalitarian pay to jobs that can be terminated and wages that are increasingly based on skill, responsibility, and results.

The “Long March” in Search of an Answer

The idea for this thesis, or more accurately, the wage reform aspect of it, began to germinate in the latter part of 1990s when public debates about the use of incentives in the Chinese industry intensified. I embarked on what at first glance appeared to be a straightforward undertaking as I sought to understand, as numerous studies in the West have done, the motivational impact of pay system change amongst the Chinese workers. I set out to fill the gap in the lack of motivational studies on the wage reform at the individual worker level, as studies in this area tended to explore incentives and labour productivity at the firm level. My biggest challenge was to overcome the barriers of entry to research on workers in state industry, which has principally maintained a closed-door policy to academic research.

I managed over a period of three years with various direct and indirect contacts from my former business and advisory roles in the government and associated think tanks to

observe the motivational phenomenon in state industry, and principally at enterprises in the oil, petrochemical, and steel industries, dubbed the “strategic sector” (*chelühangye*). It emerged that the original framing of my research question did not fit the evolving realities. In particular, it was not only the wage reform that mattered, but perhaps more so, the employment reform. And it was not only the opportunities of better pay under the “pay-for-labor” system (*anlao fenpei*) that mattered, but perhaps more so, the threats of job loss under the “competition-based employment” system (*jingzheng shanggang*).

This realization, which had not been captured in existing literature on Chinese business studies at the time, forced me to reshape my research question to encompass both the wage *and* employment reforms and subsequently engage with the examination of a whole new range of literature in the broader social sciences discipline to bring in a new perspective to help understand motivation *under uncertainty and risks*.

Motivation under Uncertainty and Risks

Motivation is subject to varying environmental influences such as changes on the employment and wage scenes, and structural reform of industries. Despite positive developments in many industrialized countries and the quick pace of recovery in East Asia from its financial crisis, the global employment situation continues to pose formidable challenges in terms of employment insecurity and earning instability (ILO 2001). In particular, the use of contingent labor, i.e., workers on limited duration contracts and those hired through temporary work agencies, have increased considerably since 1990 in the U.S. and in most European labor markets (Bergström and Storrie 2003).

Furthermore, “pay at risk” or variable pay, once a feature unique to executive and salesman compensation, is becoming an integral part of compensation for ordinary workers (Gottschalk and Moffitt 1994; Turner 2001). Despite Pearce’s (1987) call to address these issues and the ‘insecurity thesis’ evident in the study of the global workplace (Heery and Salmon 2000), research on work motivation remains focused on rewards in presumably stable and secure settings. The extent to which a framework goes beyond stable and secure settings to account for employment insecurities and

compensation risks in what Beck (1999; 2000) refers to as the “world risk society” is as important to understanding motivation in the West as among workers in the Chinese industry, for whom mere survival is a daily battle and adversity a prevailing condition under the ‘deepening of the economic reform’ (*shenhua gaige*).

Theoretical Background

Starting points and main definitions. In search of a theoretical framework to explain the Chinese phenomenon that existing motivation theory cannot explain, I adopted an interdisciplinary approach. I explored perspectives on uncertainty and risks by drawing upon the risk literature. Based on further insights from research in evolutionary economics, strategic management, international conflict, and negotiation, I put forth a view of “environmental perception and adaptive motivation”.

The proposed view differs fundamentally from the conventional perspective, which tends to focus on the individuals within, rather than forces of the environment confronting them. In particular, the existing view suggests that “the emergence of a need, desire, or expectation generally creates a state of disequilibrium within the individuals which they will try to reduce” in order to be restored to a state of equilibrium (Steers and Porter 1991: 6 - 7).

The existing view is helpful for understanding motivation in stable settings where changes are infrequent, discontinuous, and intentional. The emphasis on the individual, however, becomes problematic in more complex and rapidly changing settings such as the Chinese workplace, where the environment seems to be the source of multiple selective pressures that bear on individual survival and success (cf. Lane 1991). Under these circumstances, it seems more beneficial to explore motivation not strictly as a process of equilibrium restoration within the person, but from the broader view of individual adaptation to continuous environmental change (Nicholson 2001), in other words, the view of adaptive motivation.

Following the above reasoning and based on the work of Foster (2000), Hanna and Freeman (1989), Klinger, Barta, and Mahoney (1975), Kuhn and Beam (1982), and Rook (1987), I define *adaptive motivation* as the *motivation to adapt to new and changing environmental demands and challenges with the purpose of increasing one's chances of survival and success under uncertainty and risks.*

Environmental perception. Central to the proposed framework of “environmental perception and adaptive motivation” are the twin concepts of “threat perception” and “opportunity perception”. My definitions of these concepts are based on the work of Boulding (1978), Cyert and March (1963), Fredrickson (1985), Jackson & Dutton (1988), Singer (1958), and Tedeschi (1970).

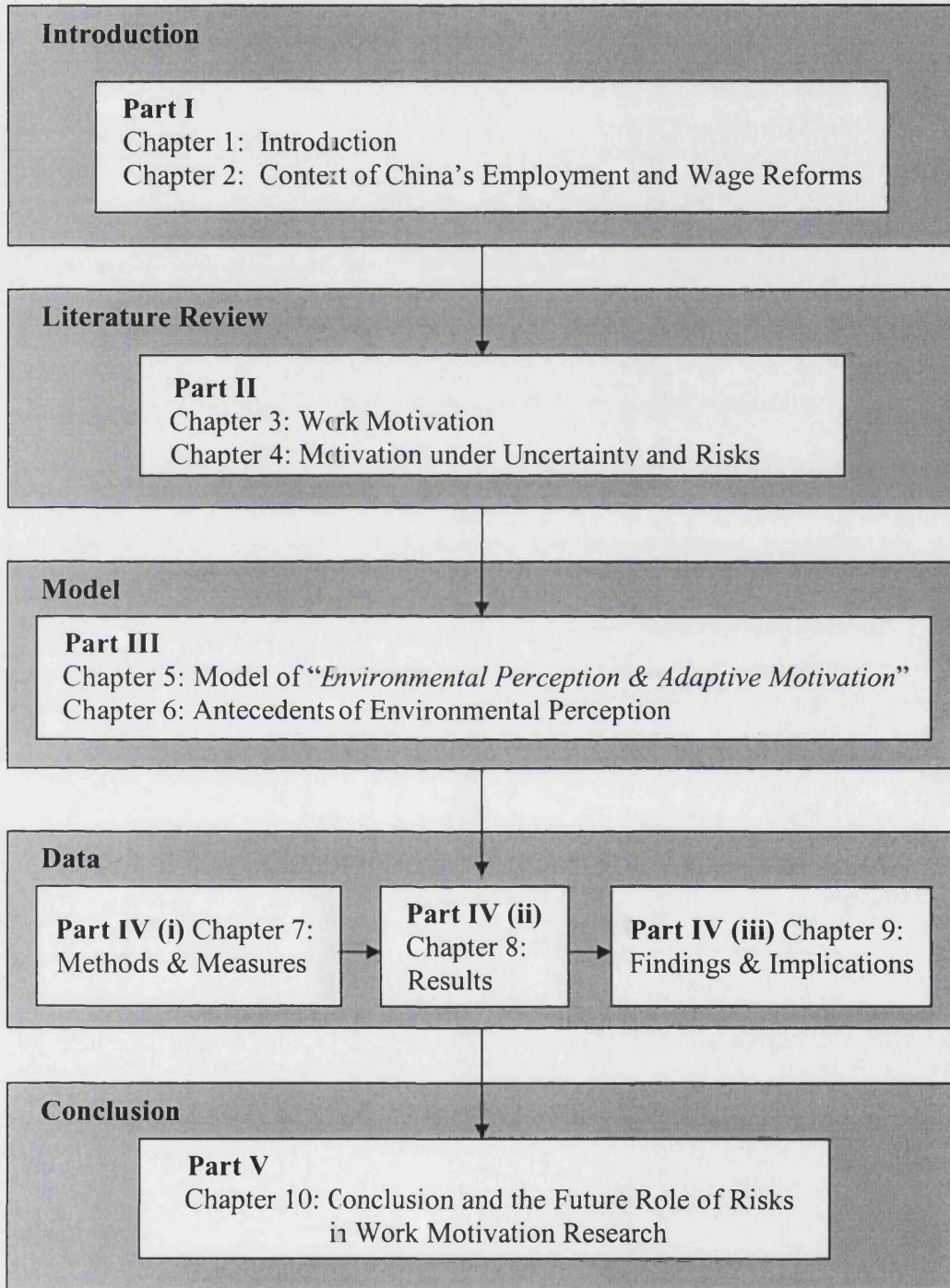
I define *threat perception* as the *perception of an environmental cue, situation or set of circumstances as presenting a risk to the individual's current interests in such a way that it is feared, if not acted upon efficiently, will impinge on one's survival.*

I define *opportunity perception* as the *perception of an environmental cue, situation or set of circumstances as presenting a potential of working toward the individual's advantage in such a way that it is hoped, if acted upon efficiently, will further one's growth and advancement.*

The proposed perspective suggests two distinct forms of motivation: (1) the motive to protect what one currently has (e.g., a job) is based on the *fear of loss*, which results in “protection motivation” (Rogers 1975; Arrow 1996); and (2) the motive to achieve what one does not yet have (e.g., a promotion) stems from the *hope for gain*, which results in “achievement motivation”¹. The fundamental idea animating this distinction is quite simple; it is that employees may not necessarily be motivated by the hope for gain (alone) but (also) the fear of loss. What then lie at the heart of the proposed analysis of motivation under uncertainty and risks are the considerations of “*Can I afford not to?*” and “*Is it worth it for me?*”

¹ This is different from Atkinson's (1964) definition of achievement motivation as a personality disposition.

Figure 1.1 Dissertation Outline



1.2 Sectional Summaries of the Thesis

As shown in Figure 1.1, the thesis is organized into five distinct yet interrelated parts and contains 10 chapters in total.

Part I: Introduction. Covering Chapters 1 and 2, Part I is an introduction to the dissertation. Chapter 1 provides an overview of the research question, the theoretical background of the research framework, and sectional summaries of the thesis. Chapter 2 discusses the context of China's employment and wage reforms.

Part II: Literature review. Consisting of Chapters 3 and 4, Part II of the thesis provides the review of the literature. In particular, Chapter 3 reviews the work motivation literature from the turn of the 20th century, with special interests in the burgeoning of North America-based theories of the 1960s and 1970s that continue to dominate today's research. Chapter 4 reviews the research in other social sciences disciplines that addresses the important and pressing issue of uncertainty and risk, which is neglected in much of the current work motivation literature.

Part III: Model. Covering Chapters 5 and 6, Part III of the thesis deals with the interdisciplinary development of a research model for understanding motivation under uncertainty and risks. It represents the most significant contribution of this dissertation in that it does not only facilitate the study of employment and wage reforms on Chinese soil, but also enables the empirical investigation of work motivation in global organizational contexts that are characterized by uncertainty and risks. Chapter 5 lays down the backbone of the model on environmental perception and adaptive motivation. Chapter 6 expands on the core propositions to encompass the antecedents of threat and opportunity perceptions in a completed model consisting of 12 variables and 21 hypotheses.

Part IV: Data. Consisting of Chapters 7, 8, and 9, Part IV presents the data of the empirical work of the thesis. In particular, Chapter 7 discusses (1) the methodology for breaking through various research barriers to evaluate the reforms, and (2) the measures. Chapter 8 presents the results. Chapter 9 is a detailed discussion of and reflection on the

findings, which confirm the superior explanatory power of the proposed model vis-à-vis that of existing frameworks, which were also tested with the same data.

Part V: Conclusion. The Concluding chapter summaries the study, discusses its implications, and highlights its major contributions. Mindful of the phenomenon of unprecedented changes in the business environment that bear on the organization and the individuals within, I provide a re-examination of organizational approaches to motivation. In light of the prevalence of uncertainty and risks in today's workplace and society at large, the chapter closes with a thought-provoking assessment of the future role of risks in motivation research.

Chapter 2

Context

This chapter is divided into three sections. The first section provides an overview of wage and employment reforms from both a strategic and a historical perspective. The second section discusses specific aspects of reforms as implemented and advanced at my research organization. The final section concludes.

2.1 Context of China's Employment and Wage Reforms

As revealed by the title of this thesis, the research setting concerns China's employment and wage reforms. In light of the complexity of the subject at hand, I shall approach the discussion in two parts. The first part is taken up in Section 2.1.1 and represents a strategic overview of the reforms. The second part is taken up in Section 2.1.2 and covers major events in the processes of the two reforms.

2.1.1 Strategic Overview

It is important to note for the analysis in this section that where references are not provided it is due to the fact that the information has been obtained from personal interviews and visits with policy makers and the like, and that the same information was not available in a published format in the public domain. As such, this analysis serves as an executive summary of the "strategy inquiry" component of my research discussed in Section 7.1 – *Methodology in a Research-Averse Setting*.

From the beginning of economic reform in the late 1970s to "deepening of reform" (*shenhua gaige*) from the 1990s onwards, individual workers, like the enterprises they worked for, were confronted with an increasingly uncertain and risky future (cf. Ginzberg, 1985). Essentially, individuals would know no precedence and thus have no basis to ascertain as to where they might end up in the "mounting waves of reforms" (*gaigede dachau*), referring to the intensifying processes of natural selection and elimination at both enterprise and individual levels. Before setting out to analyze how individuals responded to the opportunities and threats brought about by the employment and wage reforms in particular, it is necessary to assess the immediate cause that prompted these reforms.

In the beginning of China's economic reform in 1978, state-owned enterprises (SOEs) accounted for nearly 80% of gross industrial output. By 1998, their percentage of output by value had fallen to less than 25%. The problematic performance of the state industry

was reflected in the increase in the number of loss-making enterprises. From 1985 – 1998, for example, there had been a three-fold increase in the number of loss-making SOEs from 6,700 to 24,000 (see Field, 1992; Ma, 2000). The root of the unsatisfactory performance of SOEs has largely been the absence of an economic rationale in enterprise management and the state's adoption of a "closed door policy", which effectively protected the SOEs from the forces of an open market. With the SOE's being totally dependent on subsidies for economic survival, the exhaustion of state budget was an inevitable outcome.

The year 1998 saw a major turning point in the history of reforms at the enterprise level. In an attempt to hasten the reform process, the then Premier Zhu Ronji had set a three-year timeframe for SOE's to either "fold up" or redeem themselves (*sannian jiekun*) by way of "reform, reorganization, transformation, and strengthened management" (see Holz, 2003; Ma, 2000; Tang, 1998). This mandate encompassed all aspects of enterprise management whereby employment and wage distribution were among the priorities for large-scale structural adjustment and correction. Although the cutoff date had since been re-negotiated, revised, and stretched according to the "peculiar conditions and circumstances of individual enterprises" (*changqing*), there was to be no turning back to the old world of enterprise welfare. In other words, this was where the highway of unparalleled uncertainty and risks began.

The Old and New Worlds

The change to the new world involves the transition from a planned economy to a "socialist market economy" (*shehuizhuyide shichangjingji*) in which the means of production would be retained by the state but the control of wages, prices, employment, and production would be gradually relaxed and a private sector would be allowed to develop in the interstices of the state socialist economy (see Clarke, 2005). A way of understanding what went on in the old world and how it made the transition to the new particularly challenging is the evolving relationships between the State and the enterprise, and the enterprise and its workers. In the pre-reform setting, for example, the enterprise was viewed not as an economic entity *per se* but a political establishment

whereby supply and demand of raw materials and finished goods as well as wage setting and the allocation and deployment of personnel and staff were all controlled by the State.

The enterprise manager (*changjingli*) or head of the enterprise was responsible for the fulfillment of production quotas set by the State but had no say on other aspects of management such as strategy, business development, human resources, R & D, and marketing and distribution. Although managers might have a certain degree of influence on the internal reallocation of human resources and the types and quantities of industrial output to be produced, it was the enterprise's Party Secretary (*dangshuji*) who had the ultimate authority in prescribing its economic activities and political objectives.

Since the appointment of enterprise managers was made on the basis of political credentials and largely determined by their personal relationships with the State, it was not unusual for a manager to receive a promotion despite the fact that his enterprise was in the red or on the verge of bankruptcy. By the same token, the contrary could also be true, and that is, a manager could get a demotion regardless of his demonstrated ability to revive or transform an enterprise if he was after all not politically favored by the central government.

In the earlier stage of the reform process, politically influential managers who had a good relationship (*guanxi*) with the state would typically also be assigned "sweetheart deals" and have their enterprises' success measured against a different, if not mysterious, set of criteria that was out of line with the rest of the industry. In sum, it seems fair to conclude that notwithstanding the extent of organizational performance or professional competence of enterprise managers, their role in relation to the state was primarily submissive, if not also totally passive, except for the minority of individuals who were in a position to exert their influence through political means.

In the late 1990s, with increasingly grave and unrelenting budget constraints and the subsequent resolve of the state to deepen the reforms, dynamics of the relationship between the State and enterprise began to experience a sea change. Enterprises were to continue to submit to the arrangements of the state, but they could no longer depend on it for their survival. And while the power struggle between the enterprise manager and

the enterprise Party Secretary persisted, the emphasis in management had taken on an evident shift from political concerns toward economic efficiency. Instead of being paternally protective of the state industry, the state was now seen to make an unprecedented move of transferring the risk of economic failure to the enterprises themselves. For example, the enterprise wage bill was from now on determined without exception by productivity rather than by headcount. In this spirit, the state might provide no coverage at all for redundant staff or redundant anything. As their criteria indicate, these measures were designed with profound attention to reducing the waste caused by the entrenched mentality of communist-style entitlement and non-accountability at the enterprise level.

Where the cycle of risk transfer led us. Since the ailing state industry had no way of absorbing the economic risks transferred by the communist-turned socialist-market state, these risks were in turn channeled, albeit reluctantly, to the industry's 100 million-strong workforce. A distinctive feature of such risk transfer was the new form the relationship between the state enterprise and its workers took.

In the pre-reform era, workers had always been ideologically referred to as the “masters of the enterprise” (*qiyede zhurenweng*). Generations of men and women from the same immediate and extended families typically toiled and labored at the same enterprise. Their bond with the enterprise could best be described as relational (cf. Rousseau, 2000) in the sense that (1) the enterprise was committed to the workers to the extent that the latter were guaranteed lifetime employment, egalitarian wages, and cradle-to-grave benefits based on the communist ideology of “to each according to his needs; from each according to his ability”; (2) in reciprocation the workers were committed to the State, which the enterprise represented and acted on behalf of in multiple political, social, and economic capacities; and (3) the relationship was stable and deep-rooted.

It was not until the nationwide introduction of limited duration contracts in 1995 that workers found themselves suddenly identified by the state as “employees” (*guyuan*). Besides being imposed this new and unfamiliar identity, the workers were confronted with the yet more unfamiliar, and indeed shocking, reality of risks in employment and pay. Given that the industry had an admittedly high redundancy rate of 40 – 60% and the

social net or unemployment insurance system was only in its infancy (Sun, 2000b), it seemed that such risks in their class and magnitude would certainly have a hold on the vast majority of the workers, whose skills were either below satisfactory standards or altogether non-transferable to the non-state workplace. What was uncertain but worth assessing from both a strategic and an academic point of view was the direction and extent of the workers' subsequent response in motivation, which might hopefully, as reformers had intended, translate into productivity to help revive the state sector.

A critical consideration in this regard was the peculiar conditions and circumstances of individual enterprises" (*changqing*) as they had a direct and immediate bearing on the workers' prospects for continued employment and pay as well as other impending risks they were made to bear. Particularly, enterprises that were in the red or faced with a forced merger or worse yet, the fate of imminent bankruptcy, would least likely see a positive outcome in motivation. In fact, with an emphasis on downsizing and restructuring whereby production would likely be severely interrupted, motivation could hardly be an immediate concern.

Putting the issue of motivation aside, a popular interim solution to the workers' predicament, as I had witnessed on numerous occasions while roaming the streets of Beijing and other parts of Northern China, was for individuals to be given surplus materials and products by the ailing enterprises they worked for to sell and hawk off for profit. In more extreme cases where workers were not likewise pacified, symptoms of social unrest were quick to emerge. Indeed, there had not been a lack of reports and anecdotes in the press concerning the workers' dramatic reactions to back pay and layoffs, especially in their display of anger and aggressive behavior toward enterprise managers and the so-called culprits of their misfortune (see Cai, 2002; Tang, 1998).

From a strategic point of view, these issues would rise above the level of the enterprise for want of solutions at the societal level. They are nevertheless given attention at this point in my discussion for two important reasons. First, what went on at the macro level and particularly around the workers had a profound effect on how they perceived the challenges in their own immediate environment. This is in line with Harvey's (1966) argument that adaptive activity is "knowledge-motivated" whereby the individual is

concerned first and foremost with searching and scanning for cues in the face of environmental complexity and change, interpreting them so as to know where they stand. Second, in order to more accurately process and decode the complex issues therein, as the researcher I felt the need to be able to also see the context as the policymakers saw it and as those affected would likely see it. Empathy then became a key to my understanding.

Following up on the issue of “*where the cycle of transfer risk led us*” at enterprises where production remained relatively normal and workers were still paid continually regularly, is the challenge of getting these same individuals to come to work more consistently daily, perform more effectively on the team, be willing to upgrade their skills and even take on more responsibilities, and in all, adapt to the new and increasingly challenging demands in their jobs.

However, incentives or bonuses (*jiangjin*) had since the beginning of wage reform been distributed more or less equally rather than made contingent on performance (see Sun, 2000a for a review). This ironically resulted not so much in an increase in work motivation as an escalation in pay expectations both financially and in kind and the subsequent phenomenon of excessive labor remuneration across the state industry (e.g., see Gang & Woo, 1996; Sachs & Woo, 1997), which by 1988 were fueling both cost and demand inflation (Howe, 1992). The unprecedented categories and level of risks brought about by “deepening of reforms” and especially employment reform thus seemed to offer an ultimate, decisive solution to the much intended but so far little achieved objective of wage reform in inducing work effort solely by way of rewards.

For with the magnification of employment uncertainty and compensation risks came the long-awaited, and indeed even now hurried, change in the entrenched communist workplace mentality of “misbehavior with no consequence”. Unarguably, the competition-based reforms presented the biggest blow to “free riders of the former need-based systems” (*jideliyizhe*), that is, those who did not manage to reciprocate with the parallel conviction of “from each according to their ability” and subsequently stood to receive something for nothing. At the same time, the new systems also created some of the most heartwarming opportunities especially for those who were already convinced of

their responsibility to contribute to the success and advancement of the enterprise and the state and/or the need for personal fulfillment and recognition.

Despite uncertainty and risks, the setting presented a favorable set of prospects for the revival of motivation. To begin with, the principle of “survival of the fittest” (*shizhe shengcun*) governing the new employment and pay systems appeared conducive to self-regulation and discipline. But that is not enough. To facilitate adaptive motivation and performance also requires the provision of organizational support to help individuals succeed in the face of new challenges in their jobs and not just in political advancement and indoctrination, as was the case before. Turning now to the chapter’s thematic section – *Historical Summary of the Two Reforms*, the analysis should improve understanding of reform and accompanying measures, covering a 20-year span from its initiation in 1978 to its culmination in 1999.

2.1.2 Historical Summary of the Two Reforms

A central dilemma in research, as pointed out by Lounamaa and March (1987), is the mismatch between the analytical capabilities of the researcher and the complexity of the environment. For instance, the temptation to apply the same assumptions and decision rules that seemed valid and sensible in familiar and/or more simplistic environments, if not consciously resisted, could lead to the partial, if not total, misinterpretation of the phenomenon at hand and the drawing of hasty conclusions thereof. My strategy of guarding off this tendency whilst operating in the complex Chinese reform environment was to develop, as a prerequisite to analysis, an in-depth understanding of the major events in the country’s political and economic development that led to the reforms rather than yield to a “snapshot” approach to data processing, which could have offered the advantage of speed but not quality.

In line with this strategy, I shall proceed with the discussion in this section by first highlighting the challenges facing the country from more than half a century ago to the time prior to the deepening of the reforms in the latter part of the 1990s. In 1949, in particular, upon the end of the civil war between the Communist Party and Guomindang

and the founding of the People's Republic of China or "new China" (*xinzhongguo*), the pressing concerns for both the state and its people were the reestablishment of social order and the guarantee of "a bowl of rice" for all. It was with these issues in mind that the national policies of zero unemployment by way of low wages (Wang, 1999) or "low wages, employment for all" (*digongzi, quanminjiuye*) were contemplated.

With the implementation of these policies in the poverty-stricken setting of the new republic, individuals received low, egalitarian wages and meager living subsidies but were all guaranteed lifetime employment. Based on the Soviet model at the time (see Frazier, 2002; Howe, 1992), the country's manpower planning at the national level and human resources management at the micro operational level were planned and controlled by the state. Individual workers, intellectuals, and peasants alike, simply answered to the call of the Central Communist Party (or hereafter simply referred to as the "Party") in landing a job wherever their contribution and sacrifice were needed. The relationship between the enterprise and its workers was compatible to that between the traditional Chinese parent and child – the latter were cared for in virtually all aspects of their economic, social, and domestic lives.

With the enticement of political and moral incentives on the one hand and piece rate and bonuses on the other, morale and work motivation were said to be at an all-time high especially during the so-called post-war period from 1949 – 1966. As explained to me by a leading Chinese scholar, the workers were motivated to the extent that they competed with each other on the basis of giving oneself to the Party and the State no matter how trivial, insignificant or trying their calling might be, thus the widespread aspiration, "May I be a nail that never rusts!" (*zuoyigen yongbushengxiude luoshiding*).

Events, however, took a dramatic turn from 1966 – 1976 during the Cultural Revolution or "ten-year disorder" (*shinian dongluan*), when the focus of activities in the workplace was shifted from industrial production to class struggle. Financial incentives, despite being nominal, were now condemned as "material poison" by the extreme left wing (*jizuopai*) of the Party. From this time up to the early stage of economic reform in the late 1970s and including a good part of the 1990s, individuals seemed to take on a remarkably different attitude toward work. In particular, negative economic phenomena,

such as absenteeism, inefficient use of working time, reluctance to learn job skills, and high wastage of energy and raw materials could be observed at the shop-floor level in almost every state enterprise (Holton, 1990; Zhu & Dowling, 1994).

The following popular workplace jingles, “*It’s All the Same*” (*yigeyang*) and “*Are you OK?*” (*nixingbuxing*), vividly capture the spirit of helplessness and sarcasm among the workers as to how need-based employment and compensation systems had evolved over time to result in the lack of recognition for individual differences in contribution at work and the lack of objectivity in performance evaluation:

It’s all the same (*yigeyang*)

It’s all the same to work or not to work (*zuoyubuzuo yigeyang*)

It’s all the same to work hard or not to work hard (*zuoduo zuoshao yigeyang*)

It’s all the same to do well or to do poorly (*zuohao zuohuai yigeyang*)

Are you OK? (*nixingbuxing*)

Are you OK? (*nixingbuxing*)

You are if (the boss) says you are, even if you aren’t (*shuonixing jiuxing buxinyexing*)

You aren’t if (the boss) says you aren’t even if you are (*shuonibuxing jiubuxing xinyebuxing*)

Problems such as these were in turn manifested in low productivity and efficiency. For example, as explained to me in interviews with the government ministries and confirmed the case at enterprises I had visited with (see Sections 7.1.2 and 7.1.3), typically the production frontline would be understaffed while the supporting and backroom operations, overstaffed, due to differences in workload and labor intensity. At length, the efficacies of wage and employment policies were to be rigorously reexamined by central policymakers against the evolving political and economic objectives of the country. In particular, the prospects for an improving economic situation for the emergent socialist-market state would depend largely on how quickly (or slowly) various ideology-based adjustments in the employment and wage policies would be received or even once again embraced with fervor and a sense of commitment by members of its workforce.

Incremental and experimental approach. In the following, I shall proceed with a chronological summary of the two reforms, beginning with wage reform, which was initiated at the time of economic reform in 1978. It is important to note that, due to the uneven economic development of geographical regions across the country and its industry, reform measures were typically introduced on an experimental and incremental basis often taking up to five to ten years, if not longer, to warm up to at test sites (*shidian*) and follow through at other select enterprises where peculiar conditions and circumstances of the select region, industry, economic zone, and enterprise were considered by policymakers as feasible to begin with and preferably also among the most conducive to success in implementation.

Geographically, this has special relevance for inland regions or the hinterland (see Nolan, 2001) and especially the “big northwestern region” (*xidabei*), which has been much less economically nourished and developed in contrast to the coastal cities or southern regions in general (see Minematsu, Sakata et al, 1998). The same may be said of industries and enterprises in the north, which were among the most severely affected in financial turmoil during industrial restructuring and other trying periods of enterprise reform (Tang, 1998). This is essentially the reason for some of the dates given previously and yet to be given in relation to the reforms in this analysis to appear indecisive on the surface, being necessarily accurately framed in a manner of speech of “by”, rather than “in”, a particular year or period. As such, unless the new policies were enforced legally and referred as “national”, one need not assume that the introduction represented blanket or instant coverage for all enterprises or geographical locations.

The incremental and experimental approach to wage and employment reforms is strategically congruent with the economic reform policy set out by the late premier Deng Xiaoping, who proclaimed the determined departure from a communist economy by boldly suggesting, “Let’s allow a portion of the population take lead in the creation of wealth (according to their own strengths and abilities)” (*xianyang yibufenderen fuqilai*) (Deng, 1987, 1989). As was imparted by policymakers and shared by enterprises and workers alike, these reforms were first and foremost about “change of mindset” (*guanniande zhuanbian*) or “thought reform” (*sixiang gaige*) in preparing the hearts and

minds of individuals to change, and in particular, from need-based egalitarianism to competition-based adaptation and survival.

Wage Reform (ongoing since 1978)

The wage reform was launched in 1978 as an attempt by the State Council to revive work motivation and turn around enterprise performance, which were believed to have reached a rock-bottom level at the end of the Cultural Revolution. The reform has been a major component of China's economic reform, which represented a clear departure from the totalitarian economic policy that was predicated on political priorities to the socialist-market economic policy that was to be geared toward the revitalization of a stagnant economy (Sun, 2000a).

The reform strategy for the revival of the state sector, as mapped out by Deng Xiaoping, the then Party Chairman and "chief architect of reform" (*geigede zhongshejishi*) for the next two decades, was to "install a competitive mechanism within the enterprise" (*yingru jingzhengjizhi*), which would mirror the dynamics of market forces and operate according to the reform principle of "survival of the fittest". Importantly, it was expected to facilitate the conversion among workers from the former communist mentality of need-based pay to a new style of competition-based wage distribution.

As explicated by Liu and Lian (1994) and Takahara (1992), such approach consisted of three main components: (1) the advancement of autonomy in internal pay distribution at the enterprise level (*qiyezizhu fenpei*); (2) responsiveness to market supply and demand (*shichangjizhi jue ding*); and (3) governmental supervision, regulation, and control at the macro-economic level (*zhengfu jiandutiaokong*). As such, throughout the period of the ongoing reforms, policies were targeted toward both the determination of wage bill at the enterprise level and the distribution of pay at the individual worker level. In both cases, the creation of enlarging differentials on the basis of contribution was crucial.

When the wage system was more substantially reformed in the mid-1980s, progress was slow. By the early 1990s, however, several significant changes had occurred vis-à-vis matching rewards with skills and training, effort and productivity (Warner, 1995).

Although the enterprise wage bill remained a contractual arrangement between the state and the enterprise, the latter was now given a certain degree of autonomy in wage distribution corresponding to the enterprise' operating conditions and circumstances.

Pay-for-labor (PFL). A common strand in the complex tapestry of reform policies and measures was the fundamental shift in the ideology of distribution from the pre-reform principle of “to each according to his needs” or “pay for needs” (*anxü fenpei*) to the reform principle of “to each according to his contribution” or “pay for labor” (*anlao fenpei*), which was adopted as a means to “unleash (labor) productivity” (*jiefang shengchanli*) and improve the living standard of the masses” (Deng, 1987).

Pay-for-labor was about rewarding contribution, which was not necessarily accounted for on the job, as would normally be in the case of pay-for-performance schemes in the west. Work contribution (*laodong gongxian*) in the Chinese context referred primarily to the skill required of and responsibility vested in a job, as manifested, for example, in the form of position- and skill-based pay (*gangwei jineng gongzi*) for manual workers. Among professional and managerial staff, however, pay-for-labor schemes would more likely involve incentive pay and performance bonuses that bore a closer resemblance to pay-for-performance schemes in the west (Sun, 2000a).

During the more mature stage of the wage reform when the total wage bill of the state enterprise became more closely linked to enterprise performance, and personal income in turn more closely linked to contribution at work, the term “labor” has also come to mean individual contribution at the individual level, as could be measured by the state-recommended wage system of 15 technical grades (among many other alternative methods). In 1990, the state issued further guidelines on the enhancement of wage distribution along the finer lines of position and skill levels. As the state continued to allow a high degree of autonomy in the actual formulation of internal wage policy and the administration of wages within the enterprise, the concept of work contribution at the individual level would translate not just into labor intensity or technical competency, but also job responsibility or performance.

Of the various reform policies, six are particularly noteworthy:

1. Restoration of piece rate and incentives. Major policies of the early reform period from 1978 – 1983 included the restoration of piece rate and incentive schemes (Liu and Lian, 1994). In 1978, the state council introduced an incentive guideline of 10% – 12% of basic wage. The following year, enterprises were encouraged to set up an incentive fund from retained earnings. The fund was intended for differential distribution to reward workers who deserved a merited pay increase. In 1981, incentives were recommended to increase again, this time, to 16.7% of basic wage or the equivalent of two months' salary.

2. "Floating wage system". As there was no strict control from the Party administration as to how or how much had to be allocated as the incentive portion of pay, enterprises experimented with three major categories of incentive pay or "floating wage systems" (*fudong gongzizhi*): (1) "small float" (*xiaofudong*) by which 20% of the total wage was assigned as a floating wage to be pegged to worker contribution and enterprise performance; (2) "medium float" (*zhongfudong*) by which 50% of the total wage was similarly linked; and (3) "complete float" (*chuanfudong*) by which the floating wage entirely substituted the basic wage (Liu & Lian 1994). In other words, the entire monetary portion of pay became incentive-based. The sudden surge in bonuses without proper state control or self-surveillance measures at the enterprise level had quickly resulted in wage expenditure overtaking increases in productivity and profitability. Corrective measures were taken by the state Council to impose a ceiling on bonuses.

3. "Performance-related wage bill". In 1985, an administrative fiat known as "(enterprise) performance-related wage bill" (*gongxiao guaguo*) was introduced at the enterprise level to keep potential increases in the annual wage bill in line with that in enterprise performance. The base of the enterprise wage bill and the ratio of growth of wage bill to that of enterprise' performance were to be determined by way of annual consultation and negotiation with the state authority.

4. "Fifteen-grade wage system". In the same year, the original eight-grade wage system, which was based on eight standard technical work grades were substituted by a 15-grade wage system (*shiwuji gongzizhi*). The new wage system made it possible for wages to be differentiated among workers within a specific technical job grade on the

basis of changing work assignments and job responsibilities. At the same time, small variations in pay might also be possible for workers who achieved a different level of performance or contribution in the job at different times.

5. The “two below’s”. In 1993, facing the industry-wide problem of upward wage drift (see Gang & Woo, 1996), the State Council passed a revised policy known as the “two-below’s” (*liang diyu*), which stipulated that the percentage growth in enterprise wage bill and worker income be kept below two main performance indicators such that (1) the growth rate of enterprise wage bill is no higher than that of enterprise performance; and (2) the growth rate of average worker wage is no higher than that of enterprise productivity. A major provision of this new policy was that wage bill and enterprise performance reviews were now to be conducted by the state authority every three to five years instead of annually. This means that the enterprise could now formulate its year-to-year wage plans and policies with more autonomy and over a longer planning period.

6. “Position- and skill-based pay”. Position and skill-based pay (*gangwei jineng gongzi*) was introduced by the state in 1992. It represented a more sophisticated attempt to promote the concept of “pay for labor”. Under the initiative, the core wage system of SOEs was to be substituted by two major pay scales –one being specific to the position held by the employee and the other relevant to the certified skill level of the individual concerned. Position grades and wage level were to be mapped out by individual SOEs according to four criteria: (1) responsibility, (2) labor intensity, (3) working conditions, and (4) skill and ability required in the position held.

As greater wage differentials were to become available between employees working in demanding, front-line production vis-à-vis those working in secondary production and supporting roles, there would now be unprecedented incentives for workers to compete for, instead of the tendency to withdraw from demanding roles in the workplace. By mid-1993, more than 2000 medium and large SOEs had installed some form of position- and skill-based pay, making the number of employees under the new wage system a total of 10 million. However, due to financial difficulties, many enterprises, my research organization included, only adopted the new wage system years later.

Whether pay-for-labor applied to pay according to a wage system that was differentiated only in terms of pre-determined level of position and/or skill, or also embodied the concept of accountability and on-the-job performance (*laodong biaoxian*) would be a matter of individual enterprise wage policy. Overall, the scope and intensity of linking pay to contribution, be it in the form of position- and skill-based pay or performance bonuses, would determine whether the wage reform process was propelling the workforce toward a reward system that was driven by competition or constituted only another form of need-based wage supplement. This issue would be further explored in the context of the research enterprise in Section 2.2 – *Uncertainty and Risks under “Deepening of Reforms”*.

Employment Reform (ongoing since 1985)

As is the case with wage reform, employment reform represented a corrective mechanism aimed at tackling the challenges and unanticipated issues that had emerged with the evolution of time under the old economic system. In particular, the lifetime employment system or “iron rice bowl” (*tiefanwan*) together with its cradle-to-grave benefits had caused and long tolerated the widespread and serious problems of (1) job inheritance (Howe, 1992) and “backdoor recruitment” (*zhouhoumen*) through “guanxi” or social relations (Bian, 1994), (2) excessive headcount and overstaffing (Gan, Tang, & Wu, 1997; Korzec, 1992; Wang, 1999), and (3) loss of human motivation and low work morale (Ding & Warner, 2001; Warner, 1996). Since overstaffing and redundancy were what policymakers frequently referred to as a bottleneck that slowed the progress of enterprise reform, it is important for the issue to be discussed in further detail.

Redundancy a threat to survival. According to industry sources and as revealed in local Chinese publications on unemployment and labor reform (e.g., see Gan, Tang, & Wu 1997; Wang, 1999) and confirmed to me in a preliminary interview with the Ministry of Labor and Personnel back in the mid-1990s, redundancy in industry was estimated at 40 – 60%, whereby the “workload of three persons was (typically) had by five” (*sangerendehuo wugerengan*). This suggests that, of the 100 million industrial workers at the time, almost half was “superfluous” or excessive labor (*fuyu renyuan*).

The culprit of the economic ill of unchecked employment expansion could be traced back to the problematic approach in wage bill determination at as early a time as the 1940s and 1950s (see Korzec, 1992 for a discussion). In particular, the pre-reform policy for determining the total wage bill on the basis of headcount had encouraged SOEs to expand their workforce beyond economic justifications. The result of such expansion was a community of large and medium-size SOEs whose workforce was redundant and unproductive (Sun, 2000b). In the setting of “enterprise town” (*qiyebanshehui*), which was rather common, for example, in the oil industry, which I had visited, a great number of excess labor was deployed in the “enterprise management of social facilities” (*qiyebanshehui*), which involved the day-to-day running and maintenance of social facilities and community support ranging from schools to hospitals to police stations.

Since the mid-1980s, a number of these administrative or auxiliary functions, which were totally unrelated to enterprise production, had been gradually transferred to the municipal government. At the same time, however, with an unprecedented level of autonomy under the auspices of enterprise reform (*qiyegaige*), many large SOEs had gone into extended businesses in which they had no expertise or competitive advantage (Tsang & Cheng 1999). The punishing results of these nonproductive investment and subsequent employment expansion activities were enormous financial losses and superfluous workforces to the extent that the “dysfunctional employment system became an imminent threat to the survival of the state sector” (see Ding & Warner, 2001: 318).

Ever toughening reform measures. Employment reform since the early 1980s had proceeded under the general principle that reform must free the enterprise from the state and the individual from the enterprise (see Howe, 1992). This would mean dismantling of the state labor allocation system and the development of a labor market as a new mechanism for labor allocation (Howard 1991, White 1987; Whyte, 1999). In time, albeit experimentally to begin with and incrementally at relatively more progressive enterprise settings, both state enterprise employers and employees would increasingly be in the position to strike a market-style employment bargain mirroring the kind that was fast developing in the non-state sector, which had the luxury of no “historical burden” or issue of entrenched communist workplace mentality.

According to Ding & Warner (2001), the non-state sector totaled more than 280 million workers, of which (1) over 100 million were rural-status urban workers/job seekers; (2) over 150 million were township and village enterprise (TVE) employees; and (3) over 30 million were foreign-invested enterprises (FIE), private enterprises, and self-employed workers. In time, one may expect to see the magnitude of forces of change facing nearly 300 million workers in the non-state sector that was to also have an influence on the state sector's 100 million-strong workforce. This transformation process was to be only gradually realized over more than two decades and into the 21st century under the auspices of an ongoing series of corrective measures and policy adjustments aimed at counteracting forces of resistance and the slowness to change.

Western scholars who took a snapshot approach to evaluating China's employment reform had at some point concluded that it was "a failure" (e.g., Korzec, 1992) or "not merely ineffectual but disastrous from a macro-economic point of view" (e.g., Howe, 1992). But the true impact of what was no less than a world-class labor reform involving 100 million industrial workers in the state sector alone and spanning more than two decades could only be properly assessed over time and in light of the persistence of central policymakers to continually combat policy loopholes on the one hand, and slowly but surely transforming the society at large from an inert, need-based mindset to one that was increasingly alertly competition-based on the other.

Transition toward market-style hiring and firing. As was the strategy of the overall economic reform, employment reform toward open hiring and firing was to be initially accomplished through experimental implementation in the Shenzhen Special Economic Zone (*shenzhen jingjitequ*), which was strategically geographically distant from the rest of the mainland and bordering Hong Kong, thus more receptive to and often eager for the introduction of market-style economic policies.

Following the successful introduction in the early 1980s of labor contracts in foreign-invested enterprises in Shenzhen, the practice of limited duration contracts was quickly extended to new employees in the state sector in seven other select regions (see Korzec, 1992). The somewhat unanticipated outcome of partial enforcement of labor contracts in the state industry among new hires, as documented by Warner (1996), was the

phenomenon of “one factory two systems” (*yichang liangzhi*) whereby contract staff were typically working hard (to secure their renewal status) while permanent staff simply looked on (*hetonggongan, guidinggongkian*).

Another decade would go by with the state seeing a steady decline in industrial output and an escalation in the losses of SOEs. In 1992, with nearly a quarter of the SOEs now operating at a loss (see Ma, 2000) and their aggregate share in total industrial output having fallen since 1978 from 78% to 52% (SSB, 1997), it seemed that the state had been left with no choice but to take a critical step in granting SOEs the power to remove excessive labor and dismiss unqualified workers “when facing economic difficulties” (Naughton 1995). Again, this labor transition has proceeded smoothly only for newly hired workers but not for permanent employees. Faced with strong resistance from the latter, most enterprises have reportedly not been able to fully execute the power of dismissal (Gu 2000).

This was mainly because enterprise labor administration was still subject both to external plan targets and interference by local bureaux. As the new regulations only allowed workers dismissal in cases of infringement of regulations or imminent bankruptcy, no significant dismissals had taken place, and in any case, dismissal to cut costs remained illegal (Howe, 1992). It was perhaps only till enactment of the Labor Law in January 1995, which pressed for the mandatory nationwide implementation of labor contracts for all workers and the simultaneous establishment of a competition-based internal labor market within the SOE that employment reform began to see far-reaching and definitive results among traditional state enterprise workers.

Despite toughening measures of employment contraction by way of “competition-based employment” and workforce reduction, the state industry was reported to be still overstaffed by as much as one-third of the workforce at the turn of the century (Holz 2003). The fact that the number of large and medium loss-making industrial SOEs and their losses have only fallen by about 40% between 1998 and 2000 implies that many SOEs are still not economically viable (Holz 2003), thus suggesting that the measure to shed labor was set to continue.

“Competition-Based Employment” (CBE). “Competition-based employment” (*jingzheng shanggang*) was a reform concept referring to the establishment of an active internal labor market or “internal competitive mechanism” (*neibu jingzhengjizhi*) whereby workers no longer enjoyed lifetime employment and many of the accompanying cradle-to-grave benefits but were required to compete for survival in the process of workforce reduction and enterprise downsizing. The concept of CBE was first contemplated and by Deng Xiaoping in 1988 (Deng, 1989) with an objective to “reinvigorate” (*gaohuo*) the state sector, which had long suffered from a lack of consciousness of market competition and the uncertainty and risks thereof.

As was the case with virtually all other economic and enterprise reform measures, CBE was cautiously installed on an experimental and incremental basis over an extended period of time. And it was not until 1996 that compliance became mandatory for all SOEs. Details of its implementation in the setting of the research organization are presented in Section 2.2 – *Uncertainty and Risks under “Deepening of Reforms”*.

Workforce reduction. It is not surprising that the enforcement of workforce reduction measures were met with strong resistance as redundancies were a widespread phenomenon at most SOEs and there was not an established and secure enterprise-independent social safety net due to the fact that unemployment insurance was still at an immature, experimental stage of development (see Zhu, 2002 for a review). With a high redundancy rate, the mission of the SOE was to become “lean but not mean”, as social stability remained a priority in the process of downsizing. This exposed a real contradiction and an immutable conflict of interests between economic performance and political consideration that was inherent in the still largely state-controlled management infrastructure of SOEs, a landmark of the “socialist-market economy” or “market economy with Chinese characteristics” (*fuzhongguo teshede shichangjingji*).

Predicated upon these circumstances, workforce reduction strategies have inevitably been confined to the diversion of redundancies within (*neifen*), rather than away from, the enterprise, as it would naturally be the case in a market economy free of political intervention. As a matter of fact, so far less than five percent of the workforce made redundant at the enterprise under study had been permanently laid off without a

subsistence allowance. Many others had simply been “diverted” by attrition in the form of early retirement, and extended maternity and sick leave, the associated costs of all of which remain to be borne by the enterprise concerned. Little progress had been possible in developing the tertiary sector or related knowledge-based businesses, which were in the position to absorb redundant workers with low or incompatible skills.

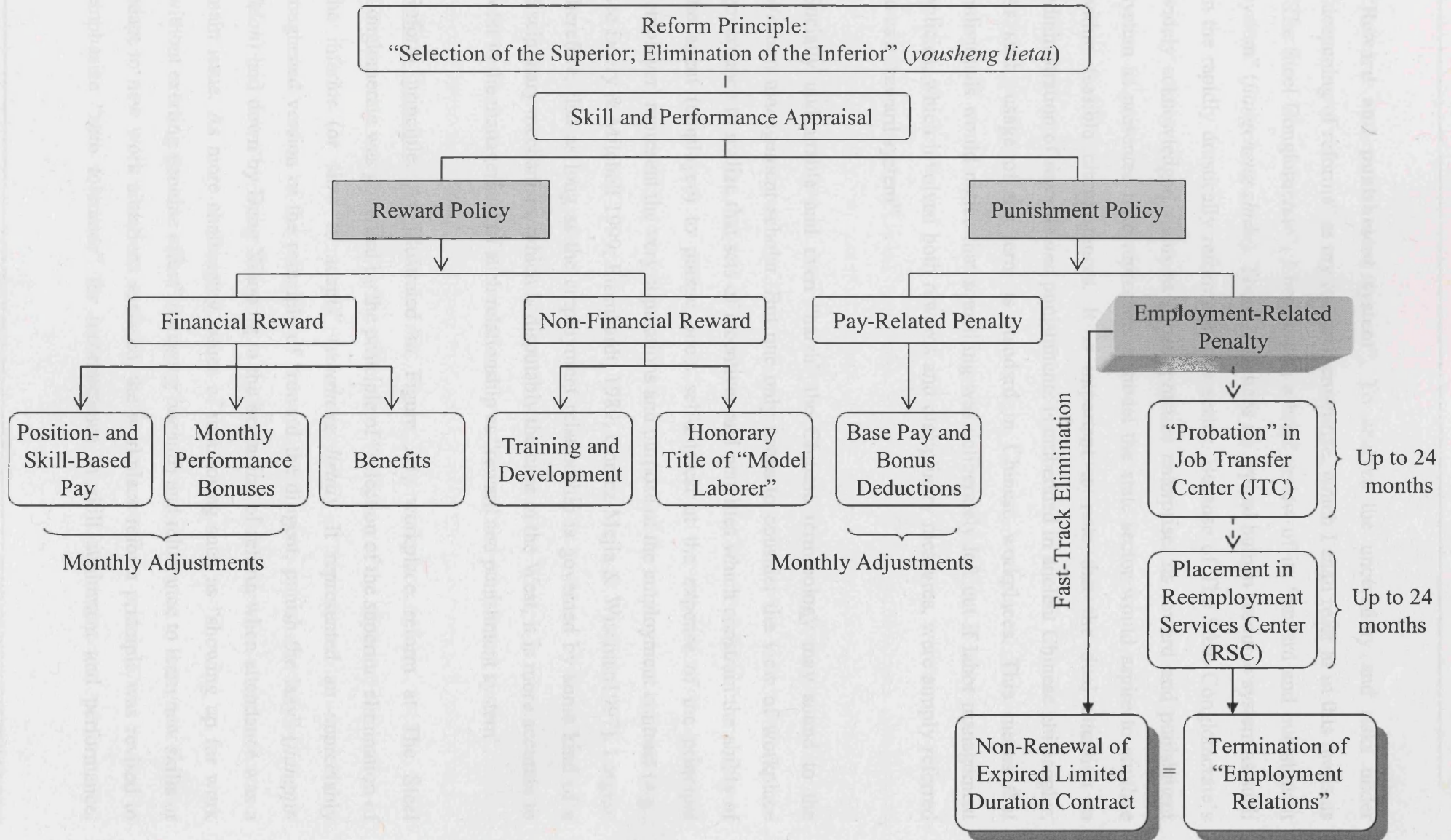
The year 1998 saw a new stream of development in enterprise restructuring and downsizing. The fact that the government permitted and encouraged SOEs to eliminate some of its poor-performing SOUs by transforming them into separate, independent legal entities (*duli faren*) meant that the performance of these establishments would be evaluated in all aspects of business and management rather than merely according to their fulfillment of a production quota. I was informed in an interview with the Ministry of Labor that an increasingly number of enterprises now required the ILEs to deliver profits or else “fold up”, thus saving themselves the laborious routine and complexities of executing workforce reductions.

2.2 Uncertainty and Risks under “Deepening of Reforms”

Progressively “deepening of reforms” (*shenhua gaige*) since the mid-1980s have led to radical changes in many aspects of economy and importantly, in labor relations. In particular, traditional guarantees of employment, wages, and cradle-to-grade welfare have eroded as enterprises were granted autonomy at a steady rate by and subject at the same time to intensifying market competition domestically and internationally. Economic growth has seen the rapid expansion of new forms of non-state businesses in which none of the traditional guarantees exist (Clarke & Lee, 2002). This development illuminates the unprecedented uncertainty and risks facing industry as a whole and the direction toward market competition state industry must converge in order to survive.

Through the window of my research enterprise, which was identified by the State Council as a pioneer or “dragon-head” enterprise (*longtou qiye*) in workplace and enterprise reforms, we come face to face with the category and level of uncertainty and risks that state enterprises and their workers must now confront in the battle for survival.

Figure 2.1
Reward and Punishment System (*jiangcheng zhidu*) at The Steel Conglomerate



“Reward and punishment system”. To analyze the uncertainty and risks under “deepening of reforms” at my research enterprise, which I shall refer to in this thesis as “The Steel Conglomerate”, I begin with a brief review of its “reward and punishment system” (*jiangcheng zhidu*). There is perhaps no typical human resource system as such in the rapidly drastically reforming state sector. Because of The Steel Conglomerate’s widely acknowledged status as a best practice enterprise, its reward and punishment system as presented here represents a model the state sector would aspire to emulate within feasible circumstances. It is important to note that the dual attention to administration of rewards *and* punishments is embedded in ancient Chinese philosophy. As such, usage of the term is standard in Chinese workplaces. This means that individuals would notice that something was deliberately left out if labor management policies, which involved both rewards and disciplinary measures, were simply referred to as a “reward system”.

Socially undesirable and even “harsh” the Chinese terminology may sound to the Western management scholar. But one only needs to consider the view of workplace governance to realize that sets of incentives and penalties which constrain the ability of the agent (employee) to pursue one’s self-interest at the expense of the principal (employer) represent the very stipulations and purpose of the employment contract (e.g., see Deery & Mitchell 1999; Eisenhardt, 1989; Gomez-Mejia & Wiseman 1997). I argue, therefore, that as long as the employment relationship is governed by some kind of a disciplinary mechanism, which is disputably the case in the West, it is more accurate to refer to the management of such relationship as “reward and punishment system”.

Reform principle. As illustrated in Figure 2.1, workplace reform at The Steel Conglomerate was governed by the principle of “selection of the superior; elimination of the inferior (or slow to adapt)” (*yousheng lietai*). It represented an appreciably toughened version of the principle of “reward the diligent, punish the lazy” (*jiangqin falan*) laid down by Deng Xiaoping in the beginning of reform when attendance was a main issue. As more challenging issues of monitoring such as “showing up for work without exerting genuine effort” (*chugong buchuli*) and reluctance to learn new skills or adapt to new work situations surfaced, the workplace reform principle was revised to emphasize “zero tolerance” for incompetence in skill attainment and performance.

“Reward and punishment system”. To analyze the uncertainty and risks under “deepening of reforms” at my research enterprise, which I shall refer to in this thesis as “The Steel Conglomerate”, I begin with a brief review of its “reward and punishment system” (*jiangcheng zhidu*). There is perhaps no typical human resource system as such in the rapidly drastically reforming state sector. Because of The Steel Conglomerate’s widely acknowledged status as a best practice enterprise, its reward and punishment system as presented here represents a model the state sector would aspire to emulate within feasible circumstances. It is important to note that the dual attention to administration of rewards *and* punishments is embedded in ancient Chinese philosophy. As such, usage of the term is standard in Chinese workplaces. This means that individuals would notice that something was deliberately left out if labor management policies, which involved both rewards and disciplinary measures, were simply referred to as a “reward system”.

Socially undesirable and even “harsh” the Chinese terminology may sound to the Western management scholar. But one only needs to consider the view of workplace governance to realize that sets of incentives and penalties which constrain the ability of the agent (employee) to pursue one’s self-interest at the expense of the principal (employer) represent the very stipulations and purpose of the employment contract (e.g., see Deery & Mitchell 1999; Eisenhardt, 1989; Gomez-Mejia & Wiseman 1997). I argue, therefore, that as long as the employment relationship is governed by some kind of a disciplinary mechanism, which is disputably the case in the West, it is more accurate to refer to the management of such relationship as “reward and punishment system”.

Reform principle. As illustrated in Figure 2.1, workplace reform at The Steel Conglomerate was governed by the principle of “selection of the superior; elimination of the inferior (or slow to adapt)” (*yousheng lietai*). It represented an appreciably toughened version of the principle of “reward the diligent, punish the lazy” (*jiangqin falan*) laid down by Deng Xiaoping in the beginning of reform when attendance was a main issue. As more challenging issues of monitoring such as “showing up for work without exerting genuine effort” (*chugong buchuli*) and reluctance to learn new skills or adapt to new work situations surfaced, the workplace reform principle was revised to emphasize “zero tolerance” for incompetence in skill attainment and performance.

Challenging it would certainly be especially for individuals who had managed to “hide in the crowd”, this new, uncompromising approach to labor management was only reflective of the enterprise reform principle of “survival of the fittest” (*shizhe shengcun*) as state industry came under increased scrutiny of its ability to compete and survive.

The Steel Conglomerate. Built before the establishment of the republic, The Steel Conglomerate was one of China’s most established and largest business conglomerates. It employed over 20,000 people in its core production and a substantially larger number in diversified businesses in Northern China where its headquarters were situated and in multiple locations across the country. As one of the country’s “focal-point enterprises” (*zhongdian qiye*), it has been widely publicized for its advancement in enterprise reform.

For example, it was identified by the state in the 1980s as one of the biggest successes in the implementation of contract responsibility system (*chengbaozhi*) whereby the fulfillment of enterprise production targets were linked for the first time to retained profits and wage expenditure. More recently, it was known to have introduced some of the most innovative policies in employment and pay, the “twin pillars” of human resource reform. Many of the enterprise’ characteristics were typical of the large state enterprise and were thus an epitome of the challenges faced by state industry in general.

The reward and punishment system was monitored by a performance management mechanism known as “skill and performance appraisals” (*gangwei jineng cheping*), whereby individuals were assessed annually on their skills and monthly on their on-the-job performance. Their names were then queued from top to bottom and posted on big bulletin boards. Bottom-raters were to become automatically redundant (*weizhe fuyu*). When surveying the various measures under the reward and punishment system in Figure 2.1, one may be impressed that the enterprise has taken rather full advantage of their newfound autonomy in policymaking and the execution of reform measures in relation to both employment and pay to raise motivation, skill, and performance.

In terms of rewards, there seemed a fair amount of financial inducements in the form of position- and skill-based pay, monthly performance bonuses, and benefits. In Section 2.2.1 – *Employment Risks at The Steel Conglomerate*, I shall reveal the complex realities

behind these pay components, which amounted to significant individual compensation risks that seemed only partially offset by additional venues for worker recognition and training and development opportunities not available prior to “deepening of reforms”.

Parallel to rewards, there was a series of chronologically ordered punitive measures for nonperformance ranging from probation to disciplinary placement to termination of employment. Together, these activities contributed to unmatched levels of employment and compensation risks that were to play an influential role in realigning the motivation and behavior of individuals with the adaptation and survival of the enterprise.

Toward the building of an adaptive workforce. In view of China’s then imminent accession into WTO and The Steel Conglomerate’s call to survive and thrive in the face of intensifying competition, analysis of its strategy of building an adaptive workforce is not only timely but also key to understanding an innovative and potentially one of the most advanced models of labor management. The essence of the strategy was embodied in the enterprise’ mission statement – to “catch up” (*ganshang*) with the domestically competitive and internationally vibrant iron and steel businesses – which became the focus of socialization and was heavily publicized at all levels of the organization.

With its portfolio of admittedly mostly low value-added products, to “catch up” and be in a position to challenge existing giants in the field meant that The Steel Conglomerate had to face at least five major challenges: (1) efficiently divert loss-making non-core businesses; (2) raise capital on the stock market; (3) invest in R& D to the extent that the product portfolio could be continually upgraded; and last but not least, (4) commit to a program of ongoing workforce reduction (*jingjian*); and at the same time (5) unleash an extraordinary entrepreneurial energy among survivors of its downsizing workforce.

Proactive coping strategy. In meeting its many challenges, the enterprise management has made a conscientious attempt to socialize its workforce with the importance of not only meeting its productivity and profitability targets but also championing its qualitative goals. In light of their peculiarity and potential impact, these goals seem to deserve special mention here. They were expressed by the term “*yishi*”, meaning awareness, consciousness, and alertness:

- (1) “Awareness of competition” (*jingzheng yishi*)
- (2) “Risk consciousness” (*weiji yishi*)
- (3) “Alertness to calamity” (*youhuan yishi*)

One thing in common with these goals is that they were all aimed at “awakening the senses” of (*jingxing*) members of the workforce and focusing their attention on pressing environmental demands and issues concerning (1) intensifying domestic and global competition, (2) the risks of organizational decline and bankruptcy; and (3) the need to adopt a proactive coping strategy of being “alert but not alarmed”.

The management’s idea was that “to be forewarned is to be forearmed”: if members of its workforce would enhance their competitive capabilities in terms of skills, productivity, and adaptive flexibility, (which was not what the former need-based employment and wage systems had required them to do), the enterprise would stand a better chance of survival amidst increasing economic and business uncertainties.

Politics of enterprise management. The changes that came with the intensification of the enterprise reform was characterized by a primary shift of power from the Party secretary to the factory manager in the STOU’s fight to survive amidst increased budget cuts and exposure to market competition. This was particularly evident in situations where the head of enterprise or enterprise manager (*changingli*) was more professionally capable of and receptive to putting efficiency (*xiaolü youxian*) before political credentials and social relations (*guanxi*) in the implementation of reform.

Although the focus of the research is on state owned establishments at the STOU level, it is important to reveal the issues at hand that concerned the enterprise or head office (*zhonggongsi*), as they had a bearing on the content and quality of policy-making involving STOUs. For example, the general manager and chief officers of the head office were appointed by the State on the basis of political credentials in the Chinese Communist Party (CCP) rather than their track record in enterprise management.

This means that the dominant driving force behind decision-making at the top management level was the political agenda of the state and not the economic interest of

the enterprise. And as long as neither their pay nor political career was linked to the economic performance of the enterprise, enterprise managers were expected to continue to operate as government officials or bureaucrats administering the political will of the state rather than as business managers responding to and wrestling with pressing business issues and environmental demands.

Political interference in enterprise management has been acknowledged as a major stumbling block in the reform process. Since the beginning of the enterprise reform and for more than a decade, the separation of political control from economic management has been advocated by both political leaders and enterprise managers. However, the issue remained unresolved, as separation of the two would mean loss of political control at the enterprise level.

Operational focus of inquiry. The present inquiry is focused on The Steel Conglomerate's largest second-tier operation units (STOUs), which employed a total of 20,000 workers. The STOUs were not necessarily subsidiaries of the conglomerate as the majority still performed the single, traditional role of production typical of the state enterprise in a planned economy. For example, many of the STOUs and especially those in the core production of iron and steel products still operated under the principle of "contract responsibility system" (*chengbao zherenzhi*), the fundamental requirement of which was to deliver the annual production quota assigned by the head company, rather than being involved in the overall business management of the operation.

As long as the STOUs remained part of the legal entity of the head office and were not required or given the opportunity to keep separate balance sheets (*duli heshuan*), their management activities would be strictly controlled by it, which was in turn subject to the political mandates of the state. For example, a high-performing STOU might, at any time, be forced into a merger with a poor-performing STOU to help save the latter from bankruptcy. Such a practice was rather common in state industry as the state still held on to many of the Communist principles of enterprise management that no longer seemed to make sense in the country's transition to an economic model that was to be increasingly more market-based. Discussion on the STOUs selected for my empirical study is presented in Section 7.1.3 – *Main Study*.

2.2.1 Employment Risks at The Steel Conglomerate

The employment uncertainty experienced by individuals at The Steel Conglomerate were commensurate in many ways with that faced by all state industry workers under employment reform described in Section 2.1.2, except that it was more severe. This was due to the fact that its reform represented one of the most advanced models.

I would focus my discussion on the STOU's of the conglomerate, where large-scale workforce reductions took place. One of the policies devised by the head company involved a non-renewal policy for all rural-status contract workers, which made up about 30% of the core production workforce. In addition, STOU's were required to deliver an annual headcount reduction of five to ten per cent, depending on the head office's assessment of the extent of redundancy at respective STOU's. The latter had an impact on all workers, including urban-status workers whose labor contracts were of a limited duration of two to ten years, as well as permanent workers who have been provided permanent, open-ended labor contracts (*wugudingqi laodong hetong*) according to the statutory requirements of the labor law for workers with a job tenure of 10 years or more.

The establishment of competition-based employment (CBE) at The Steel Conglomerate was earmarked by the introduction of fixed-term contracts (*guding laodong hetong*) for all members of the workforce in December 1996. Four months earlier, the enterprise had been selected by the state as a pilot site for the introduction of the new arrangement, which effectively put an end to the "iron rice bowl."

According to the labor law provision of 1995, all state industry employees had to be put on limited duration contracts of two, three, five, and ten years. Under the labor contract system, employee and the employer would automatically be free of obligations to each other upon contract expiry. To lessen the blow for old-timers, individuals who had previously served for 10 years or more, (which made up about 50% of the workforce at The Steel Conglomerate), were awarded open-ended, permanent contracts. Under CBE, however, these individuals, like their counterparts who were on limited duration contracts, were all subject to regulation of competitive forces in the internal labor market.

The sum and substance of CBE were captured in the following reform terminology:

- (1) “Survival of the fittest” (*shizhe shengcun*)
- (2) “Selection of the superior; elimination of the inferior” (*yousheng lietai*)
- (3) “Up with the able; down with the incompetent” (*nengzheshang yongzhexia*)
- (4) “He who hits the bottom (in performance appraisal) is redundant” (*weizhe fuyu*)

CBE in this context suggests the reward of career advancement and promotion in one extreme. In another extreme, there was the potential punishment of being placed in the Job Transfer Center (*zhuangang jidi*) or JTC of the worker's respective operation unit and possibly subsequently in the enterprise headquarters' Reemployment Services Center (*zaijiuye fuwuzhongxin*) or RSC which led directly to the termination of employment at the end of a maximum of two years.

Given limited opportunities for advancement in the organizational and the tremendous pressure of workforce reduction, there was reason to believe that employees were more exposed to punishment than to reward. According to the management of The Steel Conglomerate, the major objective of CBE was to awake the workers to “a sense of competition, anxiety, and crisis”. In this context, it may be understood that the system of CBE was governed by the law of elimination whereby workers went through an internal selection process mirroring that experienced by the enterprise itself in the marketplace.

Redundancy management, socialist-market style

In view of the concern for social stability in the socialist-market economy, redundancy management in China proceeded at a relatively significantly slower pace than that in a full-fledged market economy. AT The Steel Conglomerate, the extended period of transition was meant to fulfill two main objectives: (1) educate the workforce about the importance of awakening to a “sense of crisis” or “risk consciousness” (*weijigan*), a very much desirable attitude at a time when the business was faced with increasingly keen competition and tough budget constraints; and (2) facilitate the “psychological preparation” (*sixiang zhunbei*) of individuals to seek alternative employment for

themselves or accept unemployment. As such, the process of redundancy management involved two phases of a cycle taking up to, but no more than, four years.

Phase 1. Workers who received bottom ratings in their work performance and/or skill assessment were automatically classified as redundant (*weizhe fuyu*) and removed from their current positions to an operation unit at the Job Transfer Center (JTC). At the JTC they received 20 – 30% of previous base pay (which accounted for 30 – 50% of total previous pay) in the form of a subsistence allowance and payment from performing odd jobs while receiving renewed skill training and moral indoctrination.

Phase 2. At the end of the two-year probation period, workers who failed to return to full employment at the respective operation unit would be transferred out and relocated at the centrally run Re-employment Service Center (RSC) of the enterprise. During this time they would receive a further reduction of approximately 30% in pay, continue to receive training and be allowed up to the expiry of their contracts or a maximum of two years to seek alternative employment before being terminated.

Since there was not an established social safety net for the unemployed and the number of redundancies involved at least 25% of the workforce at The Steel Conglomerate (and at least that in state industry as a whole), the state was cautious about not permitting the enterprise to lay off workers in too abrupt of a manner to ensure social stability. To help soften the blow in a progressive manner which was typical of China's reform approach, the government required that these workers be put through a series of training and re-employment activities before they were totally cut off from the enterprise and disposed of in the external labor market.

“Job Transfer Center” (JTC). Job Transfer Center (*zhuangang jidi*) represented step 1 of the two-step redundancy management process and the first of a series of two severe categories of disciplinary measures under the new competition-based employment system. The JTC was targeted at individuals with a current “employment certificate” (*shanggangzheng*) who might fall into one of the following categories: (1) ranked bottom in the position and skill assessment exercise; (2) classified as over-manned

(*chaobian*) due to new arrangements in production, work design or technology upgrade; or 3) considered physically unfit for staying in the job.

The establishment of JTC at The Steel Conglomerate was recognized as one of the very first in the country. By mid-1999, all of its top five profit-making STOU's (from which the sample of my empirical study was drawn; see Section 7.1.3 – *Main Study*) have established their own JTCs, each with a capacity to accommodate about 50 – 100 redundant workers. The center functioned as a small sub-factory within the STOU. Work assignment typically involved temporary, small-scale production of parts and accessories used in main production. There were also plans to initiate longer-term production projects, as according to plan, an ongoing stream of workers would be placed there under the auspices of tightened skill and performance management.

In principle, the JTC was meant to offer an opportunity for individuals to redeem themselves and be placed back in normal production if and when a vacancy emerged. But due to ongoing organizational restructuring and production streamlining, there was no guarantee that one would at any point be reinstated. Over the preceding 18 months, reactivation of JTC workers in regular jobs at the main production unit averaged 30 – 50% for a combined total of more than 200 admissions at the five JTCs of the enterprise. The reactivation rate of JTC workers at less profitable operation units at the same enterprise was reportedly much lower.

Reduced employment status and wage. Workers received a subsistence wage only slightly above the “minimum cost-of-living” allowance (*zuidi shenghuofei*) stipulated by the municipal government and a small potential bonus contingent upon performance and workload. Workers at the JTC made an average of RMB400 – 500 per month, which represented a pay cut of 50 – 70%.

Since the head company allowed the operation unit to retain a significant portion of the wage savings gained from the transfer of workers from the main production unit to the JTC, the latter was given an incentive to plan and execute the allocation of human resources based on economic justifications and actual requirements in production.

Hence, the JTC functioned as a “reserve” (*xùshuìchǐ*), which enabled redundant workers to be re-trained and on stand-by to be put back to production.

“Reemployment Services Center” (RSC). Since 1998, Reemployment Services Center” (*zàijiùye fúwùzhōngxīn*) has been made a compulsory set up at all SOEs. In the context of The Steel Conglomerate, it represented the second or final of two extensions of punishment policy under the new, competition-based employment system. Workers assigned to the RSC were those who failed to make their way back to the regular production line during their two-year probationary period at the JTC. Time at RSC involved re-training of up to two years before the eventual termination of employment. As such, the center represented a preparatory stage to unemployment or “a way of no return” for its transitory trainees.

The RSC was financed jointly by the enterprise, state or local government, and the unemployment insurance (UI) fund. Under the new UI system, laid-off workers received “three lines of guarantee” (*sāngē quèbào*) at a progressively reduced rate: (1) a subsistence allowance for up to three years; then, (2) unemployment benefit for a maximum of another two years; and finally (3) a means-tested urban social relief. Rather than being linked to wages in previous employment (as was the case when the worker was at the JTC), unemployment benefit at the RSC ranged meagerly from 60% - 70% of the minimum wage, as determined by local governments (Zhu 2002).

As the new arrangement were not at all a good fallback position in employment or pay for the individuals concerned, it was expected to help significantly reduce the “excessive choosiness” of laid-off workers in seeking reemployment, which was manifest in the peculiar phenomenon especially in the 1990s of abandoned urban (state enterprise) positions being filled only by eager rural-status workers (*gōngrénxiàngāng nóngmínshàngāng*) (see Wang 1999).

At this point in discussion, it is important to reiterate that workers who were subject to potentially being made redundant were not exclusively limited to those who had been put on limited duration contracts. Rather, it also included those who were on permanent, open-ended contracts. This represented the toughest measure to date at the enterprise

level to smash the “iron rice bowl” since in principle none could escape the fate of losing their job if they failed to meet the standards for continued employment. Indeed, the same blanket coverage may be said of the exposure to compensation risks.

2.2.2 Compensation Risks at The Steel Conglomerate

Wage reform at the individual enterprise level has been typical of the ways of the country’s economic reform – that of an experimental and incremental nature. As the state enterprise navigates its way toward a new socialist-market economy, leveraging on the motivational benefits of pay to make workers work harder has become the subject of discussion among personnel practitioners and decision makers.

As discussed previously, in the early years of wage reform, the portion of pay that was determined by performance on the job was minimal. In the 1980s and early 1990s, for example, “bonuses” were paid out more or less equally to workers as a *de facto* wage supplement. For the workers then, job evaluations were haphazard, not assigned to pay grades or particularly geared toward performance on the job. In addition, results of evaluations were not effectively linked to pay. As such, workers did not perceive a relationship between pay and contribution at work. Measures were introduced in the mid-1990s at The Steel Conglomerate to systematically evaluate work performance and link them to pay. At the same time, up to 40% of base pay and 100% of bonuses were made contingent upon the fulfillment of specific job requirements.

Toughening reform measures. The most recent change in the enterprise pay system took place in early 1996 when the position- and skill- based pay was introduced as a measure to promote the concept of “pay for labor”. At the same time, the traditional eight-grade system, which had been in place for nearly 50 years, was revised to become the new 38-grade standard base pay. In 1998, a schedule of bonus points that were 100% deductible in the event of various unsatisfactory work behaviors (such as those related to tardiness and breach of safety regulations in production) was established.

Although the set of punishable work behaviors classified for such purpose could by and large be measured and recorded, the system rested heavily on two assumptions that faltered: (1) the deductions made for having stepped over certain standards would eventually be reflected in the job evaluation; and (2) workers could perceive a link between the subsequent impact on pay. The system had reportedly not achieved the desired results due, as explicated by the management, to the fact that under social pressure, supervisors were often found to be “adding back the points” somewhere else in the overall job evaluation.

Given these considerations, management was determined to make workers realize that performance differences related directly to pay differences. The most recent reform measure was installed at the end of 1998 whereby instead of having points deducted, workers who did not meet the required standards would have their bonuses deducted. This measure was said to be much more effective as it became very difficult for the supervisor to actually make up an achievement in the individual’s work record with an award for something else in order to justify off-setting a previously penalized amount. In the worst scenario, the employee could have his entire bonus deducted. Variable pay deductions were simple and straightforward. Since it was distributed according to individual differences in contribution and work performance, it also served as the basis in evaluating the individual’s fitness for continued employment at the enterprise.

Pay system at The Steel Conglomerate. As mentioned above, a strong feature of the pay system at The Steel Conglomerate was variability. Although workers were paid substantially above market rates in the state sector, the variable or contingent pay components made up more than 40% of total monthly pay. The deductible or punitive aspect of pay had been enlarged to work as a deterrent against underperformance and an agent in transforming the pay culture from an entitlement mentality to a contingent mode.

Under the then most recent round of wage reform, which included (1) the new position- and skill-based pay, (2) revised standard base pay, and (3) new seniority wage, (which will all be discussed below), average wage at the enterprise increased by RMB92.85 (US\$10.89), RMB22.27 (US\$2.61), and RMB46.31 (US\$5.43) respectively, or a total of RMB161.43 (US\$18.94), which represented an average total increase of 15% - 20%.

Pay components. Before “deepening of reforms”, welfare provisions made up a significant portion of pay. But as shown in the monthly pay slip of one of its frontline production worker (see Table 2.1), allowances now made up a minute percentage. To illustrate, welfare provisions (items 7 – 9 in Table 2.1), which included seniority pay, general welfare subsidy, and job-specific subsidy, together now contributed to only 12.5% of total pay. The remaining 87.5% of pay was distributed as differentiated pay on the basis of individual contribution, of which, RMB995.50 or 47% was variable pay (items 4 – 6 in table 2.1), which included bonus, attendance pay, and overtime pay.

Table 2.1
Sample Monthly Pay Slip of a Production Worker

	Component	Fixed/ Variable	Basis of Possible Deductions	Amount (RMB)	% Total Pay
1	Position-Based Pay	Fixed	100% deductible based on monthly appraisal	140.00	6.55%
2	Skill-Based Pay	Fixed	100% deductible based on monthly appraisal	95.00	4.44%
3	Standard Base Pay	Fixed	Non-deductible	640.00	29.92%
4	Bonus	Variable	100% deductible based on monthly appraisal	645.00	30.16%
5	Attendance Pay	@1/day	Leave (even away sick)	21.50	0.10%
6	Overtime Pay	Variable		329.30	15.40%
7	Seniority Pay	@3/year	Non-deductible	15.00	0.70%
8	Welfare Subsidy	Fixed	Non-deductible	193.18	9.03%
9	Job-Specific Subsidy	Fixed	Non-deductible	60.00	2.80%
10	Total Pay			2,138.98	100.00%

It is important to note that position- and skill-based pay (items 2 – 3 in Table 2.1) was theoretically meant to be a fixed income, as was the idea of the central policy unit that introduced it nationwide in 1995. Management at The Steel Conglomerate has, however, has taken full advantage of autonomy at the enterprise level and made the pay contingent on monthly performance to the extent that it was 100% deductible.

“Position- and skill-based pay” (PSP). The twin components of position-based pay and skill-based pay components were usually referred to collectively as “position and skill-based pay” (*gangwei jineng gongzi*). As discussed previously, PSP was introduced in 1992 by the government as a nationwide policy to help differentiate pay on the basis of

work contribution (*laodong gongxian*) and provide the economic rational for individuals to be willing to upgrade their skills and take up demanding work roles. By now a loss-making enterprise due to poor performance of most of its expanded businesses, however, The Steel Conglomerate did not install PSP until 1995.

(1) Position-based pay component. On the position-based pay scale (see Table 2.2), jobs were assigned to position grade points according to four factors: (1) hardship, (2) dirt, (3) workload, and (4) hazard (*ku, zhang, lei, xian*). The focus of the position-based pay was on the job itself rather than the individual who filled the post. In other words, individuals with the same job were paid more or less the same position-based pay.

Table 2.2
Monthly Position-Based Pay Scale at The Steel Conglomerate

Job ID.	Position Grade Point	Pay Scale (RMB)	Production	Administration & Management	Job Category
1	1.0	50	Porter, custodian		"3 rd line" PS
2	1.2	60	Gardener, lift operator		"3 rd line" PS
3	1.4	70	Guard, child-minder, graphic assistant		"3 rd line" PS
4	1.6	80	Tradesman, cook, inventory keeper		"3 rd line" PS
5	1.8	90	Chauffeur, shop floor assistant		"3 rd line" PS
6	2.0	100	Truck driver, conveyor belt inspector; automobile repairman	Clerk (shop floor AA)	"2 nd line" PDS, Clerk
7	2.2	110	Maintenance electrician, steam engine repairman	Grade 1 AA	"2 nd line" PDS, Clerk
8	2.4	120	Production electrician, special machinery operator	Grade 2 AA	"2 nd line" PDS, Clerk
9	2.6	130	Electricity control room operator rolling stock maintenance assistant	Shop floor & AO supervisor	"2 nd line" PDS, Clerk; SP
10	2.8	140	Junior positions in main production	Senior shop floor & AO supervisor	"1 st line" MP supervisor
11	3.0	150	Middle positions in main production	Shop floor & AO manager	"1 st line" MP & STOU heads
12	3.2	160	Senior positions in main production	Shop floor & AO manager	"1 st line" MP & STOU heads
13	3.4	170		AO manager & AC engineer	STOU & HO DH
14	3.6	180		AO manager & AC engineer	STOU & HO DH
15	3.8	190		AO manager & AC engineer	STOU & HO DH
16	4.0	200		AO manager & C engineer	STOU & HO DH
17	4.2	210		AO manager & AA to GM	HO DH & SM
18	4.4	220		AGM, assistant PTS, C engineer	HO SM
19	4.6	230		GM, PTS, Deputy Chairman	HO SM
20	4.8	240		H0 Committee Chairman	HO SM

Key: AA = administrative assistant; AC engineer = Assistant chief engineer; AGM = assistant general manager; AM = administration office; C engineer = chief engineer; DH = department head; GM = general manager; HO = Head office; MP = main production; PD = production; PDS = production support; PS = production servicing; PTS = Party Secretary; SP = supervisor; SM = senior manager; STOU = second-tier operation unit

(2) Skill-based pay component. On the skill-based pay scale (see Table 2.3), workers were assigned particular pay grade points according to their certified skill level. For example, skilled workers in production servicing were on grade points 1 – 3, those in production support, grade points 1 – 6, and those in main production, grade points 1 – 8. While the pay scale may look normal to the outside world, it was believed to have a very different effect on the workers at The Steel Conglomerate. Considering that individuals ranging from production workers to professionals and managers had had up to only about 30% differentials in pay before the implementation of the skill-based pay, the wide spread pay differentials, from RMB50 – 175 for the workers, and from RMB80 – 270 for the professional, and managerial staff were a major breakthrough.

Table 2.3
Monthly Skill-Based Pay Scale at The Steel Conglomerate

Job Type	Skill Type	Skill Grade Point	1	2	3	4	5	6	7	8	9	10	11	12
		Pay Scale (RMB)	50	65	80	95	115	135	155	175	195	220	245	270
P	Skilled (3 rd line - production servicing)													
P	Regular (2 nd line - production support)													
P	Highly skilled (1 st line - main production)													
PM	Technician, administrative staff													
PM	Section head, engineer, economist													
PM	Dept. head, senior engineer, economist													

Key: P = production; PM = professional and managerial

(3) Standard base pay component: Standard Base Pay (*biaozun gongzi*) or SBP is worth particular mention here for at least two reasons: (1) it made up about 30% of total pay; and perhaps most importantly, (2) it reflected the trend of widespread differentials in pay distribution. SBP had been an extension of the eight-grade pay system (*baji gongzizhi*) adopted nationwide between 1949 and 1985, and of the 15-grade pay system introduced in 1985. Both of these former grade systems were originally intended for differentiating between technical job grades.

In fact, the function of the standard base pay has now been replaced, and indeed magnified, by the new, position- and skill-based pay in the sense that the latter required an active and ongoing justification of pay based on skill level and work role. But for “historical reasons”, SBP remained part of the wage system at The Steel Conglomerate.

Table 2.4
Monthly Standard Base Pay Scale at The Steel Conglomerate

Position Grade Point	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Standard Base Grade Point																				
1	270																			
2	300																			
3	330																			
4	360																			
5	390																			
6	420																			
7	450																			
8	480																			
9	520																			
10	560																			
11	600																			
12	640																			
13	680																			
14	720																			
15	760																			
16	800																			
17	850																			
18	900																			
19	950																			
20	1000																			
21	1050																			
22	1100																			
23	1150																			
24	1200																			
25	1260																			
26	1320																			
27	1380																			
28	1440																			
29	1500																			
30	1560																			
31	1620																			
32	1680																			
33	1750																			
34	1820																			
35	1890																			
36	1960																			
37	2030																			
38	2100																			

Upon revision, however, the existing 100-plus SBP wage grades, which reflected an admittedly confusing array of former wage backgrounds of staff previously employed at other SOEs and government departments, were now condensed to 38 grades (see Table

2.4). Existing wage grades were swapped (*taogai*) for the closest (higher) grade on the new wage system, which was referred to as a form of collective recognition for the skill and contribution of the employee. At the same time, seniority wage was introduced, offering an additional RMB3.00 for each year of service, payable from the fifth year. Within each job category, there were an average of 20 grade points, which reflected a further increase in pay differentials between individuals. For instance, the top rate was 7.78 times the bottom rate. The significance of SBP was not only its widened differentials but also the fact that it represented the largest non-deductible portion of pay. In other words, it was the very component that still offered income security.

Compared o PSP, SBP made up a much more significant portion of pay, with its monthly pay scale ranging from RMB270.00 to RMB246.33, while position-based pay ranged from RMB50.00 to RMB240.00 and skill pay ranged from RMB50.00 to RMB270.00.

Monthly bonus and penalty calculations. There was a sea-change in the way bonuses were distributed in the sense that they would now fluctuate. As mentioned in Section 2.1.1 – *Strategic Overview*, bonuses had long been distributed as an additional portion of egalitarian pay until in recent years when they became 100% deductible, and more differentiated, albeit in much lesser degrees than PSP and SBP.

Table 2.5
Monthly Bonus and Penalty Calculations

	A	B	C	D	E	F	G	H	I
Worker	Individual Bonus Grade Point	Appraisal result (full mark = 100)	Bonus credit (A x B)	Appraisal Bonus (RMB)	Share of factory bonus or penalty	Share of shop floor bonus or penalty	Outstanding Contribution Bonus (iRMB)	Total Individual Bonus (RMB)	Bonus Differential (RMB)
1	1.50	105	158	566	70	0	24	660	11
2	1.60	100	160	575	50	0	24	649	4
3	1.45	105	152	546	30	0	19	645	53
4	1.40	105	147	528	50	0	14	592	97
5	1.35	100	130	467	40	0	0	507	85
6	1.30	100	135	485	0	0	10	495	12
7	1.13	100	113	406	30	0	10	446	49
Total	9.73		995	3,573	320	0	101	Average bonus = 570	Average differential = 44.43

Table 2.5 illustrates the actual monthly bonus and penalty calculations of a production workgroup. Potential monthly deductions involved three types of pay: (1) position-based pay, (2) skill-based pay, and (3) bonus, which included two components: (a) monthly appraisal bonus, and (b) outstanding contribution bonus. Monthly appraisal bonus accounted for about 85% of the total bonus payment for most workers, except for those who, on rare occasions, were awarded the outstanding contribution bonus for having achieved technical breakthrough in the production process.

PSP deductions focused on four major aspects of work: (1) safety, (2) delivery of production targets, (3) discipline, and (4) leave taken. For example, the breach of safety regulations and the under-delivery of production targets both called for 100% deduction of PSP in the month concerned plus the permanent downward adjustment of position and skill grades by one to three grades. In the event that an employee violated a safety regulation, 100% of his PSP for that month would be deducted, in addition to the cancellation of his monthly appraisal bonus. For each day of leave taken, be it due to sickness or other personal reasons, RMB1.00 would also be deducted from the worker's monthly attendance pay of RMB21.50.

In view of the changes in the employment and pay systems under “deepening of reforms”, one may arrive at the conclusion that workers at The Steel Conglomerate were faced with a significantly high level of employment and compensation risks. While existing research in the work motivation literature almost always focused on the incentive effects of pay plans, it appears that the time is now ripe to expand that focus to include the incentive and punitive effects related to employment and pay.

2.3 Conclusion

An in-depth understanding of employment and wage reforms is critical to the proper assessment of their motivational effects, the focus of my empirical study. In this chapter, I attempted to facilitate such an understanding with a detailed account of employment and wage reforms at the macro and organizational levels, which in turn affected workers at the individual level.

The first part of the discussion dealt with the background of and strategic contemplations behind the reforms in the form of a strategic overview. The second part focused on the unprecedented employment and compensation risks faced by individuals at my research enterprise during “deepening of reforms”.

The important message is that the traditional guarantees of employment, wages, and welfare have all been eroded as enterprises have been progressively freed from state control and subjected to increasingly competitive market pressures (Clarke and Lee 2002). Overall, the analysis informed on the emergent focus of the modern Chinese enterprise on building an adaptive workforce, which inspired the development of the proposed research framework of “environmental perception and adaptive motivation”, to be discussed in Chapters 5 – 6.

Chapter 3

Literature Review: Work Motivation

This Chapter has four sections. The first section reviews motivation research as found in the work motivation literature. In particular, four leading theories are discussed – expectancy, goal setting, equity, and reinforcement. The second section reviews performance-related pay as a major development on the human resources scene and the research evaluating its effectiveness. The third section reviews incentives research in Chinese industry. The last section concludes.

3.1 Motivation Theory and Research

Over the past fifty years, research on motivation has proliferated on a massive scale (Pinder 1998). However, an examination of the literature indicates that the majority of research tended to have been conducted from a single-discipline perspective, typically using employment compensation as a convenient means to achieve the end of testing a particular theory, rather than with a view of motivation as an interdisciplinary concern (Gerhart and Milkovich 1992). The fact that motivation research involving individual workers has been undertaken mostly by industrial psychologists could perhaps be explained by the notion that economists had little to say about motivation and work behaviour – especially from a microeconomic viewpoint (Blinder 1990).

Although lately both theoretical and empirical research concerning work motivation has been done in economics, the focus of inquiry remains on how firms design compensation contracts to induce agents and especially executives to operate in the principal's interest (Prendergast 1999). The typical outcome measure is firm performance rather than workers' perception or attitudinal response to human resources initiatives. Since the latter is more relevant to my research, I will focus my analysis in this chapter on research in industrial psychology and branch out to the economics literature only to supplement the review. As such, literature on compensation for executives and sales personnel, and profit- and gain-sharing plans are not considered immediately relevant to the present review, and will be dealt with in Chapter 4.

Review strategy. My purpose is to identify critical issues in the literature, identify the principles that can be deduced from existing theory, and explore a suitable framework to investigate the motivational impact of China's employment and reforms. My strategy is to review the development of work motivation research with an open mind as to the reasons behind the appeal of leading theories. Following Cook and Campbell's (1976) recommendation, I use the criteria of causal certainty and conceptual clarity to determine whether existing concepts and findings can be validated and generalized for other settings. I also pay special attention to performance-related pay as an increasingly widely used, if not fashionable, incentive device, with a view to laying the foundation for assessing the theoretical merit of performance-related policies in my research setting.

3.1.1 Expectancy, Goal Setting, Equity, and Reinforcement

Since there is no universally accepted way of presenting the various approaches to motivation (Mitchell and Daniels 2003), I have included in the present review research that examines either motivation or performance as an outcome variable. Although motivation is not the same as performance in the sense that the latter is a result of a multitude of factors of which motivation is only one (Pinder 1998), it is expedient for me to review studies on both motivation and work performance. This is due to the fact that a large quantity of research that is amassed under the topic of motivation uses work performance as a dependent variable (Steers and Porter 1991; Pinder 1998). Since this is the only reason for my inclusion of performance research in my review of the motivation literature, such inclusion should not be taken in any way to imply my agreement that performance-based theory can be used to explain motivation.

Choice of theories in this review. I have included in the present review four motivation theories that have been most widely tested in the work setting – expectancy, goal setting, equity, and reinforcement. An overview shows that rather than competing against each other, existing theories tend to capture different aspects of the motivation process (Steers and Porter 1991; Pinder 1998; Mitchell and Daniels 2003). Together, they cover an impressive number of what Staw (1991) referred to as the “venerable features of Western business organizations” in his article on “the pursuit of the happy/productive worker”:

1. Tying extrinsic rewards to performance (expectancy theory)
2. Setting realistic and challenging goals (goal-setting theory)
3. Evaluating employee performance accurately and providing feedback on performance (goal-setting and equity theories)
4. Promoting on the basis of skill and performance rather than personal characteristics, power, or connections (equity theory)
5. Building the skill level of the workforce through training and development (revised expectancy model)

In reviewing these theories, I also highlight exceptions to their predictions, which tie in with a further analysis on the theme of uncertainty and risks in Chapter 4 of the thesis.

1. Expectancy Theory

Expectancy, as first proposed by Vroom (1964), is a within-subject theory of occupational choice concerning two or more categorical alternatives. When later applied to the work setting in which the person would have already made a choice about occupation, the framework continues to generate predictions of motivation in a presumably stable and predictable environment so much so that the worker is assumed to have no difficulty or problem at any point in time in ascertaining the probability of his success concerning performance and reward outcomes. As a matter of fact, the cornerstone constructs of the theory, namely, expectancy (i.e, the extent to which the worker believes that his effort will lead to performance) and instrumentality (i.e., the degree to which the worker's performance will result in one or more secondary outcomes) are underlined by this very assumption.

Expectancy has been most often operationalized by asking people to provide a rating of the likelihood that given a high level of effort, they would be able to achieve a given level of performance (Pinder 1998: 356 – 357). Based on the assumption that individuals can always ascertain the likelihood of positive outcomes concerning effort-performance-reward relationships, the theory proposes that workers combine these probability beliefs with the valence or attractiveness of expected rewards to determine the level of their effort. This could be particularly helpful in explaining motivation when (1) the effort-performance relationship is straightforward and clear-cut; and (2) incentives are administered in a consistent and somewhat predictable manner.

These two conditions cannot, however, be taken for granted as they probably had been against the backdrop of highly controlled Taylorist operational settings. For instance, the link between effort and performance is likely to be relatively more complex and ambiguous in developmental and creative roles as well as in jobs for which the level of resources and support fluctuate and cannot be guaranteed over time. Furthermore, the administration of rewards and incentives is likely to be more consistent and predictable for piece rates in traditional manufacturing jobs than for performance-related pay in non-sales positions whereby rewards are often subject to profitability and budget constraints, among other factors that may be beyond the worker's control.

If objective circumstances surrounding the job rendered the workers unable to estimate effort-performance or performance-reward links, they would also be unable to respond meaningfully to Vroom's (1964) instrumentality and expectancy scales, which were precisely aimed at measuring these links. And if these links are difficult to establish in a complex and rapidly changing environment, which is representative of today's organizational setting (Antonides 1991; Foster 2000), the theory's explanatory power and relevance would necessarily significantly reduce unless the notion of uncertainty and risks had been accounted for in the first place.

The theory's two major modifications, however, did not seem to demonstrate any such consideration. To illustrate, although the theory has been extended with the performance factors of ability and role clarity in Porter and Lawler's (1968) revision; and further enriched with determinants of the effort-performance link (self-esteem, past experience in similar situations, actual situation, and communications from others) and of the performance-outcome link (past experience in similar situations, attractiveness of outcomes, belief in internal versus external control, effort-performance expectancies, actual situation, and communications from others) in Lawler's (1973) model, uncertainty and risks remain a non-factor in these revised frameworks.

In today's complex and rapidly changing workplace (Pettigrew and Whipp 1993) the discrepancy between expectancy-based explanations, (which assumes that the future can always be reduced to probability measures), and the potentially practically unpredictable nature of effort-performance and performance-outcome relationships is problematic as it renders the models incapable of predicting motivation under uncertainty and risks. Although these did not seem to be an issue during the 1960s and 1970s when a main management focus was on assembly line workers who were paid by piece, the theory's inadequacy in explaining motivation is magnified as individuals' concerns co-evolved with the workplace in latter decades and became more complex and less homogenous.

A case in point is the phenomenon of motivation despite adversity. According to expectancy theory, for example, we should expect the individuals' motivation to be low when they experience misfortune and hardship such as company-wide wage deductions and the pressure to deliver increasingly demanding targets while working with reduced

budgets and financial support. However, workers may become highly motivated out of desperation because they have no alternative but to put forth their best effort at work especially in the times of downsizing and cost-cutting, even if effort-performance and performance-outcome links seem ambiguous and inconsistent.

Another phenomenon expectancy models cannot explain is low motivation despite favorable circumstances to succeed. Based on expectancy theory, for example, strong effort-performance and performance-outcome links would result in high motivation. However, individuals may be unwilling, albeit being able, to pursue a reward because doing so may put their other important interests (e.g., health and family relations) at risk. These phenomena and issues will be explored more extensively in Chapter 4 in a follow-up critique of the gaps in existing literature, which is presented in conjunction with my argument for the need to understand motivation under uncertainty and risks. Let's now turn to the empirical research of expectancy theory.

Empirical research. Research on expectancy theory is voluminous. It is perhaps more beneficial to highlight key developments in the field rather than detailing all studies that have been conducted since Vroom's (1994) theoretical development. Table 3.1 captures representative studies between 1964 and 2002 in the sense that it reveals the scope and variety of issues studied and highlights at the same time those that are of particular importance. As mentioned earlier, it is a common practice for motivation researchers to study work performance, rather than motivation *per se*, as a dependent variable.

The first two studies by Vroom (1964) and by Porter & Lawler (1968) represent the theoretical foundations of the theory, which were to map the course and direction for research for the future. Vroom argued that a person's preference for a particular option over other options is determined by valence, instrumentality, and expectancy, which are presumably of equal weight and importance to the decision maker. Recognizing that there is a missing link between the motivation to increase effort and work performance, Porter & Lawler (1968) propose that effort, ability and role perception can together predict performance. Six years later, Mitchell (1974) concluded, based on a review of 36 empirical studies between 1966 and 1974 that there was more empirical support for occupational choice and job satisfaction than for job effort. Mitchell also pointed out

that “no research has examined the expectancy conditions of risk and uncertainty” (Mitchell 1974). Acute this observation may be, unfortunately, as seen in studies in the next three decades, this crucial criticism was not followed through in any major study.

Table 3.1
Representative Studies of Expectancy Theory

Study	Antecedent	Consequence	Sample	Focus
Vroom, 1964	Valence, instrumentality, and expectancy	Choice of occupation	Theoretical proposition	Valence, instrumentality, and expectancy as antecedents of motivation
Porter & Lawler, 1968	Effort, ability, and role perception	Performance	Theoretical proposition only	Effort, ability and role perception as joint predictors of performance
Mitchell, 1974	Valence, instrumentality, and expectancy	Occupational choice, job satisfaction, and job effort	Review of studies (1966 – 74)	No research has examined the expectancy conditions of risk and uncertainty
Schwab, Olian-Gottlieb, & Heneman, 1979	Importance and desirability) and expectancy	Job effort and performance	Review of studies (1957 – 75)	Expectancy theory “overintellectualizes people’s cognitive processes”
Pinder, 1984	Valence, instrumentality, and expectancy	Job effort and performance	Review of major research	Discussion of major research difficulties
Locke, 1991	Expectancy	Intentions & goals and performance	Theoretical proposition	Proposal of an integrated motivation sequence model of goals and expectancy
Rasch & Tosi, 1992	Effort, ability, role perceptions	Performance	Software developers	Reward expectancy and goals as predictor of performance
Monge, Cozzens, & Contractor, 1992	Communication and motivation variables	Number of innovative ideas	Manufacturing employees	Communication variables as the true cause of innovation
Van Eerde & Thierry, 1996	Valence, instrumentality, and expectancy	Performance, effort, intention, preference, and choice	Meta analysis (1964 – 90)	Expectancy as a predictor of intention and preference but not performance
Erez & Isen, 2002	Positive affect	Valence, expectancy, and instrumentality	Experiments	Specificity of performance-outcome link and instrumentality
Fairbank, Spangler, & Williams 2003	Expectancy beliefs	Participation in employee suggestion system	Proposal	Motivating creativity

What is sure is that criticisms about the basic assumptions and application of the theory began to flood in. For instance, Schwab, Olian-Gottlieb, and Heneman (1979) noted that results of a review of 32 studies between 1957 – 1975 were consistent with the suspicion that expectancy theory “overintellectualizes the cognitive processes people go through when choosing alternative actions”. The authors also confirmed that complicated measures of force did not aid prediction in between-subjects investigations.

Furthermore, in a review that appeared in Steers and Porter's (1991) edited book "Work Motivation and Behavior", one of the most authoritative volumes on the subject, Pinder (1984) identified several major conceptual and research difficulties in relation to the theory. First, being purely rationally based, the theory has not been able to account for the fact that people have limited cognitive capacities and that much of human behavior is habitual and subconscious (Simon 1957; Locke 1975; Staw 1977; Mayes 1978). Second, the theory has mistakenly assumed that the valence, instrumentality, and expectancy beliefs are independent of one another (as implied in the multiplicative nature of the equation), whereas individuals may in fact assign more weight or importance to outcomes that are believed more difficult to attain.

Third, although it was intended for within-subject predications, i.e., those concerning single individuals, one at a time, about the decision alternatives each of them will select in choosing an occupation, the theory has been erroneously used to predict variation in motivational outcomes *across* individuals, which yielded only moderately valid results. Fourth, since the validity and reliability of valence, instrumentality, and expectancy scales were relatively low they could have contributed to an underestimation of the validity of the theory itself.

Research in the early 1990s saw various attempts in integrating or partly substituting the theory with goal setting. The first of such papers was by the goal setting authority Locke (1991) himself, who proposed expectancy as an outcome variable of volition and an independent variable of goals & intentions and performance in an integrated motivation sequence model. Another major study in this direction was conducted of a rather more innovative sample of 335 software developers by Rasch and Tosi (1992), who found that performance is affected not only by goal difficulty, goal clarity, and achievement needs, but also by reward expectancy. Along the same lines, Monge, Cozzens, and Contractor (1992) found that communication variables including the level of information and group communication but not motivation variables such as expectancy and social pressure cause innovation among 1,925 employees in five manufacturing firms that used the Scanlon Plan.

To be in a position to conclude the status of expectancy research over four decades, Van Eerde and Thierry (1996) conducted a meta-analysis of 77 studies between 1964 and 1990 and found that when applied as a main-effects, within-subject model, it can predict attitudinal (such as intention and preference) but not behavioral outcomes. These findings defy many of the previous conclusions about the usefulness of the theory in predicting performance, effort, and choice. But as the authors specifically pointed out, the direction of the effects cannot be established because the effect sizes are correlations. Erez and Isen (2002) addressed what was crucially mentioned by Mitchell (1974) in his review concerning the expectancy conditions of risk and uncertainty. Representing a major step in this direction, the authors concluded on the basis of two experimental studies that positive affect influences instrumentality only when the performance-outcome link is specified but not when it is dependent on chance.

Overall, it seems that research using expectancy theory alone in predicting motivation or performance in the work setting has by and large subsided in the 2000s except for a few occasional papers outside the motivation literature. For example, in information technology research, Fairbank, Spangler, and Williams (2003) discussed in a proposal the efficacy of expectancy beliefs in motivating creativity through a computer-mediated employee suggestion management.

2. Goal Setting Theory

Although goal setting has taken the center stage in motivation research over the past three decades (Pinder 1998; Donovan 2001; Mitchell and Daniels 2003), scholars are divided in their assessment of its theoretical basis as a performance management technique that works. One line of argument purports that goal setting motivates because it helps the commitment to performing desired behaviors or reaching desired outcomes, especially when people have a role to play in setting their own goals (Moskowitz, Gollwitzer et al. 1999). Another line of argument maintains that goal setting does not energize but instead directs people's attention to and facilitates feedback on useful pursuits (Steers and Porter 1974).

(A) Process-based explanations. Regardless of whether goal setting is identified in the existing literature as motivational or directional in nature, the argument may be said to be process-based, i.e., goals are effective because they enhance the worker's effectiveness in getting the work done. In particular, clear and specific goals provide a basis for the worker to prioritize his time, energy, and resources and in so doing help reduce confusion and the waste of effort. While this seems to make sense intuitively, are there any exceptions to the rule?

Exceptions to the rule. It is important to point out, in light of today's complex and fast-changing work environment, three fundamental assumptions that may provoke exceptions to the rule that goal clarity and specificity improve performance. The first assumption relates to the complexity of work and performance measurement: goal acceptability, i.e., the extent to which a worker is willing to accept his work goals for what they are. For example, a worker who believes that his work goals, however clear and specific, are too superficial or narrow to truly or adequately reflect performance is likely to reject these goals as a motivational or directional anchor in his work.

Since there may be disparity in attitude and belief between management and employees about what performance should mean or how performance should be measured especially in complex work roles, goal acceptability among employees should not be taken for granted in the analysis of motivation and performance. As a matter of fact, there is evidence in the literature that points to such lack of correspondence as a source of contention, job frustration, and resentment during the implementation of performance-related pay (Scase and Goffee 1989; IPM 1992; McLaverty and Drummond 1993).

Goal-setting theory also assumes a high level of goal stability and resource certainty while the opposite, that is, goal instability and resource ambiguity may be true especially in a complex and fast-changing work setting. I refer to goal instability as the extent to which goals are constantly being changed before they are accomplished within the stated time frame or period of appraisal. By resource ambiguity, I mean the degree to which resources required to support the goals can be guaranteed throughout the course of accomplishing the goals.

The concern here is two-fold. First, contrary to the prediction of goal-setting theory, clear and specific goals may end up causing confusion and waste of effort if they are being constantly revised, be it due to adjustment in strategic direction, changes in market conditions and organizational constraints, or managerial indecision. As a matter of fact, goal instability may also cause situations of inequity since it is unlikely that the subsequent waste of effort will be given any credit in performance appraisals. Second, the setting of clear and specific goals may be considered irrational and unfair (rather than directional or motivational) among the workers if the kind and level of organizational resources available to support them are ambiguous and non-committal.

(B) Consequence-based explanations. Since the fundamental assumptions about goal acceptability, goal stability, and resource certainty may not always be true, it is necessary to reassess the motivational merits of clear and specific goals in an environment of uncertainty and risks. When analyzed from the process-based view adopted by existing researchers, the outcome would be poor because low levels of goal acceptability, goal stability, and resource certainty do not generally enhance motivation.

The prediction may however be very different when the same issue is examined from an alternative, consequence-based view, i.e., the potential consequences of met and unmet goals. For example, regardless of whether goals can help workers become more effective by directing and focusing their efforts, as long as they translate into imminent and inevitable consequences when not met, then the clearer and more specific they are, the more likely they will motivate the workers to perform. A case in point is goals that are associated with deadlines, which help create a sense of urgency to comply or suffer from its consequences.

The fact that the research environment (as discussed in Chapter 2) is characterized by uncertainty and risks suggests that goal setting should be studied in relation to change in order to properly attribute its effects. As it now stands, the conceptual inclinations toward certainty and stability have limited the theory's immediate potential for understanding motivation. The proposed consequence-based view, which takes into account the complex and fast-changing nature of today's workplace, may thus be a

viable alternative for exploring the impact of change on motivation not discussed in the existing literature.

Empirical research. The theory of goal setting is quite easily the single most dominant theory in the field, with over a thousand articles and reviews published on the topic in a little over 30 years (Mitchell, Thompson et al. 2000). Key developments in the field since Locke's theoretical development in 1968 and up to 2004 are captured in Table 3.2. The presented collection of studies reveals the scope and variety of issues studied and highlights at the same time those that are of particular importance. As mentioned earlier, it is a common practice for motivation researchers to study work performance, rather than motivation *per se*, as a dependent variable. This is especially the case for goal setting theory as virtually all empirical studies address work performance and other work behavioral outcomes as the outcome variable.

Locke (1968) proposed that goals lead to task motivation to produce more quantity. An early discussion by Steers and Porter (1974) explored the potential impact of goal acceptance on performance. Numerous studies that followed tended to focus on the nature of goals that drive that motivation. For instance, Lathan and Baldes (1975) showed that setting concrete and measurable goals could lead to increased load per truck based on net weights of 36 trucks among some 50 forestry truck drivers at six logging operations. Locke, Shaw, Saari, and Latham (1981) reviewed the results of 48 studies conducted between 1969 and 1980 and concluded that specific and challenging goals lead to higher performance than easier, do-your-best goals and no goals, if assigned goals are accepted by the person. The moderating role of accepted goals is consistent with Steers and Porter's (1974) earlier discussion concerning its impact on performance.

Based on results of a toy assembly experiment involving college students, Latham and Steele (1983) expanded on this important finding by showing that specific and difficult goals were significantly related to performance regardless of whether they are set through employee participation or assigned by management. Further support for this argument was found in other studies (see Locke and Latham 1990 for a review). What is unclear is the extent to which such findings could be generalized for tasks that demand the fulfillment of not just simple and straightforward but multiple and complex goals.

Table 3.2
Representative Studies of Goal Setting Theory

Study	Antecedent	Consequence	Sample	Focus
Locke, 1968	Goals	Task motivation	Theoretical proposition	Goals and productivity
Steers, 1974	Goal acceptance	Performance	Discussion	Goal acceptance
Latham & Baldes, 1975	Specific, difficult but attainable goal	Productivity over a 12-month period	Forestry truck drivers	Concrete and measurable goals
Erez, 1977	Feedback (as a moderator)	Performance	Discussion	Task-relevant feedback
Locke et al, 1981	Specific goals	Performance	Review of studies (1969 – 80)	Specific and challenging goals
Latham & Steele, 1983	Participative and assigned goals	Performance	College Students	Assigned vs. non-assigned goals
Dwek, 1986	Adaptive motivation	Goal attainment	Discussion of existing research	Goals and adaptive motivation
Wood, Mento, & Locke, 1987	Task complexity (as a moderator)	Goal effect on performance	Meta-analysis of studies (1966 – 85)	Task complexity
Locke & Latham, 1990	Participation in goal setting	Performance	Discussion	Participation in goal setting
Weingart, 1992	Goal difficulty and task complexity	Group performance	224 college students	Group goals
Mitchell et al, 1994	Goals	Performance	Psychology students	Goals and skill acquisition
Roney, Higgins, & Shah, 1995	Framing of goals	Persistence and performance	Discussion	Goal framing and performance on anagram tasks
George-Falvy, 1996	Jointly set goals	Performance	Discussion	Jointly set goals and performance on complex tasks
Brown, Cron & Slocum, 1997	Anticipated emotions	Work behavior	Salesmen	Positive emotions
Donovan & Radosevich, 1998	Goal commitment (as a moderator)	Performance	Meta-analysis	Goal commitment
Schweitzer, Ordóñez, & Douma, 2004	Reward goals vs. do-your-best goals	Unethical behavior	Laboratory experiment	Side effect of goal setting
Seijts et al, 2004	Learning goals vs. performance goals	Performance	Simulation	Integration of literature on situational and dispositional goals
Fried & Slowik, 2004	Role of time in goal setting	Goal achievement	Conceptual Discussion	Integration of time into theory

Research in the late 1980s began to see deeper efforts in understanding the impact of goal setting on task complexity and in the context of adaptive motivation. For instance,

Dweck (1986) suggested that the adaptive (“mastery-oriented”) motivational pattern promotes the setting, maintenance, and attainment of personally valued and challenging goals in learning. In an effort to explore the impact of goals on different tasks, Wood, Mento, and Locke (1987) conducted a meta-analysis of 125 studies between 1966 and 1985 and concluded that goal-setting effects are strongest for easy tasks and weakest for more complex tasks. In other words, difficult and specific goals could decrease performance on complex and novel tasks.

Three other streams of research that explored the moderators of the goal difficulty-performance relationship were concerned particularly about (1) performance feedback, (2) goal commitment, and (3) the role of time. In contrast to the consistency of evidence for the performance effect of task-relevant feedback (Frost and Mahoney 1976; Erez 1977), the effect of goal commitment, seems inconclusive across studies (Donovan and Radosevich 1998). Concerning the issue of time in goal achievement, Fried and Slowik (2004) proposed in a conceptual discussion that managers in knowledge-based industries may strategically assign specific goals or follow the “do your best” approach, depending on whether employees are working in the exploration state versus systemization stage.

Roney, Higgins, and Shah (1995) also found that goals framed positively (rather than negatively) improve persistence and performance on anagram tasks. Furthermore, George-Falvy (1996) showed that jointly set goals are more effective than assigned goals on complex tasks because they encourage strategic development. Along these lines, Weingart (1992) indicated that group goals influence performance through their effect on effort, planning, and tactics. And in an attempt to distinguish the impact of goals and self-efficacy on performance, Mitchell, Hopper, Daniels, George-Falvy, and James (1994) concluded, based on an experimental study of 224 undergraduate students, that goals are a better predictor of performance than is self-efficacy later (than early on) during skill acquisition.

Other interesting aspects about goal setting research are that scholars have begun to examine the positive emotions associated with goal attainment on the one hand, and the side effects of goal setting on the other. In particular, Brown, Cron, and Slocum (1997) proposed that anticipated emotions associated with goal achievement help predict

behavior and sales. This finding is in line with the research of Hom and Arbuckle (1988), who found that mood had induction effects on goal setting and performance in young children. On a different note, Schweitzer, Ordóñez, & Douma (2004) found in an experiment employing 154 undergraduate students that subjects who were given mere or reward goals overstated their productivity significantly more often than those who were asked to do their best. This is consistent with the findings of a simulation study based on events in the cellular telephone industry by Seijts, Latham, Tasa, and Latham (2004) concerning learning goals. In particular, the authors found that a specific learning goal led to higher performance than did either a specific performance goal or a vague goal

3. Equity Theory

Equity is a social comparison theory whereby equity judgments are made concerning one's input and outcome versus comparable others (Adams 1963). People hold beliefs about the value of their contributions and how well these contributions are being recognized or rewarded. In particular, people compare how well they are being treated with how well they believe others are being treated. Some people also compare their equity situation with their expectations when they first started the jobs (Pinder 1998). No matter what people are comparing to, the nature of their response to inequity is corrective in nature; it underlies the initiation of change of some sort to correct a situation of disequilibrium. In other words, it proposes change in the worker's attitude and behavior as a consequence of inequity but by itself, equity theory does *not* discuss change or the uncertainty and risks thereof as a determinant of motivation.

As proposed by the theory, the goal of reactions to inequity is to restore equilibrium. What has not been explored, however, is what may happen if the individual is aware that this goal is not likely to be met by reacting negatively to the situation. Indeed, there have so far only been arguments in the literature about why people react to inequity. The notion of why people do not react to inequity, however, has not been explored, except in terms of the equity sensitivity construct (Huseman, Hatfield et al. 1987). By stereotyping people and putting them in "boxes" of different individual sensitivity levels to inequity, the concept is helpful in explaining response to inequitable situations across individuals. But this is only the tip of the iceberg. In the following section, I attempt to explore other

exceptions to the rule in understanding response to inequity, including situational and individual factors that may not be as routine or “programmed” as the concept of sensitivity construct suggests.

Exceptions to the rule. It seems sensible to explore, in light of today’s complex and fast-changing work environment, the various conditions that may provoke exceptions to the rule that workplace inequity reduces motivation. The conditions I shall discuss below include political sensitivity and the protection of professional image at work, both of which may be referred to as situational factors. The common thread that runs through these potential violations to equity theory’s predictions is self-protection and preservation. Contrary to the assumption of equity theory that individuals safeguard or advance their interests by reacting negatively to inequity, I explore conditions under which people advance their interests by *not* reacting negatively. In other words, it may be helpful for us to explore reaction to inequity as a subjective choice rather than an automatic response provoked by disequilibrium.

Political sensitivity. Political sensitivity concerns the delicacy of situations in which ambiguous issues need to be handled carefully as they may cause conflict and upset those in power especially under unfavorable labor market conditions (cf. Hartley, Jacobson et al. 1990). One way of exploring the potential impact of political sensitivity on response to workplace inequity is by observing organizations as political systems in which individual members learn to become aware of “conflict-prone areas, to read the latent tendencies and pressures beneath manifest actions of organizational life, and to initiate appropriate responses” (Morgan 1993).

Political sensitivity and its manifestation of enlightened self-interests may have an important role to play in helping to explain the potential lack of negative response to inequity under acute situations of employment uncertainty and compensation risks. For example, a worker may choose not to react negatively to favoritism if he accepts the fact that since he is not particularly favored by the boss, a realistic way for him to increase his chances of continued employment in a downsizing environment (cf. Mowday 1991) is to put forth his best effort at work. Similarly, a person may value a harmonious relationship with members on his team to the extent that he prefers to accept the

disequilibrium experienced in inequity in pay. As such, the chosen reaction may reflect rationally based considerations and personal philosophy toward peace and long-term interests vis-à-vis contention and the idea of “getting even”.

Protection of professional image. Another possible violation of equity theory predictions of motivation is that individuals may choose not to react negatively to inequitable situations if they are consciously aware of the risk of being identified as troublemakers, or seen as ungrateful, calculative, and petty in an organization that emphasizes teamwork or promotes extra-role behavior. This idea is different from the equity sensitivity construct in the sense that the individual may not be consistently desirous of or concerned about maintaining a similar image at home or among his personal friends.

It is possible for the individual to view the dynamics at work and at home or among friends differently. For example, as an employee, the person is likely to view himself as being subject to the influence of the management or others who are in power and as a result, believes that he has a lot to lose (e.g., contract renewal and career prospects) if he did not live up to their expectations. On the other hand, he may perceive himself as an equal or the one who is in power within this family and personal circles and as a result, feels uninhibited to fight for his rights in reacting to personal issues of inequity.

Notwithstanding the risks associated with adjusting one’s work effort (Pinder 1998) (whether downward or upward) or resorting to dysfunctional actions such as thefts and other forms of subterfuge or maneuver (Greenberg 1990; Greenberg 1993), the notions of political sensitivity and protection of one’s image at work have not been considered in any of the existing frameworks of distributive justice (Adams 1963), procedural justice (Cropanzano and Folger 1991), and interactive justice (Moorman 1991).

Empirical research. Table 3.3 presents representative studies of equity between 1963 and 2005. It reveals the scope and variety of issues studied and highlights at the same time those that are of particular importance. Research in the field may be systematically classified into three categories – distributive, procedural, and interactive justice. These three categories also seem to have developed along a chronological dimension, with

distributive justice being the traditional line of inquiry, and procedural justice and interactive justice as the more recent extensions of equity-based research.

Table 3.3
Representative Studies of Equity Theory

Study	Antecedent	Consequence	Sample	Focus
Adams, 1963	Distributive justice	Work motivation	Theoretical proposition	Inequity as a state of disequilibrium
Adams, 1968	Distributive justice	Work motivation	Piece-rate workers	Impact of hourly overpayment
Lawler, 1968	Distributive justice	Productivity and work quality	Discussion	Expectancy-based explanation concerning overpayment
Martin, 1987	Distributive & procedural justice	Pay satisfaction & organizational commitment	Financial services employees	Effects of distributive vs. procedural justice
Greenberg, 1990b	Distributive justice	Theft	Employee survey	Inequity and dysfunctional behavior in response to pay cuts
Cropanzano & Folger, 1991	Procedural justice	Direction of motivation	Review of 32 studies	Direction towards destructive (retaliation) or constructive activities
Konosky & Cropanzano, 1991	Procedural justice	Commitment and performance	Laboratory employees	Procedural justice and performance
Huseman, Hatfield, & Miles, 1987	Individual sensitivity	Reactions to equity/inequity	Theoretical proposition	Individual differences in reactions to inequity
Moorman, 1991	Interactional justice	Organizational citizenship behavior (OCB)	Manufacturing workers	Interactional justice and OCB
Mowday, 1991	Pay inequity	Reactions to inequity	Review of 17 studies	General support for theory
King & Miles, 1994	Equity sensitivity	Reactions to inequity	Discussion	Scale construction and measurement
Schminke, Ambrose & Cropanzano, 2000	Organizational structure	Justice perceptions	Workers in profit and non-profit organizations	Organizational structure and design and fairness
Aryee, Budhwar, & Chen 2002	Trust (as a mediator)	Justice perceptions	Public sector employees	Trust and interactional justice
Lamertz, 2002	Social relationships	Justice perceptions	Telecom employees	Social relationships and fairness perceptions
Ambrose & Cropanzano 2003	Procedural and distributive justice	Organizational commitment and turnover intentions	Review of 9 longitudinal studies	Stages in time when impact pf was most influential
Simons & Roberson, 2003	Aggregate equity perception	Organizational commitment and turnover intentions	Dataset of 4,539 hotel employees	Attitudinal and business-unit-level outcomes
Tekleab, Takeuchi, & Taylor 2005	Mediating role of contract violation	Social exchange and employee reactions	Longitudinal study of 191 university employees	Extension of the chain of relationships in justice research

First and foremost, Adams (1963; 1968) sought to predict the behavioral response to situations of inequity by proposing that people will evaluate the fairness of their situation in an organization based on a comparison of the ratio of their own inputs and outcomes with some referent other's ratio of inputs and outcomes. When these ratio comparisons are not equal, people find themselves in a disequilibrium and are motivated to change the situation by modifying their inputs and outcomes, changing their referent other, distorting their perceptions, or quitting (Mitchell and Daniels 2003). Adam published a study in the same year on piece-rate workers and reported that overly high hourly rate produced greater quantity while overly high piece rate produced higher quantity but lower quality.

Research in the following decade focused largely on distributive justice in the form of underpayment of rewards and its behavioral consequences (Evan and Simmons 1969; Pritchard, Dunnette et al. 1972). Notwithstanding that research seemed to demonstrate encouraging evidence for the theory, other researchers question at the same time if expectancy and equity theories cannot be integrated as one theory as they seem to address the same expectancy issue. For example, Lawler (1968; 1973) argued that consequence of the hourly payment condition could be explained equally well by expectancy theory.

As a matter of fact, speculations that equity theory can be incorporated into expectancy remain unresolved even up to this era (Lawler and Suttle 1973; Mowday 1991). As far as the effect of pay inequity is concerned, based on a review of 17 studies on the quantity and quality of output between 1963 and 1970, (Mowday 1991) indicated that there is general support for the theory but cautioned that additional research is needed to extend predictions from the theory beyond simple questions about reactions to pay.

Research on equity began to encompass a second dimension in the 1980s, i.e., procedural justice. For example, Martin (1987) argued on the basis of a study of 1,685 financial services employees that both distributive and procedural justice determine pay satisfaction, while procedural justice alone determine organizational commitment. As summed up in an excellent review of 32 studies on procedural justice research between 1965 and 1990 by Cropanzano and Folger (1991), field studies in general showed that the

amount people receive affects outcome satisfaction, whereas procedures (and the related actions of authorities) affect organizational commitment.

In particular, it was argued that procedural justice predicts the direction toward destructive (retaliation) and constructive activities (organizational citizenship behavior/OCB) such as improvements in dependability, cleanliness, waste reduction, and willingness to help train new workers. Some of the important studies in this area include those by Greenberg (1990; 1993) on employee stealing in the name of justice. Moorman (1991) studied the effects of distributive, procedural, and interactional justice among 225 industrial processing and manufacturing workers and concludes that interactional justice (but not distributive or procedural justice) is closely associated with organizational citizenship behavior. At the same time, advancement was made on the construction and measurement of the equity sensitivity construct proposed by Huseman, Hatfield, and Miles (1987). Noteworthy studies in this area include those conducted by King and Miles (1994), and King, Miles, and Day (1993).

Research in interactional justice continued to flourish in the 2000s. This is particularly true for studies on the antecedents and mediators of justice. For example, Schminke, Ambrose, and Cropanzano (2000) reported in a study of 209 workers in 11 profit and non-profit organizations that organizational structure and design (in terms of centralization, formalization, and size) play a more prominent role in our thinking about organizational fairness.

Furthermore, Aryee, Budhwar, and Chen (2002) concluded, based on 179 supervisor-subordinate dyads in a public sector organization, that whereas the distributive, procedural, and interactive dimensions of justice are related to trust in organizations, only interactional justice is related to trust in supervisor. Finally, in a study of 115 telecom employees, Lamertz (2002) proposed that fairness perceptions are significantly associated with peer fairness perceptions, and social relationships with managers are positively associated with perceptions of interactional fairness.

Three more recent studies are noteworthy. First, Ambrose and Cropanzano (2003) reported, based on a review of 9 longitudinal studies involving a total of 360 individuals

in three surveys, procedural justice was most influential prior to and soon after outcome decisions were made while distributive justice was most influential one year later. Second, based on a dataset of 4,539 employees at 97 hotels, Simons and Roberson (2003) found that aggregate perceptions of procedural and interpersonal justice were linked to organizational commitment and turnover intentions as well as on business-unit-level outcomes such as discretionary service behavior. Lastly, based on a longitudinal study examining a sample of 191 university employees, Tekleab, Takeuchi, and Taylor (2005) found strong support for the mediating role of psychological contract violations in the relationship chain involving justice perception, perceived organizational support, and turnover intentions.

4. Reinforcement Theory

Reinforcement is a theory of behavioral learning and modification that emphasizes the effect of scheduling. Its purpose is to reinforce or increase the frequency of desirable behavior and correct or eliminate problematic behavior (Skinner 1969). In particular, it proposed the intermittent administration of reward and punishment events to be most effective. Unlike expectancy theory that predicts motivation based on eventualities of future rewards, reinforcement theory makes predictions on the basis of past events of reward and punishment.

While the theory is derived from experimental roots that enable the total control of reward and punishment events, it is perhaps unlikely for human behavioral learning to take place in precisely the same manner as could be manipulated for birds and animals in a laboratory setting. A major difference between the real-life vis-à-vis controlled laboratory setting is that the circumstances surrounding the administration of rewards and punishments in real-life are not static and cannot easily be held constant for the behavioral reactions to reward and punishment to mechanically repeat themselves as is possible in a laboratory setting.

What has not been discussed in the theory is the potential impact of the change of circumstances surrounding the administration of rewards and punishments on the behavioral response to these reinforcers. As far as rewards are concerned, an essential

set of circumstances that is often ignored by both the theorists and management practitioners alike is the conditions attached to organizational rewards (e.g., working hours, level of stress, degree of uncertainty concerning resources available to accomplish a task, etc.).

Workers may, however, be conscious of the fact that behind each reward there are possible conditions attached or that “there is no free lunch”. So if rewards and their conditions constitute a deal of sorts, it is possible that workers do not look at the rewards as the same “deal” if the conditions attached to them have been altered. For example, a reward that requires a certain level of effort during normal working hours might be considered a good deal. However, the same reward, when requiring input during unsociable hours or working with uncooperative parties, may be considered an ordeal. A critical question concerning the effects of rewards not addressed by reinforcement theory is: *“Will repeating the same organizational reward (e.g., bonus) achieve the same level of success in encouraging a specific behavior if the conditions attached to such a reward are no longer the same?”*

In a somewhat different manner, the reinforcement effect of punishment may also be affected by the change of circumstances. An important aspect of such change concerns the justification for organizational punishments. A case in point is pay reduction, which may, at different times, be courted by different managerial justifications (e.g., unsatisfactory work performance, declining company profits, initiative to cut cost to stay competitive, etc.). The variations in the justification for organizational punishments may not be uncommon in a downsizing and cost-cutting environment.

Since using justifications such as reduced company profits to cut wage and supporting resources at work indicates that employees have little influence and control, it may end up causing feelings of confusion, helplessness, and stress (Averill 1973; Thompson 1981; Greenberger, Strasser et al. 1988) than facilitate the behavioral learning proposed by reinforcement theory. An important question concerning the effects of punishment not addressed by the theory is: *“Will repeating the same organizational punishment (e.g., reduction in pay) achieve the same level of success in discouraging a specific behavior if the justification for such a punishment is no longer the same?”*

What may further confound the behavioral learning effects of organizational rewards and punishments are the workers' life circumstances (e.g., financial situation, demand on time for family, condition of health, etc.), which are expected to change over time. Life circumstances are likely to affect personal attitudes and preferences in decision making of important life issues (Mishan 1975; Morgan and Duncan 1982; Larrick, Nisbett et al. 1993) such as work vs. leisure, pay vs. job satisfaction, and stress vs. health. The fact that individual life circumstances are neither generalizable across members of the same workforce nor immediately observable to the management suggests that the reinforcement dynamics of an organizational setting could be far more complex than an experiment-based theory is designed to capture.

As reinforcement theory assumes the complete controllability of circumstances surrounding the administration of rewards and punishments as well as the programmability of behavioral outcomes based on the repeat of past reward and punishment events, the notions of uncertainty and risks that are essential to the understanding of motivation in a changing environment are ignored in the framework. What, however, can be identified as a unique and significant contribution of the theory is its discussion of both rewards and punishments.

Although punishment occurs frequently on a day-to-day basis in organizations and may be more effective in eliminating behavior than has traditionally been believed (Pinder 1998: 423), the notion of motivating with both rewards and punishments has been taken seriously only within the framework of reinforcement theory. A wedge is open here for the analysis of influences of punishment on work motivation and behavior. Unlike research reviewed above under the other leading theories, research on reinforcement theory does not only deal with rewards but also punishments. However, reinforcement studies tended to involve either reward or punishment rather than adopt a parallel approach to considering both reward and punishment (see Table 3.3 for a summary.)

Empirical research. Table 3.4 captures illustrative studies of reinforcement between 1953 and 2003. Rather than being exhaustive, the aim of this collection of research is to reveal the scope and variety of issues studied and to highlight at the same time those that are of particular importance.

Table 3.4
Representative Studies of Reinforcement Theory

Study	Antecedent	Consequence	Sample	Focus
Rogers & Skinner, 1956	Rewards and punishments	Behavioral change	Proposition	Consequences and behavioral change
McGregor, 1960	Punishment	Behavioral change	Discussion	Proposal of the "hot stove rule" to effective punishment.
Aldis, 1961	Rewards and punishments	Behavioral change	Discussion	Application of theory to work settings.
Dowling, 1973b	Positive reinforcers	Behavioral change	Delivery employees	Impact of positive reinforcers
Luthans & Kreitner, 1974, 1975	Negative reinforcers	Recurrence of problematic behavior	Proposal	A general sequence for behavioral contingency management
Marholin & Gray, 1976	Punishment	Reduction in cash shortages	Employee survey	Punishment and behavioral change
Ford, 1981	Punishment	Sick leave taken	Employee survey	Effects of negative reinforcement and punishment
O'Hara, Johnson, & Beehr, 1985	O.B. Mod.	Behavioral change	Review of 40 studies	Immediately consequences and behavioral change
Andrasik, 1989	O.B. Mod	Performance and cost reduction behavior	Employee survey	20 applications of O.B. Mod
Stajkovic & Luthans, 1997	O.B. Mod.	Task performance	Meta-analysis of 125 studies	Financial and non-financial intervention
Luthans & Stajkovic, 1999	Positive reinforcement	Performance	Discussion	Positive reinforcement and performance
Komaki, et al. 2000	Positive and negative reinforcement	Behavioral modification	Review of 126 studies	Positive and negative reinforcement and behavioral modification
Smither et al, 2003	Executive coaching	Behavioral change	1,361 senior managers	Impact of working with an executive coach

Reinforcement theory, as put forth by Roger and Skinner's (1956) groundbreaking study proposes that desirable consequences of reward increase the likelihood of a desirable behavior being repeated and the undesirable consequences of punishment decrease the likelihood of an undesirable behavior being repeated. Along these lines, McGregor (1960) proposed what he referred as "the hot stove rule", which emphasized the following features for punishments to be effective: (1) immediate; (2) contingent upon behavior; (3) intense (meaning not too severe but not without some pain); (4) Consistent, (5) impersonal; (6) informational; and (7) an alternative to the punished act should be available (e.g., moving away or avoiding them in future).

Moving away from pigeons and laboratory testing, Aldis (1961) and Nord (1969) are among the first to suggest application of the principles of operant conditioning to the organizational setting. As discussed in the following overview of studies, the idea of giving reinforcement only when the correct or desired response is made (rather than every time the stimulus is presented is the case in classical conditioning) became very popular for the next two decades. The approach was called organizational behavioral modification (sometimes referred to as O. B. Mod, organizational behavioral management, or applied behavior analysis) (Pinder 1998). As a matter of fact, Luthans and Kreitner (1985) referred to O. B. Mod as “the most systematic efforts to apply reinforcement theory” in the work setting.

It is necessary to note at this point that early studies seem to be more faithful to the theory in the sense that both the consequences of rewards and punishments are tested. But as soon as the theory is applied to the work setting, it looks almost as if the researchers were determined to study either rewards or punishments but not the impact of both on behavioral change. This deviation from the theory has been strongly criticized by Komaki, Coombs, and Redding (2000) in their comprehensive review of reinforcement research. Just to cite two notable examples of the lack of pairing of both rewards and punishments, Luthans and Kreitner (1974) and Kreitner (1975) proposed a general sequence for behavioral contingency management to correct problematic behavior in an organizational setting, focusing only on negative reinforcers.

This focus in study was shared by Marholin and Gray (1976), who examined the impact of the policy of deducting cash shortages from the cashiers' own daily salary as a deterrent to inattentiveness and other forms of undesirable behavior at the till. However, Ford (1981) was unable to draw definite conclusions about the effects of negative reinforcers in his study of organizational measures aimed at reducing sick leave.

Studies emphasizing positive reinforcers. Dowling (1973) showed that positive reinforcers such as goal setting, praise, and constant feedback helped saved an estimated \$3 million in waste reduction over a three-year period at Emery Air Freight. On the other hand, Andrasik (1989) reported inconclusive findings on the effectiveness of O. B. Mod interventions in achieving quantitative cost savings and favorable cost-benefit returns in

20 applications studied. However, a recent study by Luthans and Stajkovic (1999) dismisses the confusion referred to by Andrasik in his study and concluded that performance improved by 17% on average for both manufacturing and service employees when money, feedback, and social recognition are all used.

Other important studies include reviews and meta-analyses of existing research. Three of them are highlighted here. Firstly, O'Hara, Johnson, and Beehr (1985) concluded, based on a review of 40 studies on private companies conducted between 1969 and 1983, that immediately pleasing or displeasing consequences generally improve organizational behavior in absenteeism, employee safety, customer service, theft reduction, and the conservation of raw materials. Conclusions on the positive effects of O. B. Mod were also drawn by Stajkovic and Luthans (1997) in their meta-analysis of 125 studies between 1975 and 1995. In particular, they reported that financial and non-financial intervention produced strong effects in manufacturing firms but non-financial interventions did not do so well in service firms.

Last but not least, Komaki, Coombs, and Redding (2000) concluded, in the most comprehensive review of reinforcement research to date, which involved 126 studies between 1969 and 1998, that the use of positive reinforcement is much more prevalent and the results much better than negative reinforcements. In light of the tendency to focus on either positive or negative reinforcement in these studies, the authors cautioned that punishment events need to be paired with positive reinforcement in future research.

It seems that interest in reinforcement research in the work setting has significantly declined in the 2000s, due perhaps to the popularity of goal setting and justice research. One of the studies that seem to bear the closest resemblance to the notion of reinforcement involves the examination of a sample of 1,361 senior managers by Smither, London, and Vargas et al (2003). The authors found that managers who worked with an executive coach were more likely than other managers to set specific goals, solicit ideas for improvement from their supervisors, and receive improved ratings from direct reports and supervisors.

3.1.2 Causal Uncertainty and Between-Concept Ambiguity

My review has been anchored toward the examination of the concepts and assumptions of existing motivation theory and the presentation of key empirical studies so as to illuminate the range and variety of research thereof and to shed light on what we now know and what boundaries we may need to push to advance our knowledge in the field. In this connection, there are two issues I wish to specifically address in reviewing collectively at this point the theory and empirical evidence of expectancy, goal setting, equity, and reinforcement. First, I wish to tie in the discussion with the purpose of my review, which is to identify a suitable framework for my study of the impact of China's wage and employment reforms on work motivation. In particular, I wish to find out how existing theory and research can help me explain motivation in an environment of change. Second, I wish to assess the validity of the causal relationships reported in the empirical studies and the extent to which they can be generalized for other work settings.

The empirical aspect of my review is aimed at assessing the causal relationships found. In particular, I seek to examine the extent to which the accumulated findings in a research area provided support for their theoretical positions. Cook and Campbell (1976) outlined three necessary conditions for a causal relationship to exist between two variables: (1) the cause must precede the effect in time; (2) the treatments must co-vary with the effect; and (3), there must be no other plausible alternative explanations of the cause and effect relationship. So in order to conclude that the causal relationships maintained by existing research do actually exist it requires there be little uncertainty or ambiguity concerning these issues.

Uncertainty of causal relationships. As shown in the empirical studies and the meta-analyses conducted of them, virtually all four theories reviewed have received support in the organizational setting, save for reinforcement theory, where the requisite pairing of reward and punishment events in empirical studies still leaves much to be desired. This observation was shared by some of the most prominent reviewers of the motivation literature (e.g., Pinder 1998; Ambrose and Kulik 1999; Donovan 2001). In addition, Mitchell and Daniels (2003) noted that it is clear that all of the perspectives of existing motivation theories have some validity.

What is however uncertain is the causal relationship between motivation and performance. While all four frameworks are being referred to in the literature as “motivation theory”, the investigation of motivation as either a dependent or an independent variable was not evident. For example, expectancy theory appeared to increasingly focus on performance as the outcome variable since Porter and Lawler’s (1968) introduction of a performance-related model. Also, goal setting theory has relied heavily on task performance as the primary dependent variable while equity research typically examined attitudinal responses such as job satisfaction and commitment and negative behavioral responses such as theft, retaliation, and sabotage. Lastly, reinforcement theory and O. B. Mod were aimed at correcting problematic behaviors, with no particular mention of the link to motivation.

Ambrose and Kulik (1999) and Kanfer (1990) are among those who expressed the greatest discomfort about organizational researchers writing empirical articles predicated on motivation theories without using the central construct of “motivation”. The former observe that research on motivation since the 1990s in particular is largely done through the ‘back door’. That is, researchers have other goals in mind, such as studying task performance on work teams or discretionary and extra-role behaviors, rather than studying motivation. The paradox is that motivation research has largely abandoned the concept of “motivation” and replaced it with specific measures of employee behavior (e.g., task performance and organizational citizenship behavior).

But as pointed out in the introduction of the present review, performance is not the same as motivation and cannot be treated as such. Indeed, performance theory differs from motivation theory in that prediction of performance requires consideration of additional factors including individual differences variables such as abilities and task comprehension, and environmental factors such as situational constraints and task demands (Kanfer 1990). It may seem to make sense if the distinction between motivation and performance is ignored in studies assessing task performance in simple, straightforward, or controlled settings. But it becomes unacceptable for the distinction to be disregarded in research that investigates performance in novel or complex tasks, on work teams, and other ambiguous and challenging situations.

Since increased effort or motivation does not guarantee performance under any of these conditions, performance or the lack of it cannot be attributed to the direction, strength, or persistence of motivation. The implication of this is significant especially for the most popular “motivation theory” of this era – goal setting, which set out to predict performance on the basis of a technique, the adoption of which then became instrumental in generating propositions concerning goal clarity and difficulty and the outcome in performance. In doing so, researchers seemed to have worked backwards in theoretically justifying a technique, rather than taking the crucial step of conceptualizing the link between motivation and performance in the first place.

Ambiguity between major concepts. Evaluating existing research by addressing the ambiguity that exists between major concepts illuminates an issue of major concern and that is, the condition that “there be no other plausible alternative explanations of the cause and effect relationship” (Cook and Campbell 1976).

Relationship of equity to expectancy. Lawler (1973) argued that expectancy theory could explain the results of equity theory if perceived equity were explicitly recognized as an antecedent of the valence of outcomes. Although Lawler did not provide further guidelines on treating perceived equity as such, others such as Campbell and Pritchard (1976) have concluded that equity considerations could be subsumed under the broader expectancy theory on the basis that both theories are somewhat ambiguous and are thus open for the reconciliation of competing predictions. As pointed out by Mowday (1991), although the two theories do not really appear to be in conflict, it is unclear whether this reflects genuine similarity or the ambiguity with which the theories are stated (see Mowday, 1991 for a review).

The lack of conceptual clarity between the two theories is undoubtedly a major obstacle in identifying their unique contributions, regardless of whether the more useful debate is to (1) identify the conditions in which individual behavior is guided by equity and expectancy considerations, as has been suggested by Adam (1968); (2) conceptualize equity as one of the factors affecting valence of outcomes, as has been proposed by Lawler (1973); or (3) distinguish the two theories by their distinct dependent variables,

for example, job satisfaction and commitment for equity theory and task performance for expectancy theory.

Relationship of goal setting to O.B. Mod. Latham and Locke (1979) described goal setting as a simplistic straightforward and highly effective technique for improving performance. They argued that the then popular technique of behavior modification is “mainly goal setting, plus feedback, dressed up in academic terminology”. The authors however did not spell out how goal setting as a basic technique can be a method on which most other methods depend for their motivational effectiveness, nor for that matter in what way the theoretical contribution of goal setting may supercede or be distinguished from that of O. B. Mod. or reinforcement theory.

In a subsequent article, Kreitner and Luthans seemed to confront Latham and Locke, albeit indirectly, by pointing out that conflicting findings on goal setting still crop up regardless of the fact that it has been proven that people who have goals or objectives (preferably difficult and measurable ones) consistently outperform those who have no goals, and those who are instructed to do their best, and that “management by objective” (MBO) is known as both a failure and a success. In sum, they concluded that many conceptual systems’ are being “dressed up in appealing terminology, but remain prescriptively ambiguous on how they effect psychological changes” (Kreitner and Luthans 1984). Unless this fundamental theoretical issue is effectively tackled, the ambiguity between goal setting and O. B. Mod. is likely to remain unresolved.

An important question that emerges is, if both sets of authors suggest that the other is hiding behind some dressed-up terminology, what exactly are their respective concepts in abstract terms, and how can they be theoretically distinguished from each other? A major benefit of returning to the abstract level in assessing causal relationships is that one is not limited to researching on the technique *per se*, be it goal-setting or O.B. Mod., but is required to explain why the technique causes the effects in the first place. This also means that the researcher would have to articulate the specific conditions in which these effects can reliably repeat themselves. In so doing, it would no longer be an issue as to what terminology may be used to describe a technique.

Perhaps Mitchell and Daniels' (2003) call to address the unexplored causal link between goal setting and goal striving can inspire a higher level of intellectual debate in this regard. As much goal setting may manifest in the form of top-down mandates imposed upon, rather than developed in consultation with the employee, goal striving seems to suggest (more) initiative and self-regulation on the part of the employee, and thus potentially more relevant in an environment of change.

Given today's downsizing organizational setting, it will not only be helpful but necessary to explore whether it is the carrot (as proposed by both goal-setting and O. B. Mod.) or whether it could (also) be the stick that drive the motivation in goal striving. Future analysis in this direction will allow us to refocus on examining the construct of motivation (not performance) and its antecedents, and reinstate the principal status it deserves in what is now only loosely collectively referred to as "motivation literature".

3.2 Research on Performance-Related Pay

Under certain conditions, reward systems have been shown to motivate performance (Vroom 1964; Lawler 1971; Lawler 1987). Perhaps the key decision in the design of a reward system is to whether it will be based on performance and if so, how and to what extent. To declare that pay is unrelated to performance would be to give up a potentially important motivational tool and perhaps condemn the organization to a lower level of performance (Lawler 1987). This may be true especially in organizational settings where moral incentives are not the only motivational tool. For instance, in the reform setting of my research enterprise, where both ideology- and instrumentality-based incentives were emphasized, pay was expected to bear on motivation and performance.

Among the many different types of reward or pay systems (see Prendergast 1999 for a review), "performance-related pay" (or "pay for performance") is given special attention in the present review for three reasons. First, the pay scheme is being heralded as the most often-reported development on the pay front since the 1980s (Cannell and Long 1991; Crowe 1992). Over the past two decades, there has been an explosion in both private and public sectors of performance-related pay in varied combinations of

individual, team-based, and skill-based schemes that increasingly tighten the link between employee performance and organizational objectives (OECD 2005). The fact that a practice is being widely discussed could mean that in future more implementation will occur (Blinder 1990). Second, performance-related pay is one of the most researched areas of merit pay using the individual worker as the basic unit of analysis. Third, performance-related pay is a major component of the reward system of my research enterprise.

Intrinsic and extrinsic motivation. Before reviewing the literature on performance-related pay, which emphasizes the use of extrinsic incentive to motivate, it is helpful to address a controversial issue in the field of motivation, and that is, whether such incentives should be used to motivate workers in the first place. Since extrinsic incentives may influence intrinsic motivation, numerous studies have emphasized how the former could positively or negatively affect the latter. These studies have laid the foundation for further debate on the conditions in which incentives could work.

According to Brief and Aldag (1977), extrinsic work motivation can be characterized as a “regulated or instrumental experience” and intrinsic work motivation, a “self-fulfilling experience”. Research on cognitive evaluation theory (Deci 1975; Deci and Ryan 1985; Phillips and Freeman 1985; Deci, Koestner et al. 1999) has suggested that contingent extrinsic incentives may reduce intrinsic motivation. In a meta-analysis of 20 studies between 1971 – 1985, Wiersma (1992) is able to conclude that extrinsic reward decreases intrinsic motivation if seen to be controlling and increases intrinsic motivation if seen to be providing competency information.

Despite this finding, adversaries such as Kohn (1993) argued that the use of incentives is not only morally flawed, but can only cause temporary behavioral change. McKenzie and Lee (1998) presented a more balanced view in arguing that if used wisely, incentives can help direct competition in constructive ways, prevent shirking and increase productivity, as well as encourage groups to better coordinate their efforts. This suggested that the motivational effects of intrinsic and extrinsic rewards are additive. When viewing incentive systems, it seems beneficial for one to be open-minded about their potential additive and subtractive effects on intrinsic and extrinsic motivation.

What is performance-related pay? The label “performance-related pay” (or “pay for performance”) covers a broad spectrum of compensation systems that can be clustered under two general categories: merit pay plans and variable pay plans. They can be further distinguished along two dimensions. The first represents design variation in the level of performance measurement – individual or group – to which payouts are tied. The second represents design variation in the plan’s contribution to base pay – some are added into base pay, some are not (Milkovich and Wigdor 1991). Regardless of whether it is merit pay or variable pay, a key feature of performance-related pay is that it is usually linked to some kind of appraisal of performance (Cannell and Long 1991).

It is important to bear in mind that performance-related pay is only one of several dimensions of employee compensation. Other dimensions, as explained by Milkovich and Wigdor (1991), include pay competitiveness with the marketplace, benefits, cost-of-living considerations, and others. The effects of performance-related pay are therefore dependent in good measure, among other things, upon this larger compensation context.

According to Milkovich and Wigdor (1991), all pay for performance plans are designed to deliver pay increases to employees based, at least in part, on some measure of performance. They suggested that pay for performance may offer several potential benefits. For example, they can support the organization’s personnel philosophy by helping to communicate the organization’s goals to its employees. At the same time, they can support a certain level of performance that is consistent with the organization’s mission. Furthermore, they can help ensure consistency in the distribution of pay increases. They can also positively influence individuals to achieve goals that are rewarded (see Milkovich and Wigdor 1991 for a review). Lastly, pay for performance schemes can be also used as a change agent (e.g., Lawler III 1985; Wilson 1995; Risher 1999) in bringing about new attitudes and behavior by making reward contingent.

3.2.1 Theoretical Justifications and Empirical Findings

Opashl and Dunnette (1966) remarked that although money was generally agreed to be the major mechanism for influencing behavior at work, less research and theory had

been pursued in compensation than in almost any other field related to management. They argue that this lack of research contributed to practitioner use of faddish compensation systems with little empirical support (for more recent versions of this theme, see Abrahamson 1996; Rynes and Gerhart 2000). In particular, Rynes and Gerhart (2000) pointed out that one cannot be a true expert on subjects such as motivation and performance unless he has a firm understanding of the role of compensation in influencing these outcomes.

Theory based notions that provide an underlying rationale for incentives are relatively recent (Peach and Wren 1992). This can be said to be especially the case for performance-related pay. Although discussion about linking pay to performance at the individual worker level began as early as the 1970s (see, for example, Lawler 1973; Jenkins 1986) and dozens of studies on performance-related were conducted during the following decade (see Jenkins 1986 for a review), it was not until the 1990s that theoretical justifications for the this method of payment were seriously attempted.

Theoretical Justifications for PRP

There appear to be three main theoretical justifications for performance-related pay, namely, expectancy, goal setting, and behavioral modification. For instance, Milkovich and Wigdor (1991) proposed that by design, pay for performance plans that focus on the individual most closely approximate the ideal motivational conditions prescribed by expectancy and goal setting theory. Assessing pay for performance plans from a historical perspective, Peach and Wren (1992) suggested that the theoretical argument of the pay plans may be drawn from expectancy and behavioral modification approaches.

On a similar note, Martin (1994) suggested that the theoretical and moral arguments for the pay plan can be drawn from the rational economic assumptions underling classical liberal economics, the work of writers such as Frederick Taylor, and psychological theories of motivation that stress the role of pay such as expectancy theory and behavior modification approaches. Based on Lawler's (1971) claim that the expectancy theory can encompass most of the main psychological theories linking work motivation to performance, and the suggestion that the theory is very close to the models used by

economic theory such as Milgrom and Roberts (1992) and Lazear (1995), Marsden and French (1998) argued that expectancy theory alone could probably explain the impact of pay for performance plans.

Although the theoretical justifications for pay for performance summarized above do not seem to conflict with each other, there seems to be a problem concerning the lack of structure concerning the various arguments put forth by the experts concerned. To illustrate, none of the justifications was stated in more than two or three sentences in their original text. It may therefore be more technically accurate to refer to them as “theoretical sketches” rather than full-blown theoretical arguments. Despite the growing use of a whole range of such schemes, the lack of theoretical sophistication and clarity behind performance-related pay might have contributed to its true impact being “largely a mystery” (Marsden and Richardson 1994; Marsden and French 1998).

Bearing in mind the negative consequences that have been associated with the introduction of performance-related pay schemes over the years (see, for example, Weitzman and Kruse 1990; Marsden and Richardson 1994; Marsden and French 1998), the greatest challenge for practitioners and researchers alike may be to effectively isolate, and subsequently replicate, the success factors of the pay plan (cf. Hopkins and Mawhinney 1992). My approach to assessing whether the frameworks suggested by performance-related pay experts – goal setting, expectancy, and behavioral modification, are sufficient for explaining the scheme’s motivational impact is taken in two steps. First, I shall examine the empirical research that contextualizes the theories used. Second, I shall discuss the operational difficulties involved in the plan’s implementation and assess whether they could have been predicted by these theories.

Empirical Findings

Table 3.5 captures representative studies in the field between 1973 and 2005. As is the case with research in the motivation literature in general, the dependent variable of pay for performance studies happened to be performance rather than motivation on most counts. It is also interesting to note that research in the 1990s seem to provide increased

support for the visionary remarks about the unintended results of pay for performance plans that were made by compensation scholars in the 1970s and 1980s.

Table 3.5
Representative Studies of Performance-Related Pay (PRP)

Study	Antecedent	Consequence	Sample	Focus
Lawler, 1973	PRP	Motivation	Discussion	Job reduction beliefs and plan acceptance
Jenkins, 1986	PRP	Performance	Review of 28 studies	PRP and performance of clerical and production tasks
Pearce, 1987	Contingent pay	Performance	Discussion	Organizational context and compensation theory
Blinder, 1990	Pay	Productivity	Review of research	Employee risk aversion to pay variability
Ehrenberg, 1990	Incentives	Effort	Review of 3 PRP articles	Explicit or implicit incentives and motivation
Milkovich & Wigdor, 1991	PRP	Performance	Theoretical justification	Expectancy and goal setting theories and PRP
Hopkins & Mawhinney, 1992	PRP	Performance	Theoretical justification	Expectancy and behavioral modification and PRP
Latham & Huber 1992	PRP	Performance	Review of research	Situational factors and PRP
Peach & Wren, 1992	PRP	Performance	Historical review	Which performance to reward
Marsden & Richardson, 1994	PRP	Motivation	Inland Revenue employees	Motivation deteriorated with PRP
O'Neil, 1995	PRP	Performance	Review of studies	Lack of theoretical justification and conflicting evidence
Marsden & French, 1998	PRP	Performance	Case study	Goal setting vs. PRP
Prendergast, 1999	PPR	Performance	Review of 5 PRP studies	PPR improved output
Eberts, Hollenbeck & Stone 2002	PRP	Student GPA	Case study of 2 high schools	Merit pay increased staff retention but not student grade point averages
Deckop, Merriman & Blau 2004	PRP	Withdrawal intentions, pay satisfaction, OCB	127 university students	Consistency between risk preference and "control by pay"
Heneman & Werner 2005	PRP	Performance	Discussion	Environmental conditions and PRP
OECD 2005b	PRP	Public sector efficiency	14 OECD countries	More pay for better performance in the public sector

For example, back in the early 1970s, Lawler (1973) predicted that employees are less likely to accept the plan and thus be motivated by it if they believe it will result in job reduction. Furthermore, Pearce (1987) pointed out that compensation theory, and in particular that which deals with contingent pay, needs to account for uncertainty,

interdependence, and complexity in the organizational context. In an effort to counteract employee risk aversion to variable pay, Blinder (1990) proposed that mixing variable pay with a base wage will make increased variability in pay more acceptable. He also suggested that the pay plan be made conducive to a cooperative corporate culture to help reduce shirking.

Accounting for both explicit and implicit rewards, Ehrenberg (1990) suggested, based on review of three concurrent articles, that the provision of either kind of incentives for high levels of performance can motivate increased effort level. Heneman and Werner (2005) stressed that environmental and organizational conditions such as a competitive internal labor market and a progressive organizational culture are crucial to success of performance-related pay. On a similar note, Latham and Huber (1992) confirmed, based on their review of existing research, that situational factors such as organizational support and latency concerns such as individual preferences for rewards need to be identified and controlled for the pay plan to be maximally effective.

As far as empirical studies are concerned, there seems to be no lack of encouraging empirical support for pay for performance. It is however important to note that such evidence is usually tied to task simplicity and straightforwardness. For instance, based on a review of 28 studies, Jenkins (1986) concluded that linking pay to performance can lead to an average of 30% performance increase for clerical and production tasks. However, when implemented in more complex or less specified task and organizational environments, for example, as is the case with the service industry and administrative work in the public sector, the pay plan seems to yield inconclusive findings.

Unfortunately, as pointed out by O'Neil (1995) there was (and still is) an absence of studies concerning financial incentives and jobs with a strong component of cognitive, problem solving, and heuristic qualities (e.g., management and development roles). Hopkins and Mawhinney (1992) also noted that most of the field studies of performance-related pay have been conducted with such poor methodology that little can be safely concluded about their results.

A study of 2,423 Inland Revenue employees in the U.K. by Marsden and Richardson (1994) revealed, based on the frequency tabulations of survey questions predicated on expectancy and goal setting theories, that motivation deteriorated with performance-related pay. In particular, the authors note that although the staff supported the principle of the pay plan they judged it to be unfair in operation. In a follow-up case study of six departments of the U.K. public sector, the authors focused on the expectancy framework in trying to explain the impact of the pay plan. In a latter report, Marsden and French (1998) developed and tested an expectancy-based framework and concluded that “the chief mechanism that caused a substantial minority of staff to work harder seems to be through improved goal setting rather than performance-related pay”.

More recently, case studies of two American high schools by Eberts, Hollenbeck, and Stone (2002) found that merit pay increased staff retention but had no effects on student grade point averages and daily attendance rates. Based on 127 sets of simulated employee/supervisory surveys involving university students, Deckop, Merriman, and Blau (2004), the degree of consistency between risk preference and “control by pay” affected withdrawal intentions, contingent pay satisfaction, and organizational citizenship behavior. These results suggest that the use of pay for performance as a control mechanism should consider employee risk preference, and that this concern should apply broadly in the organization, not just at the executive level.

Conflicting findings. What can be gathered so far from the review of this literature is that the empirical findings are not only varied but also conflicting especially concerning the pay plan’s effects. It seems that organizations that are hesitant to implement the pay plan can choose to believe in the findings of case studies and individual-level data, which seem to generally suggest the pay plan’s limited effects. On the other hand, it appears that firms who wish to implement the pay plan can to a certain extent choose to believe in the firm-level data, which seem to suggest more encouraging results.

For example, based on the review of five pay for performance studies conducted between 1994 and 1998, Prendergast (1999) showed that pay for performance have strong effects on output in the private sector. The same effects have however not been seen in the public sector according to a report of up to 20 years of implementation of the

pay plan in 14 OECD countries including Canada, Chile, Denmark, Finland, France, Germany, Hungary, Italy, Korea, New Zealand, Spain, Sweden, Switzerland, and the United Kingdom, which concluded that the impact of PRP on public sector efficiency and staff motivation is rather limited and that “the pay plan will never replace a good comprehensive performance management strategy” (OECD 2005b: 1, 85).

O’Neil (1995) argued that the conflicting evidence is attributed to conflicting views about and lack of established theoretical justification for PRP and subsequently called for “more definitive and robust evidence” across all applications of the structures of the pay plan. Indeed, it may be time to consider Peach and Wren’s (1992) stance, that is, not focusing the debate on whether or not to reward performance, but how and the kind of performance to reward. Unfortunately, both of these aspects seem to be beyond the scope of the theories that have been so far identified as suitable for the evaluation of performance-related pay. The confusion and indecisiveness surrounding the effectiveness of pay for performance plans seem to be due to the lack of commitment of motivation researchers to develop and stick to a tightly engineered research framework that they say they believe in. In the following section, I shall explore some of the complexities and their implications.

3.2.2 Review of Impact, Objectives, and Motives

Research showed that performance related pay has been introduced for a multitude of reasons such as individualizing industrial relations, improving recruitment and retention, and promoting culture and organizational change (Cannell and Wood 1992; Williams 1998). In the public sector particularly, its introduction is “overwhelmingly seen by government” as a way of signaling to civil servants the need for change in the way people work, and as a way of indicating to citizens that performance is regularly assessed in public administration (OECD 2005b). Insights on implementation and operational difficulties may be gained from Heneman and Werner’s (2005) merit pay framework, which emphasized the many individual, organizational, and environmental factors that may influence the effectiveness of PRP schemes, and thereby revealed the complexities and challenges involved in achieving success with the pay plan.

On a practical note, based on contributions from Cannell and Wood (1992), (Geary 1992), Kessler and Purcell (1992), Kessler (1994), and Pearce (1987), Williams (1998) illustrated 15 categories of operational difficulties associated with performance-related pay. These aspects could in turn be summarized in five points: (1) balance between short-term performance measures and long-term goals; (2) individual vs. team performance; (3) indefinable nature of performance measures in some jobs; (4) subjectivity in performance judgment; and (5) potential damage to intrinsic motivation. But as Williams pointed out, that there are such a multitude of operational difficulties suggests that failure in implementation and operation is much more likely than success.

So why would organizations still want to introduce performance related pay to reward and motivate employees if the evidence of its success is so scarcely credible? As pointed out by Williams (1998), the real aim behind the pay plan may be rather different than an organization would normally publicize to its employees – such as managing the wage bill, cutting labor costs, reducing the workforce, and intensifying individual accountability. This leads to the consideration of the validity of assumptions behind performance-related pay schemes and the theories used to evaluate them.

Employer motives behind PRP. Although existing motivation literature appears to be biased toward the assumption that the employer is concerned about the “happiness and productivity of the worker” (Staw 1986), the personnel economics literature has no qualms about pointing out that (1) the employer “wants the worker to work to exhaustion” (Blinder 1990); and (2) its motive behind incentives is to control and regulate labor costs (Milkovich and Wigdor 1991).

These views are by no means isolated from findings in the industrial relations literature, which acknowledged that “workers in capitalist societies find themselves in relations of exploitation and domination in which many of their most significant interests conflict with those of the employer” (Kelly 1998: 126). Based on the Worker Representation and Participation Survey (WRPS) involving 1,000 employees or more each in Britain, Canada, and the U.S., Freeman and Rogers (1999) also found that, notwithstanding employee involvement (EI) initiatives, workers “believe that management is unwilling to share power or authority with them” (Freeman and Rogers 1999: 155).

In light of the processes towards individualization and union exclusion, it seems all the more likely for new ways of conducting employment relations to be more tolerated or accepted and managerial policies and prerogatives “more aggressively and enthusiastically pursued than in the past” (Deery and Mitchell 1999: 38). The rise in managerial unilateralism in which the bilateral determination of wages and working conditions is fear will be increasingly replaced by managerial fiat helps to explain why human resources management regimes are often referred as “management control systems” (Deery 2002; Deckop, Merriman et al. 2004).

Allowing for these developments and dynamics, it seems inevitable that subjective performance standards and employer rate cutting make incentives objects of suspicion to the workers (Hopkins and Mawhinney 1992). A relevant question is, whether the employer’s desire (or the lack of it) to help employees succeed in being rewarded prevails at all times and under all circumstances. A perspective that may offer practical insights on the issue is labor market conditions, i.e., whether it is generally a job seeker’s market or an employer’s market. In the following, I will explain why it is helpful to distinguish between these two conditions.

Job seekers’ market (1960s – 1980s). Compared to the downsizing era of the 1990s and beyond market conditions in the 1960s – 1980s may be said to be more of a job seeker’s market (Tilly 1996). With the availability of additional labor being considered an important factor in the acceleration of economic growth during periods of prosperity in the post-war era, the government was prepared to invest in human capital (Denison 1974; Van der Wee 1986). Likewise, employers were also eager to attract and retain labor. Under these conditions, a relevant pattern of motivational design can be identified at major corporations that essentially depended on the enticing effects of rewards such as bonuses and promotions (Barber and Bretz Jr. 2000). As reflected in first-generation performance-related pay schemes launched during this period, the firm’s motivation strategy was mainly development-based and typically aimed at the creation of a committed workforce (O’Reilly 1989; Baron and Kreps 1999).

Employer’s market (1990s – present). Although the issue of an employer’s market is more complex than may be considered within the scope of the present review, there is

evident to suggest such phenomenon in many parts of the world, especially outside North America and the U.K. Notwithstanding unemployment has fallen in 2004 in some areas compared to the 10-year average of 1992 – 2002 (e.g. from 8.1% to 5.6% in Australia, from 9.0% to 7.2% in Canada, from 7.0% to 3.9% in New Zealand, and from 7.4% to 4.7% in the U.K), on average, 50% of the Asia/Pacific region that had very high unemployment in 1993 remained in the same position in 2003. The equivalent figure is about 65% in North America, and 80% in Europe (OECD 2005a). These suggest that for many workers bargaining power has weakened or remained weak. This may be the case for years to come especially at “lean and mean” organizations where large-scale cost cutting has become a routine (Auer and Speckesser 1998; Kozłowski, Gully et al. 1999).

With ongoing organizational restructuring, mergers and acquisitions, and downsizing, it seemed inevitable that many employers would be in a hurry to streamline and make a significant portion of their workforce redundant. Against the backdrop of these sweeping and somewhat persistent changes, a different pattern of motivational design can be identified across a wide section of the economy (i.e., private, public, and non-profit) that no longer emphasized or invested as substantially as before in rewards. Instead, motivational strategies tended to stress the deterring effects of punishments such as termination and non-renewal of limited duration contracts (Sun 2001a).

As have many performance-related pay plans in this age been badly received (see Williams 1998), so has the motive behind them been seriously questioned (see Mitchell, Lewin et al. 1990). Indeed, it seems that the motivation strategy of the organization has shifted more toward a control based and often signals the survival of the fittest (Ingram and Clay 2000). Although events supporting the fundamental change from a development-based to a control-based approach to motivating employees seemed only widely publicized and documented in the business press (Tichy and Sherman 1993), their immediate relevance to the choice of theory for empirical study cannot be ignored.

For instance, if these events consistently suggest a “change of heart” of the employer from wanting to create a happy and productive workforce to streamlining and downsizing against the will and expectations of the workforce, would reinforcement and goal-setting techniques achieve the kind of effects proposed by the theories? And how

should empirical results that are based on theories assuming only benevolent motives of the employer be interpreted?

3.3 Research on Incentives in Chinese Industry

The purpose of this section is to review research that evaluates the extent to which reform policies of the 1980s and 1990s (as discussed in Chapter 2) succeeded in stimulating motivation and performance in Chinese industry. The widespread perception of state enterprises as being inefficient highlights the importance of this review. Nonproductive enterprise investment (Tsang & Cheng 1999) and managerial incompetence (Holz 2003) notwithstanding, tendencies that undermined enterprise efficiency and productivity at the individual level were rampant in terms of absenteeism, inefficient use of working time, reluctance to learn new skills, and high wastage of energy and raw materials (Holton, 1990; Zhu and Dowling, 1994; Warner 2001).

From a policymaking perspective, if reforms are to make further progress, the impact of earlier initiatives on rectifying undesirable enterprise and individual behaviors needs to be identified unambiguously. From a research point of view, the question of whether wage matters, which tends to be the focus of existing empirical work, should continue to be studied alone (rather than alongside employment issues) in order to properly assess the motivational impact of reforms also need to be answered.

Studies in this review. Although there is now a growing body of literature on human resource management in China, most of it derived from quantitative empirical studies and focused relatively heavily on multinational corporations (MNCs), joint ventures (JVs), and SOEs. Data were often obtained through interviewing and/or surveying managers but less so through workers themselves (Cooke 2005: 206). This seems to also apply to studies on incentives. As a matter of fact, apart from one individual-level empirical study by Sun (2000a), all other relevant studies I have managed to find involved firm level data.

Table 3.6 captures representative studies in the field between 1989 and 2004. While selected studies of motivation research (see Tables 3.1 – 3.4) and of PRP (see Table 3.5) in the foregoing sections of this chapter are representative of hundreds (and in the case of goal setting research, more than a thousand) of other studies in the field, studies in Table 3.6 represent a much smaller pool of research estimated to be in the order of dozens. Another problem is that, although empirical studies in this area seem to adopt sophisticated analytical procedures, many lack a strong theoretical underpinning, and are thus not able to adequately support their suggestions for the causal relationships found.

Moreover, there is an average gap of 8 – 12 years between the temporal focus and time of publication of the studies. Considering that the reforms have gone on for more than 20 years since the late 1970s and have had a profound impact on the nation's 100-million strong workforce, which has been continually substantially reduced (see Section 2.1 for a discussion), the scarcity of studies is a major concern. These unusual outcomes may be attributed to extremely high research barriers in Chinese industry, which will be further discussed under Research Strategy in Section 7.1.1. Meanwhile, let us proceed with the review of the studies.

It is important to note that, notwithstanding the potential motivational effects of employment reform, which involved “reform shocks” (Holz, 2003) such as nonrenewable contracts, competition-based employment, and massive layoffs, there does not seem to be any empirical study on the subject. This phenomenon might largely be attributed to the fact that the study of motivation in the West has traditionally been biased toward the investigation of pay and neglected the important role of employment.

Although dependent variables of the bulk of research on incentives in Chinese industry concern performance and especially enterprise and managerial performance, these studies are reviewed here for the same reason those involving worker performance (rather than motivation) are included earlier in the chapter – there has been a general lack of studies on the subject of motivation at both individual and firm levels, studies on performance thus seem the next relevant, albeit not the most appropriate, category of research that may shed light on the issue of motivation.

Table 3.6
Representative Studies of Incentives in Chinese Industry

Study	Antecedent	Consequence	Sample	Focus
Wong, 1989	Differentiated bonuses	Worker productivity	Case study	Income-increasing/production cost decreasing behavior
Jefferson & Xu, 1991	Non-performance-based bonuses	Worker productivity	13 SOEs & 7 COEs	Link between compensation and labor productivity
Groves et al, 1995	Managerial incentives	Enterprise sales and profits	> 600 SOE managers	Emergence of managerial labor market
McMillan & Naughton, 1996	Managerial incentives	Productivity improvement	769 SOEs	Managerial incentives
Zhuang & Xu, 1996	Bonus payments	Productivity and profitability	800 SOEs	Profit sharing
Yao, 1997	Incentives	Productivity	SOEs	Effects of bonus payments and labor quality
Hay & Liu, 1998	Bonuses	Cost-efficiency	386 SOEs	Effects of production autonomy and profit-related incentives
Nugent, Perrigne, & Qiu	Bonuses	Productivity	200 TVEs	Market competition and bonuses
Parker 1999	Wage increases	Productivity	20 SOEs	Nonproductive investment and wage drift
Shirley & Xu, 1999	Performance contracts	Enterprise productivity	> 400 SOEs	Failure of proper implementation and monitoring of managerial performance contracts
Yang & Han, 1999	Increased total wage bill	Profitability and labor productivity	300 SOEs	Unwarranted income expansion
Chen & Lin, 2000	CEO incentives	Firm performance	167 listed companies	SOE-turned shareholding companies
Coady & Wang, 2000	Incentives	Efficient allocation of labor	Earnings data	"Bonus sharing"
Sun, 2000a	Distribution of "Bonuses"	Work motivation	550 SOE/ JV workers	Egalitarian vs. differentiated bonus payments
Xu, 2000	Performance contracts	Enterprise performance	> 500 SOEs	Managerial incentives
Fleisher & Wang, 2001	Efficiency wage	Productivity enhancing behavior	442 SOEs, 200 TVE's	Profit-sharing
Lane, Feinberg, & Broadman, 2002	Bonus systems	Performance	Panel data	Effects of bonus systems and ownership types
Holz 2003	Incentives	Productivity	31 – 190 SOEs	Effects of competition and labor remuneration
Liu & Otsuka, 2004	Managerial incentives	Enterprise efficiency	108 SOEs & TVEs	Ineffectiveness of piecemeal reform of SOE management system

A logical approach to presenting the studies is according to the way they tie in with the reform objectives of rectifying undesirable behavior on the one hand and promoting performance on the other. Accordingly, the review is organized into two main themes: (1)

the effects of wage reform on profitability and performance; and (2) the unintended consequences of reform policies.

Effects of wage reform on profitability and performance. One theoretical issue that underlies much of the discussion of industrial profitability (or productivity) in the incentives literature is corporate governance. Before we proceed with a discussion of the studies in this review, it is necessary to acknowledge the complexity of the agency problem in Chinese industry: (1) managers act as agents of government bureaucrats, and (2) government bureaucrats act as agents of the State. In practice, control mechanisms are lacking in both instances, and incentive mechanisms for the agents are poor or non-existent (see Holz for a detailed discussion). This suggests that agency variables that may be readily measured in advanced economies are unlikely to yield any worthwhile results in the current setting. This helps to explain why such variables are seldom reported or measured in studies on incentives in Chinese industry.

The majority of representative studies reviewed here relate to the effects of wage reform policies, with seven focusing on bonus payments, six on managerial incentives, and two on the outcomes in work motivation and behavior. Since the beginning of wage reform and revival of bonuses in the late 1970s, scholars have been concerned with the extent to which incentives in Chinese industry mimicked those observed in market economies. Findings in general suggest certain positive effects of incentives and other reform policies but the significance of these effects seem to vary across studies, suggesting that some SOEs were more determined than others to revamp the entrenched egalitarian pay culture and replace it with managerial incentives and differentiated pay in the communist-turned socialist-market workplace.

Revival of worker bonuses. Studies pointing to the positive outcomes of revival of worker bonuses seemed to be relatively in abundance compared to those pointing to the defects in its actual implementation. For example, based on survey data of 13 SOEs and seven collective-owned enterprises (COEs) collected in 1987 in Wuhan, Jefferson and Xu (1991) found a strong link between worker compensation and labor productivity and concluded that the efforts of authorities to restrict wages, bonuses, and in-kind payments to workers have shown some success.

In line with this, Zhuang and Xu (1996) also found, based on a sample of 800 SOEs for the period of 1986 – 1991, that bonus payments to workers have positive effects on both total factor productivity and profitability, and that additional profits generated from improved productivity are greater than the bonus payments. Based on a dataset of 1980s enterprises, Yao (1997) found that profit sharing and bonus payment are correlated with improved labor productivity. Furthermore, results of Nugent, Perrigne, and Qiu's (1999) study on a sample of 200 large township and village enterprises (TVEs) for 1985 and 1989 suggested that bonuses and market competition enhanced productivity.

Using a panel data of 386 state manufacturing enterprises for the period 1983 – 1987, Hay and Liu (1998) found that, despite institutional constraints that distort the rational demand of the firm for input factors, reforms in production autonomy and profit-related bonus incentives did lead the firms to respond to both changes in factor prices in the directions predicted by cost minimizing theory and produce more efficiently. Fleisher and Wang (2001) also reported, based on an urban sample of 442 SOEs in 24 cities of 12 provinces and a rural sample of 200 TVEs in 10 provinces, strong indication of productivity-enhancing wage behavior among enterprises in all ownership categories.

Consistent with these findings, based on two large panel surveys on enterprises spanning most of the 1980s and 1990s, Lane, Feinberg, and Broadman (2002) reported that flexible labor market strategies such as those involving bonus payments seem to significantly enhance sales growth and labor productivity. Lastly, Holz's (2003) study of 31 – 190 SOEs for the period of 1986 – 1999 showed that at least throughout the 1990s, both market competition and labor remuneration were crucial in explaining profitability.

Encouraging these may seem, the positive findings concerning enterprise profitability should not be taken at face value for at least two reasons: (1) it is not clear as to how much of the incentives actually strengthened and the manner in which these incentives were distributed to have actually produced a positive effect on worker productivity (Sun 2000a); and (2) inequalities of profit distribution are commonplace in the Chinese setting due to pervasive price distortions and the lack of a level playing field for enterprises to compete one against another (see Kueh 1999).

Managerial incentives. In most Chinese enterprises, managerial salary seldom depended on entrepreneurial ability, managerial responsibility, or past and current performance; instead, it may depend on seniority, educational background, and professional titles (Chen and Lin 2000), and positioning in the political hierarchy. There has been increasing recognition among researchers, practitioners, and policy makers in China that in order to improve the management efficiency of state enterprises, the role of chief executives as entrepreneurs needs to be duly taken into account (Liu and Otsuka 2004). Change in this aspect, albeit slow, seems to have taken place in a selection of state and publicly owned companies. For example, based on a sample of more than 600 enterprise managers for the period of 1980 – 1989, Groves, Hong et al (1995) found that managerial contracts and were linked to enterprise sales and profits.

Furthermore, McMillan and Naughton (1996) cited total labor productivity growth of an average annual rate of 4.5% for a sample of 769 enterprises in four provinces between 1980 and 1989, and attributed the improvement to three factors: (1) changes in the way the industrial bureaus controlled the state-owned firms; (2) changes in the firms' internal organization; and (3) the "strengthening of managerial incentives". Based on a panel dataset of more than 500 SOEs, Xu (2000) found that performance improved with various reforms policies such as appointing new managers and increasing competition and enterprise autonomy in wage determination. In addition, Chen and Lin's (2000) study of a sample of 167 listed companies showed a positive relationship between sales growth and long-term investment with CEO's total compensation.

These positive results may to a great extent be directly attributed to the increased adoption by industrial bureaus of the "managerial selection by auction" system, which resembled a competitive leasing procedure by which the incumbent is chosen on the basis of promised profit delivery, merit of the business proposal, and the bidder's management track record. The fact that the incumbent is required to sign a management contract and put up a security deposit that would be automatically forfeited if he failed to perform suggests that punitive measures are now being used in Chinese industry to drive motivation and performance (see Groves 1995 for a discussion).

The encouraging findings about managerial incentives are however not to be taken as the rule, for there are studies that reveal contradictory findings. The value-added of these studies is that they highlight the discrepancies of the current system that have not been accounted for in other studies. For example, Shirley and Xu (1999) found, on the basis of a sample of more than 400 SOEs, that managerial incentives do not improve productivity and may even reduce it when managerial performance contracts are not executed with sufficient force and determination by local governments and governing bodies. As the authors rightly pointed out, while China seems to be a good place for the study of managerial performance contracts because no country has ever used them on such a scale or with such a variety of enterprise (mostly in the competitive sector), it seems that the political economy of performance contracts merits further study.

Furthermore, based on the panel data of 108 SOEs and TVEs for the period of 1995 – 1999, Liu and Otsuka (2004) found no evidence that the inefficient management systems of SOEs have been improved by (1) changes in the system of reward to chief executives and by (2) the reform of the enterprise system from the state-owned system to shareholding companies and joint ventures. Addressing the sensitive but nevertheless practical issue of state control of industry, the authors' main criticism is that piecemeal reforms are far from being adequate.

Work motivation and behavior. Regardless of the fact that reforms were directed as much to the enterprise as to individuals in them, there have been but a few studies on assessing the effects of reform policies on individual motivation and behavior. Two studies are noteworthy. An earlier case study by Wong (1989) found, on the basis of a Shanghai electronics factory, that workers were responsive to the factory's bonus system to the extent that both productivity and quality of work have improved. The key, as argued by the author, rests with the bonus allocation criteria of having contributed toward: (1) increasing the income or decreasing the cost of production; (2) quality excellence; and (3) fulfillment of performance targets.

As reviewed up to this point, previous empirical papers seeking to establish a link between incentives and improved productivity or performance at Chinese enterprises almost always found a relationship of the direction predicted by motivation theories. But

none of them directly tested the fundamental motivation hypothesis that wage increases raise worker motivation. To fill this gap, Sun (2000a) made a first attempt to examine the direct relationship between pay and motivation based on a sample of 550 workers collected in 1997 at fast-moving consumer goods joint ventures of two SOEs in Beijing. Although motivation is higher among workers of the incentive or pay-for-labor scheme vis-à-vis those of the egalitarian pay scheme, only 19% of the variance in motivational outcome were explained by expectancy and equity theories.

These findings helped to reveal two critical issues concerning the current state of research on incentives: (1) existing theory did not capture the complex realities of reform and subsequently fell short in explaining motivation in the current context; and (2) as generally considered by scholars (see Cooke 2005 for a discussion), wage reform on its own had little impact in motivating the workforce. The first issue highlighted the need for a more suitable research framework, and the second, the possibility that employment reform had a more powerful impact on work motivation than wage reform.

Chinese language studies. Whether organized by unions or academic researchers, local studies on incentives tended to be taken on the form of employee satisfaction surveys with single-item variables and reported mainly on descriptive statistics rather than any theory-based causation between variables. The contribution of these studies lies perhaps most importantly in their revelation of the complexities of the research environment. Generally speaking, these surveys seemed to have been modeled after some Western textbook, which was becoming a common local practice. At the same time, however, the studies also explored issues presumed to be insignificant in the West but were in effect of concern to individuals during reform. In particular, like many other local studies, Gan, Tang, and Wu's (1997) survey in 11 SOEs inquired about the administration of "rewards and punishments" (*jiangcheng*). The issue of equity in the distribution of rewards and punishment was empirically explored for the first time in Sun's (2000a) study reviewed above (see Section 2.2 – *Uncertainty and Risks under "Deepening of Reforms"*).

Other state-commissioned studies, such as Ma's (1994) edited series of case studies of the "National Team of 100 Large and Medium-Sized Enterprises" (*quanguo baijia qiye*) have also proved valuable in capturing the reform process at various key enterprises.

Unintended consequences of wage reform policies. Four studies in this review relate to the unintended consequences of China's wage system in transition. The impact of such consequences is believed to be more wide-ranging and substantial than that of new pay schemes in Western organizations in that the former involves not just the enterprise but also industry and is thus likely to have macro-economic ramifications.

In particular, the phenomena of egalitarian bonus distribution (or "bonus sharing") and the closely related phenomenon of excessive labor remuneration are believed to be attributable to enterprise freedom in wage outlay and internal wage distribution (*neibu shouru fenpei*) granted by the state in 1985 as part and parcel of enterprise reform to enhance enterprise independence, rationality, and efficiency (Tsang and Cheng 1999). These undesirable outcomes remained a major concern during the earlier reform period up to at least the mid-1990s, when the State began to exert substantial pressure on enterprises to be economically self-sufficient.

Bonus sharing. Egalitarianism has long been recognized as a unique Chinese societal culture and continues to be a taken-for-granted assumption of fairness and equity in rewards (Cooke 2005). It is thus not surprising that bonuses were widely reported by some of the most authoritative local authors (e.g., see Liu and Lian 1994) and in empirical studies by others to have been shared more or less equally by individuals and have subsequently evolved into a *de facto* wage supplement for all. For example, examining the individual earnings data of the city of Liaoning for the years 1986, 1988, and 1990, Coady and Wong (2000) found distribution of bonuses in the form of a wage supplement at SOEs. On the contrary, they found evidence of differentiated bonus payments at COEs, which were by nature subject to more competition in factor and product markets.

Unwarranted income expansion. Parker (1999), who used data from fieldwork collected from a sample of 20 heavy-industry SOEs in the Nanjing for the period of 1980 – 1992, found that regardless of the fact that productivity changes were not correlated with labor and did not rise significantly over time, wages continued to rise faster than labor's value of marginal product. In line with these findings, unwarranted income expansion was invariably proposed as an explanation for "disappearing profits" in SOEs (see Holz 2003

for a review) and for macroeconomic instability (see, e.g., Gang and Woo 1996; Sachs and Woo 1997). Among other related studies, the research by Liu and Lian (1994) and Lin, Cai, and Li (2001), and by Yang and Han (1999) are worth particular mention in terms of their ability to highlight policy loopholes and conflict in policy targets that were believed to have led to some of the unintended consequences discussed above.

Non-level playing field competition. The issue of non-level playing field competition in state industry is neither new nor unusual in China's dual-track, socialist-market economy where the visible hand of the state is seen on occasion to undermine workings of emergent market forces initiated by reform. In relation to the implementation of performance-related wage bill, for example, performance targets for individual enterprises were set by the state against previous performance. As a result, well-performing enterprises came under a lot more severe pressure than their poor-performing counterparts to out-perform themselves. While the policy had been devised with the interest for poor-performing enterprises in mind, it has also inevitably contributed to the inequitable phenomenon of "the efficient cow gets all the whipping" (*bianda kuainiu*) (see Liu and Lian 1994).

There is ample evidence in the economics and industrial psychology literatures (e.g., see Milgrom and Roberts 1992; Mitchell, Lewin, and Lawler 1990) on the outcome among individuals and teams in quota restriction and the withholding of effort for fear of being unfairly penalized or shortchanged for having performed (too) well. Though not empirically documented, it is reasonable to expect that the "efficient cows" in Chinese industry would have responded similarly detrimentally. In sum, as Lin, Cai, and Li (2001) noted, the lack of standardized performance targets was unfavorable to level-playing field competition, and thus counterproductive to the progress of state industry.

Conflicting policy targets. Based on a sample of 300 large and medium-sized SOEs for the period of 1984 – 1998, Yang and Han (1999) found the annual growth rate of the total wage bill averaged during 1984 – 1990 was 18.5% – some 2.3 times higher than that of the period between 1979 and 1983. They also found that the reforms fell short significantly of targets in terms of improving labor efficiency and controlling wage growth, which suggested that the policy of linking enterprise performance to total wage

bill, though sound in principle and strategy, had largely failed in implementation. This was believed to have produced the effect of unwarranted wage income expansion or “wage drift”, which in turn fuelled inflation. According to the authors, these unintended consequences were likely to have been caused by the conflicting policy targets for wage growth to fulfill three roles simultaneously: (1) realize workers' initiative; (2) determine the ratio between aggregate consumer demand and investment demand; and (3) compensate for increases in the cost of living.

3.4 Discussion and Conclusion

Limitations of existing theory. I began this chapter with a review of work motivation literature with particular reference to expectancy, goal setting, equity, and reinforcement theories. In view of a broader and more complex work setting than the one for and in which relationships had been conceptualised and tested, I reassessed the theories' validity by pointing out exceptions to their respective core predictions and identified issues of causal uncertainty and conceptual ambiguity among these theories. Together these concerns formed the basis of my reservations about the theories' structural validity and their relevance and applicability in my research setting.

The aforementioned issues seem to not just remain unresolved but become magnified in the burgeoning research on performance-related pay. In particular, it appears that the pay scheme had been rather more conveniently accorded with expectancy, goal setting, and behavioral modification justifications than rigorously supported with theoretical specifications as to the conditions that are necessary and sufficient for the pay scheme to produce their intended effects in the process of change.

Not surprisingly then, the true impact of performance-related pay schemes remain “sadly under-researched” (Marsden and Richardson 1994). Above all, it seems that the transition to pay for performance systems implies deeper changes in organizational and cultural values (OECD 2005b) than the aforementioned theories could capture. Similar conclusions may be drawn concerning the use of incentives in Chinese industry.

What drives motivation, if not incentives? As generally considered by scholars and concluded in a recent review, China's wage reform and its incentives had "little real impact in motivating the workforce, rewarding the good performers or enhancing the comparability of public sector pay to that of other sectors" (Cooke 2005: 68). Since an organization's "reward and punishment system" comprises of two distinct components – wage and employment policies, if incentives were not a (or the key) determinant, could the shift from lifetime employment to limited duration contracts be the real motivator?

Given that observed links in incentives and enterprise performance was out of tune with the macroeconomic phenomenon of unwarranted wage expansion in Chinese industry, and existing theories appeared inadequate in explaining motivation, it became necessary to assess the complexities that may shed light on the non-accountable factors in existing analyses. Of particular importance are (1) the political economy in which reform policies of linking enterprise performance to total wage bill and of managerial performance contracts are executed and monitored; and (2) the transitional workplace that is embedded in conflicting forces of communist-style entitlement on the one hand and market-style competition on the other. These two categories of concerns are critical to the understanding of effects of workplace reforms. Conceptual frameworks accounting for the complexities of uncertainty and risks therein thus seem to merit development.

Implications of shift in HRM. Amidst pressures of intensifying global competition, rapid technological changes, and increased resources constraints, the shift of emphasis in human resource management from the "pursuit of the happy/productive worker" (Staw 1986) to the "call for adaptive flexibility" (Lane 1991) and the "more aggressive and enthusiastic pursuit of managerial policies and prerogatives" (Deery and Mitchell 1999) seems certain. Whether it is in relation to the Western workplace and/or the Chinese organization, the critical question is: "*Could the forces behind motivation in today's workplace be at least partly driven by punishment and the threat of job loss?*"

This issue will be dealt with in subsequent chapters of the thesis; first (1) in light of empirical support from other social sciences disciplines concerning employment and compensation risks for all; then (2) with the development of a proposed model based on the extended literature review on motivation under uncertainty and risks.

Chapter 4

Uncertainty and Risks

This chapter consists of four sections. Section one considers the nature and extent of employment uncertainty and compensation risks in today's workplace. Section two reviews the literature on employment and compensation risks. In view of the complexities of risk issues facing workers today, Section three assesses how existing work motivation theory fares under uncertainty and risks. And section four concludes.

4. Uncertainty and Risks

During simpler times in post-war America, classical models of motivation, which presume stability and predictability of environmental events, had served theory and practice well. However, due to the need to respond to more sophisticated and rapidly changing customer needs, intensifying global competition, and internal imperatives to cut costs and increase productivity, today's task and overall organizational environments are becoming not only increasingly complex and demanding but also of a more unstable and unpredictable nature (see Scott 1976 for a historical review of the organizational environment). Such task and organizational contexts are theoretical anomalies – they fell outside limits of the classical models of motivation and require a new model which projects the uncertainty and risks embedded in them.

As discussed in Chapter 3, existing models of motivation were proposed against the background of what Nord (1976) referred to as “unprecedented levels of economic growth and psychological comfort”. For more than 30 years these models had seemed a reasonable reflection of the relatively more structured and controlled task and organizational environments of the American corporation. But what was its strength proved also to be its weakness – the emphasis on the structured, the controlled, and the rational aspects of work motivation and behavior shrouded the values upon which the theories themselves rested. Failure to discern these values caused two related errors in the analysis: (1) ignoring change in the context in which motivation theory is being applied, and (2) treating the current economic condition as one of growth and holding on to the unrealistic optimism that the organization's goal is the “pursuit of the happy/productive worker” (see Staw 1986).

The challenge of many organizations today is not growth but preservation or “minimization of decay” in the face of competition (Nord 1976: 708). Pessimistic this position may seem, it certainly applies to the reforming Chinese industry, where enterprises had to go through the transition from being state-subsidized to self-financing (McMillan and Naughton 1996). This view is also consistent with that of the organizational change literature, which clearly demonstrated that the current organizational context is one of uncertainty and risks (Drache and Gertler 1991).

4.1 Reality of Uncertainty and Risks in the Workplace

The reallocation of risk is the central dynamic driving today's internal labor markets.

Jacoby (1999: 10)

Development during the past quarter of a century has given rise to the sense that we have entered into a new economic order (Ashkenas, Ulrich, et al, 1995; Carnevale, 1991; Drucker, 1992; Huey, 1994; Mirvis, 1993). It is claimed that the "traditional" ways of doing business are no longer adequate to maintain high performance (Nadler, Gerstein, et al, 1992) and to survive in an increasingly competitive and ever changing economic environment (Hammer and Champy 1994; Dunlap 1996; Volberda 1996). Paradoxical it may seem, the new, generally agreed-upon road to outstanding performance in an increasingly knowledge-based economy is with less human capital. As such, organizations must be as streamlined and flexible as possible. But whether such "contemporary" strategies truly lead to enhanced organizational performance is unclear (Hilmer and Donaldson, 1996).

Recent debates about the nature of economic changes have reached little consensus on whether or not these changes have been positive or negative for workers (Rubin and Smith 2001). On the one hand, many pessimistically viewed massive downsizing and the displacement of previously secure, skilled, and unionized workers as portents of an economy that provides shrinking opportunities, declining wages, and insecure future for the majority of workers (Bluestone and Harrison 1982; Perrucci, Perrucci et al. 1988; Rubin and Smith 2001). By and large, scholarly research on these changes provided little evidence for optimism and challenges notions of change as both linear and progressive (Rubin and Smith 2001). As a matter of fact, productivity resurgence that is built on open-ended downsizing and real wage compression were criticized as ultimate recipes for industrial extinction (see Brown 1997).

On the other hand, the phenomenon of large-scale downsizing and workforce restructuring was argued by optimists such as Schumpeter (1976) as characteristics of capitalism's "gales of creative destruction" that would help create a new era that seeks and rewards skilled knowledge workers and provide them with interesting, challenging,

and flexible work (see Rubin and Smith 2001 for a review). If careers were to be considered purely in terms of the development of a person's skills, capacities to learn, and self-identity, that is, personal qualities that grow best under conditions of challenge, then today's turbulent environment provides far greater career development opportunities than one ever would have imagined in the heyday of the big blue-chip firms (Hall and Mirvis 1995).

It was further argued, based on theories of growth and economic progress, that since workers are no longer attached to a single organization throughout their working lives, they are able to add to their skill repertoire and move on to the next, growth opportunity (Arthur and Rousseau 1996). What can be settled, however, is that we live in an "age of insecurity" (cf. Beck 1992; Elliott and Atkinson 1998) and risk and instability have become defining features of contemporary work life (Heery and Salmon 2000).

Globalization and the call for flexibility. There is a widespread agreement that global competition imposes a flexibility imperative on firms and institutions if they are to survive in the long term (Benson, Debroux et al 2000). As globalization and intensifying competition result in the universal call for economic flexibility (see Piore and Sabel 1984; Stafford 1989; Drache and Gertler 1991; Porter 1991; Bélanger, Edwards et al. 1994; Van den Berg, Masi et al. 2001), the sign of times seems to be a translation of such call into labor market flexibility (Osterman 1988; Casey, Dragendorff et al. 1989; The Economist 1994) and wage flexibility (e.g., Lindbeck and Snower 1988; Blanchflower 1991; Forslund 1994; Van den Berg, Masi et al. 2001).

According to the neoclassical economic perspective, wage flexibility is the most effective means of generating allocative efficiency in the labor market under highly competitive conditions. As a matter of fact, it is argued that a certain amount of employment insecurity is necessary to induce the requisite response to wage flexibility. Conversely, excessive labor market and/or income security renders workers more resistant to such flexibility (see Van den Berg, Masi et al. 2001 for a discussion).

Two essential dimensions of labor market instability are instability in employment and instability in earnings (Turner 2001), whereby economic risk is being transferred

increasingly from employers to employees through contingent employment and remuneration, thus promoting the kind of employment relationships that is characterized by opportunism, mistrust, and low commitment (Heery and Salmon 2000). Despite the uncertainty and risks involved in applying the flexibility model in transitional and socialist economic settings, there is evidence that Chinese enterprises are beginning to pursue similar strategies, with the support of the state, to increase productivity and competitiveness (see Child 1994; Warner 1995; Benson, Debrox et al 2000).

The “insecurity thesis”. A key proposition of a coherent set of social studies on recent change in employment relations, collectively referred by Heery and Salmon and their contemporaries as the “insecurity thesis”, summed up the predicament of workers: “Employment has become more insecure and unstable in the sense that both continued employment and the level of remuneration have become less predictable and contingent on factors which lie beyond the employee’s control” (Heery and Salmon 2000: 2). These and other associated claims constituted a deeply critical assessment of uncertainty and risks facing today’s insecure workforce.

A sensible starting point for understanding their potential impact against the backdrop of an insecure workplace is to explore the two dimensions along which insecurity is defined: (1) the increased risk of involuntary job loss and unpredictability of earnings which can be measured through a combination of indicators, including job tenure, compulsory redundancy, the incidence of contingent contracts and the use of variable pay; and (2) the cognitive and affective attitudes of employees toward the uncertainty and risks associated with employment and earnings (see Heery & Salmon, 2000).

The following subsections – employment risks for all and compensation risks for all - represent objective assessments of the extent of employment and compensation risks in today’s workplace that is in line with the first defined dimension of insecurity quoted above. These discussions should help lay a foundation for the development of a theoretical perspective that is capable of capturing the cognitive and affective attitudes of employees that are highlighted in the second, above-defined dimension of insecurity.

4.1.1 Employment Risks for All

“Everybody is going around on pins and needles wondering if they'll be the next. We are all reminded of what's happening every day. We have rows and rows of empty cubicles and desks.” (An AT&T employee quoted on in Time, February 16, 1987: 38).

Over the past two decades, the most dramatic changes in the labor market have been marked by a notable rate of unemployment and increased insecurity with concerned expressions of fear by employees and self-employed workers alike (Beynon 1997). While employment risk traditionally refers to the chances of losing the current job involuntarily and of securing a new job (Gregg, Knight et al. 2000), it may be extended to refer also to the risk associated with underemployment. In light of the growth in contingent and casual work, this extended interpretation is consistent with Beck's prediction about the merge of the future into “a new system of flexible, plural, risky forms of underemployment” (Beck 1992: 144).

In the 1980s, there was sufficient evidence to suggest that the U.S. workforce was faced with a massive scale of workforce reduction. Kochan, Katz, and McKersie (1986), in particular, stated that “threats of large employment losses” had become the environmental pressures that set the stage for significant changes in collective bargaining in industry. Toward the turn of the century, as unemployment rate has steadily decreased to an encouraging four per cent (ILO 2001), the extent of workforce reduction and fear of job loss may no longer apply in many sectors of the U.S. economy.

The same appears true for the U.K., as large-scale workforce reductions in the 1980s and 1990s seemed to have subsided and unemployment rate dropped to a low five per cent in 2000 (Dickens, Gregg et al. 2003). But with low levels of employment protection in both countries (OECD 1999), which gives firms increased agency to not employ individuals on permanent, open-ended contracts in view of economic uncertainty, workers are set to remain vulnerable to the risk of unemployment (Bergström and Storrie 2003). Indeed, even for Japanese firms, which were hailed for their tremendous success especially in the 1980s due, among other factors, to its lifetime employment policies have begun to bow to the pressures of flexibility in labor management (see Oaklander 1991).

Unemployment figures. Given the current economic conditions, unemployment seems relatively under control in the U.S. and U.K. But employment risks seem to have magnified around the globe between 1990 – 2000, with high, (near-) double-digit unemployment rates in: (1) most other advanced industrialized countries such as Belgium (10%), Finland (11%), France (14%), Germany (9%), Greece (17%), Italy (16%), and Spain (23%); (2) most Latin American countries such as Argentina (14%), Brazil (12%), Columbia (23%), and Panama (17%); (3) most of the Middle East; and (4) most of Africa (ILO 2001).

Furthermore, during the same 10-year period, in most transitional economies such as Bulgaria, Croatia, Czech Republic, and Poland, unemployment rates have all dramatically increased to double-digit figures from the former long-term status of (near-) full employment (see ILO 2001). Considering that vast “hidden unemployment” typically existed in transitional economies (Woodward 1995), actual unemployment might have been a lot higher. In China, for example, urban unemployment at the turn of the century was reported at less than six million or about three per cent according to official figures (see SSB 2003). But actual (registered and non-registered) urban unemployment for the same period was estimated at 20 – 22 million or nearing 11% by local experts (e.g., Wang 1999; Cai, Wang et al. 2001).

With an estimated 30 million or at least one third of China’s state industrial workforce being admittedly redundant (Wang 1999), it is expected that an increasing number will be collectively displaced and laid off at an accelerated speed during “deepening of reforms” (Tang 1998; Sun 2000b; Holz 2003). Structural unemployment is also expected to rise following the nation’s WTO accession as millions of farmers are expected to transfer to non-agricultural sectors (Zhai and Wang 2002), further magnifying the employment risks for all.

Emergent employment practices. Another way of assessing employment risks is by examining the emergent employment arrangements at the firm level such as “lean and mean” workforce restructuring strategies that are driven by functional flexibility (i.e., the reorganization of task structures and production systems) and numerical flexibility (i.e., the reduction in employment security) (Macías 2003). The latter is often a

consequence of the reduction of hierarchical layers positively framed by organizations as "strategic layoffs", "rightsizing" or "delaying" (Howard 1995). A frequent byproduct of these activities is the "export of uncertainty" to individuals through subcontracting and other forms of precarious employment (Wallulis 1998).

Precarious employment. Precarious employment (Allen and Henry 1996) refers to nonstandard work (Beynon 1997), destandardized work (Beck 1992), and employment of a part-time nature. They represent a trend which is said to be reversing the tendency to de-casualize employment in the earlier part of the post-war period (Brown 1997). What is important to note is that although their occupants are on part-time, rather than full-time or permanent contracts, nonstandard seems to make up a large part of the "core" workforce of the organization in which they are employed (Beynon 1997).

It is difficult to demonstrate unambiguously the absolute and relative increase of those engaged in non-standard work, but Hutton (1995; 1996) suggested that 30% of adult workers in Britain are in some form of nonstandard or insecure employment. Such an estimate would have to include those in jobs that are nominally of indefinite duration but recognized by their occupants to be insecure, but is probably a better reflection of the extent of insecurity of employment than narrower definitions provide (Brown 1997). In other developed countries such as Germany, the Netherlands, Spain, and Sweden, among the growth of precarious employment, limited duration contracts (LDCs) were also reported to be replacing the more stable, traditional employment arrangements at a considerable rate (Bergström and Storrie 2003).

Overall, precarious employment may also be more apparent in deindustrialized societies where information and communication technologies (ICT) as a sector has emerged, creating a new labor market through the swift advance of technologies and open borders of global competition (ILO 2001). In this sector, the mode of long-term employment with one firm is said to be a thing of the past and is replaced by a "Hollywood model", whereby individuals who were once employees are now contractors or entrepreneurs, working for multiple employers, changing jobs frequently, using online global networks as a talent agency. While integrated global markets of this kind could generate jobs, they also create a high degree of vulnerability due to rapid spillover effects through ICT, as

occurred in the capital, equity, and currency markets in Asia, Brazil, and the Russian Federation in the late 1990s (ILO 2001).

As the workplace is increasingly populated by a contingent workforce of part-time and temporary workers, independent contractors, and other workers employed in transient relations with their employers (Cornfield, Campbell et al. 2001), the growth in unstable work inevitably increases the risks of employment for all workers (Belous 1989; Tilly 1996; Rubin and Smith 2001).

4.1.2 Compensation Risks for All

As discussed in the preceding section, economic recession, global competition, and deindustrialization have had organizations trimming staff, reducing hiring, and making more use of the contingent workforce. In addition to their impact on employment instability, these environmental forces have heightened the pressure for organizations to adopt new compensation policies as a catalyst for change and particularly in “correcting” the entrenched entitlement attitude (Wilson 1995; Compensation and Benefits Review 1996) and risk averse mentality of employees (e.g., see Gross and Duncan 1999).

Various contextual changes – such as the pattern of employment, government support for particular initiatives to encourage financial participation, and the decline of collective bargaining – have given employers an increasing freedom in determining both the composition and level of remuneration (Brown and Walsh 1994). In particular, the decline in unionism means egalitarian union wage policies are being increasingly replaced by higher pay dispersion (Metcalf, Hansen et al. 2001), thus increasing compensation risk for all.

At the same time, the new freedom has allowed pay determination to be increasingly linked to the performance of the individual company or business unit, the team or work group and, inescapably, the individual employees. New approaches include person-related as opposed to job-related pay (Gomez-Mejia and Balkin 1992; Mahoney 1992),

more decentralized pay determination systems (Jackson, Leopold et al. 1993; Murlis 1996), more flexible benefits schemes (IDS 1991), and perhaps most significantly, more “variable” or “at risk” pay (CBI 1994/95).

“New Pay”, More Risks

The key development in the use of more contingent pay systems, known collectively as the “new pay” movement, has dominated the prescriptive pay management literature (see, for example, Balkin and Gomez-Mejia 1987; Meyer 1987; Mahoney 1992; Armstrong and Murlis 1994; Lawler 1995; Zingheim and Schuster 1995a; Zingheim and Schuster 1995b) since the 1980s (Heery 1996; White 1996). Among its recommendations for pay to be aligned with ongoing changes in business strategy rather than simply left to union or legislative pressure, is the newly proclaimed function for compensation systems to reinforce flexibility and responsiveness to market forces.

It is often claimed by employers that aligning employees’ pay to “value creation” breeds a sense of shared destiny (see McNutt 1991). But since outcome measures such as profits or share values may have little to do with work performance even at the senior level of an organization (Fernie and Metcalf 1998), the outcome may simply be a heightened sense of uncertainty and insecurity. As a new “way of thinking” (Lawler 1995), the new pay calls for the use of all possible “ammunition” – base pay, variable pay, and indirect pay – to hit the proper performance targets (see Schuster and Zingheim 1992 for a review). In economists’ parlance, more pay is “at risk” (Jacoby 1999).

The growing wage insecurity and instability has become a feature of the restructured American workplace as managers are increasingly thinking of labor as a variable rather than fixed cost and putting more pay at risk (Wysocki 1995). As today’s businesses take a bigger risk in producing products and services that will have increasingly shorter life spans, this risk is being transferred to employees in the form of variable pay that replaces traditional merit raises or Teflon-coated reward that has dominated compensation plans for the past 30 years” (Davis 1994).

Among the more aggressive devices of employers to transfer risk to the employees, as more extensively reported in the business press than in the academic media, are the practices of broadbanding (for example, see Kenneth 1992; Zingheim and Schuster 1995a; Armitage 1997). Broadbanding refers to the use of a few, wide salary ranges or “bands” to flatten organizational structure and reduce the number of jobs (Zingheim and Schuster 1995a). It replaces the traditional, rigid salary hierarchies that proceed by small steps and allows salary increases without having to recreate junior or middle management layers or promote the incumbent. Under such a system, a person might stay in one pay category throughout an entire career with the firm (Kenneth 1992; Murlis 1996; Armitage 1997).

Another controversial device that is becoming increasingly commonplace, albeit being harshly criticized from an ethical point of view, is the practice of regrading. Regrading involves the revamping of the pay scale by inviting existing staff to reapply for their own jobs under a new pay structure that offers less protection and more instability (Armitage 1997). The emergence of such a practice does not only mean that employees can no longer take their existing job or pay statuses for granted, but also gives out a strong message that no one is being protected from the status quo. This message is reinforced by the application of variable pay not just among senior executives or sales staff but all functions.

Typically an organization may have a variety of different plans, each uniquely suited to different employee groups and/or functions. The trend is to direct incentives to specific classes of employees – e.g., incentive stock options for the CEO, cash bonuses based on profits for managers, incentive plans for the sale staff and gainsharing for production line workers (Abbot and Kleiner 1992). The trend is also toward “portfolio” management in which pay plans are divided into regions. Within regions, pay scales are divided into categories of start-up, growth, revitalization, and even termination. It comes down to being flexible (Compensation and Benefits Review 1996). As such, the portfolio approach enables the organization to target specific pay plans to the roles and tasks of employees consistent with the overall competitive strategy of the firm. From the perspective of risk reduction, it also helps to make sure that no one can be insulated from the risks and fortunes of a challenging marketplace (Wilson 1995).

Pay variability and unpredictability. One element of the trend toward more flexible pay systems that are more strategically aligned with complex, changing business environments (Heneman, Ledford et al. 2000; Lawler 2000) is to link pay and performance more tightly and increase the variability of pay (Deckop, Merriman et al. 2004). But variable pay plans are by their very nature at risk (Wilson 1995). This means that the payout can go up, and crucially, down (CBI 1994/95). In the worst scenario, payout may not even occur. As a matter of fact, this is an ordinary event among an increasingly number of Chinese enterprises that have incurred losses and subsequently large amounts of back-pay. Although one may argue that variable pay can offer workers the opportunity to share the good times, the problem is that by default they have to also share the declines.

The desirable qualities of earnings are quantity and security, the latter representing a dimension of supreme importance to many (Lane 1991). The outlook for both the quantity and security of earnings, however, seem poor. As a matter of fact, as presented below, there is strong evidence to suggest that today's workforce is increasingly dealt the blow of not just variability in pay as is manifested in the form of variable pay and reduced pay increases but perhaps more frequently, wage freezes and pay cuts.

In the U.S., for example, more than 11% of the organizations included in a survey conducted by Coopers & Lybrand survey of 1,000 companies in 40 industries had a pay freeze in 1992 and many were reported to have increased consideration of alternative pay-for-performance plans such as gainsharing, skill-based pay, and small group incentives. Also, all levels of employees received lower annual pay increases in 1993 than they did in 1992. As a matter of fact, the new pay guidelines averaged 4.6% to 4.7% for non-management employees and only 4.9% for executives, the lowest figures in 20 years (Williams 1992).

This is not all because today's workers are also likely to find themselves at an increased level of risks at the operational level. For example, workers whose performance cannot be defended by straightforward, quantifiable performance measures (as would be the case with most non-executive and non-sales positions) are exposed to risks of non-

standardized and therefore continually re-definable and revisable performance targets and of subjective judgment in the process of evaluation.

What magnifies the risk factor is the trend toward pay delegation in both the private and public sectors whereby divisions and units within an organization are being allowed more and more autonomy and flexibility in pay plan design and wage determination at the local level (Murlis 1996). In fact, pay delegation has been a prominent and intensified feature in China's wage reform policies (Sun 2000a). The fact that the process of change in the design and distribution of pay is no longer as cumbersome and bureaucratic as before means that changes can be swifter, less predictable and more frequent, thus further compounds the risks for employees.

While organizations endeavor to transfer more risk to employees through "new pay", shareholders as a powerful economic actor are seeking at the same time to pervert threats to their security and reduce their own risks. This is regrettable because unlike the organization and their shareholders who are in a stronger position to spread their risks, most employees are dependent on their remuneration and have a diminishing role in influencing its outcome (Blair 1995). Despite the rhetoric about employee involvement, partnership, and "mutual gains" that flow through the new pay literature, it is possible to discern a fairly hard-edged set of proposals for transferring the risks inherent in economic activity from those who are powerful to those who are less able to bear them (Heery 1996).

According to the American Productivity & Quality Center, 75% of employers now use at least one form of nontraditional pay plan, and about 80% of these plans were adopted in the past five years. Most of the plans share two traits: (1) They put more of each employee's pay at risk; (2) they link that pay more closely to performance. Incentive pay coaxes workers to produce more and lets compensation costs rise and fall with the company's fortunes (Perry 1988). This makes variable pay more attractive to employers than to employees because it brings remuneration more in line with the employers' "ability to pay" (CBI 1994/95).

The fact that variable pay allows organizations greater flexibility and control over labor costs by the shift of risk to the employees (Bartol and Locke 2000) helps to explain why the compensation approach has spread from Fortune 100 to Fortune 1000 companies over the past two decades (see Marshall 1995), and from the private sector to the medical profession (e.g., see Hagland 1997) and various departments and agencies of the civil service (IRRR 1994; Murlis 1996).

As pointed out by Heery (1996), the new pay approach inevitably increases employee risk in a number of ways. First and most obviously, it does so by seeking to reduce the proportion of total remuneration comprising consolidated, base salary and guaranteed benefits in favor of bonuses and other contingent payments. Second, it sets out to straightforwardly penalize employee noncompliance. In so doing, it restricts employee freedom to gauge one's effort level according to the attractiveness of extra rewards, thus reversing the traditional pay management thinking of making workers work harder by way of inducement. Third, even if employees subsequently become more compelled to meet performance expectations, an issue remains not so much pertaining to objective productivity measures but "soft" performance measures that focus on elements of quality and customer value (see Schuster and Zingheim 1992). This is an area where workers are perhaps dealt the hardest blow of, if not also confusion about, uncertainties and risks in relation to pay.

Examples are various forms of contingent pay that are subject to ratings of peer appraisal and team work, of customer satisfaction and retention, and of repeat business and corporate performance; and performance indicators that are not feasibly or readily measurable, or that require the employee to support a means to an end that is against his work ethics or normative belief. These "multi-source performance measures", as new pay gurus Schuster and Zingheim coined them, are likely to generate a substantial level of uncertainty and risks because they are subjective, susceptible to influences beyond the individual employee's control, and are subject to change without notice.

Risks of decreasing benefits and pensions. The demographic shifts and globalization processes are reconfiguring the temporal, spatial, and social organizations of work and are redefining employment relationships, including patterns of risk and risk bearing

pertaining to employment and pensions (Shuey and O’Rand 2004). As companies strive to be more competitive and get more for less from a downsized workforce, many have cut back on health benefits, pensions and retirement health care coverage (Hall and Mirvis 1995). In the U.S., for example, although the proportion of private-sector employers offering health benefits has not changed, the eligibility rules have, resulting in limited spousal coverage for core long-term fulltime staff and restricted access to peripheral employees in general. In addition, there has been a fundamental shift from defined benefit plans to defined contribution plans (Ippolito 1995).

This evidence presents a consistent and increasingly strong message that more risks are being shifted from the employer to the employee not just in pay but also in various aspects of non-cash compensation risks. Researchers in both the U.S. and Britain suggested that insecurity may have been one reason why wage inflation remained relatively subdued in the mid-1990s, despite significant falls in aggregate unemployment (Robinson 2000). While it was acknowledged that employment risks cannot be studied in isolation from compensation risks (Wiseman, Gomez-Mejia et al. 2000; Guiso, Jappelli et al. 2002), the proposed relationship provides further justification for due attention to be drawn to the issue of compensation risks and its possible impact on insecurity or fear in the motivation process. In the section below, we shall examine compensation risks.

4.2 Research on Employment and Compensation Risks

Existing research in the field of motivation and current practices in employment and compensation are quickly leading to a paradox. On the one hand, the achievement-based theories of goal setting (Locke 1968; Latham and Locke 1979) and expectancy (Vroom 1964; Porter and Lawler 1968) tend to emphasize the significance of rewards to motivation. Rather than a flexible and adaptive workforce, a happy and productive workforce, is heralded in the literature as the primary source of competitive advantage (for example, see Staw 1991; McKenzie and Lee 1998).

Accordingly, research on employment and compensation systems and employee attitudes are directed to the outcome measures of performance (Schuster and Zingheim 1992; Wiseman and Gomez-Mejia 1998) organizational commitment (Davy, Kinicki et al. 1997; Luthans and Sommer 1999; Allen, Freeman et al. 2001), turnover intentions (Davy, Kinicki et al. 1997; Allen, Freeman et al. 2001), job satisfaction (Davy, Kinicki et al. 1997; Luthans and Sommer 1999), satisfaction with pay (Martin 1987; Cropanzano and Folger 1991), and perceived justice (Brockner, Grover et al. 1987; Brockner 1988).

At the same time, however, there is a rapidly growing use of employment and compensation practices that multiply employee uncertainty and risks. Increasingly precarious work replaces permanent employment (Treu 1992; Allen and Henry 1996) and variable pay or “pay at risk” replaces guaranteed base pay and entitlement bonuses (Schuster and Zingheim 1992; Wiseman, Gomez-Mejia et al. 2000). The growth of uncertainty and risks surrounding prevailing employment and compensation practices not just in capitalist societies but also in socialist economies, not just in commerce but also in the public sector suggests the need for a theory to understand motivation under uncertainty and risks.

Analyzing the phenomenon of significant increase in employment and compensation risks will require more theoretical guidance than past work on motivation has received. As a matter of fact, existing motivation studies generally do not consider the issue of employment risks. And the compensation literature discusses risks mainly at the executive level. The following two subsections succinctly capture such findings.

4.2.1 Study of Employment Risks

The study of employment risks has attracted the increased attention of researchers in the field of social sciences over the last four decades (e.g., McGregor 1960; Miyazaki and Neary 1983; Lane 1991; Beck 1992; Lane, Cannella et al. 1998; Adam, Beck et al. 2000; Wilkinson 2001). This is understandable given the significant level of job insecurity that is being felt among the growing majority of today’s workforce. Another reason for the important treatment of the subject is the importance of job security itself to the average

worker. As Lane (1991) pointed out from the classic study by Sheppard and Herrick (1972), in the U.S., about two-thirds of all employed workers, regardless of age, think of job security as “very important,” only a few percentage points fewer than those ranking “good pay” as similarly important.

The study of employment risks has long been taken up in the economics literature. First, it was Adam Smith who referred to the “anxious and desponding moments” that employment inconstancy or uncertainty imposes. And if workers are assumed to have the usual neoclassical utility functions, then they are averse to variation in their hours of work, instability in their employment, and fluctuation in their earnings. Employment variability or employment risk can be considered in terms of the probability of layoff or unemployment or the probability of over- and underemployment, or both (Gaston 1991).

Studies in this area typically address the outcomes of employment risk in occupational choice, unionization, and wage determination. For instance, Gaston (1991) found that workers in the mining and construction industries, which typically face high cyclical employment variability, still attract compensating differentials for employment uncertainty. This is consistent with the notion that workers will purchase higher units of insured employment variability with a higher income.

Risk aversion. Furthermore, Guiso, Jappelli, and Pistaferri (2002) found that risk aversion is a predictor of income risk in that the more risk-averse select themselves into occupations with low-income risk (i.e., stable income). This finding is consistent with the claim that the concern for security is a major factor in the traditionally long queue of Italians seeking civil service jobs. Also, the risk-averse tend to self-select in jobs with low probability of low-income realizations. It is also in line with the argument that the poor will seek low-pay-high-security jobs because when amount and stability of income are tradeoffs they prefer stability to amount (Lane 1991).

Two other areas of study in the economics literature are worthy of note. Heywood (1989) revealed that the degree of employment security strongly influences the probability of unionization because of compensating wage differentials. In addition, Mayo and Murray (1991) showed that risk of permanent employment separation is

negatively correlated with firm size. But when this measure of employment risk is included as a determinant of wages, the independent influence of firm size on wage vanishes. This implies a significant correlation between wage level and employment risk, which found support in the work of Wiseman, Gomex-Mejia, and Fugate (2000) and Guiso, Jappelli, and Pistaferri (2002).

Employment risk when studied in the form of job insecurity at the worker level and within a specific organizational context is defined as “one’s expectations about involuntary discontinuity in a job situation” (Davy, Kinicki et al. 1997). The emphasis is on the consequences in employee attitudes. Study in this area may be classified into two categories: the industrial psychology and organizational behavior literature, and the industrial sociology literature.

The focus of the first category of studies is on survivor reactions to downsizing and employees’ reactions to job insecurity. Survivor reactions studies have focused on exploring perceived equity and trust, and the change in organizational commitment (e.g., Brockner, Grover et al. 1987; Brockner, Wiesenfeld et al. 1995). For example, Brockner, Grover et al. (1987) posited that survivors react most negatively when they identify with layoff victims who were perceived to have been inadequately compensated, and the negative reaction took the form of lowered organizational commitment.

Furthermore, Mishra and Spreitzer (1998) found that trust in top management plays a powerful role in determining survivor responses. According to the study’s theoretical focus on cognitive appraisal and coping (Lazarus and Folkman 1984), how individuals respond to a potentially stressful situation, such as a downsizing, is dependent on how they appraise and interpret the situation. As such, if survivors do not trust that the top management is competent and honest with employees through the downsizing, they are likely to reduce their organizational commitment or respond in another destructive way (Allen, Freeman et al. 2001).

Research on employees’ reactions to job insecurity has typically explored mental and psychological well-being and turnover intentions (e.g., Van Vuuren, Klandermans et al. 1990; Davy, Kinicki et al. 1997). For example, Davy, Kinicki, and Scheck (1997)

showed that job satisfaction and organizational commitment mediate the effects of job security on withdrawal cognitions. Also, Van Vuuren, Klandermans et al (1990) argued that if insecure employees respond actively, their activity consists of attempts to restore job security by seeking another job or by engaging in industrial action.

As far as the industrial sociology literature is concerned, as Brown (1997) has pointed out, there is a lot of evidence that employees who are or feel that they are insecure will take measures to try to protect work they have. Examples are the restriction of output – to make existing work last as long as possible – and the defense of jobs through demarcation and opposition to dilution, as was common in shipbuilding for instance, can all be plausibly attributed to the employees in question fearing that they would otherwise lose their share of available work.

Conspicuous by its absence, though, is research into the motivational consequences of job insecurity in the motivation literature itself. Workers are increasingly likely to face employment risk against the backdrop of discouraging labor market realities at the macroeconomic level and of the employer's increasing risk shifting at the organizational level (Edwards 1979). Regardless of the widely reported levels of uncertainty and risks that are surrounding today's employment situation, the phenomenon of employment risk or job insecurity has received little attention in the motivation literature.

A possible explanation for the omission is that the leading, achievement-based theories of goal setting and expectancy, despite their multiple extensions and refinements over a period of more than three decades, remain focused on issues of goal specificity and goal difficulty (Latham and Baldes 1975; Locke 1978; Latham and Locke 1979; Locke and Latham 1984; Mento, Locke et al. 1992; Mitchell, Thompson et al. 2000) and predictability (Porter and Lawler 1968; Lawler and Suttle 1973; Campbell and Pritchard 1976; Klein 1991; Mento, Locke et al. 1992; Tubbs, Boehne et al. 1993; Daniels and Mitchell 1995) rather than account for uncertainty and risks.

4.2.2 Study of Compensation Risks

Although compensation risk as studied almost exclusively in the economics literature relates to risks that are typically associated with contingent pay for executives (see, for example, Balkin and Banister 1993; Gomez-Mejia, Paulin et al. 1996; Gomez-Mejia and Wiseman 1997; Gray and Cannella 1997), the term should be expanded to include pay for all workers in today's environment where employers seem less inclined to insulate employment relations from market forces and to exclude non-executive members of the workforce from "pay at risk".

This argument is based on the very fact that organizations are moving away from traditional compensation programs, and toward more flexible pay systems that are aligned with more complex, changing business environments, and thus increasing the variability of pay for all staff (Deckop, Merriman et al. 2004). This is the case also with Japanese firms, which do not seem immune to the pressures of wage cuts and increased variability of pay even for the core employees (e.g., see Holman 1995; Sekigawa 2003).

The notion of risk is central to the study of compensation and has been growing in importance during the past two decades as a greater proportion of pay received by workers comes in variable form through such programs as gainsharing, key contributor bonuses, on-sport awards, team bonuses, and profit sharing (Barkema and Gomez-Mejia 1998; Martocchio 1998; Wiseman, Gomez-Mejia et al. 2000). That said, most of the practitioner and scholarly literature on compensation does not devote much effort to understanding how variable pay or "pay at risk" affects employee behavior and decisions other than at the senior executive level (Wiseman, Gomez-Mejia et al. 2000). This concern is shared by Bartol and Locke (2000), who acknowledged in their recent review of the incentives and motivation literature that there is insufficient knowledge regarding the impact of variable pay on employee motivation and performance despite its increased use in organizations.

Rather than providing a comprehensive review of the economics literature on executive compensation, a more effective approach is to delineate the emerging trends in and concerns about compensation risks that are relevant to variable pay or pay at risk for

employees in general. The latest development in CEO pay, as captured by Miller, Wiseman, and Gomez-Mejia (2002), is that it has evolved from the successful attempts to find blanket evidence of incentive alignment (linking a portion of executive pay to specific performance criteria) at the top executive ranks toward the identification of those conditions under which incentive alignment and, thus risk sharing with CEOs, is most appropriate (Gray and Cannella 1997; Bloom and Milkovich 1998). Interestingly enough, it is at this point in time that cross-learning between the employee compensation and executive pay literatures seems most meaningful as employee compensation takes on unprecedented risk in terms of both level and magnitude and the inquiry of executive pay begins to give contextual issues special attention.

The employee and executive compensation literatures present differing approaches in analyzing and understanding behavior, I address the differing premises, assumptions, and arguments of the two bodies of research not necessarily with a view to reconcile them, but to present to the reader that an appreciation of both views is important in order to have a more complete understanding of reality. I shall first highlight the commonality between the two approaches, and then proceed to discuss their differences.

To begin with, a common and questionable assumption between agency and work motivation theories is self-interest as the inherent human nature, which has been criticized by Hirsch, Michaels and Friedman (1987) and Eisenhardt (1989) as too narrow. The problem perhaps is not so much its single view as is its assumption that self-interests of individuals are competitively related to each other in their exchange because as Wright and Cho (1992) pointed out, self-interests of individuals may be cooperatively interrelated within some organizations.

Along the same lines, Lane (1991) noted a variety of reasons behind people's dedication to doing a good job that are not necessarily instrumentally based, among them are the pleasure they find in their working activities, meeting the challenges that increases their sense of personal control, fulfilling a sense of duty or a pressing need to achieve some higher standard of excellence. As suggested also by Rutledge and Karim (1999), there is an increasing recognition, based on cognitive moral development theory, that ethical and moral considerations constrain economic behavior of individuals. When normative

beliefs play an active role in guiding actions, trust may be a potential characteristic of the principal-agent relationship as is possible in a highly socialized or clan-oriented firm (Ouchi 1979). At the same time, contracting, monitoring, and bonding efforts could be minimized with a negligible residual loss and subsequently contribute to the efficiency of the firm (Wright, Mukherji et al. 2001).

Employee pay vs. executive compensation literatures. Let us now turn to the differences in focus between the two literatures. The inquiry of the employee literature as it now stands focuses on performance rather than motivational outcomes of rewards and is based on the presumption of a stable, well-defined, and predictable environment. (See detailed review in Chapter 4). Importantly differently, executive compensation research emphasizes the principal-agent “risk sharing problem” (Eisenhardt 1989) and thereby accounts for uncertainty and risks on the outset.

While the purpose of introducing variable pay to broad groups of the workforce is to combat the entitlement mentality and control labor cost according to the firm’s ability to pay (Zingheim and Schuster 1995b), the purpose of “pay at risk” at the executive level is to counter opportunism and reduce monitoring cost (Wright and Cho 1992). A critical assumption or requisite for providing “pay at risk” is that CEO effort to influence firm outcomes is efficient and/or effectual.

It is important to note that the purpose of agency theory, which provides the theoretical framework for the bulk of inquiry on executive compensation, is to help determine the most efficient contract governing the principal-agent relationship. For example, in the case of complete information or observable behavior, behavior-based contract is most efficient. On the contrary, in the case of incomplete information or unobservable behavior, the principal may choose to either invest in a reporting system or contract on the outcome of the agent’s behavior (Eisenhardt 1989).

Along these lines, the theory suggests that task programmability, information systems (measured by the span of control), and outcome uncertainty variables (measured by number of competitors and failure rates) significantly predict the firm’s salary versus commission choice for the retail sales personnel (Eisenhardt 1988). Compared to

employee variable pay that is tied to firm success, however, sales commission-based pay does not have as great a risk exposure because the commission is almost always guaranteed when individual performance targets are met.

The calculus of agency theory suggests that because outcome uncertainty and cause-effect ambiguity are low in firms with low risk, rewarding CEOs for predictable firm-level results that are largely disassociated from strategic choices (Powell 1992) makes little sense (Miller, Wiseman et al. 2002). Furthermore, it is claimed that risk sharing is less desirable when performance outcomes are driven by exogenous uncontrollable factors, such as business cycle effects (Miller, Wiseman et al. 2002).

This argument, however, does not seem to have much relevance for employee variable pay that is tied to firm success as the tie is centered on the firm's ability to pay rather than on the employee's ability to influence. In this connection, the more uncontrollable firm performance outcomes are, the more the employer is likely to prefer to shift the risk to the employees. Against the backdrop of a turbulent business environment and the mounting pressure to control labor costs, risk shifting in the form of employee variable pay is thus likely.

Risk preferences. A final point of discussion concerns risk preferences. This is a crucial issue because it challenges the assumptions of both agency and existing motivation theories that individuals are inherently risk-averse and that risk preferences are static and uniform across individuals and situations (Wiseman, Gomez-Mejia et al. 2000; Wright, Mukherji et al. 2001).

Contrary to neoclassical assumptions, however, the burgeoning field of behavioral economics reveals that in practice, decision makers exhibit a variety of risk preferences, including risk seeking and risk neutrality (Asch and Quandt 1988; Lattimore, Baker et al. 1992; Smidts 1997). Risk preferences could also vary across choice contexts (Mowen and Mowen 1986; Lattimore, Baker et al. 1992; Highhouse and Paese 1996), due to factors such as framing effects and judgment biases (Lopes 1987; Tversky and Kahneman 1991) (see Wiseman, Gomez-Mejia et al. 2000 for a review).

These findings in behavioral economics represent exciting developments that challenge and enlighten at the same time existing perspectives on compensation risk and the study of risk in the general work context. I shall revisit some of these issues in the discussion of a proposed research framework in Chapter 6. Meanwhile, let us turn to the next section, on a proposed perspective of motivation under uncertainty and risks.

4.3 How Work Motivation Theory Fares under Uncertainty and Risks

Before we evaluate the effectiveness of existing approaches to understanding motivation, it is helpful to take a step back and raise the important question of whether they represent scientific explanations of motivation or merely prescriptive delineations of what employers or managers should do to motivate their staff. The differentiation between theory and normative advice is that the former explains what happens in reality while the latter proposes what should ideally be done.

An examination of the theoretical context of the four leading theories of motivation, i.e., goal setting, reinforcement, expectancy, and equity – may help clarify this issue. For instance, goal-setting theory promotes the cause of setting goals to help workers succeed. Reinforcement theory suggests that the supervisor give out rewards (and punishments) in such a way that these consequences are consistent and can be predicted by the employees so much so that they will encourage compliance and discourage noncompliance. Expectancy theory purports that rewards should be desirable and attainable at the same time. And finally, equity theory maintains that equity should be established to improve pay and job satisfaction.

While the above can be considered evidence that existing theories are of a prescriptive nature, it takes further substantiation to prove that they cannot be relied upon to predict motivation under uncertainty and risks. The issue at stake is whether and how existing theories may be limited in their predictions of motivation given the employment and compensation risks that exist in today's workplace

Table 4.1 highlights some of the situations of uncertainty and risks for which existing models are unable to generate a prediction due chiefly to the incompatibility of their theoretical contexts to today's work environment. In this regard, it is worthy to note that rather than being peculiar or unique, the given examples are representative of the uncertainty and risks faced by many of today's workers both in relation to compensation and employment as well as concerning the nature and processes of work.

Table 4.1
Limitation of Existing Theory in Predicting Motivation under
Uncertainty and Risks

Leading theory	Situations for which the model is limited in its predictions
Expectancy theory	<p><i>Payoff uncertainty:</i> When attainability of payoffs cannot be predicted.</p> <p><i>Adversity:</i> When operating under severe resources constraints and contingencies that are beyond one's control.</p>
Goal-setting theory	<p><i>Noncompliance risk:</i> When there is a risk that the worker will get punished for the non-delivery of goals.</p> <p><i>Ambiguity about goal difficulty:</i> When the establishment of goal difficulty is affected by factors that are unstable or cannot be guaranteed (e.g., availability of supporting resources).</p> <p><i>Non-specifiable goals:</i> When it is not practical for performance output to be spelt out in advance due to the drive for work role flexibility, or the nature of work being exploratory or tentative.</p> <p><i>Moving targets:</i> When clear, specific goals are continuously being revised, probably causing more frustration and confusion than encouragement.</p> <p><i>Conflicting goals:</i> When workers are pressed with time or other resources to accomplish multiple tasks or when they report to more than one boss.</p>
Reinforcement theory	<p><i>Environmental uncertainty:</i> When an organization's ability to administer rewards and punishments is affected by environmental forces it cannot predict or control.</p>
Equity theory	<p><i>Risk aversion:</i> When reactions to inequity expose the worker to the risks of being considered inadaptable or inflexible.</p>

4.3.1 Adversity and Expectancy Theory

Payoff uncertainty. Expectancy theory is limited in at least two ways in generating predictions for motivation under uncertainty and risks. The first concerns payoff uncertainty, i.e., when the level of attainability of payoffs is uncertain and thus cannot realistically be predicted. This would be the case for variable pay, which puts employee pay “at risk” by not only making it contingent on work performance but also floating it with profitability and the firm’s ability to pay.

However, payoff uncertainty would not have been a major concern if work were conducted in a scientific management setting. Because activities would then be documented in lengthy job descriptions and as long as workers obeyed the rules and performance dictated by the machine that they tended, they could normally expect to not only keep their jobs but receive standard pay increases (Wood 1989; Kalleberg 2001a).

Adversity. The second situation in which the expectancy model is unable to provide a satisfactory explanation for motivation is adversity. Because when the attainability of payoffs is low or “too far off” in future, the theory would necessarily predict a low motivational outcome. Explaining the variation in motivation in the situation of adversity is an important concern because it reflects the reality facing the employees in my research organization.

To begin with, the core operational unit under study has been going through large-scale downsizing and over the previous three years and each of the five surviving production facilities was given an annual staff reduction quota to help further streamline the operation. Dedicated the workers may be, there was no guarantee of continued employment as they were all on fixed-term contracts. On the pay front, not only bonuses but also base pay are deductible. While the workers may risk losing up to 40% of their base pay if they missed a production target or had an industrial accident, they also find bonuses not only infrequent and but also “extremely difficult to get”, because they are given out only when a technological breakthrough in work processes is successfully initiated by the workers themselves.

4.3.2 Risk Aversion and Goal-Setting Theory

Although goal-setting theory does not share the problems illustrated above, there exist other issues that prevent the theory from generating predictions of motivation under situations of uncertainty and risks. Five issues are at stake here. The first three deal directly with the key determinants of goal setting theory and the remaining two are concerned with other disputable assumptions of the theory.

Ambiguity about goal difficulty. The problem of ambiguity about goal difficulty exists when the condition of goal difficulty depends on factors that are unstable and cannot be guaranteed (e.g., availability of supporting resources) during or throughout the course of work. With the prevailing organizational policy to cut costs and stay competitive (Smith 1997), it is reasonable to assume that employees at organizations that adopt these measures are adversely affected. According to goal-setting theory, a main determinant of motivation is goal difficulty. But in situations where the level of goal difficulty is ambiguous and cannot be ascertained, it may not be feasible to apply the theory.

Non-specifiable goals. The second issue that puts goal-setting's explanatory power to test is in regard to goals that are inherently non-specifiable, i.e., when it is not practical for performance output to be spelt out in advance due to the drive for work role flexibility (Murphy and Jackson 1999), or the nature of work being developmental, exploratory, or tentative. Given the development from a product- to a knowledge-based economy, the increased use of contingent staff, and the drive toward flexibility and adaptability, incidents of organizations expecting workers to be responsive and "flexible" in meeting the ongoing demands of their work are likely to increase (Meulders and Wilkins 1987). While goal specificity is a key determinant of motivation within the framework of goal-setting theory, in work situations where goals are not always definable in specific terms and can at best provide broad directions and guidelines, it becomes undesirable to rely on the theory to explain motivation.

Moving targets. The third issue deals not with the non-specifiable nature of work goals but the instability of goals after they have been clearly specified. While it can be argued that goal clarity reduces task ambiguity and minimizes the risks of ineffective input and

subsequent delays, and that goal specificity helps focus attention and resources on what is important, it is doubtful that the positive effects of such goals could not be undermined by their instability. Given the need for today's organizations to continually revise their strategies to adapt to changing business realities (Kanter 1989), the focus and specifics of performance requirements are expected to be revised accordingly. It is expected that such shifts will be more frequent than once a year if an organization is undergoing extensive restructuring or reorganization.

Changes in corporate strategy would have been less problematic if they coincided with periodic performance evaluations because performance targets for the new review period only need to be set accordingly. If, however, they took place in the middle of a performance review period, it is not likely that previously achieved performance based on old targets would be given much credit especially when they are no longer seen to contribute to firm success. Under these conditions, clear and specific goals are not likely to succeed in providing guidance and encouragement as goal setting theory predicts, but will possibly cause frustration and confusion, and even demoralize employees.

Conflicting goals. Besides the three afore-discussed issues that directly cast a shadow on the validity of goal setting theory's explanatory variables, there are two other concerns that may render the theory's contextual assumptions overly simplistic and explanation of motivation inadequate. We now go over these concerns. One such concern relates to conflicting goals. With the trends toward organizational cost-cutting (Schuster and Zingheim 1992; Sun 2001a), layering, streamlining, multi-tasking (Ashkenas, Ulrich et al. 1995; Smith 1997; Hirsch and Naquin 2001) and work intensification (Edwards and Whitston 1991; Burchell, Day et al. 1999; Green 2001), it is likely for workers to be pressed with time and other resources in the strive to accomplish their tasks.

Under these circumstances, workers are likely to face the problem of conflicting priorities in their work. Although it is argued that goals helps to direct people's energies toward what is important so they do not waste time on inconsequential or unproductive activities (Farr, Hofmann et al. 1993; Brown, Cron et al. 1997), the theory does not provide any guidance on what people may do when confronted with conflicting goals

and objectives. What may further complicate the issue is when the individual's responsibilities include performance for more than one independent supervisor. Under the competitive condition of dual demand for a joint resource (March and Simon 1958), two superiors may attempt to influence a shared subordinate to perform consistent with their own particular objectives (Organ 1973; Hinton and Barrow 1975), thus causing tension and stress.

Subordinates involved in project management teams are exemplary of these boundary role people (Organ 1973). But while project management and multi-tasking are common ways of managing tasks in a flexible, streamlined organizational environment (Boswell and Stevis 2001) incidents of multiple reporting lines are expected to increase. In this connection, it is hard to see how goal-setting theory's assumptions about singular goals can fully accommodate the prediction of motivation given the potential complexity of work goals in today's organizational environment.

Goals with potential punishment. The two main lines of research in support of goal-setting theory argued that goals help direct energy to valuable activities (Farr, Hofmann et al. 1993) and that participation in goal setting enhances goal commitment and thus performance (Donovan and Radosevich 1998). While these arguments appear to be complementary when proposed in a vacuum, they may contradict each other in real life. At my research organization, for example, workers are assigned production targets that are publicized in bold print on billboards at prominent locations throughout the factory and administration buildings and repeatedly verbally emphasized in weekly staff meetings. According to the first line of research that is in favor of the theory, none of these workers will perform because work goals are all top-down and none of the workers participated in goal setting. According to the second line of research that is in support of the theory, however, all of these workers will perform because they have clear, specific, and demanding goals.

A possible explanation for such contradiction is the theory's disregard for risks that may be associated with the deadlines and penalties associated with goals. In the theory's presumed "no risk" scenario, goals exist as something without negative consequences. Along these lines, performance is attributed only to that which helps the employees

succeed – the method of setting goals (e.g., employees are given a participative role) and the quality of goals (e.g., goals are clear, specific, and difficult).

With the increased intensification of work in today's environment (Edwards and Whitston 1991; Edwards, Collinson et al. 1998; Green 2001), and the employer generally playing an upper hand in the labor market (Turnbull and Wass 1997; Auer and Speckesser 1998), it is possible that goals are being more frequently imposed on than mutually agreed or initiated by the worker. Since business and thus work goals are usually accompanied by deadlines, it is likely that the time perspective will help create a sense of urgency for employees to act (Burnham, Pennebaker et al. 1975; Rastegary and Landy 1993; Waller, Conte et al. 2001).

In line with reinforcement theory, the critical point is that workers may strive to meet their deadlines not necessarily as a direct result of whether they have had an active role in setting the goals or whether the goals are clear and difficult enough for them, but due to the potential punishment associated with the non-delivery of goals. In this sense, the clearer and more specific the work goals may be, the less excusable the failure to deliver and the more inescapable the punishment may seem.

Given the increased implementation of not just contingent pay but also contingent employment (Wiseman, Gomez-Mejia et al. 2000), the punishment of non-delivery of goals may no longer be not getting a bonus or promotion, but the non-renewal of contract or the termination of employment. While participation in goal setting and the quality of work goals (e.g., clarity, difficulty) may help workers to succeed, these concepts do not provide any guidance in situations of risk where punishments may play a role in helping to stop the workers from failing.

4.3.3 Environmental Uncertainty and Reinforcement Theory

Environmental uncertainty. While reinforcement theory does not make any assumption about an organization's "complete control" of the environment it operates, much of the literature on behavioral modification in the work setting (e.g., Luthans and

Kreitner 1985; Komaki 1986; Komaki, Coombs et al. 2000) seems to assume on the basis of observed behavior that supervisors and organizations alike naturally and correctly apply reinforcement principles. Although Hinton and Barrow (1975) has raised this concern 30 years ago, there has since been little follow-up research on addressing this questionable assumption.

For reinforcements to work, the consequences of rewards and punishments, be they of a variable- or fixed-ratio schedule, must be within the administrator's control. This has to be so such that there is no confusion about rewards or punishments being haphazard, random, or indiscriminate. Imagine how ineffective the laboratory experiment of behavioral reinforcement would have been if the supply of electricity was unreliable and there was insufficient or unstable supply of food pellets – the animals might not get an electric shock when they exhibited an undesirable behavior, or a food pellet when they did well. Worse yet, the animal might get an electric shock by accident, even without having done anything wrong. If such anomalies were to present themselves in an organizational setting such that that the consequences of noncompliance and compliance (e.g., layoffs and pay increments) cannot be guaranteed due, for instance, to the organization's lack of control of the forces in its environment, the motivational technique would have no role to play.

This is because when an organization's ability to administer rewards and punishments is affected by environmental forces it cannot predict or control, the likely outcome is violation of the consistency rule requisite for reinforcements to work. Examples of such violation are when an organization responds to economic downturns by laying off workers rather than firing them for cause; and when a firm rewards its employees based on its ability rather than its promise to pay, as may be the case for firms that implement variable pay.

4.3.4 Interaction Complexity and Equity Theory

Risky reactions to inequity. The latest development in equity theory proposes that as long as people are sensitive to situations of inequity (Huseman, Hatfield et al. 1987;

King, Miles et al. 1993; King and Miles 1994) especially in terms of ill treatment rather than privilege to self, they are likely to react to it as the original theory predicted (Adams 1963). The approach suggests that people react to inequity to help them achieve something, such as the restoration of an equilibrium or comfort level. But as noted by Bentler and Speckart (1979) and Kuhn and Beam (1982), people possess divergent goals and preferences. To illustrate in relation to situations of inequity, having a preference could mean preferring to seek a higher goal such as employment security rather than running the risk of being seen as a disturber or troublemaker by reacting to inequity during a period of layoffs and organizational downsizing.

The usefulness of equity theory in explaining motivation in a politically sensitive environment such as the downsizing organization rests on the validity of its assumption that there is nothing to lose for the employees in restoring equilibrium by way of effort reduction or dysfunctional reactions such as thefts or other forms of subterfuge. But as pointed out by Pinder (1998), deliberate effort reduction can be risky at times because one may get caught.

The risk for the employee to outwardly react to inequity may be relatively more significant and even threatening to one's survival in a firm if the organization is anxious to cut staff and the labor market is slow to hire. Under these conditions, political sensitivity maybe more valued and preferred than the fight for equity (see Time 1989). The opposite will however be true if an organization is experiencing high involuntary turnover and there is a great demand in the external labor market.

The point is that if effort reduction or other ways of restoring inequity exposed a worker to the risks of an unfavorable image, a poor performance evaluation or other disciplinary action, it would be unlikely for him or her to want to go down that path. In this connection, the workers may consider it wisdom to not show any sign of annoyance or grievance as a result of inequitable treatment especially at organizations where "adaptive flexibility" is the kind of attitude and behavior that gets rewarded (see Lane 1991; Pulakos, Arad et al. 2000).

4.3.5 Significance of the “Flexible Firm” for Motivation Theory

The development of theory of work motivation during the post-World War II period has taken into account the person-environment interaction (see Steers and Porter 1991). But these authors have, as demonstrated above, been heavily influenced by a static view of work and workplaces. This observation is shared by Kalleberg (2001a) who argued that researchers of this period were misguided by a restricted view of work as organized hierarchically in relatively large, stable workplaces.

In particular, the author pointed out that the tightly integrated, hierarchical company that bases its work organization on principles of scientific management and Fordism was not a necessary feature of capitalist production, but rather an efficient response to stable and predictable environments in the post-World War II period in which some corporations controlled their markets and GNP and productivity were on the rise (see also Piore 1986; Hyman 1988; Kalleberg 2001a; Kalleberg 2001b).

But environments often surprise organizations (Meyer 1982). Rather than thriving in a state of growth and expansion, many of today’s organizations find themselves striving to avoid declines and adapt when performance downturns occur or are anticipated (Ford and Baucus 1987). Within the framework of new, globally ascendant, post-Fordist production systems (Deyo 2001) or “flexible manufacturing systems”, companies are now faced with the challenge to quickly, efficiently, and continuously introduce changes in products and processes (Friedman 1988; Womack, Jones et al. 1990). Whether they are in the manufacturing or service sector, the prevalent view is that organizations must be not only efficient but as streamlined and flexible as possible in order to survive in an increasingly competitive and ever changing economic environment (see Hammer and Champy 1994; Dunlap 1996; Volberda 1996).

Functional flexibility. Individuals, organizations, and nations in the past two decades have all had to adapt to a variety of technological, economic, social, political, and demographic changes, and flexibility is widely seen as the way in which individuals, organizations, and societies can adapt to these changes (Kalleberg 2001a). Such

flexibility yields a capacity for organizations to adapt to intensified pressures of liberalized trade, world market volatility, market fragmentation, rapid technological change, and heightened demand for just-in-time production and continuous improvements in productivity and quality (Deyo 2001). As the proposed solution to society-wide problems of recession and uncertainty (Pollert 1988) and the corporate watchword for the 1990s (Christensen 1989; Cappelli, Bassi et al. 1997), flexibility has become synonymous with survival and adaptability.

The emergence of “the flexible firm” (Pinfield and Atkinson 1988; Pollert 1988; Lorenz 1992; Kalleberg 2001b) is of particular importance to the overall assessment of how existing theory fares under uncertainty and risks because it is through the call for flexibility that uncertainty and risks become inevitable. In particular, the drive for organizational flexibility results in strategies directed at labor utilization and remuneration. For instance, functional flexibility aims at increasing internal mobility, and thus instability and uncertainty for the worker, by cross-training them in a wide range of duties both in and outside of their normal functional area of expertise (Reilly 2001; Kalleberg 2001b).

Numerical flexibility. Numerical flexibility seeks to cut down on labor costs through the externalization of labor (Pfeffer and Baron 1988), thus contributing to employment precariousness and job insecurity. Last but not least, pay flexibility helps to tighten control of labor cost by tying employee compensation to the firm’s ability to pay, putting bonuses and possibly base pay “at risk”. Together the bundle of flexibility measures enables the firm to redeploy workers relatively quickly from one task to another, puts it in a strategically less committed role in employment relations, and reduces its risk exposure by shifting risks to the employees.

When the employment and compensation systems are unstable, the uncertainty and risks thereof need to be taken into account in the analysis of motivation and behavior. For example, if these systems are set in a recession or economic downturn, the worker is likely to be preoccupied with such issues as a pay freeze, a pay cut, or worse yet, the potential of layoff. In eras when the employment and compensation systems are stable, however, uncertainty and risks would have little relevance. Especially if these systems

are embedded in a growth economy, the individual is likely to be anticipating bigger bonuses and pay raises, more benefits and perquisites, better training and development opportunities, faster upward internal mobility, and employers that have the long-term interest and happiness of their workers at heart.

The link between the direction of motivation research during the post-World War II period and prevailing economic conditions and the nature and organizational of work at the time is an interesting one. In view of its accompanying assumptions about a stable environment, existing theories tend to address the forces thereof as simple, straightforward, and reliable. As such, they seem to serve better as normative prescriptions of how things will work in an ideal world, rather than as a predictor of motivation in a changing environment.

The relatively static models we have dealt with thus far enable us to draw rather clear-cut notions of such fundamentals as payoffs, goals, rewards and punishments, and inequity reactions. The concepts thus drawn were reasonably compatible with the classical views of utility maximization and mechanical equilibrium (Bannock, Baxter et al. 1998). However, the classical concepts are widely viewed as inappropriate in contemporary, complex environments (Kuhn and Beam 1982). The challenge here is to explore an alternative framework that accounts for the uncertainty and risks embedded in today's complex and fast-changing environment but not deliberately considered in existing models.

4.4 Discussion and Conclusion

Adaptation and organizational survival. One of the basic arguments about managing in today's economy is that organizations cannot function effectively, let alone survive, unless they can adapt to fast-changing environmental conditions (Ford and Baucus 1987). If researchers are right in suggesting that employee's adaptive motivation and performance make an important contribution to organizational success (e.g., Le Pine, Colquitt et al. 2000; Pulakos, Arad et al. 2000), then the issue of how to get workers to

respond positively to changing environmental forces that impinge on organizational and individual survival is something motivation scholars will be at risk to ignore.

As can be seen in the evidence presented above, employers in advanced and developing economies alike are becoming less willing to shoulder as much risk for their employees as they did in the past. The fact that the world economy is moving increasingly in a neo-liberal direction that diminishes domestic welfare provisions without replacing them with regional or international ones (see, for example, Boswell and Stevis 2001) is likely to further aggravate the issue of uncertainty and risks associated with job insecurity and earnings instability discussed above.

Increasingly employment insecurity and compensation risk go hand in hand. This is because employees who lag behind on the performance criteria set in many of today's new pay plans are implicitly at greater risk of termination (Wiseman, Gomez-Mejia et al. 2000). It is unclear in what other forms compensation and employment systems may further develop. What is clear is that employment relationships can no longer be seen as a strictly bounded or boundaryless *quid pro quo* of wages in exchange for labor; they are certainly much more diverse and complex (Hirsch and Naquin 2001: 432).

In its new form, organized around a dynamic new technology, the economic system produces high levels of insecurity and involuntary economic inactivity (Beynon 1997). If employees in the industrialized world are becoming more insecure, then surely this reflects, at least in part, the decline in trade unionism, the primary institution, upon which employees have relied for protective regulation at work. As union membership and coverage by collective bargaining have fallen in Britain, Australia, New Zealand, the U.S., Germany, and other countries, so worker vulnerability to offensive action by employers and exposure to hostile market forces has increased (Heery and Abbott 2000).

Constant corporate restructuring and downsizing, the outsourcing of jobs in advanced economies to foreign countries, heightened job demands, and reductions in health and pension benefits have all taken their toll on work careers in the past two decades (Hall and Mirvis 1995). It is evident that contingent arrangements raise troublesome issues

concerning workers' rewards, protections, and careers (Howard 1995). For one, the threat of workforce reduction has been a common experience (Brown 1997).

Job security or the absence of employment risks is a presumed condition of existing motivation studies that focus on pay and base largely on data from the American workplace. But as Jacoby (1985) pointed out, the critical fact is that job security was purported to be high only during the postwar period (1945 – 1973, around the time of the first OPEC oil shock) and there was not much job security in the early part of the 20th century. As a matter of fact, the firm internal labor market model was in place only during the period 1950 – 1985 (Hirsch 1993). This observation is shared by Kalleberg's who noted that the idea of job security, which is often associated with employment in "core" bureaucratically controlled firms – is a phenomenon that was uncommon in most of the 20th century (Kalleberg 2001a: 440).

It is likely then, that the assumption about job security is flawed and that the motivation literature as it now stands is a misrepresentation of the reality of today's workplace (Sun 2001a). In any event, the true picture of job insecurity revealed by work experts have made increasingly outdated images of work (such as secure employment and progressive, upward career paths) less useful as models for understanding motivation as well as for capturing contemporary work motivation realities.

The need for an alternative framework. This chapter represents a preparatory analysis that argued for the need of and laid the foundation for the development of a model of motivation under uncertainty and risks. Importantly, it revealed the reality of uncertainty and risks not accounted for in existing motivation literature. Based both on academic research and reports of international organizations and the business press, the magnitude and scope of employment and compensation risks affecting today's workforce are discussed. Evidence showed that employment risk is no longer limited to manual workers, the lower rungs of society, or the private sector. And variable pay or "pay at risk" is fast extended as a labor cost control measure to cover potentially all work groups and functions of the organization not so much according to the worker' contribution as to the organization's ability to pay.

The extent to which the reality of employment and compensation risks is reflected in the literature was also discussed. It has emerged that while many studies have been conducted on employment risk and job insecurity, none of them investigated their effects on individual work motivation. Furthermore, notwithstanding the prevalence of “new pay” or “pay at risk” schemes at all levels of the organization and in private and public sectors, compensation risk has mainly been studied within an economics framework and with references to executive pay and sales commission only. These findings suggested a gap between what is clear and present in today’s insecure workplace – employment and compensation risks for all – and what is missing in the existing literature.

The analysis of employment and compensation risks and their omission in the literature can be thought of as Copernican in that it attempts to move the center of the world of work motivation research away from a pure reward-achievement orientation toward the inclusion of a risk reduction motive and a protection-based view. But the thought is not at all original. The predominant views in the strategic management, behavioral economics, and international conflict and negotiation literatures are all predicated on a similar point of departure. In fact, the proposed research framework, which I shall present in Chapter 5 – *Toward a Model of Environmental Perception and Adaptive Motivation*, is developed with extensive references to these views.

Chapter 5

Toward a Model of Environmental Perception and Adaptive Motivation

This chapter is on model building and consists of three sections. The first section contrasts the existing and proposed views of motivation. The second section puts forth a model of “environmental perception and adaptive motivation” with testable propositions. The last section concludes.

5.1 Existing vs. Proposed Views of Motivation

If we adopt the posture of the ostrich with respect to our assumptions under the mistaken idea that we are thus "being practical," or that "management is an art," our progress with respect to the human side of enterprise will indeed be slow.

McGregor 1960: 11

Consider the following vignettes. A telecommunications company has just been taken over by a competitor in the midst of market saturation and shrinking product demand. Over the years, the workplace has been substantially deunionized. With the new merger, management now must reorganize the firm, shed management layers, and within the next 6 – 9 months achieve a goal of cutting at least 40% of existing staff across the board. Inequity is expected to surface with the indiscriminate downsizing targets as several departments are already more severely understaffed than others. The external labor market looks grim and alternative employment does not appear a promising venue for workers. How likely will inequity inhibit motivation in such an insecure workplace?

A fast-food chain has just purchased its franchises and hired the managers of the newly acquired stores. The chain management has invited the store managers to participate in the setting of sales and market-share related goals, the fulfillment of which is directly linked to their remuneration. Challenging goals will be accorded with a bigger marketing budget and be rewarded handsomely when the goals are met. But failure to deliver to do so would require that the marketing expenses be reimbursed to the chain management by deducting the manager's pay. How likely will the managers agree to set difficult goals?

A state-owned heavy machinery enterprise in a developing country sees intensified competition, ageing production technology, as well as tightening budget control and increasingly challenging downsizing mandates from the state. In this environment, workers face the uncertainty of continued employment and the risk of reduced pay if production targets are not met and/or the financial condition of the enterprise continues to deteriorate. How likely will workers be motivated to perform in their jobs under these circumstances when nothing is guaranteed?

These and similar cases concern issues of motivation under uncertainty and risks. While current thinking of motivation focuses on issues of pay, and especially alternative pay systems such as pay-for-performance (Hopkins and Mawhinney 1992) and gainsharing (e.g., Welbourne and Gomez-Mejia 1995), in a presumably stable and incentives-driven (if not also incentives-laden) workplace, the above scenarios help illuminate the timely issue of employment and income insecurity in light of individuals' motivation to adapt to new and changing job demands and challenges for survival in a fast-changing, if not turbulent, workplace.

An alternative view of motivation. The proposed view of adaptive motivation proceeds from the fundamental premise that individuals as adaptive organisms adapt attitudes and behavior to the selective pressures of the environment (cf. Salancik and Pfeffer 1978). The origin of this view can be traced back to zoological philosophy, which identified adaptation as a response to environmental pressures and opportunities (Lamarck 1809). In the field of management, scholars have also applied this perspective to the study of industry evolution and adaptive outcomes in organizational performance (Lawrence and Lorsch 1967; Hannan and Freeman 1989; Madsen and McKelvey 1996).

In particular, Madsen and McKelvey (1996) proposed that adaptive changes arise purposefully in response to shifting environmental pressures. As such, firms and their individual members take a purposeful role in searching for alternatives so as to ensure performance and continued survival. In this sense selection and adaptation are interrelated rather than mutually exclusive processes. This premise leads inexorably to the conclusion that we can most effectively learn about motivation by examining both the environment within which that motivation occurs and to which it adapts as well as the motive or purpose behind the adaptation (Salancik and Pfeffer 1978).

To facilitate the assessment of the proposed view, I shall provide in the subsections below an account of the major differences between the existing and proposed views of motivation. In particular, I shall argue that while existing views have contributed to our understanding of motivation in the past, there is sufficient evidence that they represent an oversimplified and indeed, outdated, version of reality in the workplace.

Table 5.1
Differences between Existing and Proposed Views of Motivation

Area of distinct differences	Existing approach to motivation	Proposed view of adaptive motivation
<u>Assumptions about the environment</u>		
Organizational resources	Abundant	Scarce
(Pre)dominant stimuli	Incentives	Sanctions and incentives
Organizational context	Simplistic and stable	Complex and fast-changing
Nature of environmental events	Recurring and predictable	Uncertain and variable
Environmental pressures	Not specifically accounted for	Pressures of competition and selection
Economic climate	Favorable conditions	Economic uncertainty
Union/management power	Not specifically accounted for	Shifting power of influence from union to management
Work intensification	Not discussed	Acknowledged as a main issue
<u>Assumptions about the person</u>		
Goal	Maximization of gains	Optimization of multiple interests and goals
Individual differences in decision rules	Not accounted for – uniformly utility-based	Varied bases of ideology and instrumentality
<u>Theoretical approach</u>		
Motivation as a process	Restoration to a state of equilibrium and stability	Adaptation to a continual state of disequilibrium and flux
Role of change	Potentially an outcome	An antecedent and an outcome
Motivation as a function primarily of:	Calculated Rationality	Adaptive rationality; bounded rationality; and emotions
<u>Conceptualization of Motivation</u>		
Motivation defined	Motivation involves the forces within individuals and in their environment that drive them toward the attainment of a goal as well as provide them the reinforcement and feedback to either continue or redirect their effort (Steers and Porter 1991).	Motivation involves the forces within individuals and in their environment that drive them to adapt to new and changing environmental demands and challenges or be at risk of elimination in the selection process of survival of the fittest.
Forces behind motivation	To thrive	To survive, and thrive

5.1.1 Assumptions about the Environment

Human behavior can be predicted, but as in physical science, accurate predictions hinges on the correctness of underlying theoretical assumptions (McGregor 1960). Recent changes brought on by the new economic era have blurred traditional workplace assumptions upon which prior theory had been based (Hirsch and Naquin 2001) (e.g., work motivation is achievement-based.). A classic distinction in organizational thinking is between situations that can be described as certain, predictable, well-understood, or routine and situations that are characterized as unpredictable, intractable, or uncertain (Eisenhardt and Tabrizi 1995). In an attempt to assess work motivation within the organizational context, it thus seems appropriate to highlight the differences between the existing and proposed views concerning the environment. These differences are summarized in Table 5. 1 and discussed below.

Sanctions, incentives, and resource scarcity. Existing research tends to assume abundance of environmental resources, and in particular, financial incentives. The inevitable outcome is the almost exclusive focus on rewards in explaining the impact of environmental stimuli on motivation, leading in turn to incentive schemes being the very core of empirical investigation (see Peach and Wren 1992; Prendergast 1999; Bartol and Locke 2000). Whether reward is of an extrinsic or intrinsic nature such as achievement, power, and affiliation (Steers and Porter 1991), it seems that workers may not always be in such a fortunate state as to be performing their labors for the sake of bigger rewards. For example, recent research showed that employees have become willing to accept a pay cut to save their jobs (see, for example Van den Berg, Masi et al. 2001).

In view of cost-cutting in many of today's workplaces and especially in times of economic downturn and unsatisfactory organizational performance, this finding is suggestive of sanctions playing an important role in motivating workers in a resource-scarce environment. Sanctions should, however, not be understood as the opposite of incentives for two reasons: (1) sanctions threaten to reduce individuals' current interests while incentives work toward the advancement of individuals' current interests. The former is status quo *minus*; and the latter, status quo *plus*. (2) Sanctions and incentives may co-exist to fulfill their respective purposes of deterring workers from shirking and

encouraging them to do well at the same time. This line of thinking is consistent with that of the proposed view of adaptive motivation, which accounts for resources scarcity in today's competitive, cost-conscious environment, and the potential simultaneous use of sanctions and incentives among organizations to facilitate the adaptability and flexibility of the workforce.

Environmental complexity, pressures, and change. Arguments that behavior is being shaped by context or "embedded" in the circumstances external to the individual go back at least to Aristotle and Confucius and are especially important components of historical and sociological explanations. But work motivation research tended to downplay the importance of an objective environment (Cappelli and Sherer 1991). Among the fundamental tenets of existing perspective is the theme of simplicity and stability, which render environmental events recurring and thus predictable. However, the reality is that for and in most organizations the act-to-outcome contingencies are very uncertain and "individuals are seen facing the challenge of making sense of contingencies and making allocation decisions in more complex environments" (Sawyer 1990: 108).

Another related assumption is about environmental pressures, which are generally ignored in the work motivation literature. For example, effectiveness of reinforcement is based on past experiences of reward and punishment that are certain, predictable, consistent, specific, and repetitive according to a known pattern. It suggests that people who have been affected before need not "wait and see" to know what would happen next as if environmental forces were static. Selection pressures, however, emphasize that the direction and impact of environmental forces cannot be mapped according to a known pattern as such and are thus uncertain, unpredictable, inconsistent, and unspecific. In other words, forces tend to be dynamic rather than static; and rather than being predictable, outcomes may fluctuate according to changes in environmental conditions.

As Tsui and Ashford (1994) pointed out, all environments exert selection pressures – organisms that have certain characteristics or that have adopted certain action strategies are "selected" for survival (and thus the importance of maintaining a fit between one's control system and that of the environment). Environments differ, however, in the strictness of these selection pressures. Slovic, Fischhoff, and Lichtenstein (1977) argued,

for example, that many environments are not structured to “show our limits”. Decision makers who recognize that they exist in such an environment are freed from the demand of rigorous decision-making. Similarly, organizational environments differ in the extent to which they test individual limits and select individuals for survival based on that assessment (see Tsui and Ashford 1994). As the environment exerted unprecedented pressures to select only the adaptive, individuals’ motivation to perform was likely to also increase. This increase would occur as individuals recognize the new importance of (and startling uncertainty related to) continued survival and success, the value of good performance and associated cost of noncompliance (cf. McAllister, Mitchell et al. 1979).

Economic uncertainty and flexibility. Changes in the economic climate have forced management at all levels in organizations to address more seriously those industrial relations matters relating to the productive and efficient use of labor. Increasing competition, combined with greater economic uncertainty, have come to characterize the modern marketplace, putting companies under greater pressure to adapt their organizational structures and production systems (Deery, Plowman et al 2002: 187). The trend in fallen union density and subsequent weakening of the bargaining power of and collective voice for workers in many workplaces (Freeman and Hersch 2005) is expected to give way to more aggressive and less inhibited management initiatives in the drive for adaptive flexibility.

In industrialized nations, the search for flexibility has underpinned the reform programs throughout the 1980s and 1990s. This “new frontier” (Baglioni 1990) is regarded as the only way of maintaining profits and therefore surviving in the global marketplace (Benson, Philip et al 2000). As a matter of fact, flexibility is no long a unique development in the West. The search for adaptive flexibility in the fight for survival is no exception for the modern Chinese enterprise and its workers alike (see Section 2.2 – *Uncertainty and Risks under “Deepening of Reforms”*).

Work intensification. Several studies, though not directly looking at effort levels, suggested intensification in the use of individuals’ working time. In manufacturing, Elger (1990) surveyed a range of evidence and concluded that there has been a “paring down of pauses, resting and waiting time”. On office work, Lane (1988) noted that an

increased intensity of work was reported almost universally in studies of the introduction of word processors. Overall, workers were found to be putting in more hours and earning less take-home pay than a decade ago (Schor 1991).

There appears to be ample evidence that point to the correlation between management innovations and work intensification. For example, a recent case study of a company deploying just-in-time (JIT) and total quality management (TQM) argued that intensified surveillance and discipline is integral to these regimes (Sewell and Wilkinson 1990). For example, errors made by assemblers were automatically detected and sanctions were applied. And although management rhetoric had it that TQM transforms attitudes and behavior, the system was viewed by workers as a means to intensify work and tighten managerial control (see Edwards, Collinson et al. 1998).

Furthermore, teamworking, one of the management innovations of the last decade may have also contributed to the “efficiency norm” in today’s pressurized workplace. It has been found to have the effects of generating new skills, inducing employees to work harder, and engendering greater organizational efficiency (Green 2001). Such norm enforces adaptation to potential sanctions such as competition, performance standards, efficiency requirements and even conscience under pain of loss of job, loss of approval, reduced self-esteem, bankruptcy, or economic loss more generally (Lane 1991).

Reassessing Assumptions of Existing Theory

A productive way of exploring the usefulness of the assumptions of existing theory concerning the environment is to assess their relevance in light of major events and developments in a research setting that is reflective of the challenges facing today’s workforce. The modern Chinese workplace, albeit having the outward appearance of peculiarity and unfamiliarity to many, represents such a setting in that it exhibits virtually all of the characteristics of today’s fast-changing and turbulent workplace: (1) economic uncertainty, (2) intensifying global competition, (3) rapid technological changes, (4) organization’s drive for adaptive flexibility (through restructuring, cost-cutting, downsizing, and the introduction of new, contingent work arrangements), and subsequently, (5) magnification of employment and income risks for all.

Details of China as a research environment have been presented in Chapter 2 – *Context of China's employment and wage reforms*. It suffices me to highlight critical developments in the workplace that render the assumptions of existing theory invalid, if not also incontestably outdated. To bring the analysis into focus, China's employment and wage reforms exemplify the collapse of an insulated internal labor market and the simulation of external competitive pressures within the enterprise. Prior to the reforms, workers were hired for life and provided cradle-to-grave benefits. Work and income were organized based on to the communist ideal of "from each according to his ability; to each according to his needs" and accordingly, pay was undifferentiated among individuals and poor on-the-job performance was tolerated (Sun 2000b).

Under "deepening of reforms" since the mid-1990s, however, the enterprise was faced with increasingly tough demands and challenges such as market competition and mandate from the state to become economically self-sufficient. The spillover effects in human resources included all workers being put on limited duration contracts (LDCs) that offered no promise of continued employment, subject to a contingent pay that involved up to 40% of the original base salary, and made accountable for increasingly demanding work targets and skill upgrade requirements.

To explain the simultaneous motivational effects of employment and wage reforms amidst other ongoing changes in the environment, it appears needful that existing theory's assumptions about resource abundance and environmental simplicity, stability, and predictability; and accompanying focus on incentives be abandoned. At the same time, an alternative view that defies these assumptions and accounts instead for change and adaptation that are more relevant in today's workplace needs to be seriously contemplated. I shall discuss the theoretical approach and conceptualization of such a proposed view in Sections 5.1.3 and 5.1.4. Meanwhile, let's continue with an assessment of the assumptions of existing theory about the person.

5.1.2 Assumptions about the Person

According to the hedonistic account of human nature, which underlies the study of work motivation as well as utilitarianism and classical economics, the pursuit of pleasure and the avoidance of pain are the sole endeavors of human life. Research in philosophy and economic psychology, however, revealed that people's attitudes to work are more complex and contradictory than it suggests. In particular, it was found that the great majority want work and feel a need to work, even when they find it unsatisfying in all sorts of ways (Sayers 1988). Hedonists are inclined toward the gratification of needs, but as Antonides (1991) pointed out, even then there might be more and less important desires as well as conflicting ones. These findings give us a basis to question two interrelated assumptions governing existing motivation research: (1) the individual's attitude towards goals is that of maximization; and (2) their decisions rules are uniformly utility-based.

Optimization vs. maximization. Expectancy theory postulated that people will do what they can do when they want something (Salancik and Pfeffer 1978). In assuming utility maximization and uniform decision rules for all, the theory failed to account for the possibility that there is a gap between what people can do and what they are morally inclined to do or not to do. The proposed view of adaptive motivation, however, considers the notion of well-being on an extended continuum between hedonism to asceticism, i.e., from the gratification of needs to the abstaining from or suppression of desires as leading to ultimate fulfillment. In so doing, it is able to account for the role of instrumentality *and* ideology in the process of individual decision-making as well as the possibility that some people are more instrumentally and/or ideologically driven than others in their motivation and behavior.

In contrast to existing theory, which assumed that motivation is governed by the maximization of single-focus, utility-based goals, the proposed view also budgets for the possibility that people work through a process of optimization in negotiating and making compromises when confronted with multiple interests and goals.

A related issue concerns goal-setting theory, which proposed that clear and specific goals to facilitate prioritization among alternative actions but failed to account for the potential dilemma of multitasking expectations and conflicting goals. A risk is that with an emphasis on goal clarity and specificity, operationally demanding tasks that do not fall under formal goals may get superficially pushed outside, thus jeopardizing rather than helping performance. As Mintzberg, Raisinghani, and Théorêt (1976) explained, the single-minded pursuit of formal goals may have a detrimental effect, as it lacks consideration for the pressure to negotiate and adapt to complex goal situations. This outcome may adversely affect firm performance in view of the organization as a complex adaptive system with a variety of strategic priorities and multiple and conflicting goals (Ashmos, Duchon et al. 2000).

5.1.3 Theoretical Approach

In order to be able to decide on the research framework that is more fitting for the explanation of motivation in a given research setting, we need a proper understanding of the reasoning that underlies the existing and proposed views of motivation. The analysis below is about the differing views' take on issues concerning disequilibrium, the role of change, and rationality and emotions. Their fundamental differences in theoretical approach are highlighted in Table 5.1.

Disequilibrium vs. equilibrium. One of the critical differences between the existing research and the proposed view of *adaptive motivation* is that which concerns the static vs. dynamic nature of the motivation process. For instance, work motivation theory maintained that the emergence of a need, desire, or expectation generally creates a state of disequilibrium within the individuals, which they will try to reduce by satisfying that need or desire in order to be restored to a state of equilibrium (Steers and Porter 1991). This position suggests that equilibrium is the goal, the ultimate condition that regulates motivation. All these seem to make sense in a stable environment where disequilibrium is the exception and change is discontinuous or “one-off”.

But what if there is ongoing unsystematic and unforeseen change in the environment to the extent that disequilibrium becomes the norm rather than an anomaly? For instance, if the environment in general is in a state of flux (as is the case with the reforming Chinese industry), there may be no future disequilibrium to anticipate as such because the current state is always one of disequilibrium (Morgan 1996). This stance is in line with Coleman's (1999) suggestion that in rapidly changing environments individuals learn to live and work in disequilibrium, whereby self-regulation and organization become the natural "default" behavior and mode of operation, with adaptive processes moving through phases of structural stability and instability to promote survival and growth.

The individual adaptive process may be more fully understood by referencing its origin at the economic and organizational levels. In my research setting, for instance, the Chinese leaders are endeavoring to change the nation's institutional legacy through "a policy of disequilibrium and non-linear progression" intended to accommodate basic strains within the system, especially between the goals of reform and social stability (Cooke 2005: 195).

The ongoing adaptation distinguishes the state enterprise as an adaptive system from classical equilibrium mechanics and economics, in which an initial agent action, such as the state freezing the wage for all state-owned enterprise workers (as had been the case in the planned economy), would reverberate through the whole system until equilibrium was attained. In an adaptive system set in the country's increasingly open economy, the feedback effects from interacting agents, however, do not necessarily lead to equilibrium, but a situation of evolving complexity and the emergence of new agents, rules, and reform models within the overall adaptive system.

From the perspective of individual agents (e.g., the state-owned enterprise or an organizational member therein), the adaptive system is open and dynamic in the sense that: (1) no desirable or appropriate behavior can be fully pre-specified (Tsui and Ashford 1994); and (2) no single agent acting on its own is in complete control of the effects of its actions. As such, the choice of action on individual agents is necessarily restricted. As other agents in the system respond in their individual interests, their responses provide the impetus for additional agent actions (see Kurtyka 1999). In so

doing, organizations and their individual members are believed to adapt to and co-evolve with the environment (Kauffman 1995), in the sense that they proactively influence and counteract with the forces of the environment, which also influences them.

As much as imposing a simplified order by constraining and routinizing behavior in the midst of conflict, ambiguity, and disorder has been empirically proven to be an ineffective response to environmental complexity in today's organization (Ashmos, Duchon et al. 2000), it does not seem expedient for theorists to continue to regard the motivation process as strictly about the restoration to a state of equilibrium and stability.

Role of change. A major distinction between the existing and proposed views of motivation is the treatment of change. In as much as existing theories have contributed to the understanding and "pursuit of the happy/productive worker" referred to by Staw (1986) (see Chapter 3 – *Literature Review – Work Motivation* for a review), none of the frameworks addressed the important issue of organizational change and individual adaptation. As summarized in Table 5.2, existing theories tended to have potential relevance to the issue of change as a consequence rather than as an antecedent.

Table 5.2
Empirical Study of Change in Work Motivation Research

Theory	Role of change
Expectancy	Change of effort <i>as an outcome</i> of expectancy beliefs
Goal-setting	Change in performance <i>as an outcome</i> of specific and difficult goals
Equity	Change in attitude/behavior <i>as an outcome</i> of inequity
Reinforcement	Change in behavior <i>as an outcome</i> of rewards and punishments

For example, expectancy theory may address the change of effort (in terms of direction, strength, perseverance, and strategy) as an outcome of expectancy beliefs and goal setting theory, the change in performance as an outcome of specific and difficult goals. Similarly, equity theory may address the change in attitude and behavior as an outcome of inequity and reinforcement theory, the change or modification in behavior as an outcome of administered rewards and punishments. Most of the empirical studies of

these theories were predicated on the propositions that, *everything else being equal* (i.e., assuming no change in the environment):

- (1) the higher the perceived valence, instrumentality, or expectancy, the higher the motivation (expectancy theory)
- (2) the clearer and more specific the goals, the higher the motivation (goal-setting theory)
- (3) the higher the perception of equity, the higher the motivation (equity theory)
- (4) the administration of an intermittent schedule of events of reward and punishment is more effective than a continuous schedule (reinforcement theory)

Such approaches to investigating motivation would have been helpful if the environment were stable and predictable, but perhaps not in a workplace that is characterized by ongoing workforce restructuring and cost-cutting initiatives (see Belous 1989; Hartley 1996). On the organizational level, there may also be changes and adjustments in strategy and business focus. Organizations initiate these changes in multiple domains such as technology, structure, management, and employment and pay policies.

Yet, the common misassumption concerning the stability and predictability of the research setting cannot be attributed to the theorists themselves. After all, none of them suggested that such an assumption should be made of their theories. On balance, the purpose of existing theories has been to highlight the various aspects of work that can make a difference in motivation and performance, typically as a platform for making predictions by controlling for other factors – never with the intent to account for change in the environment. However, existing empirical research tends to direct its attention mostly singly to new pay schemes, the study of which does not appear to account for the simultaneous influences of other potential forces in the environment.

Cognition and emotions. Existing work motivation theory, like most efforts to rationalize observed behavior, attempted to place that behavior within a framework of calculated rationality. It was however argued by behavioral economists that behavior cannot always be explained as following from a calculation of consequences in terms of prior objectives (e.g., Simon 1955; March 1978), as environmental events are not always

calculable to individuals as such. This stance revealed that models of calculated rationality are deficient not only as descriptors of human behavior but also as guides to intelligent choice. The implication is that the phenomenon of motivation under uncertainty and risks, such as that observed in my research setting, should be examined not only as a product of calculated rationality, but perhaps more importantly, as a function of alternative forms of individual information processing such as systematic rationality and bounded rationality, and emotions.

Adaptive and selected rationality. Within systematic rationality, i.e., rationality as evolving over time within a (socio-economic) system rather than on the basis of calculation (March 1978), adaptive rationality and selected rationality are particularly worthy of note for their relevance to the study of motivation under uncertainty and risks. Adaptive rationality focuses on experiential learning by individuals or collectivities which amounts to properties that permit sensible adaptation to uncertainties and irregularities in environmental challenges and demands (see Cyert and March 1963). For instance, China's incremental approach, as often contrasted with Russia's "shock therapy" (see, for example, Clarke 2005), is heralded by the State as the way forward in introducing and deepening the economic reform amidst the complexities of an emergent socialist-market economy or "market economy with Chinese characteristics".

Selected rationality emphasizes the coming about of "rule of behavior" not by conscious calculation of their rationality by current role players *per se* but by virtue of survival and growth of individuals, groups, and organizations by and in which such rules are performed or followed. For instance, "model laborers" (*laomo*) at my research enterprise and "best practice organizations" (*longtuo qiye*) in the reforming Chinese industry were *selected* as epitome of what could and should be. These two forms of rationality may be said to be connected in the sense that selected rationality may serve as a means to further adaptive rationality and as a result help speed up the reform process by saving "beginners" the painful and costly experience of learning by trial and error.

Bounded rationality. Bounded rationality emphasizes deviations from rational expectations (March and Simon 1958). As a substitution for omniscient rationality, the concept proposed that all deliberate rational behavior is "behavior within constraints

such as limitations in information processing and problem-solving” (March 1978: 590). Bounded rationality advances the understanding of individual decision-making in calling attention to heuristics or cognitive shortcuts, which may bias decision outcomes in systematic ways. This position was supported, albeit indirectly, by Mitchell and Daniels who, in criticizing the mechanistic nature of expectancy theory (Vroom 1964), noted that “while it relies on an explicit mathematical model of motivational force, it is clear that people seldom make such mental calculations” Mitchell and Daniels (2003: 229).

The combination of bounded rationality and environmental uncertainty looks set to trigger a whole new debate on how issues of environmental change may be processed by individuals in the process motivation. For instance, (1) what kind of information processing mechanism or mental shortcuts individuals may go by in making sense of pressing environmental issues and demands; and (2), what role emotions may play in information processing given the challenge of incomplete and/or inexact information in an uncertain world. While I shall discuss the first issue in the context of the proposed model of environmental perception and adaptive motivation in Section 5.2, I shall proceed to address the role of emotions below.

Emotions. Emotions depend on personal reactions to environmental events and this may differ according to temperament, mood, personality (Antonides 1991), and outlook. While uncertainty can be a source of stress as well as of stimulation (Berlyne 1975), what is critical to the proposed view of adaptive motivation is the affective significance of uncertainty in human adaptation processes (see Kittay, Serban et al. 1975). Consistent with research on emotional intelligence (Daus 2005; Spector 2005). Foster (2000) maintained that nothing need to be irrational about emotions in their unique function of relating to states concerning which normal cognition is less relevant. He further argued that we may not observe rational economic behavior when there is a lack of emotional arousal (e.g., state of indifference or boredom) or a state of overagitation (e.g., fanaticism or desperation).

Emotions may be extended to mean sensitivity to environmental cues for appropriate behavior given off by others (Snyder 1979). In this context, sensitivity almost definitionally implies an active participation in the adaptive self-regulation process (Tsui

and Ashford 1994). The implication is that for individuals attempting to adapt to and succeed in a complex and fast-changing environment where there is typically no guarantee as to a consequence being systematically linked to a previously known cause, the role of such sensitivity may be critical. For instance, responses of individuals under uncertainty and risks may heighten, or contribute to, a sense of “risk consciousness” (Wilkinson 2001), which may in turn motivate them to take preemptive measures to protect their well-being and interests (Brown 1997).

Positive and negative emotions. While it was argued that positive emotions (such as hope and enthusiasm) carry direct and immediate adaptive benefits (Fredrickson 2001), facilitate creative problem-solving (Johnson and Tversky 1983), and encourage proactive coping (Aspinwall and Taylor 1997); the same might be argued for negative emotions (such as disappointment and feeling of being threatened) to the extent that they challenge individuals to consider broader issues, such as whether identified goals are worth pursuing and which strategies are appropriate to achieving desired goals (Eysenck 1982; Stone and Ziebart 1995), and create or enhance a sense of resilience, unity and solidarity that lead to more effective teamworking and the development of collaborative measures against future threats.

The following section on how motivation is conceptualized and defined based on the existing and adaptive views will further clarify the issue at hand.

5.1.4 Conceptualization of Motivation

Empirical research on work motivation and performance presents a complex picture. For example, on one hand, researchers maintain that by making goals clear and specific to follow, goal setting can improve performance. On the other hand, scholars argue that real organizations are messy, indeterminate places and work in such a setting is beset with uncertainty and complexity (Pearce 1987), which makes goal clarity and specificity unrealistic and infeasible, if not also confusing, obstructive and damaging to morale. Given the paradox, it seems that goal-setting as “a motivational technique that works” (see Locke and Latham 1984) could be a double-edged sword, in that it has positive

implications in some contexts and for some motivation or performance variables but negative implications in other contexts.

The discussion in this section introduces the possibility that the positive or negative effects of motivational techniques (such as goal setting and reinforcement) may not be just a function of the dependent variable or context examined but also a function of the way in which motivation is understood and conceptualized in the first place. Motivation has been defined as the allocation of time and effort across competing demands (Sawyer 1990). As Sawyer points out, such resource allocation problems are made more difficult when the relationship between activities (e.g., effort) and desired outcomes (e.g., performance) is uncertain. This uncertainty prevents the individual from accurately predicting the optimal amount of time and effort needed to achieve desired outcomes. However, often an activity with uncertain outcomes cannot be totally abandoned. Some portion of the individual's time and effort must be allocated to the uncertain activity (Sawyer 1990: 85).

Motivation under Uncertainty and Risks

In much of the existing work, researchers consider motivation to involve “the forces within individuals and in their environment that drive them toward the attainment of a goal as well as provide them the reinforcement and feedback to either continue or redirect their effort” (Steers & Porter 1991: 6). Such approach overlooks the possibility that environmental events can be uncertain and variable, and subsequently fails to fulfill the need to explain motivation under uncertainty and risks.

Definition of adaptive motivation. The proposed view of adaptive motivation argues that motivation involves the forces within individuals and in their environment that drive them to adapt to new and changing environmental demands and challenges or be “at risk” of elimination in the selection process of “survival of the fittest”. In this connection, I define *adaptive motivation* as *motivation to adapt to new and changing environmental demands and challenges with the purpose of increasing one's chances of survival and success under uncertainty and risks.*

This conceptualization represents an attempt to explain what existing views cannot explain, for example, why individuals will be motivated given low input-outcome expectancies, i.e., when consequences are inconsistent and environmental feedback is not always or exactly in the affirmative. In light of the fact that an increasing number of today's work roles are characterized by complexity, ambiguity and uncertainty (see Pelled, Eisenhardt et al. 1999; Smithson and Lewis 2000), the conceptualization of adaptive motivation is particularly helpful as individuals are increasingly found to be operating under uncertainty and risks and the links between input, performance and reward are not always clear or straightforward (ILO 2001: 147 - 161).

Under these circumstances, individuals may be motivated to "do their best" despite low or uncertain perceived input-outcome expectancy because they do not know of a better way. The idea is that as long as the individuals feel that their increased effort helps to increase their chances of survival and success, and that there is no other way of attaining the outcomes they want, they are likely to be motivated to adapt to the changing demands of the environment.

Furthermore, once the adaptive view is established as meaningful for understanding motivation in today's workplace, it is reasonable to ask – "*Adaptation to what?*" Adaptive motivation may be conceived in terms of meeting new, changing and demanding performance expectations and requirements in one's job. Adaptation need not necessarily be entirely conceived in terms of the delivery of tangible goals, but may be spurred by a perceived change in the scope of possibilities, broadly conceived (Potts 2000). This, for instance, is what Kirzner's (1973) entrepreneur reacts to, characterized by alertness to opportunities. It could also be what my research organization consciously endeavors to achieve among its members – alertness to competitive and other issues that are threatening the enterprise' performance and survival.

Adaptation in the work context may also be viewed in terms of striving for what is not necessarily ideal or optimal, but advantageous and workable at a given place and time. It can be understood in light of what is referred to in post-Keynesian reading of expectation formation as "self-adaptation" or self-organization (Foster 1997; Witt 1997), which is not hinged to any objective environmental circumstance *per se*.

Several job and organizational variables may systematically contribute to the adaptive motivation process. These contextual variables may be considered as most conducive to adaptive motivation. In accordance with what is discussed above, adaptive motivation would be a likely phenomenon in work situations defined by any or a combination of the following four characteristics: (1) ambiguity especially in terms of output standards (“ends”) and the process of achieving them (“means”) (Thompson 1967; Tsui and Ashford 1994); (2) new, changing or increasingly demanding performance standards (Lane 1988; Edwards and Whitston 1991); (3) uncertainty concerning performance outcome (Eisenhardt 1988; Sawyer 1990); and (4) uncertainty concerning other rewards such as economic payoffs (Libby and Fishburn 1977; Vlek and Stallen 1980) and social acceptance or approval (Skinner 1953; Welsh, Luthans et al. 1993). Each of these characteristics undermines the efficacy of conventional motivation theory, which was predicated on assumptions of clarity, stability, and predictability, and concomitantly increases the importance of explaining motivation in a fast-changing environment.

The drive to survive, and thrive. To more fully understand motivation, it is important to delineate the forces behind it given the individual differences and circumstances at hand. My curiosity is above all justified by the prevailing trends in the intensification of work (Edwards and Whitston 1991; Burchell, Day et al. 1999; Green 2001), which raised the issue about the motive behind all that overtime and hard work – “*Is it to thrive, or to survive?*” In other words, are individuals being driven to work hard for the sake of attaining a higher level of payoffs only? Or could it be also because they feel that their status quo is being threatened and working hard is the only way to increase their chances of maintaining it?

Although employment insecurity has become a major issue in today’s workplace (Pfeffer and Baron 1988; Lane 1991), motivation scholars have devoted little attention to how individuals may be motivated for the purpose of survival and self-preservation. It is therefore expedient that due consideration be given to the motive to achieve as well as the motive to protect in explaining motivation. As achievement-driven motivation is growth-oriented, the focus of attention is on the advancement of interests, such as more pay, recognition, and promotion.

On the other hand, protection-driven motivation is survival-oriented and focuses on avoiding loss, e.g., pay deductions, degradation, and termination of employment, etc. The basic mentality illustrated by the existing perspective is that of seeking opportunities for growth and that captured by the proposed view, reducing threats for self-preservation and survival. As such, according to the existing approach the individuals' goal appears to be the maximization of gains for the purpose of prosperity and growth, and based on the proposed view of adaptive motivation, optimization of multiple interests and goals for the purpose of adaptation and survival.

Protection vs. achievement motivation. Protection motivation and achievement motivation represent the two distinct motives concerning the pursuit of gains or rewards and the avoidance of loss or punishment. However, the differences between them are not rigorously explored in the existing work motivation literature. One may argue that reward and punishment or positive and negative consequences are discussed in the motivation literature. But it is done mainly within the framework of reinforcement theory, the empirical research of which tends to be atheoretical (Ambrose and Kulik 1999) and seldom includes the punishment or negative consequence aspect. Furthermore, neither the specific review of behavior modification in the business setting by Andrasik (1989) nor the general review of the motivation literature by Mitchell and Daniels (2003) distinguishes between the motives.

It has been queried that many accepted findings in organizational behavior may exist more because of the way researchers frame the problem than because of the presumed impact of the construct on individual motivation and behavior (Bazerman 1984). Making a distinction between the achievement and protection motives in this particular incidence will open up opportunities for the reality to manifest itself as to whether individuals are working extra hard primarily to seek after desirable things they have not yet attained (e.g., extra bonuses and promotion), or to avoid losing the very fundamental of what they currently have and value (e.g., their jobs).

So far we have contrasted the two main driving forces behind motivation – growth and survival – and the two corresponding motives addressed by the existing and proposed views of motivation – achievement and protection. It is necessary to clarify that although

the view of adaptive motivation depicts a motivational pattern that is primarily protection-driven, it is possible for the motivation of certain individuals, and especially that of the keen survivors in the adaptation process, to be driven by achievement at the same time. However, the existing view does not insist on the presence of protection motive as either a prominent or secondary feature in the motivation process.

5.2 A Model of Environmental Perception and Adaptive Motivation

Individuals view the changing environment as the source of many selective pressures that bear on their survival and success. Selective pressures are competitive in nature (Lane 1991) and could present threats to basic survival as well as opportunities for growth. Since events in a changing and complex environment are expected to be evolving (Ramanujam 2003) rather than repetitive, it would be unrealistic to assume that their outcomes can be systematically controlled or predicted on the basis of past events. This stance differs fundamentally from that of existing motivation literature, which considers change only as an outcome (e.g., change in motivation as a result of a new pay scheme) and bases its predictions on the controllability and predictability of organizational consequences such as money, security, recognition, social support, formal and informal sanctions, reprimands, and termination (Luthans and Kreitner 1985).

However, many of these so-called organizational consequences and in particular those of an economic nature such as pay and employment security, are subject to pressures in the organization's external environment, and are therefore neither straightforwardly nor entirely controllable by the organization. As such, when an organization introduces a new pay scheme, for example, it is likely to be not only the contingent requirements of the new pay scheme that the workers have to adjust to, but also other pressing realities such as downsizing, restructuring, and merging. These organizational changes are taking place with striking frequency in response to more turbulent, more competitive and more global marketplaces (Tsui and Ashford 1994). The fact that they no longer follow a well-defined path where outcomes are known a priori (Edelman and Benning 1999) represents unprecedented adaptive demands and pressures on the individuals concerned.

Accompanying these changes has been the introduction of management innovations such as total quality management, which has been acknowledged as a means to intensify work and tighten managerial control (Edwards, Collinson et al. 1998). One consequence of these trends is the increase in work pressure, a phenomenon seldom given attention in the motivation literature. Workers are now generally held responsible for a wider array of activities than before, including making rapid adjustments to changes in work processes and other commonplace organizational changes aforementioned. With multiple changes taking place in a complex environment (Foster 2000), it seems not only beneficial but also desirable to base predictions of motivation on the workers' overall perception of the environment they are in rather than on specific aspects of work or work-related outcomes such as goal specificity and reward attainability propositioned by existing motivation theory.

As Sitkin and Pablo (1992) confirmed, most scholars who have studied decision making behavior in organizational situations have focused on the direct effects of one or two determinants of this behavior. However, such an approach does not adequately reflect the complex sets of real life or influences in organizations (Sitkin and Weingart 1995). By emphasizing the nature of the contemporary setting as an important context for individual adaptation, I am not implying that this process is not relevant or important for workers in different time periods. Rather, I am suggesting that the unprecedented pace of changes in today's workplace heightens the need for rapid adaptation by individuals (cf. Tsui and Ashford 1994).

Worker perceptions of the changing environment have been given little attention in the motivation literature. Yet, there exists a myriad of questions that can be asked about the workers and their responses to the rapidly changing employment and pay arrangements in this context. Where adaptive behavior is not automatic, i.e., when behavior is not an automatic result of instinctive behavior, significant input such as the reception and processing of information, and the organization of responses has to be recognized, categorized, and acted upon, and the response to stimuli that appear to be insignificant or to have lost their significance must be inhibited (Grossman 1975). In the ultimate sense, adaptability means the capacity to behave in ways maximally consonant with the attainment of ends or goals in a changing environment (Harvey 1966).

Accounting for cognition and emotions. It is important to clarify at this point, why existing cognition-based frameworks could be helpful but are insufficient for predicting motivation in a complex and changing environment. Concerning the cognitive informative processing aspect of human adaptation, Olds (1956) informed that individuals are concerned with searching and scanning for environmental cues, interpreting them, assessing “where they stand”, and deciding accordingly on what they can and will do to attain their goals. Without paying dual attention to the affective aspect of adaptation processes, however, the solution seems only partial. In this regard, Kittay, Seban et al.’s (1975) and Foster’s (2000) suggestions that emotions fill the gap where information is incomplete or when individual information processing capacities are limited are helpful in inspiring the theoretical direction.

In line with these views, I propose that adaptive motivation and behavior may be knowledge-based and emotions-driven. Adaptation, however, is not always oriented toward prosperity and growth. It therefore seems beneficial to consider a broader category, that of environmental perception, which: (1) in general caters for cognitive and affective activities in individuals’ adaptive responses to and interaction with environmental issues and demands for the purpose of development and growth; and (2) in particular cases of turbulence, crisis, and significant change and adjustment under uncertainty and risks, helps explain motivation from a view of adaptation for the principal reason of survival.

Environmental Perception under Uncertainty and Risks

Practically all forms of human behavior involve decision making under uncertainty. Any decision made under uncertainty, which effects future events, has some risk to it, and people are typically averse to risk (Katzan 1992). Uncertainty and risks as a subject has implications for organizational decision-making, executive behavior, managerial attitudes, and work motivation. Economics researchers of uncertainty and risks have however rarely studied motivation in the work setting, just as management researchers studying motivation have often ignored the uncertainty and risks within which the workers’ environment is embedded.

Uncertainty seems especially inevitable in a complex environment whether the complexity arises from interactions between people, management and workgroups (Foster 2000), the task itself (Griesinger 1990) or the act-to-outcome contingencies in relation to it (Sawyer 1990). Uncertainty, objective or subjective, is associated with the amount of unpredictable variety furnished by the environment. Motivational phenomena must however depend more directly on subjective uncertainty, which involves anticipation of how an environmental event may unfold amidst mutually exclusive scenarios than on objective uncertainty, which deals with relative frequencies (Berlyne 1975). The hypothesis is that subjective uncertainty, induced by external stimulation, can have energizing or activating effects.

An example given by Berlyne (1975) is for slight influxes of uncertainty to be gratifying for certain individuals at times of their boredom or sensory deprivation in which the puzzlement and the subsequent enlightenment are both pleasurable. Another possibility is for an amount of uncertainty to sufficiently create a sense of fear and concern for certain individuals so much so that they would not want to take their chances, so to speak, but do everything they can to help reduce the risk of failure. This would, for example, be the case at my research enterprise where all workers have been put on limited duration contracts with no guarantee of renewal.

Nature of environmental perception. Waller, Conte et al.'s (2001) referred to perception as an outcome of individuals' information processing or a consequence of individuals' selective attention, selective comprehension, and judgment. In particular, environmental perception represents evaluative information that is a result of sensing or scanning of the environment. It directly references one's relationship with environmental forces (Ashford and Cummings 1983; Tsui and Ashford 1994) and may encompass cognitive and affective responses in the sense that individuals may go by what they think as well as how they feel in trying to make sense of complex environmental issues.

Environmental perception may denote a value of quality and be represented by a category (e.g., threat) that may be qualitatively reflective, but not necessarily quantitatively tied to, objective characteristics of the situation (Salancik and Pfeffer 1978). This seems all the more plausible when information pertaining to environmental

issues is incomplete or inexact and therefore subject to personal interpretations and perceptual biases (see Tversky and Kahneman 1974), as people are known to evaluate information sources in terms of personal relevance (Festinger 1954).

The ability to differentiate the environment and integrate the information may also vary across people. This variation may lead to different outcomes in learning and adaptation to new environments, even if individual circumstances and preferences are the same (Antonides 1991). There thus seems a strong case for investigating perception of environmental forces for which probability beliefs cannot be established due to factors of uncertainty and risks. In this connection, the economics literature offered valuable insight especially pertaining to attitudes toward risk.

Risk attitudes. Findings revealed that motivation is influenced by individuals' attitudes toward risk, or risk propensity. In particular, people seem more concerned with avoiding losses than pursuing gains (Tversky and Kahneman 1986). It is thus likely for individuals to first pay attention to protecting existing interests that are fundamental to their survival than to go out of their way to pursue unprecedented, and thus risky, opportunities for growth. Survival means that individuals must constantly engage in the work of preserving themselves, particularly by acting upon the environment in a proper way to replenish the materials and energy needed. This is obviously the situation where proper information processing is most directly required (Toda 1983).

In order to explore individuals' response to and processing of environmental cues in a today's complex, fast-changing, and challenging organizational setting (see Tsui and Ashford 1994), the development of a model of environmental perception, i.e., the overall assessment of the environment rather than perception only of specific or isolated issues within it (e.g., expectancy, instrumentality, goal specificity, and goal difficulty), appears to be not only a more promising but also a necessary avenue for explaining motivation.

5.2.1 Threat and Opportunity Perceptions and Adaptive Motivation

The psychology of perception deals with lawful relationships concerning the discrimination of stimuli (Antonides 1991). To begin with, all human behaviors are guided by how man goes about interpreting his universe (Alexander 1975). Particularly, people form cognitive representations of the environment to make sense of the ambiguity and complexity in their environment (Dutton and Jackson 1987). This view is consistent with Tversky and Kahneman's (1974) argument that people use mental approximations to understand an uncertain world.

Schema of Threats and Opportunities

The most common form of discrimination of environmental stimuli in social sciences is perhaps that which involves the perception of threats and opportunities. Table 5.3 lists the multiple areas of research that use the schema of threats and opportunities or the like as cognitive representations of environmental cues under uncertainty and risks.

Table 5.3
Schema of Threats and Opportunities in Social Sciences Research

Area of research	Representative studies	Schema used
Behavior of the firm	March & Simon 1958; Cyert & March 1963; Simon 1965	Opportunities and threats/problems/crises
Managerial decision-making	Ansoff 1965; Steinbruner 1974; Fredrickson 1985; Dutton & Jackson 1987; Jackson & Dutton 1988	Threats and opportunities
Marketing management	Kotler 1967; Kotler 1997	Opportunities and threats
Conflict resolution	Tedeschi 1970; Horai & Tedeschi 1975	Threats and promises
Bargaining and negotiation	Sawyer & Guetzkow 1965	Threats and promises
Economic and investment decisions	Kahneman & Tversky 1979; Tversky & Kahneman 1981; Neale, Huber et al 1987	Losses and gains

For example, in research on the behavior of the firm, decision makers can be motivated either to avoid or take risks by their perception of problems, crises or threats and opportunities (March and Simon 1958; Cyert and March 1963; Simon 1965). Jackson & Dutton (1988) described the strategic management process as one that involves the perception of ambiguous organizational issues as “threats and opportunities”. Such schema is evident throughout studies in managerial decision making (Ansoff 1965; Aharoni 1966; Steinbruner 1974; Fredrickson 1985; Dutton and Jackson 1987). Dutton and Jackson (1987) pointed out that organizational decision makers do not only employ schema, described as a memorized structure for the interpretation of data (e.g., threats and opportunities) to understand their world, their perceptual and interpretive processes are also consequential for determining organizational level action.

Another categorization in this same vein concerns the prescriptive marketing research and practice of “SWOT analysis”, which involved, in relation to a firm’s internal strengths and weaknesses, the scanning of the external environment for “opportunities and threats” (Kotler 1967; Kotler 1997). But categorizations of this kind are not limited to research in the organizational setting. An interesting parallel stems from research on interpersonal conflict, which discuss the presentation of “threats and promises” as tools in resolving differences (Sawyer and Guetzkow 1965; Tedeschi 1970; Horai and Tedeschi 1975). There is evidence that the same schema is used in related fields of bargaining and negotiation (Sawyer and Guetzkow 1965; Neale, Huber et al. 1987).

Last but not least, findings in research on economic and investment decisions show that the way an outcome is framed (in terms of losses or gains) can influence a decision maker's risk propensity and thereby his/her decisions (Kahneman and Tversky 1979; Tversky and Kahneman 1981; Neale, Huber et al. 1987). In particular, Levin, Johnson et al (1986) demonstrated that the locus of framing effects lies in the translation of subjective impressions into overt responses (Sawyer 1990).

I have so far argued that the schema of threats and opportunities or the like are commonly used across the field of social sciences in understanding information processing and decision making. The importance of discriminating environmental stimuli for survival and success is perhaps best articulated by Kiesler & Sproull, who

defined managerial problem-sensing, i.e., processing of ambiguous organizational issues, (or environmental scanning), as a “necessary precondition for managerial activity that is directed toward organizational adaptation” (Kiesler and Sproull 1982: 548).

Conspicuous by its absence in the motivation literature is research into how individuals process environmental cues and respond to perceived threats and opportunities under conditions of uncertainty and risks. To fill in the gap, I proceed in the following sections to conceptualize, based on insights from other literatures, the ideas of threat and opportunity perception in the work setting.

5.2.2 Proposed Concept of Threat Perception

The use of threat of punishment is a relatively common phenomenon in industrial and organizational settings (Arvey and Ivancevich 1980). Indeed the threat of job losses (Adam, Beck et al. 2000; Wilkinson 2001) and wage cuts (Blanchflower 1991; Beck 2000) represent an increasingly frequent and alarming reality of today’s workplace. But it seems that the concept of threat has not been given parallel attention in the motivation literature. As a matter of fact, a survey of subject indexes of leading volumes on motivation (e.g., Aldis 1961; Lawler 1973; Steers and Porter 1991; Pinder 1998) revealed that no entry of “threat” as a concept or as a term has been listed.

This lack of synchronization between theory and practice may be partly explained by the fact that in the Anglo-Saxon culture, it is neither socially desirable for managers to talk about the use of threat, nor is it considered appropriate for academics to examine its application in a research setting. It is therefore not completely surprising that analyses of threat and motivation in the workplace (Baker, Ware et al. 1966; Arvey and Ivancevich 1980; Sims 1980) have largely been conducted without sophisticated theoretical development of the concept itself or the process of its perception.

Of particular relevance are those studies that examine how organizations have successfully or unsuccessfully adapted to threatening environments (Argenti 1976; Rubin 1977; Starbuck and Hedberg 1977). Studies that specifically investigated

unsuccessful adaptation include Staw, Sandelands, and Dutton's (1981) theory of threat-rigidity effects which explained markedly cautious or even rigid organizational responses to adversity in ways such as increased formalization and control, conservation of resources, and the economizing of information processing by narrowing the perception field and limiting the incoming information. Along the same lines, Smart and Vertinsky (1977) argue that during a crisis, fear of failure incapacitates decision makers.

If adversity leads to rigidity and incapacitation, it seems likely that decision makers would undertake conservative rather than high-risk decisions in response to declines in performance. In other words, organizations tend to be more risk-averse in situations of adversity (see Singh 1986). These findings are consistent with Roger's (1975) protection motivation theory in the persuasion literature, which proposed that fear-arousing stimuli, such as those in health warnings, seek to eliminate or establish response patterns that might produce or prevent the occurrence of noxious events.

On the other hand, researchers studying the successful adaptation to adversity find that decline triggers corrective processes in organization (Cyert and March 1963) and processes of decline activate their own counterforces (Hirschman 1979). Other theorists propose that organizational crises can be opportunities for innovation (Wilson 1966; Lindblom 1968; Whetton 1981). In addition, research in sociology suggests that coping effectively with adversity increases the survival prospects of the organization (Thompson 1967; Pfeffer and Salancik 1978).

It can be argued that psychological rather than organizational or sociological theories are best equipped to explain individual-level phenomena. But as Miller (1978) pointed out, there are many effects that appear to generalize across levels of analysis, because meso- or macro-level effects may influence individual-level phenomenon. One way of gaining insight into the effects of threat on motivation is through how organizations make use of different kinds of power to manipulate employee behavior. In this connection, Etzioni (1961) proposed that organizations employ three kinds of power – coercive, remunerative, and normative power – but the degree to which they rely on each to motivate differs from organization to organization.

In this light, coercive and remunerative powers seem most immediately relevant to examining the motivational effects of the kind of threat produced by China's employment and wage reforms. Coercive power rests on the application, or the threat of application, of sanctions such as the non-renewal or termination of employment contracts, or the controlling through force the satisfaction of needs such as job security and the like. Remunerative power is based on control over material resources and rewards through allocation of salaries and wages, commissions and contributions, fringe benefits, services and commodities

Furthermore, independent of specific enterprise reform measures but equally relevant in the organization as a social institution is normative power – the power of allocation and manipulation of symbolic rewards and deprivations through employment of leaders, manipulation of mass media, allocation of esteem and prestige symbols, administration of ritual, and influence over the distribution of “acceptance” and “positive response”. The main idea is that the larger the number of personal needs whose satisfaction the organization controls, the more power the organization has over the participants (see Etzioni 1961 for a detailed discussion).

Perhaps the most severe form of threat affecting motivation in the process of adaptation from an entitlement environment to a contingent environment in the Chinese workplace is not that which is related to the fluctuation in compensation but the total discharge from employment. This reckoning is supported by the argument that the need for security usually precedes the demand for more pay (Lane 1991), social or other higher-level needs. Despite its importance, the notion of threat was not taken seriously in the work motivation literature even in the seemingly closely related theoretical contexts of Maslow's (1943) need hierarchy theory or Alderfer's (1969) suggestion of existence, relatedness, and growth needs.

Literature at the individual level mainly dealt with the effects of threat in the form of stress, anxiety, and physiological arousal. The relevance of this research is individuals' coping and adaptive responses. A crucial part of this study will therefore examine evidence for adaptive motivation in this regard.

Defining “Threat Perception” in the Work Setting

One of the most radical changes in the workplace in recent years has been the transformation of traditionally secure managerial jobs into insecure ones (Roskies and Louis-Gerin 1989). In fact, the change did not just affect managers but also ordinary workers. In China alone, official statistics report 10 million unemployed industrial workers at the turn of the century (SSB 2000). With further industrial restructuring and enterprise reform, at least 15 – 30 million or up to 30% more jobs in Chinese industry were threatened to have to go. As a matter of fact, this seems a somewhat modest estimate given the admission across the Chinese industry that “three out of five jobs” or 60% of the workforce are redundant or “superfluous” (*fuyu*). (Tang 1998: 146).

Although job losses are expected to be less extensive in the advanced economies, authors have presented detailed reports of the psychological effects of potential job loss and noted that workers are more anxious about losing their jobs than they were in the past (see Schmidt 1999). While job losses are often described as “traumatic experiences” for the individuals concerned (Johnson and Nalbandian 1998), the insecurity suffered by those who need to sell their labor to survive goes beyond the workplace; it extends to fear of loss of home and mortgage (Elliott and Atkinson 1998).

Two existing definitions of threat in social sciences research offered insights in conceptualizing the perception of threat in the work setting. In the setting of international conflict and negotiation, Singer (1958) defined threat perception based on the perceived intent and perceived capability of an opponent who allegedly plans some action detrimental to the target. This seems to be the most popular definition in the literature which involved the use of threat in influencing the behavior of an “opponent”, and especially in the form of a contingent threat which conveys an intent to harm and centers the use of punishment to coerce another to further the threatener’s goals (Tedeschi 1970).

In the analysis of societal evolution, Boulding (1978) used the term “threat systems” to refer to the source of dominance and internal discipline. For instance, threat is used in the family, commonly to ensure dominance of the husband, less commonly to ensure

dominance of the wife, and in certain family roles almost universally to ensure dominance of parents over children. Furthermore, in the context of business organizations industrial discipline is maintained by the threat of punishment such as fine, dismissal, or withdrawal of privileges (Boulding 1978: 140).

Based on an adaptive view of motivation, my conceptualization of threat considers the subjective perception of the individual and the threat of punishment in conflict and social studies respectively but does not assume a relation of dominance and subordination or imply the role of a threatener *per se*. It focuses on the individual's response to disturbing environmental cues and highlights the person's goal to adapt to and co-evolve with the changing environment (Kauffman 1995; Ashmos, Duchon et al. 2000) to improve his/her chances of survival. As the reform philosophy of my research organization dictates, improvement in motivation and performance amidst intensifying competition requires alertness to and preparedness for threats in the environment.

Definition of threat perception. Focusing on the individual's response to and processing of environmental cues, I define *threat perception* as the *perception of an environmental cue, situation or set of circumstances as presenting a risk to the individual's current interests in such a way that it is feared, if not acted upon efficiently, will impinge on one's survival*. It has potential loss associated with it and is negative. It tends to arouse fear and narrow the individual's options. The influence of threat lies in that it limits the perceiver to a passive role of self-preservation and defense and suggests a worsening of the overall situation if not acted upon in a timely fashion.

Economic and psychological punishments. Specifically, threat perception evolves along two paths: economic punishment (such as termination of employment and reduction of pay and employee benefits) and psychological punishment (such as reprimand and loss of self-esteem). Economic punishment may also merge with punishment of a psychological nature in creating a more substantial impact, when, for example, pay deduction is interpreted as an outward acknowledgment of unsatisfactory performance or failure on the part of the worker.

5.2.3 Proposed Concept of Opportunity Perception

One only need to survey the job advertisements in newspapers, magazines, or the recruitment brochures of major corporations (e.g., IBM, HSBC, and British Gas) to find the framing of job vacancies as “opportunities” a common feature in the recruitment process. Opportunity as a concept, however, appears to have been studied more extensively in other social sciences disciplines than in work motivation. A review of the former showed a unifying thread that runs through the diverse literature pointing to the issue of whether a different quantity and quality of opportunity brings about an improvement at various levels of the organization, economy and society. In essence, the majority of these studies seemed to suggest that opportunity is a positive phenomenon.

For instance, at the societal level, opportunity influences labor market efficiency (Andrews 1992) and helps to reduce poverty and narrow the gap between social classes (Featherman and Hauser 1978; Rosenfeld 1986). At the firm level, it increases the competitive ability of the firm to recruit and retain employees (Cohen and Pfeffer 1986) and encourages risk-taking behavior for entrepreneurs (Kirzner 1979) and organizational decision makers (Dutton and Jackson 1987). At the individual level, it improves career attitudes within an organization (Cassirer and Reskin 2000) and reduces the intention to leave (Stewman and Konda 1983; Kirschenbaun and Mano-Negrin 1999). The question thus is: *“Why is the same positive phenomenon not captured in motivation?”*

Reward vs. Opportunity

As Pearce (1987) pointed out, compensation theory will fare better if it had as great a concern for the context in which employees must work as it does for their levels of individual effort. The same may be said of motivation theory if more concern is accorded the context of reward. This introduces the possibility that the positive or negative effects of reward may not be so much a function of the amount or manner it is distributed (as is argued by expectancy theory and equity theory respectively), but may be more a function of the context in which it is presented. Exploring whether reward is in effect viewed as “opportunity” by its target may therefore provide a theoretical solution to the dispute of whether rewards motivate (Sun 2001b).

Table 5.4
When Reward is Not Perceived as “Opportunity”

Issue	Possible condition under which reward is not perceived as “opportunity”
Exchange	<p>The gesture undermines the individual’s ego.</p> <p>The suggested means of attaining the reward threatens a worker’s protected values.</p> <p>The reward is a “bad deal”.</p>
Training	<p>Being away on training may give others’ an excuse to replace the worker.</p>
Promotion	<p>Added responsibility increases risk exposure for the risk-averse individual.</p> <p>Upgrade to management status deprives individual of overtime pay.</p> <p>New status alienates the worker from social/support group.</p> <p>New work requirements clash with the worker’s preference for family life.</p>
Overtime	<p>Time requirements clash with worker’s priority for leisure.</p>
Performance-related pay scheme	<p>The gesture of tying pay to performance communicates lack of trust.</p> <p>Performance-related work goals viewed as a weapon for management to axe workers.</p> <p>Performance categories stipulated by management only partially captures practical requirements of the job (content).</p> <p>Performance standards defined by management contradict the worker’s idea of “a job well done” (process).</p> <p>Narrowly defined work goals stifle initiative, creativity, and flexibility.</p> <p>Ambiguous work goals fail to provide direction and basis for evaluation.</p> <p>Constantly changing work goals cause effort wastage and create confusion, frustration and stress.</p>
Reward structure	<p>Reward is given for one-off achievements when continuous improvement is more important or meaningful, and vice versa</p> <p>Reward is given to the individual when teamwork and cooperation are essential, and vice versa.</p> <p>Reward is given only to the individual or only the team when input from both the individual and the team are essential.</p>

In distinguishing between opportunity and reward, it is important to note that while “opportunity” has to have some sort of a reward attached to it, what management calls “reward” is not necessarily what employees view as “opportunity”. And when the employee does not so perceive it, it loses the potential to motivate. In the worst scenario, reward may even be viewed as “threat” when, for example, the gesture undermines the individual’s ego, the suggested means of attaining the reward threatens the individual’s protected values, i.e., values that resist trade-offs with other values, particularly economic values (Baron and Spranca 1997), or the reward is simply a “bad deal”.

In addition to these critical issues, Table 5.4 illustrates other situations pertaining to training, promotion, overtime, performance-related pay, and reward structure that may not be perceived as “opportunity” by the target. Since these entries are self-explanatory, I would not reiterate them here. The conceptualization of “opportunity” below reveals the point of view that counts – the individual’s subjective perception of the situation. By its nature, opportunity perception does not take reward, be it intrinsic or extrinsic, as necessarily positive or negative. It places at the center of the analysis the potential for reward to translate, given the proper conditions, into “pull forces” of motivation. Its emphasis on the context enables it to explain motivation in complex situations not feasible with existing concepts.

Defining “Opportunity Perception” in the Work Setting

Parallel to the unprecedented threat of unemployment in today’s workplace (Kochan, Katz et al. 1986; Wilkinson 2001) is the new wave of opportunity that emerges in multi-skilled work roles (Green 2001) as well as in entrepreneurial organizational environments for individuals and their teams of colleagues to innovate within existing firms or found new enterprises (Miles, Coleman et al. 1998; Coleman 1999). These “new market opportunities” are relevant not just to managers but also others who recognize them (Hostager, Neil et al. 1998) and have the skills and expertise to take advantage of them.

What is in store for the Chinese workers in the country’s transition from a planned to a market economy may well involve some of these opportunities. But for the production

workers in my research organization whose skills are highly specialized and nontransferable to other departments within the steel enterprise, let alone the external labor market, the most meaningful opportunities are those that are extended to them to train and develop in their jobs.

As a matter of fact, at the time preceding the beginning of the economic reform in the late 1970's, training and development, when available, were generally not identified as "opportunities" as such, because more responsibility meant the same wage for the communist workers. But with the introduction and intensification of "position and skill-based pay" (*gangwei jineng gongji*) and performance-related wage (*anlao fenpei*) (see Sun 2000a for a detailed discussion of China's wage reform), workers in the transitional economy begin to view things differently and subsequently seek after opportunities that would allow them to upgrade their skills and enable them to increase their chances of survival in the increasingly competition-based internal labor market.

Just as the conceptualization of threat in the work setting has benefited from existing views in conflict and social studies, the conceptualization of opportunity may draw on insights from perspectives in the sociology, economics, and strategy literature. For example, opportunity was defined as the observed degree to which socioeconomic achievement (e.g., occupational status, earnings, education) is free of a dependence upon social background (e.g. race, parental education and occupation) (Featherman and Hauser 1978). In work on labor markets, opportunity referred to the number of jobs available to potential quitters or job seekers (Laker 1991; Kirschenbaun and Mano-Negrin 1999). These views are helpful in establishing parameters by which aspects of societal and economic advancement can be objectively measured.

In its application in strategic management, we find further evidence of the positive nature of opportunity. In particular, Dutton (1993) noted that the label "opportunity" is typically used by managers as a linguistic device in framing ambiguous organizational issues for the sake of generating more participation among staff members in resolving and coping with such issues as change and uncertainty. For this purpose, opportunity was defined as "an organizational issue that some members will agree is controllable, has potential gain associated with it, and is positive".

Worker's perception of opportunity. Based on an adaptive view of motivation, my conceptualization of opportunity does not embrace only the inherently affirmative nature of opportunity manifest in the sociology, economics, and strategy management research. It goes beyond that to capture what has not been captured in the work motivation literature – the individual's response to and processing of encouraging environmental cues – and stress the person's goal to adapt to, and co-evolve with (i.e., proactively influencing and counteracting), the changing environment (Kauffman 1995; Ashmos, Duchon et al. 2000) in sustaining growth and prosperity. Opportunity therefore is not necessarily something that is being strategically framed by the organization as "controllable, having potential gain associated with it, and positive" (see Dutton 1993) but more importantly, what the individual considers desirable *and* feasible to pursue given his/her own preferences and individual set of circumstances.

Definition of opportunity perception. Emphasizing the individual's calculation of the costs and benefits involved, I define *opportunity perception* as the *perception of an environmental cue, situation, or set of circumstances as presenting a potential of working toward the individual's advantage in such a way that it is hoped, if acted upon efficiently, will further one's growth and advancement.* The impact of opportunity lies in that it empowers the perceiver with an active role toward self-realization and advancement, be it through the satisfaction of an existence need, or a relatedness- or growth-need (see Alderfer 1969) and suggests an improvement of the overall situation when acted upon efficiently.

Unlike existing determinants of motivation in the literature, opportunity perception as a proposed antecedent takes into account a much wider spectrum of concerns: (1) not just instrumental perceptions but also normative beliefs; (2) not just rationality but also bounded rationality, i.e., constrained rational behavior given limitations in information processing and problem-solving capabilities (Simon 1955; Simon 1996); (3) not just cognitions but also emotions; (4) not just the ends but also the means; and (5) not just the ultimate reward but also the experience associated with attaining it and the tradeoffs in between.

In particular, it provides a solution to the long-standing controversy over the positive and negative effects of reward, be it in terms its intrinsic vs. extrinsic nature (Wiersma 1992; Lepper, Henderlong et al. 1999) or the unanticipated effects of reward systems in general (Kerr 1975; Pearce 1987). Given its inherently positive nature as well as special emphasis on the context in which reward is given, opportunity perception as an antecedent of motivation represents a major improvement over the often mentioned but unconceptualized, and thus non-operationalizable, notion of “reward”.

As it is the case for the worker’s perception of threat, the worker’s perception of opportunity is distinctive considering its unique setting. Specifically, the worker’s threat perception evolves along two paths: (1) economic reward (like renewal of employment contract and promotion); and (2) psychological reward (such as praise and trust in one’s ability). Economic reward may also combine with reward of a psychological kind to create a greater impact (Frey 1997), when, for example, promotion is interpreted as a stamp of approval of one’s performance and ability or evidence of mastery over both oneself and his/her environment (see Sayers 1988).

5.2.4 Testable Propositions

The propositions presented here represent two of a total of 21 hypotheses of the proposed research model of environmental perception and adaptive motivation. The remaining 19 hypotheses concern the respective antecedents of threat perception and opportunity perception and are presented in Chapter 6.

Predicting Threat Perception

Every layoff announcement affects the perceived probability of job loss and causes survivors to work harder and worry more (Jacoby 1999). If individuals acknowledge that increasing their performance is critical to improving the situation and that they are able to identify ways to increase their performance, the perception of threat is likely to have a positive effect on the motivation to perform under adverse circumstances and contribute

to effective adaptation to the environment (see Staw, Sandelands et al. 1981). This line of reasoning leads to the following hypothesis regarding the role threat perception plays in determining motivation.

Hypothesis 1: The greater the workers' threat perception of environmental cues (e.g., downsizing and workforce restructuring activities), the more likely they will be motivated to adapt to the new and changing environmental demands and challenges in their jobs in order to protect their current interests.

Considering potential individual differences, the hypothesized relationship is expected to be stronger for individuals who are relatively: (1) more vulnerable, i.e., those who are poorly protected from potential losses in the sense that they have little or no protection or fallback position if and when losses occur; and (2) more risk-averse, i.e., those who find the potential of losses more unbearable.

Predicting Opportunity Perception

Purposive human action involves a posture of alertness toward the discovery of “as yet unperceived opportunities” and their exploitation (Kirzner 1979). If individuals recognize that increasing their performance will help improve the situation and that there is no other alternative to achieving this end, the perception of opportunity is likely to have a positive effect on the motivation to perform and contribute to effective adaptation to the environment, even if the perceived likelihood of success is minimal. This line of reasoning leads to a second hypothesis.

Hypothesis 2: The greater the workers' opportunity perception of environmental cues (e.g., trend in multitasking), the more likely they will be motivated to adapt to the new and changing environmental demands and challenges in their jobs in order to achieve (a higher level of) development and growth.

Considering potential individual differences, the hypothesized relationship is expected to be stronger for individuals who are relatively: (1) more entrepreneurial, i.e., those who are constantly alert of the potential that new challenges bring will new opportunities for

growth and development; (2) more achievement-oriented, i.e., those who have a personality that is inherently inclined toward continuously furthering one's personal growth, development, and success even under difficult and trying circumstances.

5.3 Discussion and Conclusion

One way of assessing the value of a new research model is whether it provides a critical solution for an unresolved theoretical issue. In chapter 4, I have established uncertainty and risks as a clear and present reality of today's fast-changing, if not turbulent, workplace. I then provided a critique of how existing theory fares under the setting of uncertainty and risks. In relation to the four leading theories in the field, I have addressed the following issues:

- (1) Can motivation in adversity be explained by expectancy theory?
- (2) Are people motivated to work toward clear and difficult goals due only to the challenge and sense of achievement such goals afford rather than because of their risk aversion to the noxious outcomes of noncompliance?
- (3) Can reinforcement theory predict motivation when environmental consequences are uncertain?
- (4) Are people expected to react negatively to inequitable pay amount and/or distribution procedures even when it is politically sensitive to do so?

While the answers to all four questions are in the negative (see section 4.3 – *How Work Motivation Theory Fares under Uncertainty and Risks* for a detailed analysis), I set out to propose in this chapter a model of environmental perception and adaptive motivation as a solution to the issues raised.

If we assume that motivation can thrive in the face of adversity for reason of self-preservation and survival, employees can be driven by deadlines and ultimatums to deliver their goals, attitudes to risk can influence motivation under uncertainty, and political sensitivity can divert the normal course of reaction to inequity, then motivation under uncertainty and risks really boils down to issues of threat and opportunity

perception, and especially threat perception. This position is consistent with the cornerstone arguments in decision science and strategic management, which state that individuals are generally more sensitive to losses than to gains (Tversky and Kahneman 1974) and that threat perception will generate a greater motivational response than opportunity perception (Dutton and Jackson 1987).

I put forth the model of threat and opportunity perception not because I can demonstrate that it is completely correct, but because it offers insights into aspects of behavior and job attitudes that are not captured by existing theories, the conceptualization of which is by and large predicated upon stable and predictable settings. As such, they become limited in their capacity to explain motivation under circumstances of uncertainty and risks. It is only by attempting to confront with existing models with situations capable of disconfirming them, such as those presented in the table above, and only by juxtaposing such models with alternatives such as the one proposed that we can develop a better understanding of the motivation process (see Salancik and Pfeffer 1978).

The results of this analysis challenge traditional approaches to the motivation process and highlight the necessity for future scholars to consider seriously the adaptive nature of motivation in the context of a fast changing and increasingly complex workplace. In light of these trends and developments, motivation researchers should not assume the stability and predictability of the environment of work. Future research ought to adopt an adaptive motivation perspective and be directed not just at documenting the effects of compensation risks at the executive level, but also the prevalence of employment risks and protection motivation at the worker level. In particular, increased employment risk has altered the web of employment relations in which people work, compelling motivation scholars to reexamine the impact of job insecurity and modify their research agendas accordingly.

Chapter 6

Antecedents of Threat and Opportunity Perceptions

This chapter consists of six sections. The introductory section discusses the rationale behind my approach to developing the proposed antecedents of threat and opportunity perceptions. The second section deals with the development of the proposed antecedents of *threat perception* – *risk of noncompliance* and *pressure to perform*. The third section deals with the development of the proposed antecedents of *opportunity perception* – *perceived organizational support* and *willingness to bear cost*. The fourth section proposes the respective antecedents of *perceived organizational support* and of *willingness to bear cost*. The fifth section discusses *organizational commitment* as a mediating variable. And the last section concludes.

6. Antecedents of Threat and Opportunity Perceptions

This chapter presents the antecedents of *threat perception* and *opportunity perception*. The attempt is exploratory in the sense that the desired conceptualization is not available in any of the literatures reviewed, which tend to focus on the consequences of threat and opportunity perception, such as outcomes in managerial decision-making (e.g., Fredrickson 1985; Jackson and Dutton 1988) and conflict resolution (e.g., Tedeschi 1970; Horai and Tedeschi 1975).

The proposed research framework consists of 12 variables and a total of 21 hypotheses. The three variables of the model of “environment perception and adaptive motivation” – *threat perception*, *opportunity perception*, and *adaptive motivation* – and the corresponding hypotheses 1 – 2 were covered in Chapter 5 – *Toward a Model of Environmental Perception and Adaptive Motivation*. In this chapter, I focus on the remaining nine variables of the framework and the corresponding hypotheses 3 – 21.

The analysis represents a selective effort to integrate into the proposed framework four existing motivation/organizational behavior concepts – *perceived organizational support*, *organizational commitment*, *expectancy*, and *instrumentality*. In particular, *instrumentality* is identified as being comparable to *observed frequency of deserved rewards*, one of the two dimensions of the proposed concept of *reward consistency*.

I first introduce the antecedents of *threat perception* – *risk of noncompliance* and *pressure to perform*. Next, I present the determinants of *opportunity perception* – *perceived organizational support* and *willingness to bear cost*. I then explore the antecedents of *perceived organizational support* and *willingness to bear cost*, which involve *overall situation enhancement*, *reward consistency*, and *expectancy*.

6.1 Introduction

Before I proceed with the development of the antecedents of threat and opportunity perceptions, it is important to review the rationale behind my approach. In light of the fact that the Chinese state-owned enterprise represents an economic institution within the unique setting of a socialist state, I believe that a key to unraveling the complexity of the motivation process in such a setting may lie in recognizing the connection between economic and social activities. As proposed by Weber (1968), the objects of concern in the analysis of economic behavior are not only economic transactions but also certain other “social actions”. As such, economic transactions can be seen as a special kind of social transaction requisite for the formation and maintenance of the institutional framework in which economic activity occurs (Furubotn and Richter 2000).

This perspective offers valuable insights on the attention that needs to be given in predicting environmental perceptions. It is of special importance in research settings that are characterized by uncertainty and risks. For instance, workers who operated at an unprecedented level of uncertainty and risks under employment and wage reforms were indoctrinated economically and socially by the state-owned enterprise as to how they should respond to the challenges before them in order to “win the fight”. In particular, as discussed in Chapter 2, workers were socialized to the awakening of their senses in achieving (1) “awareness of competition” (*jingzheng yishi*), (2) “risk consciousness” (*weiji yishi*), and (3) “alertness to calamity” (*youhuan yishi*).

Parallel to this, workers were given unprecedented levels of training and development opportunities to upgrade their skills, and to take up otherwise unpopular positions and as a result be able to improve their pay and employment prospects. Under “deepening of reforms”, individuals were informed that those unwilling to adapt would be putting both their pay and employment “at risk”. As the workplace rhetoric has it, “Not working hard today in your job means working harder tomorrow looking for a job” (*jingtian bunuli gongzuo; mingtian jiuyao nuli jiaogongzuo*). At the societal level, individuals were socialized by the state to emulate those who have become better off during economic reform, based on the widely publicized reform strategy of “letting a portion of the population take lead in the creation of wealth (according to their own strengths and

abilities)” (*xianyang yibufenren fuqilai*). It is against this backdrop of threats and opportunities that the determinants of environmental perception are considered.

Cook & Campell (1976) outlined three necessary conditions for concluding that a relationship between two variables is causal: (1) the cause must precede the effect in time; (2) the treatments must co-vary with the effect; and (3) there must be no other plausible alternative explanations of the cause and effect relationship. It is based on these requirements that my conceptualization of the framework is developed. The independent variables of threat and opportunity perceptions are numbered 4 – 12 in Table 6.1 – *Definitions of Key Variables*. One may wish to note the source of reference in the table, which reflects the diversity of knowledge and insights brought in from different research streams in the broader social sciences literature to bear on motivation under uncertainty and risks in the work setting.

The numbers in Table 6.1 correspond to those in the research model in Figure 6.1 – *Proposed Antecedents of Environmental Perception and Adaptive Motivation*, whereby the proposed effects are illustrated with hypothesis paths H3 – H21. Since the proposed framework represents a direct challenge to existing models of work motivation, in the following discussion of the variables of the proposed model, I also contrast alternative explanations of the proposed concepts vis-à-vis existing theory.

6.2 Proposed Antecedents of Threat Perception

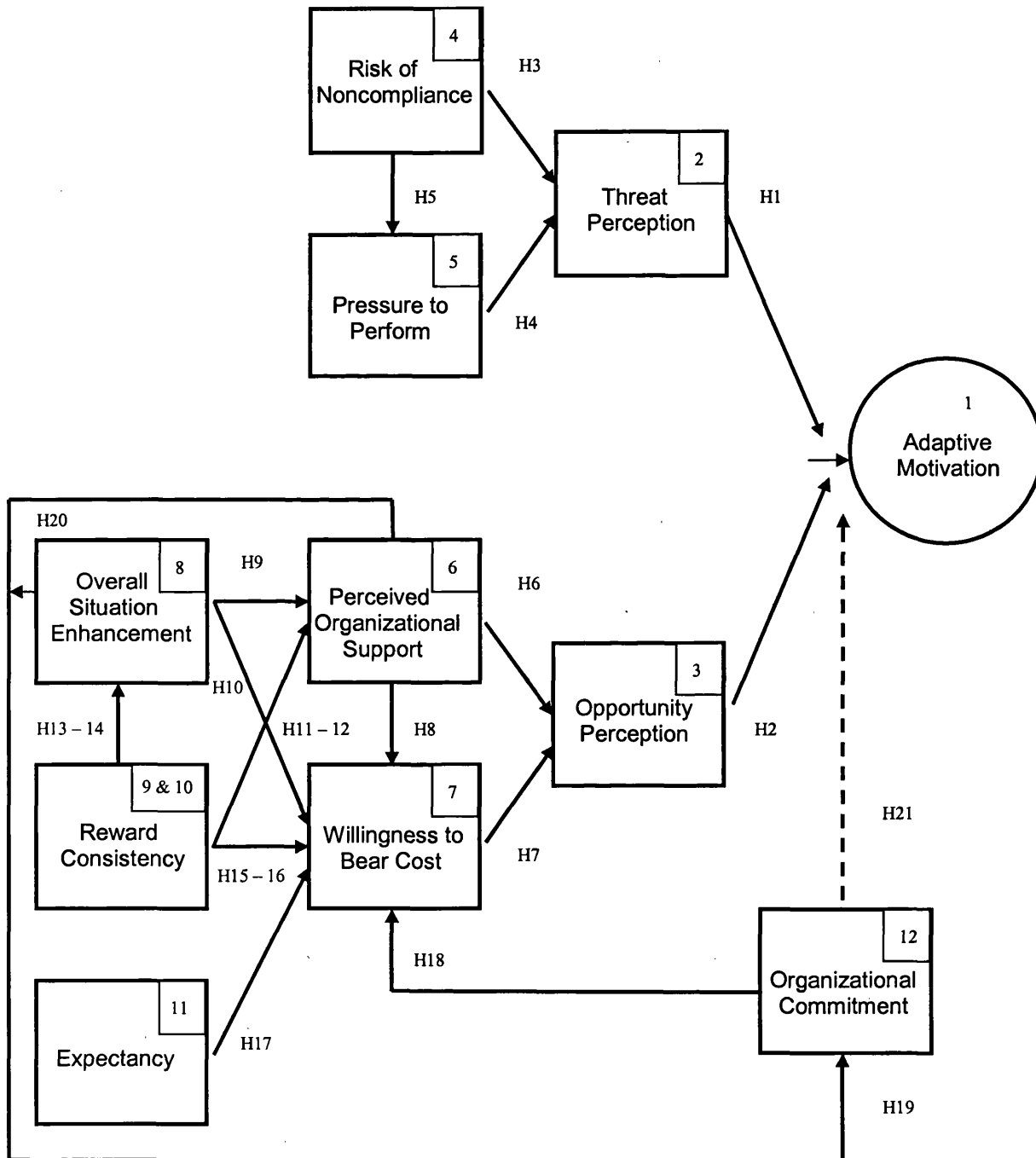
Ingram & Clay (2000) identified a three-layered hierarchy – states, organizations, and individuals. Within the context of my research, the pressures that are being exerted at various levels of the hierarchy, with the state superordinate to the state-owned enterprise, which is superordinate to the individual, help to illuminate the kind of pressure that is felt at the individual level to “perform or perish” (cf. Nee and Ingram 1998). To begin with, the State Council represents the highest level of authority for “making binding decisions for individuals and state-owned enterprise juridically located in a particular territory or industry and to implement these decisions using force, if necessary (cf. Rueschemeyer and Evans 1985).

Table 6.1
Definitions of Key Variables

No. Variable	Definition	Source of reference
1 Adaptive motivation	Motivation to adapt to new and changing environmental demands and challenges with the purpose of increasing one's chances of survival and success under uncertainty and risks.	Foster 2000 ^{eco} ; Hannan & Freeman 1995 ^{str} ; Klinger, Barta, & Mahoney 1975 ^{psy} ; Kuhn & Beam 1982 ^{org} ;
2 Threat perception	Perception of an environmental cue, situation or set of circumstances as presenting a risk to the individual's current interests in such a way that it is feared, if not acted upon efficiently, will impinge on one's survival.	Boulding 1978 ^{soc} ; Cyert & March 1963 ^{org} ; Fredrickson 1985 ^{str} ; Jackson & Dutton 1988 ^{str} ; Singer 1958 ^{neg} ; Steinbruner 1974 ^{dec} ; Tedeschi 1973 ^{neg}
3 Opportunity perception	Perception of an environmental cue, situation or set of circumstances as presenting a potential of working toward the individual's advantage in such a way that it is hoped, if acted upon efficiently, will further one's growth and advancement.	Cyert & March 1963 ^{org} ; Dutton 1993 ^{str} ; Jackson & Dutton 1988 ^{str} ; Fredrickson 1985 ^{str} ; Kotler 1967 ^{str} ; Steinbruner 1974 ^{dec} ; Tedeschi 1973 ^{neg}
4 Risk of noncompliance	The extent to which the individual believes that his current interests will be "at risk" if he fails to comply with the socially and/or economically imposed requirements and expectations of his performance at work.	Sitkin & Pablo 1992 ^{str} ; Sutinen & Kuperan 1999 ^{soc} ; Tittle & Logan 1973 ^{law} ; Wiseman, Gomez-Meijia, & Fugate 2000 ^{eco}
5 Pressure to perform	The extent to which the person feels under pressure, due to job demands as well as socially and/or self-imposed expectations to perform and be seen as an achiever.	Ferrari 2001 ^{psy} ; Ingram & Clay 2000 ^{soc} ; Kerstholt 1995 ^{dec} ; Leibenstein 1966 ^{eco} ; Van Yperen & Hegedoom 2003 ^{ob}
6 Perceived organizational support	The extent to which individuals feel that the organization values their contributions, cares about their well-being, and is there to help them succeed.	Eisenberger et al. 1986 ^{psy} ; Fuller et al 2003 ^{ob} ; George et al. 1993 ^{ob} ; Rhoades & Eisenberger 2002 ^{psy}
7 Willingness to bear cost	The extent to which the individual finds a pursuit worthwhile and is thus willing to bear the costs associated with it.	Boardman, et al 1996 ^{eco} ; Casey & Deliquié 1995 ^{eco} ; Maehr & Braskamp 1986 ^{mot} ; Mishan 1975 ^{eco}
8 Overall situation enhancement	The extent to which the individual's overall situation or well-being has enhanced due to organizational change and one's involvement in it, as socially observed or personally experienced by the individual.	Alderfer 1969 ^{mot} ; Antonides 1991 ^{eco} ; Bandura 1986 ^{soc} ; Cyert & March 1963 ^{org} ; Maehr & Braskamp 1986 ^{mot} ; Nord 1976 ^{ob}
9 & 10 Reward consistency	The extent to which the individual witnesses the frequency occurrence of (i) deserved rewards and of (ii) undeserved rewards.	Adam 1963 ^{mot} ; Vroom 1963 ^{mot} ; Foschi 1998 ^{soc}
11 Expectancy	The extent to which the individual feels that by experience, he has control over results of his work (or a comparable kind of work).	Vroom 1963 ^{mot} ; Pinder 1991 ^{mot} ; Simon 1957 ^{org} ; Staw 1977 ^{mot}
12 Organizational commitment	The relative strength of the individual's identification with and involvement in a particular organization.	Allen & Meyer 1990 ^{psy} ; Mowday, Porter, & Steers 1982 ^{ob} ; Neale & Northcraft 1991 ^{ob}

Key: ^{dec} Decision science; ^{eco} Economics; ^{law} Law; ^{neg} International conflict & negotiation; ^{org} Organization; ^{ob} Organizational behavior; ^{psy} Psychology; ^{soc} Sociology; ^{str} Strategy; ^{mot} Work motivation

Figure 6.1
Proposed Antecedents of Environmental Perception and Adaptive Motivation^{ab}



^a Reward consistency is measured by two distinct scales: (1) observed frequency of deserved rewards and (2) observed frequency of undeserved rewards. Hypothesis 21, with path in dotted lines, refers to a mediating relationship.

^b Numbers in the upper right-hand corner of scales correspond to those in Table 6.1 Definitions of Key Variables on p. 188.

The organization or state-owned enterprise can thus be seen as an instrument in the hand of the state to help bring to pass the collective goals of political unity and economic prosperity. The individuals who were formerly referred to by the state as “owners of the enterprise” (*qiyede zhurenweng*) are now expected to justify their existence on the basis of individual contribution rather than need.

Here is how the hierarchy of superordination works: Predicated on the economic reform principle of “survival of the fittest”, the reform policy of “performance-related wage bill” (*gongxiao guagou*) represents an unprecedented state initiative to put a cap on the enterprise wage bill in view of budget constraints. The concept of linking pay to performance is in turn introduced by the enterprise at the individual level through the increased differentiation of bonuses and basic pay on the bases of position, skill, and on-the-job performance. In a similar vein, the reform policy of “competition-based employment” (*jingzheng shanggang*) is aimed at tackling the low productivity and high redundancy problems of the state-owned enterprise by simulating within the enterprise competitive pressures from its external environment.

This is accomplished with the introduction of increasingly large wage differentials and the replacement of lifetime employment by limited duration contracts and the increased of cradle-to-grave benefits. These measures were incrementally and experimentally introduced in the state industry from as early as the beginning of the economic reform in 1978. And at the time this study was conducted, the wage and employment reforms were seen by policy leaders to have arrived at a more mature stage at some of the more progressive enterprises such as the research organization.

The conceptualizations *risk of noncompliance* and *pressure to perform* and their impact on threat perception are predicated on findings of the deterrence literature (see Paternoster 1987 for a review), which proposes that sanctions can deter individuals only under specific circumstances – that is, under the reinforcement of formal sanctions by informal social controls such as familial bonds or employment. In particular, Paternoster (1987) proposed that threat perception is a commonly identified variable between actual sanctions and behavior, as are informal social controls.

The hypothesized framework of threat perception is depicted in the upper part of Figure 6.1. Threat perception is viewed as the outcome of two antecedents, namely *risk of noncompliance* and *pressure to perform*.

6.2.1 Risk of Noncompliance

The concept of risk can be understood as (1) the degree of uncertainty about whether potentially significant and/or disappointing outcomes of decisions will be realized (Sitkin and Pablo 1992); or (2) anxieties that are aroused in connection with the self-perception of being “at risk” (Wilkinson 2001). In particular, riskier options are those that have more difficult decision goals, more uncertainty about outcomes, and more extreme consequences (Sitkin and Pablo 1992). On a positive note, knowledge of risk may serve to allay anxiety by making clear the proper dimensions of an anticipated danger so that it can be faced as a manageable fear (Wilkinson 2001). It is in this light that *risk of noncompliance* is proposed to have an impact on threat perception.

As discussed at length in the previous chapter, probability measures may not be appropriate for understanding motivation under uncertainty and risks. For example, it is not easy for the individual to establish the likelihood (i.e., degree of certainty) of future events in an uncertain world. Since the idea of risk is in itself a manifestation of uncertainty (Wiseman, Gomez-Mejia et al. 2000), the use of risk measures is expected to produce more reliable responses than probability measures in predicting threat perception, a key determinant of motivation under uncertainty and risks.

Risk of noncompliance involves the chances of one’s having to suffer from the penalties of not measuring up to the social expectations of one’s success, for instance, guilt and shame (Klinger, Barta et al. 1975); or the economic sanctions of failing to meet the performance standards and requirements of one’s job, such as pay reduction and job loss. This conceptualization is based on the traditional deterrence model (see Tittle and Logan 1973; Paternoster 1987), which focused on the certainty and severity of sanctions as key determinants of compliance behavior, and Sutinen & Kuperan’s (1999) socio-economic theory of compliance, which stressed moral obligations and social influence.

In the above connection, I define the proposed concept of *risk of noncompliance* as *the extent to which the individual believes that his current interests will be “at risk” if he fails to comply with the socially and/or economically imposed requirements and expectations of his performance at work*. As regards its effect on *threat perception*, I propose as follows:

Hypothesis path 3 (as per Figure 6.1): Individuals who perceive a higher level of risk of noncompliance tend to have a higher level of threat perception.

Alternative explanation vis-à-vis existing theory. Goal setting theory as found in the motivation literature emphasized the “technique” of setting clear and difficult goals (Latham and Locke 1979; Locke and Latham 1984) but failed to specify the very conditions under which it will enhance work performance. As long as goal setting is taken up as a performance theory rather than a communications theory (e.g., goal setting enhances communication and feedback), it seems premature to conclude that the mere gesture of setting specific and difficult goals will improve performance.

The proposed concept of *risk of noncompliance* provides a theoretical solution to the issue raised by specifying one such condition for goal setting (and likewise other management techniques in general) to motivate. From the view of protection motivation (Rogers 1975), the key question is: “*Would specific and difficult goals (in the case of goal setting) motivate if no penalties were attached to non-delivery?*” It seems clear that if economic sanctions and/or social penalties of noncompliance are not severe in the first place (i.e., considered “no risk” to the offender), clear and difficult goals will unlikely add to *risk of noncompliance*, let alone threat perception and protection motivation.

6.2.2 Pressure to Perform

For a variety of reasons, neither organizations nor people work as efficiently or effectively as they could, without pressure (Primeaux 1977). Particularly, Leibenstein (1966) pointed out that competition, in an important way, affects the intensity with which firms and people work; where competitive pressure is light, many people trade the

disutility of greater effort, of search, and the control of other people's activities for the utility of feeling less pressure and of better interpersonal relations. This is no exception in my research environment where enterprises and workers alike have come under increased pressure that threatened their survival under "deepening of reforms". Such pressure may be traced to the state level, as China became an increasingly prominent player in the global economy. Indeed, the more it interacts with the rest of the world in economic terms, and hence the greater its dependence on the international economy for continued growth and increased prosperity, the more it is exposed to the pressures of global competition and external scrutiny (see EIU 2000).

At the micro economic level, work pressure may be conceptualized to include demands on effort expenditure and time constraints (too much to do, too little time) (Shaw and Weekley 1985; Van Yperen and Hagedoorn 2003), self-awareness about performance inadequacies (Ferrari 2001), anxieties about uncertainty and risks and about one's ability to cope, as well as the expectations of self and others for one to deliver and succeed in a certain situation. In this regard, I define the proposed concept of *pressure to perform* as *the extent to which the person feels under pressure, due to job demands as well as socially and self-imposed expectations to perform and be seen as an achiever*. As regards its effect on *threat perception*, I propose as follows:

Hypothesis path 4 (as per Figure 6.1): Individuals who experience a higher level of pressure to perform tend to have a higher level of threat perception.

Alternative explanation vis-à-vis existing theory. In line with the proposal in Section 6.2.1 concerning the impact of *risk of noncompliance* on *threat perception* and protection motivation, I further argue that clear and difficult goals may influence motivation to the extent that they add to the pressure to perform. To illustrate, if clear and difficult goals (e.g., "publish three articles in top-ranking journals") have no absolute deadlines for delivery they are likely to remain an aspiration (for some time) due to the lack of pressure to perform. But if deadlines and especially ultimatums are given (e.g., "publish three articles in top-ranking journals within five years"), pressure will mount especially near the time of delivery and heighten *threat perception*.

Such pressure is likely to intensify when the *risk of noncompliance* is high, that is, when undesirable consequences of noncompliance seem inevitable (e.g., “publish or perish”). The subsequent increase in *pressure to perform* is likely to add to *threat perception*, which may in turn enhance *adaptive motivation*. I thus propose as follows:

Hypothesis path 5 (as per Figure 6.1): Individuals who perceive a higher level of risk of noncompliance tend to experience a higher level of pressure to perform.

The proposed effect implies that individuals are generally risk-averse. This position is in line with a growing body of literature in the decision sciences (Kahneman and Tversky 1979; Thaler 1980; Tversky and Kahneman 1981), which argued that individuals treat risk concerning perceived gains differently from risks concerning perceived losses in that potential losses are given more weight than potential gains.

6.3 Proposed Antecedents of Opportunity Perception

When people feel that their organization values and appreciates them, it is a sign of organizational support for them or of their status within the organization (Tyler 1999). Within the context of my research organization, such support had been perhaps mostly felt at the managerial level. For example, regardless of the fact that the state-owned enterprise is an industrial entity, its manager has been historically appointed as a civil servant based on his loyalty to and political affiliation with the Chinese Communist Party (CCP). With the introduction of employment and wage reforms, a lot has changed. For example, although it is still common for the enterprise manager to receive a promotion while the enterprise itself is suffering from poor performance, it is no longer possible for ordinary workers to get away with a lack of skill or performance on the job.

For example, due to subjective approach to performance appraisal in Chinese industry (see Chapter 2 – *Context* for a discussion), double standards had significantly contributed to inequity in the workplace especially in the distribution of undeserved rewards and preferential housing benefits owing to favoritism or social relations (*guanxi*). However, during the employment and wage reforms, organizational support

began to be more widely felt in the state-owned enterprise as management made a conscientious attempt to shift the focus of individual performance appraisal from political credentials to position, skill, and on-the-job performance.

In particular, individuals were now given unprecedented opportunities to receive task-related training and development and subsequently rewarded in employment and pay arrangements for achieving advancement in these areas. While there is pressure under the new competition-based employment and pay systems for the workers to perform (see Section 6.2.1 for a discussion), there is also support to help the workers succeed in their new, challenging roles under the reforms.

The hypothesized framework of *opportunity perception* is depicted in the lower part of Figure 6.1. Their antecedents are discussed in subsections 6.3.1 and 6.3.2 below.

6.3.1 Perceived Organizational Support

The existing concept of *perceived organizational support* refers to the employees' general beliefs concerning the extent to which the organization values their contributions and cares about their well-being (Shore and Shore 1995). *Perceived organizational support* is also valued as assurance that aid will be available from the organization when it is needed to carry out one's job effectively (cf. George, Reed et al. 1993). This view is related to three other areas of research: (2) Eisenberger et al's' (1986) and Rhoades and Eisenberger's (2002) organizational support theory in stress management at work; (2) Johnson and Hall's (1988) and Bliese and Castro's (2000) work on organizational support and control in occupational health; and (3) Vroom's (1964) motivational concepts of *instrumentality* and *expectancy*.

A common characteristic of these studies is the proposed impact of positive emotional and cognitive orientations (cf. Pinder 1991), both of which are believed to play a role in contributing to opportunity perception. Based on this understanding and in light of organizations' call for workers to adapt to new and changing demands and challenges in their jobs, I propose an extended definition for *perceived organizational support* as *the*

extent to which individuals feel that the organization values their contributions, cares about their well-being, and is there to help them succeed.

This conceptualization proposes that individuals' perception of organizational support is capable of generating beneficial emotions and beliefs that are conducive to their *opportunity perception*. This position is consistent with findings in the nascent positive psychology literature, and in particular, Fredrickson's (1998; 2001) broaden-and-build theory, which proposed that (1) positive emotions and beliefs carry direct and immediate adaptive benefits in situations of adversity; and (2) experiences of positive emotions broaden people's momentary thought-action repertoires, which in turn serves to build their enduring personal resources, ranging from those of a physical, intellectual, social and psychological nature.

In the context of a changing organizational setting, the notion of "thought-action repertoires" can be applied to include environmental perception and motivation. For example, as individuals feel that they are being supported by the organization to adapt to new performance standards and requirements, the positive feelings of being given help to succeed or of not being alone are likely to contribute to *opportunity perception*. I thus propose as follows:

Hypothesis path 6 (as per Figure 6.1): Individuals who perceive a higher level of perceived organizational support tend to have a higher level of opportunity perception.

Alternative explanation vis-à-vis existing theory. Parallel to the alternative explanation of goal setting effects provided by *pressure to perform* in relation to *threat perception*, an additional alternative explanation is offered by *perceived organizational support* in connection to *opportunity perception*. From a communications perspective goal setting theory suggests that goal setting, and especially participative goal setting, enhances communication and feedback (Latham and Locke 1979). Although these authors' three-step approach to goal setting (setting the goal, obtaining goal commitment, providing support elements) in eventually bringing about performance seems to make sense pragmatically, it becomes confusing theoretically as to whether it

should be referred to as goal setting theory, goal commitment theory, or support theory, for the three concepts are separate and distinct.

I do not intend to suggest a total solution to the profound theoretical issue raised. But bearing in mind that goal setting is by nature forward-looking (Mitchell and Daniels 2003), I tend to agree with Pinder's (1998) position that the "general level of supportiveness" is perhaps more crucial than goal specificity and goal difficulty if goal setting is to account for any motivational effect in connection to *opportunity perception*.

6.3.2 Willingness to Bear Cost

Implicit in existing theories of motivation and decision-making is the notion that judgments of value are important. Most notably, in discussing the role of valence, Vroom (1964) referred to an outcome a person prefers having to not having to be of "positive valence", an outcome a person prefers to avoid as having "negative valence", and an outcome a person is indifferent to as having "zero valence". Furthermore, in their study of personal investment and motivation, Maehr and Braskamp (1986) argued that "people do what they believe they can do and what they believe is *worth doing*" (Maehr and Braskamp 1986: 42) (*italics original*). However, they pointed out at the same time that the problem of what is "worth doing" is unfortunately more often cited than studied; that is, little attention has been given to its nature, measurement, and causal effects. The concept of *willingness to bear cost* is proposed to fill this gap.

The proposed concept is critical to the understanding of motivation under uncertainty and risks because exchange necessarily involves transaction costs, i.e., the economic and social costs associated with search and information, bargaining and decision, and supervision and enforcement (Williamson 1985; Furubotn and Richter 2000). When adapted to the analysis of individual decision-making in a work setting, such costs may include not only compliance costs (i.e., direct costs involved in generating or facilitating stable and satisfactory outputs), but also opportunity costs (i.e., value of time, energy and devotion in their best alternative use) especially when there is no guarantee that the effort will pay off.

For instance, even if work performance meets the increasingly challenging demands and requirements of the organization, the organization may be forced to introduce more layoffs and further wage cuts due to competitive pressure. In addition, there may be social and psychological costs (Mitchell, Lewin et al. 1990). For example, the individual may be expected to operate during unsociable hours, work with people he doesn't like, or do things he doesn't believe in.

The proposed concept of *willingness to bear cost* is concerned particularly with what may or may not make it worthwhile for the employee given the various costs involved. In this relation, I define *willingness to bear cost* as *the extent to which the individual finds a pursuit worthwhile and is thus willing to bear the costs associated with it*. As regards its effect on *opportunity perception*, I propose as follows:

Hypothesis path 7 (as per Figure 6.1): Individuals who have a higher level of willingness to bear cost tend to have a higher level of opportunity perception.

Alternative explanation vis-à-vis existing theory. The proposed concept of *willingness to bear cost* represents a direct challenge to the premise of expectancy theory that motivation is dependent on a single decision rule, that is, desired outcome attainability (as measured by *valence*, *instrumentality*, and *expectancy*). For there are at least two phenomena that render outcome attainability neither necessary nor sufficient for motivation to take place: (1) high motivation under adversity, and (2) low motivation under favorable conditions to succeed.

Instrumental vs. value rationality. Max Weber (1956) introduced a distinction between instrumental rationality and value rationality when describing the determinants of behavior. He argued that individuals may consciously choose an action either to instrumentally achieve an end or normatively for its own sake and independent of its success (see Sliwka 2003). Value-rational action is "rational action in relation to a value". It represents one of the four major types of social action, together with affectual action, instrumental rational action, and traditional action. It is a type of action that is caused by the actor's conscious attempt to realize certain values, come what may.

What characterizes value-rational action is that it is “determined by a conscious belief in the value for its own sake of some ethical, aesthetic, religious, or other form of behavior, independently of its prospects or success”. As opposed to instrumentality rational action, it is carried out for its own sake, regardless of the result and the cost to the actor. The action is undertaken because the actor feels forced or compelled to act in this manner (Swedberg 2005). It thus seems a much more powerful source of motivation than instrumental rational action, which is inherently linked to its prospects of success.

So rather than assuming that one specific (set of) decision rules apply to all persons or situations (as expectancy and goal setting theories have suggested), the concept of *willingness to bear cost* proposes that what matters is that individuals regard the cause, direction, or action pursued as “worthwhile”, whether based purely on ideological or instrumental justifications, or a combination of both. This helps to explain why some individuals are motivated even when things are not looking up so to speak, and why others are not motivated despite privileged circumstances to succeed.

There is ample evidence in the sociology literature concerning the positive impact of parental, institutional, or parental support on the outcome in resilience under uncertainty and risks (e.g., Anthony 1987; Werner 1993; Adger and Kelly 2001). These findings suggest that *perceived organization support* may similarly contribute to *willingness to bear cost* at work, thus indirectly contributing to *opportunity perception*. In a work setting where emphasis is placed on performance management, organizational support may manifest in the genuine effort of the supervisor to help individuals identify areas for improvement in the performance appraisal process rather than merely assigning them performance grades.

In a unionized workplace, *perceived organizational support* may come in the form of the union’s willingness to adopt an integrative approach to bargaining and management’s willingness to share information freely with the union (see Deery and Iverson 2005), thus having a potential reciprocal effect on the workers’ willingness to bear cost in their jobs. I thus propose as follows:

Hypothesis path 8 (as per Figure 6.1): Individuals who perceive a higher level of organizational support tend to have a higher level of willingness to bear cost.

The proposed effect implies that workers prefer to receive practical/moral support to help them succeed and feel “not alone” in the process of adaptation in meeting new and challenging demands in their jobs.

6.4 Proposed Antecedents of Perceived Organizational Support and Willingness to Bear Cost

I have proposed that *perceived organizational support* and *willingness to bear cost* are likely to lead to *opportunity perception*. But once the connections between *perceived organizational support* and *opportunity perception* and between *willingness to bear cost* and *opportunity perception* are understood, is it possible to predict which individuals will be more likely to have these positive emotions and beliefs? The answer may lie in the organization’s record in improving the livelihood of the workers and in establishing an undeviating pattern of merit-based employment and pay.

This suggestion is consistent with Shore & Shore’s (1995) proposal that perceived organizational support reflects the individual’s judgment of the organization’s readiness to reward increased work effort and to meet socioeconomic needs, and Maehr & Braskamp’s (1986) called for the organization to enable all workers to actualize their potential and make personal investment in their work pay off .

In this regard, I propose four antecedents: variable 8 (*overall situation enhancement*), variables 9 – 10 (the two dimensions of *reward consistency*), variable 11 (*expectancy*), and variable 12 (*organizational commitment*), as shown in Figure 6.1 and discussed in subsections 6.4.1, 6.4.2, 6.4.3, and 6.4.4 below.

6.4.1 Overall Situation Enhancement

In the discussion of contextual constraints and demands in relation to personal investment at work, Maehr & Braskamp (1986) showed that people operate in terms of the goals they hold and in terms of what a given situation yields for them. As much as individuals may obtain this knowledge through experience of their own, they may also do so based on information exhibited and authored by others. Bandura (1986) argued that most human behavior is learned through modeling, that is, learning by observation through the imitation of successful others. This position coincides with China's economic reform strategy of allowing the unprecedented accumulation and display of personal wealth by a successful few to stimulate the effort from the rest of the society.

From a social learning perspective observed outcomes of an improved situation for people who are willing to work hard for it may likewise inspire the observer to view the investment in a positive light. Based on this understanding, I define *overall situation enhancement* as the extent to which the individual's overall situation or well-being has enhanced due to organizational change and one's involvement in it, as socially observed or personally experienced by the individual. In connection to the relationship between overall situation enhancement and willingness to bear cost, I propose as follows:

Hypothesis path 9 (as per Figure 6.1): Individuals who have a higher level of personal (or observed) overall situation enhancement tend to have a higher level of perceived organizational support.

Hypothesis path 10 (as per Figure 6.1): Individuals who have a higher level of personal (or observed) overall situation enhancement tend to have a higher level of willingness to bear cost.

Alternative explanation vis-à-vis existing theory. The reactions of employees to human resource management (HRM) practices have attracted little scholarly attention. Even less research has been conducted into the effects of those practices on employee well-being (Deery 2002: 458). The proposed concept of *overall situation enhancement* represents a response to this call as well as a solution to the problem of unintended

consequences of organizational change, which raised serious concern in the management and industrial relations literatures (e.g., Kerr 1975; Ehrenberg 1990; Ramanujam 2003). For example, unintended consequences of work redesign could negate or even reverse expected positive outcomes when it is narrowly focused on a single aspect (such as multitasking) but overlooks other important considerations (such as task significance, autonomy, and feedback) (see Hackman 1977). The same may be said of China's employment and wage reforms if *overall situation enhancement* was not achieved in facilitating the survival and growth of willing and capable individuals in terms of (1) keeping their jobs, (2) raising their living standards, and (3) advancing their careers, among other employee concerns.

In a way one may argue that unintended consequences of organizational change and in particular, that which is intended to raise employee motivation, are a byproduct of leading motivation theories that focused on single issues (such as expectancy and goal specificity) and consequently failed to capture the essence of what makes a new policy or change work from a more holistic viewpoint, in terms of the survivors' assessment that they have become better off with the change. This position is consistent with Herrick's (1981) view that organizational arrangements that contribute to human well-being are conducive to organizational effectiveness.

As pointed out by Cyert and March (1963), organizational members tend to seek satisfactory rather than maximum profits. A plausible explanation is that individuals may pursue many goals other than or in addition to profit maximization, including status, esteem, security, power, knowledge, approval, and the means of satisfying other human wants (Nord 1976). Here the concept of *overall situation enhancement* picks up where existing theory left off; it captures that which constitutes the "aggregate net benefits" in a situation (see Boardman, Greenberg et al. 1996) rather than the partial benefits or gains resulting from a single or specific aspect of work such as goal setting and *expectancy*.

Most distinctly, the proposed concept deals with the bottom line of an individual's situation and well-being, be it in regard to economic and social needs, instrumental and normative concerns, instant gratification and long-term realization of goals, or the

justification of means and end of work, as a result of organizational change. I argue that it is only when the change contributes to the overall satisfaction of needs will it be viewed favorably by the employees. On the contrary, feelings of deprivation and exploitation are likely to yield unintended consequences.

6.4.2 Reward Consistency

Attribution theory suggests that people are motivated not only to maximize their rewards (the assumption that is underlying many motivation theories), but also to “attain a cognitive mastery of the causal structure of their environment” (Kelley 1967). Grossman (1975) further explained that adaptive behavior may be lost or impaired, causing a kind of “behavior deficit” when an individual finds it difficult or impossible to perceive the relationship between stimuli and appropriate responses to them, to appreciate the consequences of particular behaviors, or to select behaviors that are appropriate to the possibly proper perceptions of such relationships.

In a work setting, a possible external cause of such a phenomenon is the inconsistency of organizational rewards, ranging from obvious ones such as pay, fringe benefits, and promotion, to praise, autonomy in decision making, and feelings of accomplishment and competency (see Steers & Porter 1991, p. 478 for a detailed list). The consequence of the confusion caused may be detrimental as employees may respond to insignificant stimuli or, conversely, not respond to stimuli that are of potential significance to their survival and success on the job. On the other hand, the consistency of organizational rewards is likely to have positive effects.

Unlike previous investigators of organizational rewards, who tend to assume that deserved rewards are all that matters to the employees, I view undeserved rewards as equally important. Though individuals are typically concerned about getting what they deserve, they are also concerned about the issue of double standards, i.e., incidents of others’ receiving undeserved rewards at the same time. The outcome of double standards that are based on status differences (e.g., gender and ethnicity) in ability inference and reward distribution has been studied in the sociology literature (Foschi and Foddy 1988;

Foschi 1998). One may expect similar negative consequences of double standards based on other factors such as favoritism and inconsistency in the implementation of human resources policy. It is thus expedient for me to include undeserved rewards in my conceptualization. I hereby define *reward consistency* as *the extent to which the individual witnesses the frequency occurrence of (i) deserved rewards and of (ii) undeserved rewards*.

As deserving rewards and undeserved rewards are distinct dimensions that contribute to the concept of *reward consistency*, their measurements are found in two separate scales, which appear in the next chapter of this thesis. I now propose the relationship between *observed frequency of deserved rewards* and *observed frequency of undeserved rewards* dimensions of *reward consistency* and the outcomes in *overall situation enhancement*, *perceived organizational support*, and *willingness to bear cost* as follows:

Hypothesis path 11 (as per Figure 6.1): Individuals who observe a higher frequency of deserved rewards tend to perceive a higher level of organizational support.

Hypothesis path 12 (as per Figure 6.1): Individuals who observed a higher frequency of undeserved rewards tend to perceive a lower level of organizational support.

Hypothesis path 13 (as per Figure 6.1): Individuals who observe a higher frequency of deserved rewards tend to perceive a higher level of overall situation enhancement.

Hypothesis path 14 (as per Figure 6.1): Individuals who observe a higher frequency of undeserved rewards tend to perceive a lower level of overall situation enhancement.

Hypothesis path 15 (as per Figure 6.1): Individuals who observe a higher frequency of deserved rewards tend to have a higher level of willingness to bear cost.

Hypothesis path 16 (as per Figure 6.1): Individuals who observe a higher frequency of undeserved rewards tend to have a lower level of willingness to bear cost.

Alternative explanation vis-à-vis existing theory. The proposed concept of *reward consistency* is value-added in its revelation about a previously ignored twin dimension concerning deserved rewards, and that is, *undeserved rewards*. One may argue that existing concepts investigating organizational rewards only capture part of the issue by their omission of undeserved rewards, and are thus misleading in their subsequent predictions and interpretation of the reality.

What's more, the concept of *reward consistency* helps to clarify the confusion and discomfort raised by Mowday (1991) in his review of equity theory concerning claims that equity can be replaced by expectancy theory. For example, Lawler (1968) argued that if perceived inequity influenced the valence or attractiveness of rewards (one of the three concepts of expectancy theory), then the theory could make the same predictions as equity theory.

With the conceptualization of *reward consistency* encompassing both deserved rewards and undeserved rewards, however, it becomes clear that *instrumentality* and *expectancy* (the two remaining concepts of expectancy theory), which only deal with deserved rewards, cannot substitute for the concept of equity because the latter can be expanded (as is hereby demonstrated) to include undeserved rewards. As *observed frequency of deserved rewards* is independent of *observed frequency of undeserved rewards*, the two concepts are asymmetrical. This counterargument should help settle the outstanding claims by Lawler (1973) and Campbell & Pritchard (1976) that equity considerations could be subsumed under the more general theory of expectancy.

6.4.3 Expectancy

Since I have covered this concept and the alternative explanations of Vroom's (1964)'s predictions in Chapters 3 and 4, I shall proceed with the proposed redefinition of the concept within my research framework.

Taking into account that people have limited cognitive capacities (Simon 1957; Staw 1977; Pinder 1991) and considering that it may not be feasible, especially in a setting

characterized by uncertainty and risks, for individuals to make sensible estimations of the unfamiliar future, I define *expectancy* not as probability beliefs but in terms of one's experience on the job, i.e., *the extent to which the individual feels that by experience, he has control over the results of his work (or a comparable kind of work)*.

Within the proposed framework of “environmental perception and adaptive motivation”, which specifically takes into account the complexity and unpredictability of environmental factors in today's economic and organizational settings, *expectancy* does not automatically lead to motivation. Rather, I propose that it has a potential impact on motivation through its influence on *willingness to bear cost*, which in turn influences *opportunity perception*. In this regard, I propose as follows:

Hypothesis path 17 (as per Figure 6.1): Individuals with a higher level of expectancy tend to have a higher level of willingness to bear cost.

6.4.4 Organizational Commitment

Research suggests that greater job autonomy and a more positive and harmonious labor relations environment are among the factors that contribute to *organizational commitment* (Deery, Iverson et al. 1994), which in turn helps reduce turnover intentions (Davy, Kinicki et al. 1997; Allen, Freeman et al. 2001). However, there is no evidence to suggest that reduction or absence of turnover intentions can be taken as an indicator of work motivation.

In an attempt to understand how *organizational commitment* may contribute to motivation, we may turn to the burgeoning literature on positive emotions. In particular, research shows that positive emotions (with which *organizational commitment* is believed to be closely associated) are conducive to creativity and flexibility at work (Isen, Daubman et al. 1987) and proactive coping in the midst of problems and obstacles (Aspinwall and Taylor 1997). One possible reason for positive emotions to lead to positive work outcomes in challenging work situations is willingness of the mind to

“hope for the best” and persevere in the absence of complete information or guarantee. In this regard, I propose as follows:

Hypothesis path 18 (as per Figure 6.1): Individuals with a higher level of organizational commitment tend to have a higher level of willingness to bear cost.

6.5 Organizational Commitment as a Mediating Variable

So far, I have explored the antecedents of threat and opportunity perceptions. It appears one should be cognizant not only of the direct relationships between the proposed constructs, but also the compound effect that can occur through the intermediation of other variables. As I now turn to the discussion of the mediating effect of *organizational commitment* on the relationship between environmental perception and *adaptive motivation*, it seems appropriate for me to clarify what a mediating variable is. According to Stone & Ziebart (1995), a variable is a mediator if it “represents the generative mechanism through which the focal independent variable is able to influence the dependent variable of interest” (Stone and Ziebart 1995: 250 - 251).

To demonstrate that *organizational commitment* is a mediating variable of the relationship between threat and opportunity perception (i.e., the independent variables) and *adaptive motivation* (i.e., the dependent variable), it is necessary to establish the conditions suggested by Baron and Kenny (1986) and that is: (1) that the mediating variable is correlated with *adaptive motivation*; and (2) the effects of threat and opportunity perceptions on *adaptive motivation* are reduced or eliminated if the mediating variable is used as a covariate. The measurement and evaluation of *organizational commitment* as a mediating variable provides a mechanism for explicating the specific condition in which threat and opportunity perceptions may have the greatest impact on *adaptive motivation*. Without such a measure, the prediction of environmental perception and *adaptive motivation* would be incomplete.

Organizational commitment has been defined as *the relative strength of the individual's identification with and involvement in a particular organization* (Mowday, Porter et al.

1982). As summed up by Neale & Northcraft (1991), it encompasses three dimensions: (1) a strong belief in the organization's goals and values (normative dimension); (2) willingness to exert considerable effort on behalf of the organization (affective dimension); and (3) a strong desire to continue as an organizational member (continuance dimension). *Organizational commitment*, then, is not simply loyalty to an organization. Rather, it is an ongoing process through which organizational actors express their concern for the organization and its continued success and well-being.

Members in my research organization may be regarded as highly committed in the sense that they tended to do more than what might be sufficient to get by (the quintessential communist work attitude). In particular, they tended to (1) work for the best interests of the organization, based on a deep understanding of those interests; (2) be flexible and adaptive; and (3) be willing to accept new challenges pertinent to the survival and success of the organization. Unlike their counterparts in a market economy, workers in my research organization are ideologically indoctrinated to give their best not just to the state-owned enterprise but also to the country as it struggles to transform itself from a planned economy to a socialist-market economy. Since the state-owned enterprise is to these workers an epitome of their country, *organizational commitment* in this context encompasses commitment to both the enterprise and the State. To understand the antecedents of and the mediating effect of *organizational commitment* in my research setting, I propose as follows:

Hypothesis path 19 (as per Figure 6.1): Individuals who perceive a higher level of organizational support tend to have a higher level of organizational commitment.

Hypothesis path 20 (as per Figure 6.1): Individuals with a higher level of overall situation enhancement tend to have a higher level of organizational commitment.

Hypothesis path 21 (as per Figure 6.1): Individuals with a higher level of organizational commitment tend to respond more positively to threat and opportunity perceptions in their motivation to adapt to changing demands and challenges in their jobs.

6.6 Discussion and Conclusion

The purpose of exploring the antecedents of threat and opportunity perceptions is to be able to anticipate, and subsequently, prevent, some of the unintended negative consequences of workplace innovations, which are of concern to practitioners and motivation experts alike (e.g., Kerr 1975; Pearce 1987). It is my intention that researchers may benefit from an improved understanding and operationalization of the complex factors that influence social and economic behavior in the proposed framework, and thereby improve their predictions and potential to guide practice.

Concerning antecedents of threat perception. Although threat is a well-established concept in the broader social sciences, their antecedents are seldom explored. As such, the proposed antecedents of *threat perception* are expected to not only help anticipate protection motivation in the work context, but also potentially contribute to the strategy and international conflict and negotiation literature upon which the concept of *threat perception* was drawn and expanded.

In the proposed model, I have explored *risk of noncompliance* and *pressure to perform* as the antecedents of *threat perception*. In view of the findings in decision research that people are generally more sensitive to potential loss than to potential gain (Kahneman and Tversky 1979; Tversky and Kahneman 1991), development of the antecedents of *risk of noncompliance* and *pressure to perform* is likely to help advance our understanding of protection-based motivation.

Concerning antecedents of opportunity perception. As can be seen in Figure 6.1 – *Proposed Antecedents of Environmental Perception and Adaptive Motivation*, five existing concepts in the work motivation/organizational behavior literature have been accounted for in the proposed framework, namely (1) *expectancy*; (2) *instrumentality* and (3) *equity* (which are manifest in two different dimensions of *reward consistency* – *observed frequency of deserved rewards* and *observed frequency of undeserved rewards*; (4) *perceived organizational support*, and (5) *organizational commitment*.

The ways existing concepts are positioned in the model have important implications. Expectancy may contribute to motivation, but in ways that are less straightforward and clear-cut than existing theory suggested. I propose that *expectancy* contributes (through *willingness to bear cost*) toward *opportunity perception*, which in turn enhances *motivation*. My position is that “can do” does not equal “will do”. By the same token, “not easily accomplished” does not equal “will not endeavor or strive to accomplish”. The value of expectancy then depends, among other factors, on the extent to which “can do” influences “worth doing” in people’s reckoning of the costs and benefits at stake.

Similarly, *instrumentality* and *equity* do not guarantee motivation. Rather, their effects are indirect, depending on the degree to which *overall situation enhancement*, *perceived organizational support*, and *willingness to bear cost* are influenced. Lastly, while *perceived organizational support* is expected to influence *opportunity perception*, which in turn affects *adaptive motivation*, it is also likely to influence motivation through its effect on *organizational commitment*, which in turn mediates the relationship between environmental perception and *adaptive motivation*. These relationships and issues will be revisited in my discussion of the empirical findings in Chapter 9 – *Discussion*.

Chapter 7

Methods and Measures

This chapter consists of three sections. The first section reviews the methodology in light of the research-averse setting I operated in, covering aspects of research strategy, data collection preparatory to the main study, and the main study itself. The second section deals with the measures in four parts: (1) scale development, (2) scales, (3) reliability, and (4) validity. Nine out of 12 variables in the proposed research model represent new concepts for which no existing operationalization was available. In establishing preliminary measures for these new concepts, I followed instructions for exploratory research in the scale development literature. The last section concludes.

7.1 Methodology in a Research-Averse Setting

In the study, I have sought to capture data that could inform me about the unfolding impact of China's employment and wage reforms on individual workers. I refer to my environment I operated in as a "research-averse setting" due to the scarcity of empirical data on the subject matter and the extremely high barriers to conduct research.

Scarcity of empirical studies. Although there has been an increasing amount of highly useful analyses that captured the ongoing challenges and development of China's human resources scene (see, for example, Child 1994; Warner 1995; Warner 2001; Taylor, Chang et al. 2003; Clarke, Lee et al. 2004), empirical studies pertaining to wage reform either deal with managerial pay or are limited to firm-level data, except for a rare few which assessed the reform's individual-level effects. Furthermore, reform shocks of nonrenewable limited duration contracts and massive layoffs notwithstanding, there does not seem to be any empirical study on the motivational impact of employment reform (see Section 3.3 for a review of literature). These unusual outcomes in research do not appear commensurate with the reforms' duration and magnitude, which spanned more than two decades since the late 1970s and have had a profound impact on the nation's 100 million-strong industrial workforce².

Barriers to entry. The scarcity of empirical studies on employment and wage reforms' at the individual worker level may be attributed to the extremely high barriers to conduct research in state industry. Given that the vast majority of state-owned enterprises (SOE) have been suffering from grievous financial difficulties during the lengthened process of economic reform (Tsang & Cheng 1999; Holz 2003), it is understandable that they have not been in the most favorable position or frame of mind to entertain the sophisticated demands of academic researchers. Another legitimate concern, as expressed by a spokesman of the Ministry of Labor I interviewed with at an earlier stage preparatory to the main study, was the worry about the "misinterpretation of complex Chinese realities" by researchers who might lack the knowledge of the political-economic history of the country and the peculiar circumstances of its economy and workplace in transition.

² The workforce has since been continually substantially reduced. See discussion in Section 2.1.2 – *Historical Summary of the Two Reforms*.

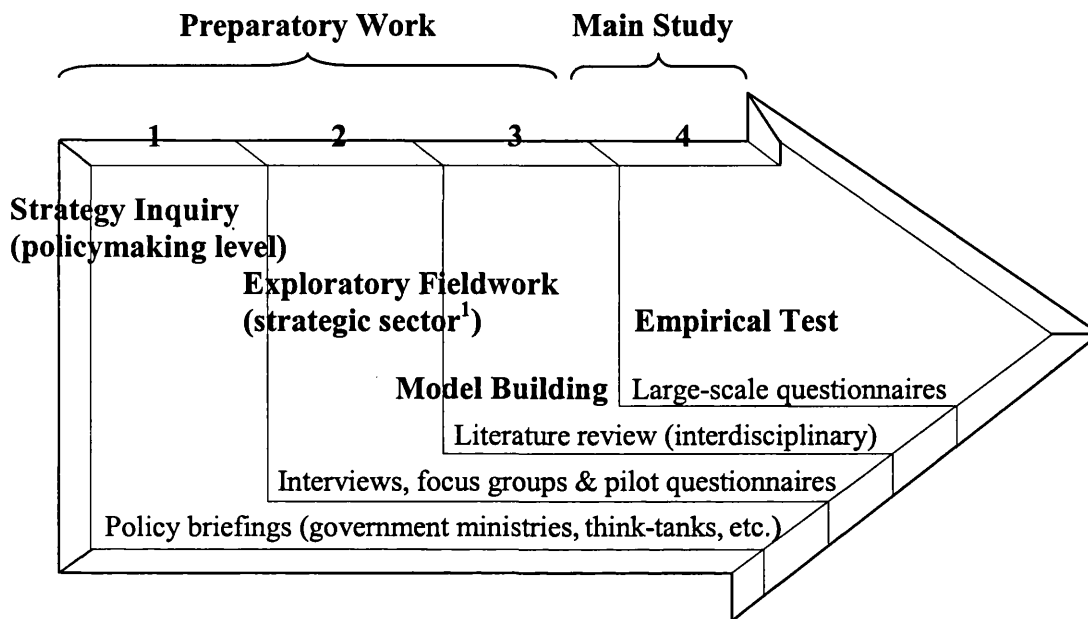
7.1.1 Research Strategy

Uncertainty and risks. My dissertation involved the study of workers faced with employment uncertainty and compensation risks. It also represents a research project of uncertainty and risks in its own right from both a data collection point of view and a model-building perspective. To begin with, no empirical study has been conducted to assess the simultaneous motivational effects of employment and wage reforms at the individual level anywhere in the world. In addition, no theoretical framework was available to help make sense of the phenomenon at hand, that is, motivation of workers to adapt to rapidly changing environmental demands and challenges in their jobs *in spite of* adversity. As a matter of fact, leading work motivation theory such as expectancy would have predicted low motivation *as a result of* adversity (see Chapters 3 and 4 for a detailed discussion).

From a data collection standpoint, the intended study faced the formidable challenges of non-receptivity of the Chinese state industry in providing access to research and the unfamiliarity of enterprise management and workers alike with surveys and academic research procedures. Moreover, the research environment was one of complexity, involving among other issues, the transition from a planned economy to a “socialist-market economy” or “market economy with Chinese characteristics” (*fuzhongguo teshede shichang jingji*) and the involuntary and rapid transformation of the state enterprise from an entitlement communist workplace to a contingent market-led environment. Understanding and contending with these issues and dynamics called for a fair amount of “muddling through” (Lindblom’s 1959, 1968). It is thus fair to say that the workers as the subjects of my observation and I as the author of this unconventional study were both at risk.

In retrospect, my motivation to stay on one such risky path of doctoral research was to no small degree inspired and strengthened by the subjects of my own study. Indeed, what seemed to make it worthwhile for them to adapt in a fast-changing and turbulent workplace – a combination of ideological principles and instrumental beliefs, was what also made it worthwhile for me to persevere and succeed in a research-averse setting.

Figure 7.1
Evolution of my Research on China's Employment and Wage Reforms



¹ The strategic sector included oil, petrochemical, steel, and other energy-related industries.

Methodology. My research strategy may be likened to that of China's economic reform process – “experimental and incremental”. What is in common between my research and the phenomena of employment and wage reforms in particular, which form part of the economic reform, is that, the main objective was deliberate and clear from early on, but the path to achieving it was a long and winding road. In research terminology, the methodology represents evolving, rather than calculated or intentionally designed, patterns (cf. Mintzberg 1979).

Figure 7.1 illustrates the evolution of my research, showing how it progressed through a series of stages, moving from a macro, policymaking level to a meso, sector level to a micro enterprise level, and the methodologies employed at each stage. These four stages may also be viewed as “components” as they were presented only roughly chronologically, with activities overlapping one another as shown. The research as a

whole has, nevertheless, been systematic in nature. For instance, whichever stage or component was involved at the time, I have always tried to adopt a well-defined focus – to collect and analyze specific kinds of data systematically.

How employment reform became part of my study: As mentioned in the Introduction Chapter, I had set out to fill the gap of the lack of motivational studies on the wage reform at the individual level, as existing studies tended to involve only firm-level data. But once I began to have some success over a period of two years in breaking through various barriers to conduct exploratory work in state industry, it emerged that the original framing of my research question did not fit the evolving realities. For it were not only the opportunities under the wage reform, but perhaps more so, the threats produced by the employment reform that bore on motivation. This realization prompted me to go beyond the original emphasis on pay to include employment as the bi-foci of my study.

This substantial but appreciatively advantageous adjustment in the focus of my research meant that the stages or components outlined in this discussion actually involved more than one cycle of activities – on assessing in the first instance the impact of the wage reform and later, the simultaneous impact of the employment *and* wage reforms. The model-building component was no exception to this complicated procedure, which was pursued throughout as well as after the collection of field data. As such, the model building consisted of two parts: (1) a preliminary aspect that lent the theoretical grounding to the empirical study; and (2) a more fully developed aspect that was put into place following the completion of the empirical study (see Chapters 5 and 6 for a detailed discussion).

My fieldwork involved a total of 56 weeks of primary data collection from 1996 – 1999, with one year of being based in northern China during the final data collection period. My visits to enterprises covered parts of the coastal region, (which includes Beijing, Tianjin, Hebei, Liaoning, Shanghai, Jiangsu, Zhejiang, Fujian, Shandong, Guangdong, Guangxi Qiwan autonomous ethnic region and Hainan), and parts of the middle region, (which includes Shanxi, Inner Mongolia, Jilin, Heilongjiang, Anhui, Jiangxi, Henan, and Hubei) (see Figure 7.2 – *Map of the People's Republic of China*).

Figure 7.2
Map of the People's Republic of China



Source: Mitsubishi Research Institute

The first three components of my research, i.e., strategy inquiry, exploratory fieldwork, and model building, are collectively referred as “preparatory work” or “data collection preparatory to main study” and will be discussed in detail in Section 7.1.2 below. Details of the fourth component, i.e., empirical test or “main study”, will be reviewed in Section 7.1.3. Expanding on the presentation in Figure 7.1, I will discuss the manner information about the reforms was gathered and processed at each stage and how the sequence of activities leading to the main study co-evolved with the complex realities of the reforms and the research setting in the process of inquiry.

7.1.2 Data Collection Preparatory to Main Study

Activities of the three components of preparatory work leading to the main study are summarized in Table 7.1. It is important to note that, since the source of my data on the strategies and concerns of reforms represent a combination of personal interviews, and classified materials for internal circulation (*neican*) within the respective government department or policymaking unit, which has been made available to me during personal visits for the sole purpose of facilitating my understanding of the complex reform dynamics, I am obliged to honor my commitment to not disclose the source. I have however endeavored to list in the references a selection of quality Chinese language publications that were relevant to my discussion and in the public domain.

Table 7.1
Components of Data Collection

Component	Strategy Inquiry	Exploratory Fieldwork	Literature Review (Chinese materials)	Empirical Test
Purpose	Understand the strategies behind & challenges of the reforms	Identify the most innovative and advanced reform models & their effects	Supplement review of English language literature for model building	Evaluate reforms' motivational effects based on proposed vs. existing theory
Level of inquiry	Central policy-making level	Multiple enterprises	Open	Single enterprise
Industry	State industry	"Strategic sector": oil, petrochemicals, and steel industries & their joint ventures	State-owned & foreign joint-venture enterprises	Steel
Source of Data	Policy-makers & advisors	All levels of staff within the enterprise	Ministerial officials & leading scholars	All levels of staff within the enterprise
Methods	Policy briefings & discussions	Interviews, focus groups & pilot surveys	Personal visits & institutional contacts (including review of policy documentation)	Interviews, focus groups, test questionnaires & main study
Duration	31 visits of 2 – 4 hours each	Visits to 8 enterprises of about 2 weeks each	23 visits of 2 – 5 hours each	40 weeks continuously at research enterprise

As was the case with Figure 7.1, the components in this table are presented roughly chronologically to give a general sense of how the research had progressed through time. In actuality, however, the activities were conducted somewhat in parallel to each other as and when research access and conditions allowed to facilitate better overall understanding of the main issues at stake and efficient counter-verification of data. In particular, the strategy inquiry and review of Chinese materials and internal policy documents were conducted in an interspersed fashion as quite a few of the individuals I worked with were mutual contacts in both fields of inquiry.

Component 1: Strategy inquiry. The logistics and organization of activities of component 1 (or first stage) of my research are summarized in the first column of Table 7.1. This component involved interaction and exchange at the highest policy-making level at the central government. The purpose was to acquire (1) a firsthand knowledge of the objectives and strategies of the country's economic reform, and in particular the employment and wage reforms; and (2) a fundamental understanding of the various historical, social, political, and economic forces governing the administrative and management agendas of the state industry at the national, local, and enterprise levels.

Between April 1996 and June 1999, I conducted a total of 31 formal visits of two to four hours each with chief policy makers at the Ministry of Labor (*laodongbu*), leaders of major research organizations and government think-tanks such as the Chinese Academy of Social Sciences (CASS) (*zhongguo shehui kexue yanjiuyuan*), advisors at the China Federation of Workers' Unions (*zhongguo laodong zonggonghui*), leading authors on the reforms, as well as heads of the Party School (*dangxiao*) and other executive training arms of the country's "strategic sector" (*cheliuxing hangye*), which includes the oil, petrochemical, steel, and other energy-related industries.

The meetings usually took the form of one-on-one policy briefings and discussions, which were on occasion preceded or followed by a lunch invitation by the host institution. The close-range exchanges with major decisions-makers and advisors provided reliable and timely firsthand assessments of and reflections on the employment and wage reforms, where the state industry had come from, what it was going through, and where it was heading with "deepening of reforms" (*shenhua gaige*). Since

information at the strategic level was otherwise classified and controlled, this understanding would not have been possible through secondary sources.

Component 2: Exploratory fieldwork. The logistics and organization of activities of component 2 (or second stage) of my research are summarized in the second column of Table 7.1. This component involved a combination of qualitative and quantitative studies of an exploratory nature at a cross-section of enterprises in the “strategic sector”, that is, the oil, petrochemical, steel, and other energy-related industries.

The purpose was to identify the most innovative and advanced reform models and their potential consequences and effects on the motivation of individual workers. As had been pointed out to me by the policymakers and advisors of the reforms, the strategic sector was where the financial constraints and operational conditions were least unfavorable for driving the reforms forward and setting new procedures and standards of success for the rest of the industry to follow. At the same time, I tried to cultivate with the enterprises a foundation for mutual understanding that would hopefully lead to full access for the execution of the main study at a latter stage.

Between April 1996 and June 1999, I visited a total of eight enterprises with a duration of two to three weeks each mainly in the “strategic sector”, which included one petrochemical plant in Beijing, one oil enterprise in Heibei Province, one steel enterprise in the north (for reason of confidentiality I am obliged not to specify the location), one oil enterprise in Shangdong Province, two steel enterprises in Shanghai, and two major fast-moving consumer goods foreign joint ventures in Beijing, which belonged to a conglomerate I had previously visited. On all of these visits, I was accompanied by a host of advisors and collaborators from various leading Chinese institutions and research units. To be more accurate, it would not have been possible for me to enter these enterprises at all, let alone accomplish what I had managed to accomplish without the assistance and support of these my local mentors.

The inquiry leading to the final launch of the questionnaire survey or main study consisted of three progressive parts: (1) interviews with the senior management of potential research organizations, (2) focus group studies, and (3) pilot questionnaire

surveys. These activities formed the backbone of my fieldwork and will be described in detail below.

Interviews with senior management. Discussions with the senior management of potential research organizations specifically fulfilled two purposes. First, I was able to familiarize myself with the major issues and concerns in relation to the implementation of the reforms at the enterprise level. In particular, I was able to attain an in-depth understanding of the different ways the enterprise management of different SOEs chose to exercise their autonomy in implementing reforms given the peculiar conditions and circumstances of individual enterprises (*changqing*). Second, the interviews were interactive and provided a basis for mutual understanding and the exploration of organized research activities to empirically assess the reforms. Access to pilot studies at two oil enterprises, one petrochemical enterprise, and two steel enterprises in five major geographical areas across the country were obtained in this capacity.

Focus group interviews. The purpose of focus group studies was to gather preliminary information about the employment and wage reforms and how individuals were responding to the demands and requirements of the reforms in their respective workplaces. At each of the five SOE's that subsequently provided access to pilot questionnaire surveys, I conducted three to four focus group studies of about 10 participants each. During the first sessions in particular, the enterprise management seemed to have handpicked the "stars" of the workforce for participation. At my subsequent requests, the more ordinary and on occasion rebellious workers as well as those with grievances were also brought forward and included in the studies to ensure a cross-section of views on what reform policies and measures they believed worked or did not work for them. In these follow-up sessions, I also made sure that no supervisory or management staff was present to safeguard confidentiality.

Typically, the focus group study lasted for about one to two hours and was semi-structured with four to five theory-based content categories, which included both existing work motivation theories such as needs hierarchy, expectancy, equity, and reinforcement, and other alternative perspectives. Over the process of working with the SOEs at different stages of my research, a variety of perspectives were explored as to

their potential in capturing the complex realities of the reform phenomenon at hand. As such, rather than being rigidly predetermined, the content development of the focus group studies may be said to have been experimental and incremental. As a matter of fact, in between the various field visits conducted from 1996 – 1999 I engaged in extended literature reviews of the mainstream motivation literature as well other relevant social sciences research inspired by sources of my primary data.

The value of the focus group studies lies in their lending the requisite qualitative support for the proposed analytical framework. This is particularly important given the complexity of the research environment and the fact that the subject of the study (i.e., the dual impact of employment and wage reforms) has not been previously empirically explored. In addition, the activities helped to refine the main survey items included in the structured questionnaire, which was subsequently tested in the pilot surveys and adopted as the main research instrument in the final study.

Pilot surveys. Exploratory research in this category involves five different enterprises in the oil, petrochemical, and steel industries. These enterprises were the ones that had participated previously in the focus group studies. At the special request of the enterprise management, the questionnaires had been limited to four pages in order to sustain the interest of the respondents and ensure a satisfactory completion rate.

At each of the enterprises pilot surveys were internally distributed to two to three groups of randomly chosen individuals of 15 – 20 each, which amassed more than 30 completed questionnaires on each occasion for preliminary data analysis. The main objective of the pilot surveys was not to check the scale reliabilities and validities, but rather to (1) ensure that the item wordings were understandable and appropriate for the particular enterprise reform context; (2) gauge the actual completion time; and (3) benefit from any additional feedback or suggestions from the respondents.

Stage 3: Review of local Chinese literature. The logistics and organization of activities of component 3 (or third stage) of my research are summarized in the third column of Table 7.1. In the West very little was known empirically about China's employment and wage reform and within the Chinese academic publication system there was neither

standard procedures for literature search nor requirement for references as such. Personal contact with ministerial officers and leading scholars on the reforms therefore seemed a logical way to tap the reservoir of knowledge that was available on a firsthand basis especially in regard to their qualitative and latest assessments of the reforms and “lessons learned”.

As a result, the review of Mainland Chinese literature involved both primary and secondary sources in the sense that a significant portion of the data sought was not in the public domain but came instead in the form of internal policy documents or commentaries, the restricted on-site review of which was made available to me through personal contact. As regards other widely circulated materials that could be found in public or reference libraries, virtually all dealt with the assessment of the reforms in the form of historical and strategic reviews or “success stories” and at a prescriptive and somewhat atheoretical level. As such, most of the information obtained has been used to facilitate and enrich the discussion on the reform context and the challenges therein in Chapter 2 rather than being incorporated in the main and extended literature reviews in Chapters 3 and 4.

7.1.3 The Main Study

Through working in close consultation and collaboration at the policymaking and multiple enterprise levels, I was able to acquire an in-depth understanding of the employment and wage reforms over a distinct 39-month period from March 1996 to June 1999. This period represents some of the most challenging and turbulent times in the respective state enterprise’ transition from lifetime employment and egalitarian pay to new systems of limited duration contracts, competition-related employment, and work contribution-based pay.

The timing of my observation was crucial because adaptive motivation and behavior generally occur in the face of environmental challenge, instability, and change (Rook 1987; Gersick 1991), so research on adaptive motivation needed to focus on responses of individual state enterprises at these times.

Sample selection and questionnaire administration. The present inquiry is focused on The Steel Conglomerate's second-tier operation units (STOUs), which employed a total of 20,000 workers (see Section 2.2 of Chapter 2 for a discussion of the dynamics of "deepening of reforms" at the STOU level). The five STOUs selected for the study were among the highest performing operations of the enterprise and often referred to by management as the five "star factories". Since these STOUs had over the previous three years gone through constant and rapid processes of workforce restructuring and reduction, their workers may be appropriately identified as some of the most adaptive and flexible members of the workforce in the reform process of "survival of the fittest".

Toward the end of 1998, I visited the senior management of the enterprise to introduce the study and encourage participation. Following a series of intensive management review sessions and focus group studies at the middle management, supervisory, and worker levels of the organization, a large-scale empirical study was launched in June 1999 with the active participation of the management and workforce. Since the target sample involved operation units that were on three eight-hour shifts, the production unit supervisors were assigned the role of distributing and collecting the questionnaires.

Quality control. Proper measures were adopted to ensure confidentiality and efficiency in returning the questionnaires. In particular, workers were assured of the choice to return either a completed or blank questionnaire. However, they were required to return it within three working days and do so in a sealed envelope provided for them, which carried the logo of the local research institution I was affiliated with (see covering note of questionnaire in Appendix B). Since no more specially made envelopes than the number of questionnaires were allocated and a fair number of the returned questionnaires included comments that were rather critical of the management and reform measures, I was satisfied that the personnel involved in the questionnaire administration had dealt fairly and ethically and that the contents of the questionnaire had not been controlled, censored, or tempered with.

Sample characteristics. The sample consisted mainly of production workers. The results presented in this study were based on a total of 1,134 usable questionnaires at the completion of the field study, which accounted for 95% of the questionnaires

administered to the workgroup. The high response rate was owed to management support in promoting the questionnaire as a quasi-mandatory exercise for the workers. During the final data collection period, which lasted continuously for more than nine months, about 15% of supervisory staff and five percent of ordinary workers from all five plants had actively participated in and provided feedback on the design and construction of the questionnaire. The extended period of close exchange and collaboration is believed to have helped socialize and prepare the targeted population for the launch of the questionnaire, which due to the enterprise' usual closed-door policy to research, was a new experience for all participants concerned.

The sample represented about 20% of the workforce at the operation units surveyed, which together employed 5,613 workers. According to the sample statistics, the sample was recognized as one representative of the demographic characteristics of the workforce under study. The average age of the respondents was 32 years, 70% of them were married, and 79% were male. The average education level was senior high school or technical college and the average skill was of an intermediary level. Of the total sample, front-line production staff made up 64%; supporting staff, 21%; and professional and managerial personnel, 15%. Seventy percent of the respondents were members of the Chinese Communist Party or Young Communist Party (*gongqingtuan*) and nine percent, Party member trainees. Eighteen percent of the respondents have been awarded the honorary title of "Model Laborer" (*laomo*) or "Able Hand" (*nengshou*).

Personal employment data. The majority of workers (96.6%) were official, "urban workers", and the remaining 3.4% were of "rural-worker" status. The average length of service was 14 years and the average duration of employment contract was 10 years, and 62% have been awarded permanent, open-ended employment contracts. The average time period from the expiry of the limited duration contracts was 49 months or about four years for those who had an expiry date on their contracts. In terms of recruitment background, 56% were placed through the school; 22%, through open recruitment; 16%, through external transfer; and the remaining 6% were veterans.

Personal income data. The average total monthly pay of the respondents was RMB1,042, which represented an efficiency wage set above the then average national wage of RMB8,543 for state industry and RMB8,346 for all sectors (SSB 2003). Of the total monthly pay, the average bonus was RMB352 or 34%. The average position point was 1.3 on a scale of 1.0 to 3.4 and the average monthly position-based pay was RMB236 or 23% of total monthly pay. The average skill point was 3.9 on a scale of 1 to 10 and the average monthly skill-based pay was RMB98 or nine percent of total monthly pay.

The Questionnaire

Length of questionnaire. Under normal circumstances and in research-receptive settings, it would seem more advantageous and indeed “safer” to organize a lengthy questionnaire so as to cover as much ground as possible in testing various concepts that might help explain the phenomenon at hand. An important concern in my situation, however, was that the workforce has had no former exposure whatsoever to questionnaire surveys. Following careful consultation and deliberation with managers, supervisors, and worker representatives in focus group discussions and the review of repeated pilot test results, I was convinced that four pages was the maximum we could manage to ask the employees fill out in order to ensure a high response rate.

Though difficult and trying at the time, this unusual limitation turned out to be a blessing in disguise – since there were no room for “nice-to-have” or “fallback” questions, I had to be extremely selective as to what questions to ask and what frameworks to include in my inquiry. This discipline was achieved through intensive focus group discussions held nearly bi-weekly for a continuous period of 40 weeks, which helped shape the questionnaire content and give it a sharper and more decisive focus. The end result was a compact questionnaire of one folded A3 sheet or the equivalent of four A4 pages (see Appendix A). The English translation of the questionnaire is presented in Appendix B.

Questionnaire content. The questionnaire included four pages of structured inquiry. Main constructs of three explanatory frameworks were included: (1) equity theory, (2) expectancy theory, and (3) the proposed model of “environmental perception and adaptive motivation”. In addition, the concept of *organizational commitment* was

included to test mediation effects. However, due to space limitation and the concern that goal setting as a performance theory could not explain motivation (see detailed discussion in Chapter 3 – *Literature Review: Work Motivation*), goal setting theory has not been identified as critical content for inclusion in the questionnaire.

The contents of the questionnaire were organized into 10 parts, which comprised a total of 174 items. The following is a list of the section headings. Remarks in the parentheses were added only at this point to facilitate understanding of the questionnaire items used.

- (1) Opportunities and threats under the competition-based employment and wage reforms (in relation to the perception of opportunities and threats under the reforms)
- (2) Impact of reforms (in terms of the workers' motivation to adapt to various new and challenging demands in their jobs under the reforms)
- (3) Effort and reward (in relation to the instrumentality component of expectancy theory and what makes it worthwhile for the workers to put forth their best efforts in their jobs)
- (4) Effort and outcome (in relation to the individuals' control over their work results or the expectancy component of expectancy theory)
- (5) Situation or dynamics at work (in terms of pressures felt and risks involved in not complying to expected behavior and performance standards)
- (6) Work values (in both instrumental and ideological terms)
- (7) Supervision and appraisal (especially in relation to support received in the process of adaptation at work and in terms of performance review/appraisal)
- (8) Work group atmosphere (e.g., workgroup and social expectations concerning acceptable behavior and performance at work)
- (9) Execution of rewards and punishments (in terms of observed frequencies of undeserved rewards and undeserved punishments in the workplace)
- (10) Personal data (e.g., demographics, position and skill grades, base pay and bonus amounts, job nature, tenure, employment status, contract type, etc.)

Scoring format. The questionnaire mainly utilized a self-reporting five-point Likert scale. The response categories for Part A and Parts C – H were “strongly disagree”, “moderately disagree”, “neither disagree nor agree” (or “no opinion whatsoever” in the

Chinese language), “moderately agree”, and “strongly agree”. Section 2 measured the impact of the reforms on the change in motivation, with the following response categories: “substantially reduced”, “moderately reduced”, “no impact whatsoever”, “moderately increased”, and “substantially increased”. Section I measured the observed frequencies of undeserved rewards and of undeserved punishments in the workplace, with the response categories of “extremely infrequent (<10%)”, “relatively infrequent (10 – 49%)”, “medium (50%)”, “relatively frequent (51 – 90%)”, and “extremely frequent (> 90%)”.

Item 10 in Part C was a ranking question, whereby respondents were asked to pick three items from a list of seven potential driving forces behind their motivation, (which were generated from previous focus group discussions), and rank them in terms of “the foremost driving force”, “the 2nd most important driving force”, and “the third most important driving force”.

Item 23 in Part I was an open-ended question intended to encourage the respondents to provide additional comments and input in their own words concerning their personal assessment of the employment and wage reforms as well as the effectiveness of organizational rewards and punishments. The last part concerning personal data consisted of fill-in-the-blank and multiple-choice questions.

7.2 Measures

As discussed in the previous chapter, of the 12 variables in the proposed framework, three benefited from existing conceptualizations in literature – perceived organizational support, organizational commitment, and expectancy while the remaining nine are new, exploratory measures for understanding motivation under uncertainty and risks in a work setting. A comprehensive scale development process was undertaken to develop these new scales. A variety of tests were also carried out to ensure their reliability and validity.

7.2.1 Scale Development

Except for three variables, the conceptualizations of which already exist, I did not uncover in the work motivation/organizational behavior literature any existing scales for the proposed concepts. As a result, I embarked on a course of primary scale development. Four focus groups were conducted for this purpose, each lasting about two hours. Participants in each of the four studies included 10 steel workers and two supervisors randomly selected within my research organization. In the group setting, respondents were invited to discuss the ideas extensively among themselves as well as with me. The main goals of the focus groups were to ascertain what the proposed concepts meant to the workers and the specific aspects of employment and wage reforms that needed to be captured in the scales.

To complement and corroborate the knowledge gained from the workers, managerial interviews were conducted with two groups of five middle managers each, and with two senior executives. The interviewees were probed about their understanding of what it meant for the workers to adapt to the requirements of employment and wage reforms, and whether the proposed research model accurately and sufficiently captured the strategies and rationale behind the reforms. All participants were guaranteed confidentiality.

From minutes of the focus group discussions and managerial interviews, I extracted and list the various statements related to the relevant concepts. In concert with the proposed research framework, an overarching theme emerges that workers and managers alike all talked about the unprecedented levels of uncertainty and risks brought about by employment and wage reforms. Results also revealed a variety of different issues that reflected a perceptual identification with threats and opportunities that have not been part of traditional inquiry of work motivation.

Another issue reflected frequently is the ideological influence on motivation and work behavior, and especially in situations of hardship and adversity where continuous downsizing seemed inevitable and there is no guarantee as regards continued employment and base pay. The measures were developed based on these results and

subsequently administered in the form of a “mock questionnaire survey” to the same focus groups and management staff on four different occasions to ensure that the questionnaire contents effectively captured the “poignant issues at hand” (*wendao dianzishang*). The finalized measures are presented below.

7.2.2 Measures

The rationale behind the composition of measures is discussed in this section. Unless otherwise indicated, responses are on a five-point Likert scale with anchors from 1, “strongly disagree”, to 5, “strongly agree”. All survey respondents completed the same scales. Reliability coefficients and KMO measures of sample adequacy are reported. The order of presentation of the scales in the following is consistent with the manner their definitions are presented in Table 6.1 in the previous chapter.

Adaptive motivation. The purpose of the study is to evaluate the impact of China's employment and wage reforms on *adaptive motivation*, i.e., individuals' motivation to adapt to new and changing demands and challenges in their jobs. Responses are on a five-point Likert scale with anchors from 1, “greatly reduced”, to 5, “greatly increased”. A total of nine items were developed. Five items involved “tangible targets” (*yingzhibiao*) against which members of the workforce were evaluated periodically, with four specifically addressing (i) efficiency, (ii) quality assurance, (iii) cost cutting and energy saving, (iv) cooperation, and one summarizing, and (v) the overall situation.

The remaining four items dealt with “long-term benefits” (*changyuan liyi*) of the enterprise, for which the workers were ideologically indoctrinated to sustain and support, with three specifically addressing (vi) participation in innovation and development, (vii) extrarole behavior, (viii) long-term goal orientation, and one summarizing (ix) the overall situation. The alpha coefficient for the nine-item scale is 0.91, with a sample adequacy measure of 0.93.

Threat perception. The proposed framework is built around environmental perception, of which *threat perception* is one of the two core components. The *threat perception*

scale examined the change that was brought about by employment and wage reforms. This was accomplished through two sets of questions. The first set contained four items that addressed individual perception of what management referred to as “threat-based reform measures”, which included (i) “survival of the fittest”, (ii) non-automatic renewal of limited duration contracts, (iii) Job Transfer Center, and (iv) pay reduction for non-delivery of production/work targets.

The second set of items was drawn on the international conflict (Tedeschi 1970; Brown and McDougal 1977) and protection motivation research (Rogers 1975), which highlighted fear, and clarity and immediacy in the investigation of threat. It contained three items on (v) feeling of insecurity, (vi) alertness to the threat of competition, and (vii) immediacy of the threat of competition. The alpha coefficient for the seven-item scale is 0.68, with a sample adequacy measure of 0.79.

Opportunity perception. *Opportunity perception* represents the other core component of the proposed framework of environmental perception. The *opportunity perception* scale examined the change that was brought about by employment and wage reforms. This was accomplished through two sets of questions. The first set contained three items that addressed the individual perception of what management referred to as “opportunity-based reform measures”, which included (i) “putting people’s talents and capabilities to maximum use” (*renjin qicai*), (ii) unprecedented training and development opportunities, and (iii) provision of favorable conditions to exceed one’s production/work targets.

This second set of questions was inspired by research in strategy (Averill 1973; Dymsha 1984) and entrepreneurship (Bandura 1977; Krueger 2000), which highlighted feasibility and potential gain in the identification of opportunity. It contained the next three items: (iv) hope, (v) feelings toward the overall situation under the reforms as offering “more opportunities than threats”, and (vi) seeing one’s role in the process of adaptation as being “more active than passive”. The alpha coefficient for the six-item scale is 0.67, with a sample adequacy measure of 0.76.

Pressure to perform. The measure of *pressure to perform* as a determinant of *threat perception* captured various demands and expectations that originated from three sources: the job, people important to the individuals, and the individuals themselves. As demonstrated below, the dimension pertaining to job demands addressed both the extensiveness of work (i.e., time effort) and intensity of work (i.e., effort) discussed in the work pressure literature (Aldrich and Wiedenmayer 1993; Auer and Speckesser 1998; Burchell, Day et al. 1999). Dimensions concerning social and self-imposed expectations were drawn on work in social control (Etzioni 1961) and adaptive self-regulation (Snyder 1979; Ashford and Cummings 1983; Tsui and Ashford 1994).

The scale consisted of two sets of questions. The first set contained two items tapping the effects of (i) Position and Responsibility System (*gangwei zherenzhi*), which held individuals accountable for their work results, and of (ii) Annual Job Review and Skill Assessment (*gangwei jineng cheping*), which ranked the individuals openly one by one, from top to bottom, on big bulletin boards, according to the scores on their work performance and skill level. The second set contained four items: (iii) self-imposed expectations, (iv) social expectations, (v) work pressure (workload, quality, and difficulty of tasks), and (vi) the overall feeling/conclusion that one was not given a choice to deliver less. The alpha coefficient for the six-item scale is 0.63, with a sample adequacy measure of 0.74.

Risk of noncompliance. The measure of *risk of noncompliance* as a determinant of *threat perception* captured the kind of risk individuals saw themselves taking in relation to sanctions of an administrative, economic, and social nature. These three aspects were discussed extensively in the sanctions literature (Horai and Tedeschi 1969; Paternoster 1987; Milgrom and Roberts 1992). Accordingly, the scale contained three items: (i) “risk of showing up at work without putting in genuine effort” (*chugong buchuli*), a deep-rooted work behavior the reforms were intended to correct; (ii) risk of job loss, which did not exist before “deepening” of employment reform; and (iii) risk of social reproof, an especially powerful form of control in the socialist workplace. Together these risk items probed the critical issue of “*Can I afford not to?*”

Risk of noncompliance was significant in both directly and indirectly affecting *threat perception* such that when it scored low, both *threat perception* and *pressure to perform* was likely to weaken. The alpha coefficient for the three-item scale is 0.66, with a sample adequacy measure of 0.65.

Perceived organizational support. The new employment and wage arrangements were often referred to as the “mounting waves of reforms”(gaigede daichao) by management and workers alike in Chinese industry. The measure of *perceived organizational support* as a determinant of *opportunity perception* captured what the individuals appreciated concerning the role of leadership (or management) in promoting their survival and success under the new competition-based employment and pay-for-labor systems.

Researchers have interchangeably included supervisor and organization in measuring support (see Eisenberger, Huntington et al. 1986 for a review). Likewise, I included both direct supervision and enterprise management in addressing the crucial aspects of their support for the workers in (i) offering guidance in the normal course of work, (ii) offering guidance on making improvements in their work, and (iii) providing convincing support for their appraisal outcomes. I also included an item that concluded that (iv) overall the leadership (or management) played an active role in promoting the survival and development of the workers.

Perceived organizational support was significant in both directly and indirectly affecting *opportunity perception* such that when it weakened, both *opportunity perception* and *willingness to bear* was likely to score low. The alpha coefficient for the four-item scale is 0.81, with a sample adequacy measure of 0.79.

Willingness to Bear Cost. Since individuals in the socialist workplace may be particularly, though not exclusively, concerned about normative issues in their value judgment, the measure of *willingness to bear cost* captured both instrumental and ideological concerns that were likely to contribute to *opportunity perception*. It included items that reflected what made it worthwhile for people to exert maximum effort in their work in order to adapt to new demands and challenges in their jobs. Items for this measure were not selected on an arbitrary basis. Rather, they represented the top four

issues voted by the individuals as the “greatest forces driving you to work really hard in your job” in an accompanying rank-order question in the same questionnaire (see item C10 in Appendix B).

The items were (i) job security, (ii) material gains, (iii) honorary title of Model Laborer/Advanced Worker, and (iv) self-actualization. I also included an item that indicated (iv) the individual’s overall judgment of whether they believed the investment of their time and energy at work had been worthwhile for them. Together these items probed the critical issue of “*Is it worth it for me?*” The alpha coefficient for the five-item scale is 0.64, with a sample adequacy measure of 0.71.

Overall situation enhancement. The measure of *overall situation enhancement* as a determinant of *perceived organizational support* and *willingness to bear cost* represented the blanket coverage of reforms’ fulfillment of individual needs that helped to improve their bottom line or enhance their overall situation, thus making them better off. In the scale, each needs item was matched with the respective reform measure specifically aimed at satisfying that need. For instance, C.12 in Appendix B reads, “*Establishment of the Competition-Based Employment (jingzheng shanggang) system has enhanced the job stability for those who are able and willing to work hard.*” The items are presented according to categories in Alderfer’s (1969) ERG theory: (1) existence needs, (2) relatedness needs, and (3) growth needs. The respective reform measures are shown in italics.

Existence needs items covered (i) job security (*competition-based employment*) and (ii) material gains (*pay for labor*). Relatedness needs items covered (iii) public recognition (*open ranking of Job Review and Skill Assessment results*) and (iv) management recognition (*survival of the fittest*). Growth needs items included (v) career development (*training and development opportunities*), (vi) self-actualization (*putting people’s talents and capabilities to maximum use*) (*renjing qicai*), and (vii) altruistic fulfillment (*contributing to the enterprise*).

These needs items were not selected on an arbitrary basis. Rather, they represented the top responses to the rank-order question (see item C10 in Appendix B), which probed

the “greatest driving force of your motivation to work hard (to adapt) in your current position”. They thus reflected specific components that together contributed to the ideal “overall situation” for the workforce at stake. The alpha coefficient for the seven-item scale is 0.86, with a sample adequacy measure of 0.89.

Reward Consistency. The principles governing employment and wage reforms are “more work for the able” (*nengzhe duolao*), which can be extended to mean “the more able the more employable”; and “more pay for more work” (*duolao duode*). The implementation guideline is that of “driving efficiency with due respect for equity” (*xiaoliuyouxian jiangugongping*) (Sun 2000a). The measure of *reward consistency* captures aspects that were frequently talked about by the workers – not just rewarding the deserving but also making sure the undeserving were not met with favoritism due to social connections (*guanxi*), a common practice in Chinese society. The measure consisted of two separate scales capturing the following dimensions: (1) *observed frequency of deserved rewards* and (2) *observed frequency of undeserved rewards*. They are discussed below.

Observed frequency of deserved rewards. As mentioned in the previous chapter, the concept of *observed frequency of deserved rewards* is comparable to that of instrumentality in expectancy theory, which is expressed in probability measures. Here, however, designed in frequency occurrences, the items here were expected to yield more reliable responses, because they addressed the actual situation as it was witnessed by the individuals (“how frequent”) rather than as it was speculated the individuals (“how likely”). Responses were on a five-point Likert scale with anchors from 1, “very seldom”, to 5, “very often”.

Like all other measures discussed above, *observed frequency of deserved rewards* captured that which had direct relevance to employment and wage reforms. For instance, item I1 in Appendix B reads, “Someone with good on-the-job performance got to keep his job.” And item I9 in Appendix B reads, “Someone got a bigger bonus than others in the same position because of having made a greater contribution at work.”

In total, seven aspects of deservingness, expressed in terms of input-outcome relationships, were captured, with the outcome in italics: (i) good on-the-job performance (*continued employment*), (ii) better work performance (*better appraisal results*), (iii) greater contribution (*bigger bonus*), (iv) outstanding work performance (*honorary title of Model Laborer*), (v) mastery of new skill (advantage in competition-based employment), (vi) acceptance of extra responsibility (*management recognition*), and (vii) significant contribution to the enterprise (*preferential housing*). In addition, I included an item that indicated (viii) the overall conclusion that reward outcome was linked to individual input at work. The alpha coefficient for the eight-item scale is 0.81, with a sample adequacy measure of 0.88.

Observed frequency of undeserved rewards. As discussed at length in the previous chapter, *observed frequency of undeserved rewards* reflected the phenomenon of double standards that was ignored in work motivation studies. Like the responses for the measure of *observed frequency of deserved rewards*, those for the *observed frequency of undeserved rewards* scale were on a five-point Likert scale with anchors from 1, "very seldom", to 5, "very often". For example, I4 in Appendix B reads, "Someone managed to keep his job despite poor work performance". And I10 in Appendix B reads, "Someone got a bigger bonus than others in the same position for reason(s) other than having made a greater contribution at work."

The same seven aspects of non-deservingness (vis-à-vis deservingness discussed above) are captured here in five items, with the first item encompassing three aspects. The undeserved reward is presented in italics: (i) absence of higher skill attainment, acceptance of extra responsibility, and higher work performance (*management recognition*), (ii) poor performance (*continued employment*), (iii) absence of greater contribution (*bigger bonus*), (iv) absence of outstanding work performance (*honorary title of Model Laborer*), and (v) absence of significant contribution to the enterprise (*preferential housing*). The alpha coefficient for the five-item scale is 0.81, with a sample adequacy measure of 0.84.

Among all the independent variables of *perceived organizational support* and *willingness to bear cost*, the impact of *reward consistency* was believed to be most wide-

ranging. *Reward consistency* was significant in directly affecting *willingness to bear cost*. At the same time, it was significant in both directly and indirectly affecting *perceived organizational support* in that when *reward consistency* was low both *perceived organizational support* and *overall situation enhancement* tended to weaken.

Expectancy. The existence of several versions of expectancy theory (from which the concept of expectancy was extracted) has not produced instruments that could be regarded as scales in the conventional sense (Cook, Hepworth et al. 1981). As a result, in measuring *expectancy* as a determinant of *willingness to bear cost*, I addressed issues in the work process that were considered critical by the workers themselves, including the extent to which (i) the level of authority was commensurate with one's accountability on the job and (ii) cooperation and assistance were received from co-workers to carry out one's duties on the job. In addition, I included an item indicating (iii) the overall judgment that individuals had reasonable control over the results of their work (considering the skills and various resources required).

As discussed at length in the previous chapter, I focused on the actual experience of the individual rather than using probability estimates in capturing the link between effort and performance. This approach to conceptualization was intended to improve robustness of the *expectancy* measure, which was acknowledged as a major weakness in the literature (see Arvey and Ivancevich 1980 for a detailed discussion). The alpha coefficient for the three-item scale is 0.60, with a sample adequacy measure of 0.63.

Organizational Commitment. The measure of *organizational commitment* as a mediating variable of environmental perception and *adaptive motivation* was based on successful existing measures. A total of five items captured three established dimensions of the concept. In particular, the item probing (i) the belief in leaving the enterprise "the sooner the better" in order to avoid being victimized by workforce reduction addressed the continuance dimension of the concept. The items investigating (ii) the desire to contribute to the enterprise, and (iii) willingness to put forth more efforts than others for the enterprise addressed the affective dimension of the concept. Lastly, the item examining (iv) the act of contributing to the enterprise as a realization of self-worth addressed the normative dimension of the concept.

My approach to capturing in the same scale the affective, continuance, and normative dimensions established by Mowday, Porter, and Steers (1982) proved effective, with an alpha coefficient for the five-item scale of 0.69 and a sample adequacy measure of 0.74.

7.2.3 Reliability

The internal consistency of the 12 variables in the research model is now reported. Several measures provide evidence of internal consistency. Those used here are reliability coefficient (Cronbach's coefficient α) and variance extracted (VE) estimates.

Cross-validation of data. Following the recommendation of De Vellis (1991) for new scale development, I split the data to produce two sub-samples to facilitate the cross-validation of data. The first sub-sample represented 520 responses collected from operation units 1 and 2 of my research organization. The second sub-sample represented 714 responses collected from operation units 3, 4, and 5 of the same organization.

The alpha values of the 12 scales for sub-sample I range from .60 to .91 and those for sub-sample II, from .59 to .90, with an average of .73 for both sub-samples. The average VE estimate of the 12 scales is .47 for sub-sample I, and .48 for sub-sample II. Upon the successful validation of data across the two different sets of respondents, I combined the two sub-samples to further assess the reliability and validity of the individual scales. Final results of the total sample of 1,134 are presented in Table 7.2 together with the means, standard deviations, and intercorrelations.

The abbreviations in parentheses here are as shown from 1 – 12 in the table: *Adaptive motivation* (AM), *threat perception* (TP), *opportunity perception* (OP), *pressure to perform* (PP), *risk of noncompliance* (RNC), *perceived organizational support* (POS), *willingness to bear cost* (WBC), *overall situation enhancement* (OSE), *observed frequency of deserved rewards* (FDR), *observed frequency of undeserved rewards* (FUR), *expectancy* (E), and *organizational commitment* (OC).

Descriptive statistics. On average, the individuals in the present sample reported more *threat perception* than *opportunity perception* (3.82 vs. 3.49) and subsequently not surprisingly, also more pressure than support, as measured by *pressure to perform* and *perceived organizational support* (3.65 vs. 3.33). From a strategic point of view, these findings indicated that the “thought reform” devised by management to “awaken workers to a sense of threat” in the enterprise’ business and economic environment (see detailed discussion in Chapter 2) has taken effect. From a theoretical perspective, these results are consistent with those of previous studies on environmental perception (Cyert and March 1963; Averill 1973) showing that decision-makers tend to be more sensitive to threat-consistent information than to opportunity-consistent information.

Table 7.2
Descriptive Statistics, Reliabilities, Variances Extracted, and
Pearson Correlations ^a

Variable	Mean	SD	VE	1	2	3	4	5	6	7	8	9	10	11	12
1. AM	3.77	0.68	0.57	(.91)											
2. TP	3.82	0.61	0.35	.52	(.68)										
3. OP	3.49	0.70	0.38	.58	.50	(.67)									
4. PP	3.65	0.61	0.36	.36	.57	.41	(.63)								
5. RNC	3.41	0.93	0.59	.27	.34	.19	.18	(.66)							
6. POS	3.33	0.91	0.63	.47	.42	.51	.38	.19	(.81)						
7. WBC	3.51	0.72	0.41	.43	.42	.44	.37	.09	.35	(.64)					
8. OSE	3.45	0.81	0.55	.54	.49	.61	.44	.21	.60	.45	(.86)				
9. FDR	3.30	0.75	0.43	.37	.36	.46	.31	.13	.51	.33	.46	(.81)			
10. FUR	2.63	0.93	0.57	-.34	.30	-.31	-.20	-.35	-.43	-.13	-.33	-.28	(.81)		
11. E	3.57	0.76	0.56	.38	.39	.39	.34	.17	.48	.36	.47	.34	-.31	(.60)	
12. OC	3.49	0.78	0.45	.47	.43	.41	.36	.36	.44	.37	.40	.33	-.39	.31	(.81)

^a N = 1,134. Range = 1 - 5 on all scales. Reliability coefficients (Cronbach’s Alpha) in brackets. VE = Variance extracted. All inter-correlations are significant at 0.01 level (2 tailed). All *ps* < .01.

Reliability coefficient. With new measures, Nunnally and Bernstein (1994) recommended a minimum coefficient alpha result of .60. As shown in the main diagonal of Table 7.2, the internal consistency reliability estimates for all nine new variables (i.e., *adaptive motivation*, *threat perception*, *opportunity perception*, *pressure to perform*, *risk of noncompliance*, *overall situation enhancement*, *willingness to bear cost*, *observed frequency of deserved rewards*, and *observed frequency of undeserved rewards*) fulfilled

this requirement, with alpha values ranging from .63 to .91 and the average alpha value at .74. Alpha values for the three variables that were based on existing measures (i.e., *perceived organizational support*, *expectancy*, and *organizational commitment*) are .81, .60, and .69 respectively, with an average alpha value of .70.

Variance Extracted. The variance extracted (VE) estimate was used here as an additional indicator of internal consistency. Dillon and Goldstein (1984) and Hair, Anderson et al. (1998) suggested that the average variance extracted (VE) estimates approach 0.50 for existing measures, as a rule of thumb. In this connection, the VE estimate of .56 for the *expectancy* scale provided support for the argument that the scale was acceptable, albeit having a reliability coefficient alpha of .60. The average VE estimate for the three existing measures of *perceived organizational support*, *expectancy*, and *organizational commitment* is .55 and that for the nine new measures of *adaptive motivation*, *threat perception*, *opportunity perception*, *pressure to perform*, *risk of noncompliance*, *willingness to bear cost*, *overall situation enhancement*, *observed frequency of deserved rewards*, and *observed frequency of undeserved rewards* is .47.

The strength of the internal consistency estimates be it demonstrated by the reliability coefficient alphas or VE estimates, on the whole provided evidence for the homogeneity of the scale items for both the existing scales as well as the new scales in the model.

Intercorrelations. The correlations among the 12 variables range from $-.39$ to $.61$. All the correlations are significant ($p < 0.01$) and are in the expected directions. In particular, *threat perception* and its two independent variables, namely, *pressure to perform* and *risk of noncompliance*, showed meaningful and positive correlations of $.57$ and $.34$ respectively. *Opportunity perception* and its two independent variables, namely, *perceived organizational support* and *willingness to bear cost*, also showed high and positive correlations of $.51$ and $.44$ respectively. Furthermore, *perceived organizational support* and its independent variables showed similar strength in correlations of $.45$ for *overall situation enhancement*, and $.51$ for *observed frequency of deserved rewards* and $-.43$ for *observed frequency of undeserved rewards*.

Willingness to bear cost and its independent variables also showed comparable strength in correlations of .45 for *overall situation enhancement*, .33 for *observed frequency of deserved rewards* and $-.13$ for *observed frequency of undeserved rewards*, and .36 for *expectancy*. The low correlation between *willingness to bear cost* and *observed frequency of undeserved rewards* indicate that the latter is unlikely to have the kind of influence on *willingness to bear cost* as it does on *perceived organizational support*. However, the effect of *observed frequency of undeserved rewards* on *willingness to bear cost* tended to show indirectly, through *overall situation enhancement*. The latter had significant correlations of .46 with *observed frequency of deserved rewards* and of $-.33$ with *observed frequency of undeserved rewards*.

According to Gerbing and Anderson (1981), the reliability of a scale should be assessed in conjunction with its unidimensionality. I shall address this aspect in the next section.

7.2.4 Validity

A series of initial analyses were conducted to allow for the investigation of dimensionality and factor loadings. I first handled the two concepts that had two dimensions to determine whether the structure of the measures coincided with the two-dimensional conceptualizations developed from the literature investigation. The first of such concept was environmental perception and the second, reward consistency.

As prescribed in psychometric theory (Nunnally and Bernstein 1994), items were deleted based on loadings on multiple dimensions and low factor scores. I conducted a principal component analysis (varimax rotation) based on two criteria: (1) significance of item loadings and (2) simplicity of factor structure. Using these criteria, items with loadings of less than .35 on all factors or with loadings greater than .35 on two or more factors were dropped (Andrasik 1989). This process of evaluating the factor analysis results, dropping items, and performing the analysis on the remaining items was repeated until a stable solution was found.

Accordingly, all items pertaining to environmental perception were subjected to exploratory factor analysis. Result of the third factor analysis groups 13 items into two factors, which were in line with the conceptualization of *threat perception* and *opportunity perception*. A scree plot, coupled with a minimum eigenvalue criterion of 1.00, confirmed that a two-factor solution was appropriate. Items pertaining to *reward consistency* were subjected to the same analysis. Result of the second factor analysis grouped 13 items into two factors, which were in line with the conceptualization of *observed frequency of deserved rewards* and *observed frequency of undeserved rewards*. Examination of the scree plot with the 1.00 minimum eigenvalue criterion validated a two-factor solution.

The same procedures were then repeated for items of the remaining eight measures in the model including *adaptive motivation*, *pressure to perform*, *risk of noncompliance*, *perceived organizational support*, *willingness to bear cost*, *overall situation enhancement*, *expectancy*, and *organizational commitment* until a stable solution with a dominant single dimension was found for each measure.

Unidimensionality. It is widely recognized that factor analysis of individual scales is useful in early stages of scale development. However, as more knowledge is acquired about the nature and structure of the scales, further tests are called for to confirm or disprove the results obtained in the initial phase. For an explanatory framework involving new scales in particular, it is important to ensure that the explanatory variables are factorially distinct, that is, they consist of unique features other constructs do not have. To show the distinctiveness of the explanatory variables of *threat perception* and *opportunity perception* from each other, I conducted a principal components analysis (varimax rotation), which involved a total of 46 items for all of the variables combined.

The overall pattern matrix for the nine-factor solution (representing eight concepts with reward consistency encompassing two dimensions) showed that the items mapped onto the scales as expected (see Table 7.3), therefore providing evidence of unidimensionality of the measures.

Table 7.3
Factor Loadings for Pattern Matrix of Explanatory Variables of
Environmental Perception ^a

Explanatory Variables and Items	Factor								
	1	2	3	4	5	6	7	8	9
Overall situation enhancement (extent to which I witness policy of... has increased the...for those willing to respond)									
Maximization of Potential: Realization of self-worth	.75								
Training/Development: Satisfaction in career development	.70								
Position-Responsibility System: Contributing to enterprise	.69								
Open ranking Job Review & Skill: Public recognition	.67								
Survival of the Fittest: Management recognition	.66								
Current pay policy: Bigger bonuses	.65								
Employment by Competition: Job security	.58								
Deserved rewards dimension (frequency occurrence of someone getting or receiving ... because of having ...)									
Preferential housing: Made big contribution to enterprise	.71								
Advanced/Model Laborer: Outstanding performance	.66								
Management recognition: Taken up extra responsibility	.65								
Bigger bonus: Made a greater contribution in his work	.64								
Edge in Employment by Competition: Mastered new skill	.64								
Better appraisal results: Better performance on the job	.64								
Overall, rewards are consistently linked to performance	.56								
Continuation in employment: good work performance	.45								
Undeserved rewards dimension (frequency occurrence of someone getting or receiving ... <u>not</u> because of having ...)									
Advanced/Model Laborer: Outstanding performance			.75						
Management recognition: Acquired higher skills, taken up extra responsibility or achieved higher performance			.73						
Bigger bonus: Made a greater contribution in his work			.72						
Preferential housing: Made big contribution to enterprise			.69						
Continuation employment despite poor work performance			.60						
Organizational commitment (extent to which I feel)									
Willing to put out more effort than others for enterprise				.65					
Pulling together for enterprise same as for my own sake				.62					
My desire to contribute to the enterprise has reduced since the implementation of Labor Contracts				.61					
My biggest realization of worth is contribute to enterprise				.58					
Workforce reduction and staff diversion policies made me feel that the sooner to leave enterprise the better				.55					
Perceived organizational support (extent to which leader):									
Provides convincing support for grade in my appraisal					.69				
Engages actively in helping me in routine appraisals					.66				
Engages actively in guiding me during the course of work					.59				
Overall, actively engaged in promoting the survival and development of workers					.56				

Table 7.3 (continued)
Factor Loadings for Pattern Matrix of Explanatory Variables of
Environmental Perception ^a

Explanatory Variables and Items	Factor								
	1	2	3	4	5	6	7	8	9
Risk of noncompliance (extent of negative consequence if)									
Workers pretend to work (Management System detects it)						.73			
Work peers shirk (there would be stiff social monitoring)						.72			
My work performance was mediocre (I would lose my job)						.71			
Pressure to perform (extent to which I feel)									
Under a lot of work pressure (load, quality, task difficulty)						.73			
Expectations of important people make me push myself						.65			
I couldn't answer to myself if I didn't give my best at work						.53			
Position Responsibility System imposes strict requirement						.42			
Overall, I do not have choice not to give my best at work						.39			
Open ranking of Job Review & Skill Assessment results puts me under a lot of pressure at work						.36			
Expectancy (extent to which I think I have)									
Support and assistance in carrying out my duties at work						.73			
Control over the results of my work considering all aspects						.54			
Authority compatible to the responsibility I have in my job						.53			
Willingness to bear cost (extent to which it is worthwhile for to exert maximum effort at work purely for the sake of)									
Attaining the Title of Model Worker or similar honors						.65			
Self-actualization in my work						.62			
Overall (considering all the factors listed here)						.49			
Job security						.44			
Material gains						.29			

^a All factor loadings > .35 (except for the last item in Factor 9).

Apart from one item, all factor loadings exceeded .35. The outlier represents one of the five items in Factor 9 (*willingness to bear cost*), with a factor loading of .29. Its residual loading of .76 did not load onto any other factors but stands alone as an extra single-item component. Under normal circumstances, this item would have been dropped. I however found it necessary to keep it in the scale based on two reasons: (1) conceptually, it is an important item as it addressed the issue of material gains, which was voted by the workers as the top driving force in their work in an accompanying rank-order question (see item C10 in Appendix B); and (2) statistically, when analyzed on their own factor loadings of the scale were .74, .64, .62, .62, and .58, with the previous outlier showing a robust factor loading of .62.

The findings from factor analyses demonstrated that constructs of the explanatory variables of environmental perception were factorially distinct, which provided support for one aspect of construct validity. I further examined the scales of *threat perception* and *opportunity perception* by assessing their nomological validity.

Nomological Validity. Nomological validity involves the hypothesis testing of the preliminary nomological network. Of the two approaches I used to assess construct validity, the test of nomological validity is more critical and profound for two reasons. First, Schwab (1980) and Kerlinger (1986) argued that assessment of a proposed set of theory-based relationships (a nomological network) is the key to examining construct validity. More specifically, Schwab suggested that scholars should use theory to differentiate constructs and that construct redundancy will decrease if constructs are developed and tested on the basis of theory. Second, the proposed perspective of environmental perception under uncertainty and risks represents a clear departure from conventional motivation research. For the proposed framework of *adaptive motivation* to stand, evidence of nomological validity is a must.

I based the hypotheses of *adaptive motivation* on the theoretical framework in the strategy and the international conflict and negotiation literatures. A key advantage of this approach is that it avoided atheoretical expansion of the antecedents of adaptive motivation. Moreover, the relationships tested in the hypotheses provided the beginning of a theory-based nomological network for adaptive motivation research. By specifying a schemata with boundaries I was able to help prevent the proliferation of dimensions of environmental perception and simultaneously facilitate the examination of the hypothesized dimensions more rigorously. Empirical examination of the network could also provide a firm foundation for future research by suggesting different relationships for the theory-driven antecedents of *threat perception* and *opportunity perception*.

Tests of nomological network. Hypotheses 1, 2, and 21 were used to test the construct validity of the new *adaptive motivation*, *threat perception*, and *opportunity perception* scales. Drawing on research on strategy, and international conflict and negotiation, I hypothesized specific relationships in the preliminary nomological network of *adaptive motivation*. Thus, I present these statistical tests as part of the construct validation of the

measures rather than as evidence of substantive relationships (Schwab 1980), which will be reported in full detail in the next chapter.

Hypotheses 1 – 2 predict the relationships between environmental perception and *adaptive motivation*. Hypotheses 1 predicts that *threat perception* will have a positive impact on *adaptive motivation*. Hypothesis 2 predicts that *opportunity perception* will have a positive impact on *adaptive motivation*. Accordingly, I regressed *adaptive motivation* on the independent variable of *threat perception*, and on the independent variable of *opportunity perception*. Results were that *threat perception* and *opportunity perception* both have a positive impact on *adaptive motivation*, with an R^2 of .27 and a standardized coefficient (beta) of .52 ($p < .0001$) for *threat perception*, and an R^2 of .33 and a standardized coefficient (beta) of .58 ($p < .0001$) for *opportunity perception*.

Hypothesis 21 predicts that *organizational commitment* will mediate the causal relationships between environmental perception and *adaptive motivation*. I tested mediation using the three-step regression approach recommended by Baron and Kenny (1986). First, the mediator was regressed on the independent variable; second, the dependent variable was regressed on the independent variable; and third, the dependent variable was regressed simultaneously on the independent and mediating variables.

According to Baron and Ritov (1994), mediation is in effect if the following four conditions are met: (1) the independent variable must affect the mediator in the first equation; (2) the independent variable must affect the dependent variable in the second equation; (3) the mediator must affect the dependent variable in the third equation; and (4) the effect of the independent variable on the dependent variable must be less in the third equation than in the second equation (Baron and Ritov 1994: 1177). Full mediation is supported if the independent variable has no significant effect when the mediator is controlled, and partial mediation is indicated if the independent variable's effect is smaller but still significant when the mediator is controlled.

Table 7.4 presents mediated regression results for the two dimensions of environmental perception in the prediction of *adaptive motivation*. For step 1, I regressed *organizational commitment* (the mediator) on *threat perception* and on *opportunity*

perception. For step 2, I regressed *adaptive motivation* on *threat perception* and on *opportunity perception*. For step 3, I regressed *adaptive motivation* on *threat perception* and *organizational commitment* simultaneously, and on *opportunity perception* and *organizational commitment* simultaneously. All relationships in the three-step analysis for both dimensions of environmental perception are significant ($p < .0001$).

Table 7.4
Results of Mediated Regression Analysis^a

Independent Variable	Adaptive motivation
Threat perception	.433***
Step 1	.521***
Step 2	.404***
Step 3	.293***
Regression sum of squares (df)	164.489*** (2)
Residual sum of squares (df)	301.582*** (999)
F	272.438***
R ²	.353***
Adjusted R ²	.352***
Opportunity perception	.408***
Step 1	.575***
Step 2	.463***
Step 3	.280***
Regression sum of squares (df)	192.388*** (2)
Residual sum of squares (df)	287.836*** (1010)
F	337.540***
R ²	.401***
Adjusted R ²	.399***

^a N's for regression analyses of *threat perception*:
Step 1 = 1,019; Step 2 = 1,051; Step 3 = 1,002
N's for regression analyses of *opportunity perception*:
Step 1 = 1,030; Step 2 = 1,063; Step 3 = 1,013
Values are standardized beta coefficients. The second
coefficient in Step 3 refers to the mediator.

*** All $ps < .0001$

Results of the three-step regression analysis indicated the presence of partial mediation for the causal relationships between *threat perception* and *adaptive motivation*, and between *opportunity perception* and *adaptive motivation*. In both cases, the independent variable's effect was smaller but still significant ($p < .0001$) when the mediator was controlled. Specifically, there was a decrease in the betas from .521 to .404 for *threat perception* and from .575 to .463 for *opportunity perception* when *organizational commitment* was included as part of the equation.

Results of the regression analyses testing Hypotheses 1 – 2 and of the three-step regression analysis testing Hypothesis 21 supported my theory building. The results exceeded the significance criterion of $p < .10$ that Achen (1982) and Harwig and Dearing (1979) recommended for exploratory research. Even when reviewed in relation to established work, the regression coefficients ($p < .0001$) are desirable. These results seem logical given the initial conceptualization of environmental perception and *adaptive motivation*, which was based firmly on research in other social sciences disciplines more advanced in the study of motivation under uncertainty and risks.

7.3 Conclusion

I have reviewed my research strategy and methodology, which represent a relatively lengthy but fruitful process in gaining entry to a research-averse environment where no empirical study on the motivational effect of employment reform or the simultaneous motivational effects of employment and wage reforms has been conducted before.

I have also discussed the process of developing the measures of the proposed research model of “environmental perception and adaptive motivation” and reported on the reliability and validity of these measures. In particular, I proposed two dimensions of environmental perception – *threat perception* and *opportunity perception*, as antecedents of *adaptive motivation*. I also explored their antecedents and proposed *organizational commitment* as a mediating variable in the causal relationship between environment perception and *adaptive motivation*.

The model's 12 variables, including the outcome in *adaptive motivation*, its proposed antecedents of *threat perception* and *opportunity perception* and their respective antecedents, all tested satisfactory in reliability and validity. These encouraging findings provide a basis for the future refinement of the scales, most of which have no precedence, and for the further empirical examination of the model itself.

Chapter 8

Analyses and Results

This chapter consists of four sections. The discussion begins with a preview of the statistical procedures chosen for the analysis of the data, which consisted of 1,134 usable cases. Section 8.1 reports on the motivational outcome of employment and wage reforms. Sections 8.2 – 8.8 report on results of the testing of Hypotheses 1 – 21 in the proposed model of “environmental perception and adaptive motivation”. Section 8.9 summarizes the findings of the tested model and contrasts them against those of competing theories, using the same dataset. And Section 8.10 concludes.

8. Analyses and Results

Analyses. I used linear regression, since the variable assessing the outcome in adaptive motivation and the explanatory variables are continuous. The use of hierarchical regression models is considered inappropriate because the research hypotheses do not require that the causal priority among the independent variables be established.

I proceeded with the analyses according to the sequence of the propositions presented in the Chapters 5 – 6, from Hypotheses 1 – 21. I addressed the first two hypotheses concerning the antecedents of *adaptive motivation* by regressing the dependent variable on the control and analysis variables (using a simultaneous entry rule). Separate regression equations were estimated for each of the two conceptualized dimensions of environmental perception – *threat perception* and *opportunity perception*. The same procedure was repeated for the relationships proposed in Hypotheses 3 – 20. For Hypothesis 21, which addresses the mediating relationship between environmental perception and *adaptive motivation*, I included effects of the control variables previously not required in the preliminary analysis of the relationship for nomological validity in section 7.14 above.

Results. To begin, I report on the outcome in *adaptive motivation*, which provides the answer to the research question, “*What effects did China’s employment and wage reforms have on the adaptive motivation of workers?*”

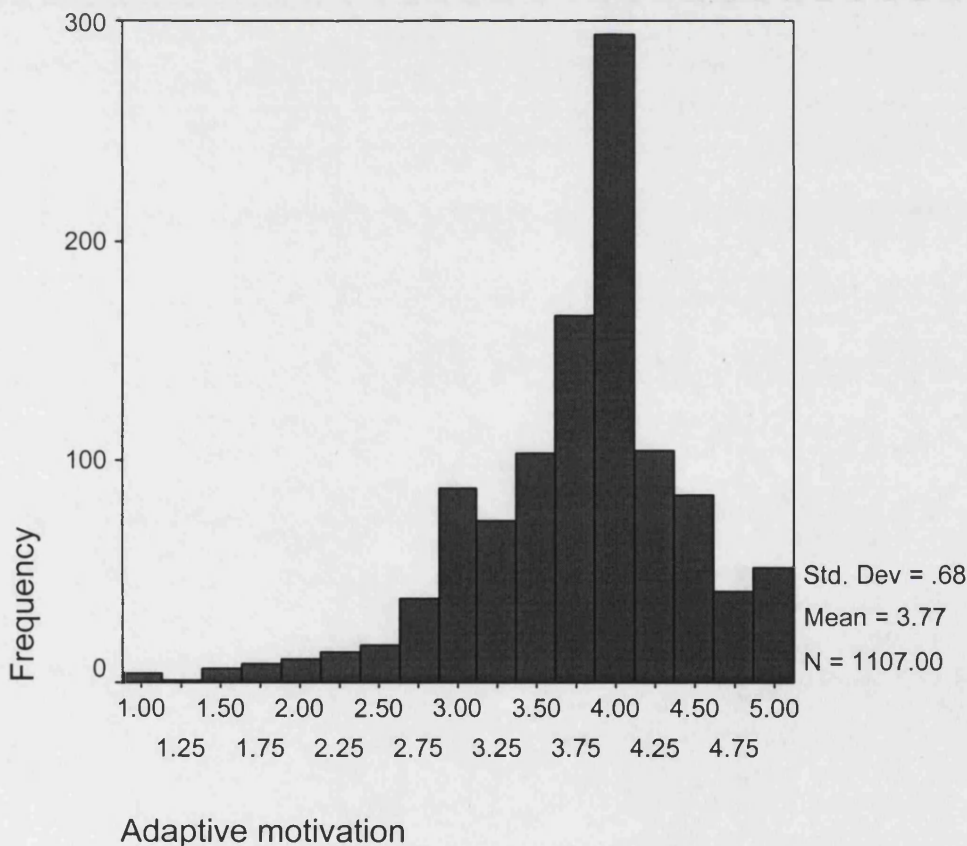
As regards the relationships in my research model, I present the results of my analyses according to Hypotheses 1 – 21 as stated in previous chapters. First, I tested Hypotheses 1 – 2 concerning the relationships between the two dimensions of environmental perception and *adaptive motivation*. Second, I tested Hypotheses 3 – 4 concerning the antecedents of *threat perception*, and Hypothesis 5 concerning the relationship between the antecedents. Third, I tested Hypotheses 6 – 7 concerning the antecedents of *opportunity perception*, and Hypothesis 8 concerning the relationship between the antecedents. Fourth, I tested Hypotheses 9, 11 – 12, regarding the antecedents of *perceived organizational support*, and Hypotheses 13 – 14 concerning the relationship between the antecedents. Fifth, I tested Hypotheses 10, 15 – 18 pertaining to the

antecedents of *willingness to bear cost*. Sixth, I tested Hypotheses 19 – 20 regarding the antecedents of *organizational commitment*. Lastly, I tested Hypothesis 21, which involves the mediation relationship between *organizational commitment* and the two dimensions of environmental perception in *adaptive motivation*.

In my regression analysis, I tested for evidence of serial correlation, multi-collinearity, and heteroskedasticity in the data and found no problems.

8.1 Effects of Employment and Wage Reforms on Adaptive Motivation

Figure 8.1
Outcome in Adaptive Motivation



The purpose of the study is to evaluate the impact of employment and wage reforms on individuals' motivation to adapt to new and changing demands and challenges in their jobs. In examining the frequencies of the outcome measure, data showed that a fraction

or 10.5% of the 1,107 workers who responded to this group of questions reported a reduction in *adaptive motivation*, while the majority or 85.5% reported an increase in *adaptive motivation*, and 4% reported no change in *adaptive motivation*. As seen in Figure 1, the outcome is skewed considerably toward the positive end.

8.2 Antecedents of Adaptive Motivation

The antecedents of *adaptive motivation* represent the backbone of the proposed framework with respect to *threat perception* and *opportunity perception*.

8.2.1 Testing of Hypotheses 1 – 2

To test Hypothesis 1, which states that *threat perception* will enhance *adaptive motivation*, I regressed *adaptive motivation* on *threat perception*. To test Hypothesis 2, which proposes that *opportunity perception* will enhance *adaptive motivation*, I regressed *adaptive motivation* on *opportunity perception*. To gauge the simultaneous effects of *threat perception* and *opportunity perception*, I regressed *adaptive motivation* on both variables at the same time.

Control variables. I included four control variables that were variously associated with employment and wage issues and the social context. In relation to employment, I measured the duration of individual labor contract to control for the possibility that the length of contractual commitment extended by the enterprise to its members affected the latter's response to the organization's demands (Fuller, Barnett et al. 2003). In terms of pay, I measured the size of monthly bonus and the percentage increment in monthly income over the previous year as controls for the possible effects of incentive size on motivation (Asch 1990; Bartol and Locke 2000). I also included the number of people in the work unit to control for the potential that peer (Kandel and Lazear 1992; Hansen 1997) and/or socio-economic pressure (Sutinen and Kuperan 1999) influence(s) the motivation to adapt to new and changing demands and challenges in their jobs. I also

attempted, as I have done throughout the analyses, other demographic variables such as age, gender, marital status, education, and job tenure.

Plant dummies. Since the data set consists of surveys conducted at five neighboring sub-factories of the research organization, I included the plant dummies representing each of the five sub-factories wherever possible throughout my regression analyses. This approach seems necessary based on the results of a two-way analysis of variance (ANOVA). Except for the *expectancy* scale, for which the ratio of the between-group mean square to the within-group mean square met the criterion of being close to 1 ($F = .320$), those for the other 11 of the 12 variables in the framework were substantially larger than 1 (F 's = 2.24 to 8.58), thus rejecting the null hypothesis that all of the means are equal in the population.

I first report on the regressions of *adaptive motivation* on the individual antecedents, then the regression on the antecedents simultaneously, with the inclusion of control variables in both instances. As predicted by Hypothesis 1, *threat perception* showed a significant association with *adaptive motivation* ($\beta = .565, p < .0001$), demonstrating a statistically significant variance (Adjusted $R^2 = .356, p < .0001$). Similarly, as predicted by Hypothesis 2, *opportunity perception* showed a significant association with *adaptive motivation* ($\beta = .608, p < .0001$), demonstrating a statistically significant variance (Adjusted $R^2 = .389, p < .0001$).

Table 8.1 presents the results of the main analysis, which included both of the independent variables and the four control variables, namely, percentage of annual increment, size of monthly bonus, number of people in work unit, and duration of labor contract. The final results demonstrated a greater statistically significant variance than was possible when *adaptive motivation* was regressed on the independent variables individually rather than simultaneously (Adjusted $R^2 = .473, p < .0001$).

Both independent variables prove to be significant predictors of *adaptive motivation*. Most notably, as predicted by Hypothesis 1, *threat perception* showed a significant association with *adaptive motivation* ($\beta = .360, p < .0001$). This result suggested that individuals are more likely to be motivated to adapt to the new and changing demands

and challenges in their jobs under employment and wage reforms to the extent that they interpret certain aspects of the reforms (e.g., no automatic renewal of labor contracts) to as threats to their survival.

Table 8.1
Results of Regression Analysis:
Antecedents of Adaptive Motivation ^a

Independent Variable	Adaptive motivation
Intercept	.619***
Threat perception	.360***
Opportunity perception	.405***
Annual increment	.076**
Average monthly bonus	.063*
No. of people in work unit	.061*
Contract duration	.053*
Regression sum of squares (df)	154.989*** (6)
Residual sum of squares (df)	169.745*** (705)
F	107.286***
R ²	.477***
Adjusted R ²	.473***

^a N = 1,021 (or 712 when including four control variables).
 Values are linear regression standardized beta coefficients.

*** $p < .0001$

** $p \leq .01$

* $p \leq .05$

At the same time, *opportunity perception* was positively associated with *adaptive motivation* ($\beta = .405$, $p < .0001$). This finding supported Hypothesis 2. *Adaptive motivation* was more likely when individuals perceived certain aspects of the reforms (e.g., more pay for greater contribution) as opportunities for growth and development.

The results of the control variables agreed with my expectations. As annual increment increases, *adaptive motivation* increases ($\beta = .076$, $p = .006$) and as size of monthly bonus increases, *adaptive motivation* increases ($\beta = .063$, $p = .022$). Furthermore, as the number of people in the work unit increases, *adaptive motivation* increases ($\beta = .061$, p

= .026). This finding seemed to indicate an effect of socialization (Denhardt and Jeffress 1971; Jones 1983). And as the duration of the labor contract increases, *adaptive motivation* increases ($\beta = .053$, $p = .054$). None of the demographic variables – age, gender, marital status, education, and job tenure – contributed to the regression equation and were therefore excluded. This was the case with all of the five plant dummies.

8.3 Antecedents of Threat Perception

8.3.1 Testing of Hypotheses 3 – 4

To test Hypothesis 3, which proposes that *risk of noncompliance* will enhance *threat perception*, I regressed *threat perception* on *risk of noncompliance*. To test Hypothesis 4, which states that *pressure to perform* will enhance *threat perception*, I regressed *threat perception* on *pressure to perform*. To gauge the simultaneous effects of *risk of noncompliance* and *pressure to perform*, I regressed *threat perception* on the variables at the same time.

Control variables. I included two control variables that are associated with the issue of pay and the social context. I measured skill-based pay to control for the possibility that the variable, which reflects the level of on-the-job technical and/or professional competence and the extent of sense of mastery over the environment, reduces the individuals' threat perception (Sayers 1988) of changes in their work environment, and particularly in terms of employment and wage issues. I also included the number of people in the work unit to control for the potential that peer (Kandel and Lazear 1992; Hansen 1997) and/or socio-economic pressure (Sutinen and Kuperan 1999) influence(s) the motivation to adapt to new and changing demands and challenges in their jobs. I attempted to include other demographic variables such as age, gender, marital status, education, and job tenure. I did so also for the plant dummies.

I first report on the regressions of threat perception on the individual antecedents, then the regression on the antecedents simultaneously, with the inclusion of control variables

in both instances. As predicted by Hypothesis 3, *risk of noncompliance* showed a significant association with *threat perception* ($\beta = .373, p < .0001$), demonstrating a statistically significant variance (Adjusted $R^2 = .148, p < .0001$). And as predicted by Hypothesis 4, *pressure to perform* showed a significant association with *threat perception* ($\beta = .582, p < .0001$), demonstrating a statistically significant variance (Adjusted $R^2 = .346, p < .0001$).

Table 8.2 presents the results of the main analysis, which includes both of the independent variables and the two control variables, namely, skill-based pay and number of people in work unit. The final results demonstrated a greater statistically significant variance than is possible when *threat perception* was regressed on the independent variables individually rather than simultaneously (Adjusted $R^2 = .421, p < .0001$).

Table 8.2
Results of Regression Analysis:
Antecedents of Threat Perception ^a

Independent Variable	Threat Perception
Intercept	1.341***
Risk of noncompliance	.284***
Pressure to perform	.518***
No. of people in work unit	.063*
Skill-based pay	-.051
Regression sum of squares	115.248***
(df)	(4)
Residual sum of squares	156.704***
(df)	(721)
F	132.566***
R^2	.424***
Adjusted R^2	.421***

^a N = 1,020 (or 726 when including two control variables).
Values are linear regression standardized beta coefficients.

*** $p < .0001$

** $p \leq .01$

* $p \leq .05$

$p \leq .10$

Both independent variables proved to be significant predictors of *threat perception*. As predicted by Hypothesis 3, *risk of noncompliance* showed a positive association with threat perception ($\beta = .284, p < .0001$). *Threat perception* is more likely when individuals perceive a risk(s) associated with noncompliance with the demands of reform measures in employment and pay in their jobs. At the same time, *pressure to perform* showed a significant association with *threat perception* ($\beta = .518, p < .0001$). This finding supported Hypothesis 4. Individuals are more likely to interpret certain aspects of the reforms (e.g., no automatic renewal of labor contracts) as threats to their survival to the extent that they feel under pressure to perform in their jobs.

The results of the control variables agreed with my expectations. As skill-based pay increases, the level of *threat perception* decreases ($\beta = -.051, p = .071$). And as the number of people in the work unit increases, the level of *threat perception* increases ($\beta = .063, p = .027$). This seems logical as workers were made to compete against one another for continued employment and pay. None of the demographic variables such as age, gender, marital status, education, and job tenure contributed to the regression equation and were thus excluded. This was also the case with all the five plant dummies.

8.3.2 Testing of Hypothesis 5

To test Hypothesis 5, which suggests that *risk of noncompliance* indirectly affect *threat perception*, in the sense that it increases *pressure to perform*, I regressed *pressure to perform* on *risk of noncompliance*.

Control variables. I included three control variables relating to employment and wage issues. I measured the duration of labor contract to control for the potential that the deadline to contract expiry negatively affects the level of pressure at work (Rastegary and Landy 1993; Waller, Conte et al. 2001). Based on the view of fear of loss under risk (Lopes 1987; Harvey 2001) I measured the size of the monthly bonus and of the annual increment in monthly income as control for the possible effects of contingent rewards on *pressure to perform*. I attempted to include other demographic variables such as age, gender, marital status, education, and job tenure. I did so also for the plant dummies.

Table 8.3 presents the results for the relationship between *risk of noncompliance* and *pressure to perform* and a total of six control variables. Among the latter are the theoretically based measures of contract duration, size of monthly bonus, and annual increment in monthly income. As predicted by Hypothesis 5, *risk of noncompliance* showed a significant association with *pressure to perform* ($\beta = .204, p < .0001$). This result suggested that individuals are more likely to feel under pressure to perform in their jobs, and subsequently have a higher level of *threat perception* to the extent they perceive a risk(s) associated with noncompliance with the new and changing demands brought about by reform measures in employment and pay in their jobs.

Table 8.3
Results of Regression Analysis: Relationship between
Risk of Noncompliance and Pressure to Perform^a

Independent Variable	Pressure to Perform
Intercept	2.972***
Risk of noncompliance	.204***
Job tenure	.176***
Marital status	.151***
Contract duration	-.101**
Average monthly bonus	.089**
Education	-.088**
Annual increment	.076*
Regression sum of squares	41.067***
(df)	(7)
Residual sum of squares	263.238***
(df)	(785)
F	17.495***
R ²	.135***
Adjusted R ²	.127***

^a N = 1,068 (or 793 when including six control variables).
 Values are linear regression standardized beta coefficients.

*** $p < .0001$

** $p \leq .01$

* $p \leq .05$

The results of the control variables agreed with my expectations. As the contract duration increases, *pressure to perform* decreases ($\beta = -.101, p = .007$). At the same time,

as average monthly bonus increases, *pressure to perform* increases ($\beta = .089, p = .008$), and as annual increment increases, *pressure to perform* increases ($\beta = .076, p = .024$).

In addition to the theoretically based control variables, three demographics-based measures also contributed to the regression equation. In particular, as job tenure increases *pressure to perform* increases ($\beta = .176, p = .000$). This outcome may be due to the fact that the skill set of the production workers were according to enterprise management “hardly transferable to other workplaces”, thus rendering the prospects of alternative employment low and perhaps even unimaginable.

Quite the reverse, when education increases *pressure to perform* decreases ($\beta = -.088, p = .010$). This finding suggested that since education improves individuals’ employment opportunities in the external labor market, it helps to relieve the pressure they may otherwise feel to perform in their jobs to stay employed. Lastly, results revealed that married individuals experience a higher level of *pressure to perform* than those who are single ($\beta = .151, p = .000$). However, none of the five plant dummies seemed to contribute to the regression equation and were therefore excluded.

8.4 Antecedents of Opportunity Perception

8.4.1 Testing of Hypotheses 6 – 7

To test Hypothesis 6, which states that *perceived organizational support* improves *opportunity perception*, I regressed *opportunity perception* on *perceived organizational support*. To test Hypothesis 7, which proposes that *willingness to bear cost* improves *opportunity perception*, I regressed *opportunity perception* on *willingness to bear cost*. To gauge the simultaneous effects of *perceived organizational support* and *willingness to bear cost*, I regressed *opportunity perception* on both variables at the same time.

Control variables. In the absence of theoretically based control variables concerning the relationship between *perceived organizational support* and *willingness to bear cost*

and the dependent variable of *opportunity perception*, I tried to include demographic variables such as age, gender, and marital status. I did so also for the plant dummies.

I first report on the regressions of *opportunity perception* on the individual antecedents, then the regression on the antecedents simultaneously, with the inclusion of control variables in both instances. As predicted by Hypothesis 6, *perceived organizational support* showed a significant association with *opportunity perception* ($\beta = .515, p < .0001$), demonstrating a statistically significant variance (Adjusted $R^2 = .306, p < .0001$). Similarly, as predicted by Hypothesis 7, *willingness to bear cost* showed a significant association with *opportunity perception* ($\beta = .390, p < .0001$), demonstrating a statistically significant variance (Adjusted $R^2 = .199, p < .0001$).

Table 8.4 presents the results of the main analyses concerning *opportunity perception*. The results indicated a statistically significant variance (Adjusted $R^2 = .362, p < .0001$). Both independent variables proved to be significant predictors. As predicted by Hypothesis 6, *perceived organizational support* showed a significant association with *opportunity perception* ($\beta = .429, p < .0001$). This result suggested that individuals are more likely to interpret certain aspects of reforms (e.g., policy of “maximum realization of people’s potential” (*renjin qicai*) as opportunities for development and growth to the extent that they feel that the enterprise is helping them to succeed. At the same time, *willingness to bear cost* showed a positive association with *opportunity perception* ($\beta = .255, p < .0001$). This finding supported Hypothesis 7. *Opportunity perception* is more likely when individuals have a reason(s) to believe that it is worth it for them to put forth their best efforts in their jobs.

The demographics based control variables yielded encouraging results. In particular, male workers reported a higher level of *opportunity perception* than their female counterparts ($\beta = .113, p = .000$). Married individuals reported a higher level of *opportunity perception* than those who are single ($\beta = .083, p = .003$). When education level increases, *opportunity perception* decreases ($\beta = -.081, p = .003$). This finding suggested that educated individuals do not appreciate the internal opportunities available to them as much as their less educated counterparts, probably because a higher education level opens up more alternative employment opportunities for the individuals concerned.

Table 8.4
Results of Regression Analysis:
Antecedents of Opportunity Perception ^a

Independent Variable	Opportunity Perception
Intercept	1.222***
Perceived organizational support	.429***
Willingness to bear Cost	.255***
Gender	.113***
Marital status	.083**
Education	-.081**
Dummy plant 3	-.071**
Regression sum of squares (df)	153.924*** (6)
Residual sum of squares (df)	266.110*** (847)
F	81.654***
R ²	.366***
Adjusted R ²	.362***

^a N = 1,024 (or 854 when including three control variables and a plant dummy).

Values are linear regression standardized beta coefficients.

*** $p < .0001$

** $p \leq .01$

Last but not least, individuals in Plant 3 reported lower *opportunity perception* than their counterparts in other plants ($\beta = -.071$, $p = .011$). This result seemed reasonable given that Plant 3 has the lowest mean (3.41) compared to the average mean of all five plants (3.49) for *opportunity perception*.

8.4.2 Testing of Hypothesis 8

To test Hypothesis 8, which states that *perceived organizational support* indirectly affects *opportunity perception* in the sense that it increases *willingness to bear cost*, which in turn increases *opportunity perception*, I regressed *willingness to bear cost* on *perceived organizational support*.

Control variables. I attempted to include three control variables that are associated with employment and wage issues. Based on the view of positive psychology (Fredrickson 2001), I measured the duration of employment contract, monthly bonus, and annual increment as control for the possible effects of appreciative gestures for a job well done on *willingness to bear cost*. I attempted to include other demographic variables such as age, gender, marital status, education, and job tenure. I did so also for the plant dummies.

Table 8.5
Results of Regression Analysis: Relationship between
Perceived Organizational Support and Willingness to Bear Cost^a

Independent Variable	Willingness to Bear Cost
Intercept	2.213***
Perceived organizational support	.327***
Average monthly bonus	.097**
Marital status	.083**
Gender	.060*
Dummy plant 1	-.071**
Regression sum of squares	57.514***
(df)	(5)
Residual sum of squares	360.635***
(df)	(838)
F	26.729***
R ²	.138***
Adjusted R ²	.132***

^a N = 1,057 (or 844 when including three control variables and a plant dummy).

Values are linear regression standardized beta coefficients.

*** $p < .0001$

** $p \leq .01$

* $p \leq .05$

Table 8.5 presents the results for the relationship between *perceived organizational support* and *willingness to bear cost* with three control variables and one plant dummy variable. Among the latter is the theoretically based measure of size of monthly bonus. As predicted by Hypothesis 8, *perceived organizational support* showed a significant association with *willingness to bear cost* ($\beta = .327$, $p < .0001$), demonstrating a

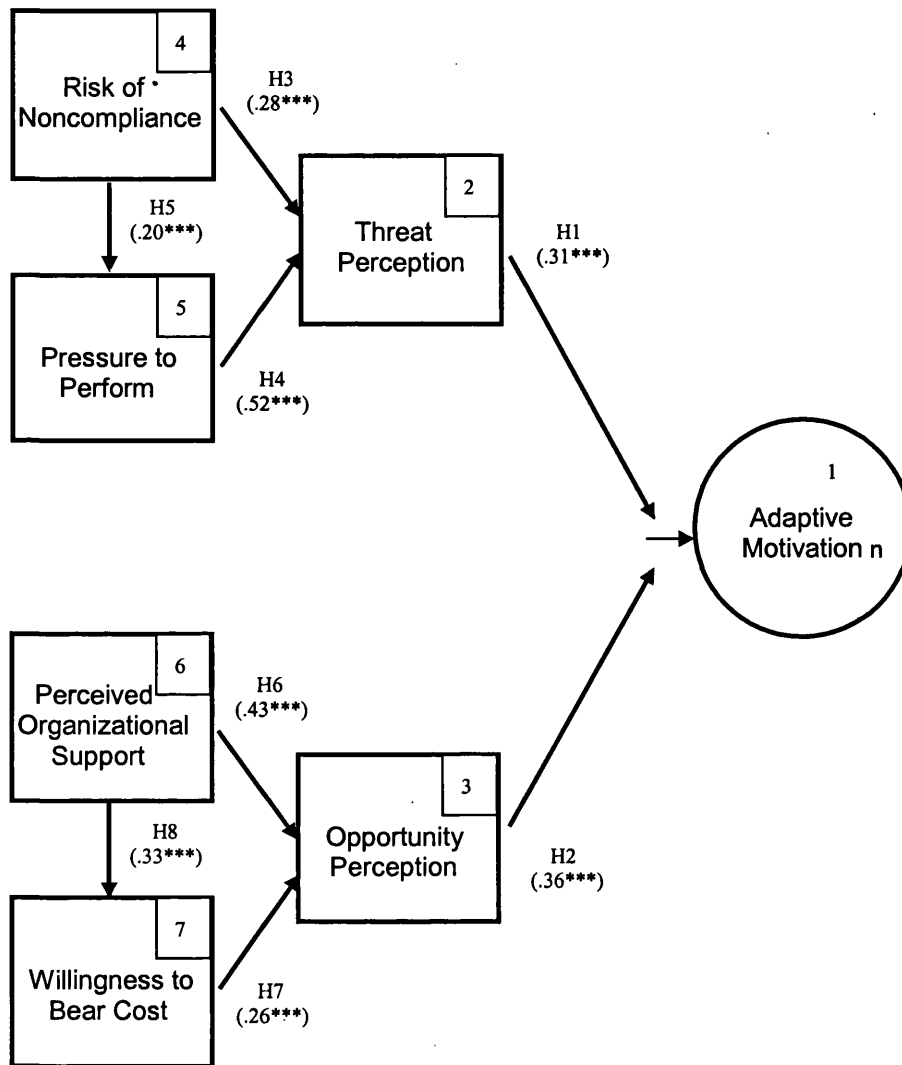
statistically significant variance (Adjusted $R^2 = .132$, $p < .0001$). This finding suggested that individuals are more likely to feel that it is worth it for them to put forth their best effort at work, and subsequently have higher *opportunity perception* to the extent that they perceive that the organization is there to support them and help them succeed.

The results of one of the three theoretically based control variables agreed with my expectation. In particular, as the size of monthly bonus increases, the level of *willingness to bear cost* increases ($\beta = .097$, $p = .003$). In addition, two demographics-based measures contribute to the regression equation. As marital status increases, *willingness to bear cost* increases ($\beta = .083$, $p = .011$). And male workers showed a higher level of *willingness to bear cost* than female workers ($\beta = .060$, $p = .066$). These two outcomes were indicative of the possibility that married men perceive a greater need to devote their time and energy to their jobs than their female counterparts.

Last but not least, individuals in Plant 1 showed a lower level of *willingness to bear cost* than their counterparts in other plants ($\beta = -.071$, $p = .028$). This result was not surprising given that Plant 1 has one of the two lowest means (3.45) compared to the average mean of all five plants (3.51) for *willingness to bear cost*.

Summary of core findings. Core findings of the tested model of “environmental perception and adaptive motivation” as discussed in Sections 8.2 – 8.4 above are summarized in Figure 8.2. Hypotheses 1 – 8 pertaining to the relationships between (1) the two dimensions of environmental perception and *adaptive motivation* and (2) the respective antecedents of *threat perception* and *opportunity perception* were all supported by the findings.

Figure 8.2
Tested Model of Environmental Perception and Adaptive Motivation^{ab}



^a Standardized regression coefficients are shown next to hypothesis numbers.

^b Numbers in the upper right-hand corner of scales correspond to those in Table 6.1 Definitions of Key Variables on p.188

*** All p 's < .0001

8.5 Antecedents of Perceived Organizational Support

8.5.1 Testing of Hypotheses 9, 11 – 12

To test Hypothesis 9, which states that *overall situation enhancement* improves *perceived organizational support*, I regressed *perceived organizational support* on *overall situation enhancement*. To test Hypotheses 11 – 12, which propose that *reward consistency* improves *perceived organizational support*, I regressed *perceived organizational support* on the two different dimensions of *reward consistency*: *observed frequency of deserved rewards* and *observed frequency of undeserved rewards*.

Control variables. I included four control variables that represented gestures of organizational support for individual workers in the form of recognition for achievement potential and actual achievement. In particular, I measured Trainee in the Chinese Communist Party (CCP), the membership of which was a prerequisite for promotion to the management grade in state industry. At the same time, I measured the honorary titles of Model Laborer (*laomo*)/Advanced Worker (*xianjin gongzuozhe*), which represented the highest honors individuals could receive in recognition of their work performance. I also measured the point on the position scale or position grade point, which indicated the achievement status of the employee at the organization and tied in directly with the level of base pay.

Lastly, I measured annual increment in monthly income, which reflected the appraisal results on the skill and performance of individuals and tied in directly with both base pay and bonuses. All four measures were for the purpose of controlling for the potential that the organization's readiness to reward individuals' potential and demonstrated work effort affects the individuals' perception of organizational support (Rhoades and Eisenberger 2002). I attempted to include other demographic variables such as age, gender, marital status, education, and job tenure. I did so also for the plant dummies.

I first report on the regressions of *perceived organizational support* on the individual antecedents, then the regression on the antecedents simultaneously, with the inclusion of

control variables in both instances. As predicted by Hypothesis 9, *overall situation enhancement* shows a significant association with *perceived organizational support* ($\beta = .601, p < .0001$), demonstrating a statistically significant variance (Adjusted $R^2 = .360, p < .0001$). As predicted by Hypothesis 11, *observed frequency of deserved rewards* showed a significant association with *perceived organizational support* ($\beta = .504, p < .0001$), demonstrating a statistically significant variance (Adjusted $R^2 = .276, p < .0001$). And as predicted by Hypothesis 12, *observed frequency of undeserved rewards* showed a significant negative association with *perceived organizational support* ($\beta = -.482, p < .0001$), demonstrating a statistically significant variance (Adjusted $R^2 = .247, p < .0001$).

Table 8.6
Results of Regression Analysis:
Antecedents of Perceived Organizational Support^a

Independent Variable	Perceived Organizational Support
Intercept	.740***
Overall situation enhancement	.339***
Observed frequency of deserved rewards	.253***
Observed frequency of undeserved rewards	-.280***
Party trainee	.119**
Point on position scale	.096**
Annual increment	.075*
Honorary titles of Model/Advanced Laborer	.065
Regression sum of squares	183.084***
(df)	(7)
Residual sum of squares	190.199***
(df)	(444)
F	61.056***
R^2	.490***
Adjusted R^2	.482***

^a N = 961 (or 452 when including four control variables).

Values are linear regression standardized beta coefficients.

*** $p < .0001$

** $p \leq .01$

* $p \leq .05$

$p \leq .10$

Table 8.6 presents the results of the main analyses concerning *perceived organizational support*. The findings demonstrated a significant variance (Adjusted $R^2 = .482$, $p < .0001$). Both sets of independent variables proved to be significant predictors. As predicted by Hypothesis 9, *overall situation enhancement* showed a significant association with *perceived organizational support* ($\beta = .339$, $p < .0001$). This result suggested that individuals are more likely to feel that the organization is there to help them succeed to the extent that they can witness for themselves that the overall situation or “bottom line” for those who are willing to put forth their best efforts at work has been or is being enhanced.

Findings of the two dimensions of *reward consistency* supported Hypotheses 11 and 12. As a matter of fact, *observed frequency of undeserved rewards* showed a stronger association with *perceived organizational support* than *observed frequency of deserved rewards*. This interesting finding suggested that individuals have stronger views about the lack of organizational support when high frequency of undeserved rewards is observed than about the presence of organizational support when high frequency of deserved rewards is observed.

As a matter of fact, *observed frequency of undeserved rewards* was not only negatively associated with *perceived organizational support* ($\beta = -.280$, $p < .0001$) but its impact on *perceived organizational support* was also greater than that of *observed frequency of deserved rewards* on *perceived organizational support* ($\beta = .253$, $p < .0001$). These results suggested that *perceived organizational support* is more likely when individuals can witness for themselves first and foremost that people whose rewards are not due are not given them, although for them to witness that people whose rewards are due actually receive them also substantially enhances *perceived organizational support*.

The results of the control variables agreed with my expectations. Party trainees reported a higher level of *perceived organizational support* than non-Party trainees ($\beta = .119$, $p = .001$). This result is consistent with the enterprise policy of giving priority to Party trainees in career development and advancement. As the point on position scale increases, *perceived organizational support* increases ($\beta = .096$, $p = .007$). At the same time, as the amount of annual increment increases, *perceived organizational support*

increases ($\beta = .075, p = .029$). And individuals who have earned the titles of Model Worker/Advanced Laborer showed a higher level of *perceived organizational support* than those who have not held any of these titles ($\beta = .065, p = .069$).

None of the demographic variables such as age, gender, marital status, education, and job tenure contributed to the regression equation and were therefore excluded. This was also the case with all of the five plant dummies.

8.5.2 Testing of Hypotheses 13 – 14

To test Hypotheses 13 and 14, which suggest that *reward consistency* indirectly affects *perceived organizational support* through its influence on *overall situation enhancement*, I regressed *overall situation enhancement* on the two dimensions of *reward consistency*: *observed frequency of deserved rewards* and *observed frequency of undeserved rewards*.

Control variables. I included two control variables that are associated with employment and wage issues. I measured months from expiry of the labor contract to control for the possibility that a lengthened period from contract expiry creates a sense of security, thus affecting the level of *overall situation enhancement*. I also measured annual increment as a control for the possible effects of increased satisfaction of financial needs on the level of *overall situation enhancement*. Both of these measures are intended to account for the potential that the fulfillment of existence and growth needs raises improves the well-being (Alderfer 1969) or *overall situation enhancement* of the individuals. I attempted to include other demographic variables such as age, gender, marital status, education, and job tenure. I did so also for the plant dummies.

I first report on the regressions of *overall situation enhancement* on the individual antecedents, then the regression on the antecedents simultaneously, with the inclusion of control variables in both instances. As predicted by Hypothesis 13, *observed frequency of deserved rewards* showed a significant association with *overall situation enhancement* ($\beta = .579, p < .0001$), demonstrating a statistically significant variance

(Adjusted $R^2 = .366$, $p < .0001$). And as predicted by Hypothesis 14, *observed frequency of undeserved rewards* showed a significant negative association with *overall situation enhancement* ($\beta = -.312$, $p < .0001$), demonstrating a statistically significant variance (Adjusted $R^2 = .114$, $p < .0001$). These results indicated that *overall situation enhancement* is more likely when workers can witness for themselves first and foremost that people whose rewards are due actually receive them, although for them to witness that people whose rewards are not due are not given them also increases *overall situation enhancement*.

Table 8.7
Results of Regression Analysis: Relationship between
Reward Consistency and Overall Situation Enhancement^a

Independent Variable	Overall Situation Enhancement
Intercept	1.966***
Observed Frequency of deserved rewards	.502***
Observed Frequency of undeserved rewards	-.210***
Education	-.136**
Marital status	.106**
Annual increment	.133**
Months from contract expiry	.082
Regression sum of squares (df)	93.716*** (6)
Residual sum of squares (df)	133.381*** (312)
F	36.536***
R^2	.413***
Adjusted R^2	.401***

^a N = 990 (or 319 when including four control variables).

Values are linear regression standardized beta coefficients.

*** $p < .0001$

** $p \leq .01$

* $p \leq .05$

$p \leq .10$

Table 8.7 presents the results of the main analysis for the relationship between *reward consistency* and *overall situation enhancement*. Both dimensions of *reward consistency* supported Hypotheses 13 and 14. In particular, *observed frequency of deserved rewards*

was positively associated with *overall situation enhancement* ($\beta = .502, p < .0001$) while *observed frequency of undeserved rewards* was negatively associated with *overall situation enhancement* ($\beta = -.210, p < .0001$). These results confirmed that *overall situation enhancement* and its subsequent outcome in *perceived organizational support* are more likely when individuals can witness a consistent pattern in the distribution of organizational rewards in the sense that not only (1) people whose rewards are due actually receive them, but also (2) people whose rewards are not due are not given them.

The results of the control variables were consistent with my expectations. As annual increment increases, *overall situation enhancement* increases ($\beta = .133, p = .003$). And as the months from contract expiry increases, *overall situation enhancement* also increases ($\beta = .082, p = .064$).

In addition to the theoretically based control variables, two demographics-based measures contributed to the regression equation. In particular, as the level of education increases, *overall situation enhancement* decreases ($\beta = -.136, p = .002$). This finding seemed to suggest that educated individuals are harder to please than their less educated counterparts, due probably to higher expectations in the fulfillment of their needs. Results also revealed that married individuals have a higher level of *overall situation enhancement* than those who are single ($\beta = .106, p = .016$). However, none of the five plant dummies contributed to the regression equation and were therefore excluded.

8.6 Antecedents of Willingness to Bear Cost

8.6.1 Testing of Hypotheses 10, 15 – 18

To test Hypothesis 10, which states that *overall situation enhancement* improves *willingness to bear cost*, I regressed *willingness to bear cost* on *overall situation enhancement*. To test Hypotheses 15 and 16, which proposes that *reward consistency* improves *willingness to bear cost*, I regressed *willingness to bear cost* on the two dimensions of reward consistency: *observed frequency of deserved rewards* and

observed frequency of undeserved rewards. To test Hypothesis 17, which proposes that *expectancy* improves *willingness to bear cost*, I regressed *willingness to bear cost* on *expectancy*. And to test Hypothesis 18, which states that *organizational commitment* increases *willingness to bear cost*, I regressed *willingness to bear cost* on *organizational commitment*. To gauge the simultaneous effects of *overall situation enhancement*, *organizational commitment*, *expectancy*, and *reward consistency*, I regressed *willingness to bear cost* on all four independent variables at the same time.

Control variables. In the absence of theoretically based control variables concerning the relationship between *willingness to bear cost* and its antecedents, I attempted to include the usual demographic variables such as age, gender, marital status, education, and job tenure. I did so also for the plant dummies.

I first report on the regressions of *willingness to bear cost* on the individual antecedents, then the regression on the antecedents simultaneously, with the inclusion of control variables in both instances. As predicted by Hypothesis 8 and discussed in detail in Section 8.4.2, *perceived organizational support* showed a significant association with *willingness bear cost*. As predicted by Hypothesis 10, *overall situation enhancement* showed a significant association with *willingness to bear cost* ($\beta = .446, p < .0001$), demonstrating a statistically significant variance (Adjusted $R^2 = .200, p < .0001$). And as predicted by Hypothesis 15, *observed frequency of deserved rewards* showed a significant association with *willingness to bear cost* ($\beta = .338, p < .0001$), demonstrating a statistically significant variance (Adjusted $R^2 = .113, p < .0001$).

And as predicted by Hypothesis 16, *observed frequency of undeserved rewards* showed a significant negative association with *willingness to bear cost* ($\beta = -.129, p < .0001$), demonstrating a statistically significant variance (Adjusted $R^2 = .016, p < .0001$). As predicted by Hypothesis 17, *expectancy* showed a significant association with *willingness to bear cost* ($\beta = .363, p < .0001$), demonstrating a statistically significant variance (Adjusted $R^2 = .131, p < .0001$). And finally as predicted by Hypothesis 18, *organizational commitment* showed a significant association with *willingness to bear cost* ($\beta = .376, p < .0001$), demonstrating a statistically significant variance (Adjusted $R^2 = .140, p < .0001$).

Table 8.8 presents the results of the main analyses concerning *willingness to bear cost*, which involved four supported hypotheses. Results rejecting two other hypotheses were however not included in the table as they did not contribute to the variance explained. Possible reasons behind the hypotheses' rejection are discussed in the analysis below.

The results indicated a statistically significant variance (Adjusted $R^2 = .268$, $p < .0001$). All four sets of independent variables proved to be significant predictors. As predicted by Hypothesis 10, *overall situation enhancement* showed a significant association with *willingness to bear cost* ($\beta = .222$, $p < .0001$). This result suggested that individuals are more likely to believe that it is worth it for them to put forth their best efforts in their jobs to the extent that they can witness for themselves that the overall situation or "bottom line" for those who are willing to put forth their best efforts at work has actually been or is being enhanced.

Table 8.8
Results of Regression Analysis:
Antecedents of Willingness to Bear Cost^a

Independent Variable	Willingness to Bear Cost
Intercept	1.456***
Overall situation enhancement	.222***
Organizational commitment	.189***
Expectancy	.172***
Observed frequency of deserved rewards	.116***
Dummy plant 4	-.063*
Regression sum of squares (df)	128.901*** (5)
Residual sum of squares (df)	345.918*** (941)
F	69.757***
R^2	.271***
Adjusted R^2	.268***

^a N = 942 (and same when including a plant dummy).

Values are linear regression standardized beta coefficients.

*** $p < .0001$

** $p \leq .01$

* $p \leq .05$

The main analyses indicated that Hypotheses 10, 15, and 17 – 18 were supported but not Hypotheses 8 and 16. I report first on the supportive findings then on those that reject the hypotheses. As predicted by Hypothesis 15, *observed frequency of deserved rewards* showed a significant association with *willingness to bear cost* ($\beta = .116, p < .0001$). This result suggested that individuals are more likely to believe that it is worth it for them to put forth their best efforts in their jobs to the extent that they can witness for themselves that people whose rewards are due do receive them.

As predicted by Hypothesis 17, *expectancy* showed a significant association with *willingness to bear cost* ($\beta = .172, p < .0001$). This result suggested that individuals are more likely to believe that it is worth it for them to put forth their best efforts in their jobs to the extent that they feel that they are in control of their work results. And, as predicted by Hypothesis 18, *organizational commitment* showed a significant association with *willingness to bear cost* ($\beta = .189, p < .0001$). This result suggested that individuals are more likely to believe that it is worth it for them to put forth their best efforts in their jobs to the extent that they are committed to the organization and its cause to adapt to new demands and challenges under the reforms.

Concerning Hypothesis 8, contrary to the preliminary finding of the regression of *willingness to bear cost* on *perceived organizational support*, the latter did not show a significant association with *willingness to bear cost* in the main analysis in which other independent variables were included. This result seemed to suggest that other independent variables of *willingness to bear cost* have helped to offset the effects hypothesized of *perceived organizational support*. To verify this, I conducted a further regression analysis using the “stepwise” method. The results showed that *perceived organizational support* was removed when additional predictors (*overall situational enhancement, organizational commitment, expectancy, and observed frequency of deserved rewards*) were added, confirming that the former is no longer a significant predictor in the face of other independent variables.

Hypothesis 16 yielded similar results. Contrary to the preliminary finding of the regression of *willingness to bear cost* on *observed frequency of undeserved rewards*, the latter did not show a negative association with *willingness to bear cost* in the main

analysis in which other independent variables were also included. In particular, the adjusted R^2 decreased from .268 to .265 when the variable *observed frequency of undeserved rewards* was included, although the regression coefficient was statistically significant ($\beta = .084, p \leq .01$). This justified the subsequent exclusion of the variable from the main analysis despite the fact that the regression coefficient was statistically significant ($\beta = .084, p \leq .01$).

The decrease in the adjusted R^2 was in line with the unexpected outcome of the coefficient's being positive rather than negative as has been hypothesized. The result also seemed to suggest that other independent variables of *willingness to bear cost* have helped to cancel out the effect of *observed frequency of undeserved rewards*. To verify this, I conducted a further regression analysis using the "stepwise" method. The results showed that *observed frequency of undeserved reward* was removed when additional predictors (*overall situational enhancement, organizational commitment, expectancy, and observed frequency of deserved rewards*) were added, confirming that the former is no longer a significant predictor in the presence of other independent variables.

Last but not least, individuals in Plant 4 showed a lower level of *willingness to bear cost* than those in other plants ($\beta = -.063, p = .026$). This result was not surprising given that Plant 4 has the lowest mean (3.44) compared to the average mean of all five plants (3.51) for *willingness to bear cost*. None of the other demographics based control variables seemed to contribute to the regression equation and were thus excluded.

8.7 Antecedents of Organizational Commitment

8.7.1 Testing of Hypotheses 19 – 20

To test Hypothesis 19, which proposes that *perceived organizational support* enhances *organizational commitment*, I regressed *organizational commitment* on *perceived organizational support*. To test Hypothesis 20, which states that *overall situation enhancement* enhances *organizational commitment*, I regressed *organizational*

commitment on *overall situation enhancement*. To gauge the simultaneous effects of *perceived organizational support* and *overall situation enhancement*, I regressed *organizational commitment* on both variables at the same time.

Control variables. In the absence of theoretically based control variables concerning the relationship between *overall situation enhancement* and *perceived organizational support* and the dependent variable of *organizational commitment*, I attempted to include the usual demographic variables such as age, gender, marital status, education, and job tenure. I did so also for the plant dummies.

I first report on the regressions of *organizational commitment* on the individual antecedents, then the regression on the antecedents simultaneously, with the inclusion of control variables in both instances. As predicted by Hypothesis 19, *perceived organizational support* showed a significant association with *organizational commitment* ($\beta = .466, p < .0001$), demonstrating a statistically significant variance (Adjusted $R^2 = .287, p < .0001$). And as predicted by Hypothesis 20, *overall situation enhancement* showed a significant association with *organizational commitment* ($\beta = .408, p < .0001$), demonstrating a statistically significant variance (Adjusted $R^2 = .234, p < .0001$).

Table 8.9 presents the results of the main analyses concerning *organizational commitment*. The results indicate a statistically significant variance (Adjusted $R^2 = .312, p < .0001$). Both independent variables proved to be significant predictors. *Perceived organizational support* was positively associated with *organizational commitment* ($\beta = .358, p < .0001$). This finding supported Hypothesis 19. *Organizational commitment* is more likely when individuals feel that the enterprise is helping them to succeed. The finding was also consistent with Gouldner's (1960) argument on reciprocity and the more recent identity-based research, which established that *perceived organizational support* leads to *organizational commitment* (Fuller, Barnett et al. 2003).

As predicted by Hypothesis 20, *overall situation enhancement* showed a significant association with *organizational commitment* ($\beta = .193, p < .0001$). This result suggested that individuals are more likely to be committed to the organization to the extent that

they can witness for themselves that the overall situation or “bottom line” for those who are willing to put forth their best efforts at work has actually been or is being enhanced.

Table 8.9
Results of Regression Analysis:
Antecedents of Organizational Commitment^a

Independent Variable	Organizational Commitment
Intercept	2.316***
Perceived organizational support	.358***
Overall situational enhancement	.193***
Point on position scale	-.135***
Marital status	.102**
Ratio of largest to smallest bonus	-.068*
Education	-.064*
Plant dummy 3	-.115**
Regression sum of squares (df)	126.799*** (7)
Residual sum of squares (df)	269.685*** (650)
F	43.659***
R ²	.320***
Adjusted R ²	.312***

^a N = 1,017 (or 658 when including four control variables and a plant dummy).

Values are linear regression standardized beta coefficients.

*** $p < .0001$

** $p \leq .01$

* $p \leq .05$

The demographics-based control variables yielded interesting results. As point on position scale increases, *organizational commitment* decreases ($\beta = -.135, p < .0001$). Married workers reported a higher level of *organizational commitment* than those who are single ($\beta = .083, p = .003$). Individuals with a greater ratio of largest to smallest bonus in workgroup were less committed to the organization. A possible explanation is that bonus differentials had been stretched too far to create feelings of animosity toward the enterprise among socialist workers. When education level increases, *organizational commitment* decreases ($\beta = -.064, p = .051$). This may be due to the individuals' higher potential mobility in the external labor market when they have a higher education level.

Last but not least, individuals in Plant 3 showed a lower level of *organizational commitment* than those in other plants ($\beta = -.115, p = .001$). This result seemed reasonable when we consider that Plant 3 has the lowest mean (3.33) compared to the average mean of all five plants (3.49) for *organizational commitment*.

8.8 The Mediating Role of Organizational Commitment in Adaptive Motivation

I first report on the three-step regression analyses of *organizational commitment*, the mediating variable of the relationship between environmental perception and *adaptive motivation*, with the inclusion of control variables. I then give details of the final regression analysis of the relationship between environmental perception and *adaptive motivation*, with the mediating and control variables.

8.8.1 Testing of Hypothesis 21

Hypothesis 21 proposes that *organizational commitment* mediates the relationships between the two dimensions of environmental perception – *threat perception* and *opportunity perception*, and *adaptive motivation*. Results of prior three-step regression analyses of the mediating effect of *organizational commitment* have been presented in section 7.1.4. It suffices therefore to highlight here evidence confirming the mediation of *organizational commitment* when the control variables were added to the analyses.

The first-step regression analyses of *organizational commitment* on *threat perception* and on *opportunity perception* both yielded satisfactory results ($p < .0001$). The second- and third-step regression analyses confirmed that the independent variables' effects were smaller but still significant ($p < .0001$) when controlling for the mediator ($p < .0001$), indicating partial mediation. Specifically, there was a decrease in the standardized beta from .565 to .499 for *threat perception* when *organizational commitment* was included.

At the same time, there were slight decreases in the standardized betas for the control variables, which dropped from .096 to .093 for average monthly bonus, from 0.88 to

.078 for annual increment, from .092 to .076 for number of people in work unit, and from .086 to .072 for contract duration. Similarly, there was a decrease in the standardized beta from .608 to .497 for *opportunity perception* when *organizational commitment* was included. And there were slight decreases in the standardized betas for the control variables, which dropped from .063 to .051 for annual increment and from .082 to .069 for number of people in the work unit. In sum, findings from the three-step regression analyses, which included the control variables, supported Hypothesis 21 concerning the mediating role of *organizational commitment*.

8.8.2 Final Testing of Hypotheses 1 - 2, 21

The final regressions between environmental perception and *adaptive motivation* encompass Hypotheses 1 – 2, which concern the independent variables of *threat perception* and of *opportunity perception* and Hypothesis 21, which relates to the mediating variable of *organizational commitment*. In addition, four control variables are included. The relationship is expressed by the following equation:

$$Y_i = a + b_1X_{1i} + b_2X_{2i} + b_3X_{3i} + b_4X_{4i} + b_5X_{5i} + b_6X_{6i} + b_7X_{7i} + E_i, \text{ where}$$

Y_i represents the level of adaptive motivation of individual worker i as a function of:

a constant;

X_1 threat perception

X_2 opportunity perception

X_3 organizational commitment

X_4 annual increment

X_5 average monthly bonus

X_6 people in work unit

X_7 contract duration

E Error term

Control variables. I attempted to include four control variables that are directly associated with the new competition-based employment and pay-for-labor systems. Based on the premise of the proposed framework of “environmental perception and adaptive motivation” concerning the protection and achievement motives driving threat and opportunity perceptions, I measured the number of people in the work unit, contract duration, annual increment, and average monthly bonus.

Table 8.10 presents the findings of the main analyses. The results demonstrate significantly more variance than attributable to chance ($R^2 = .502$, $p < .0001$). The individual effects of the explanatory variables are discussed below:

Table 8.10
Final Results of Regression Analysis:
Antecedents of Adaptive Motivation ^a

Independent Variable	Adaptive motivation
Intercept	.500***
Threat perception	.305***
Opportunity perception	.360***
Organizational commitment	.174***
Annual increment	.070*
Average monthly bonus	.064
No. of people in work unit	.052
Contract duration	.045
Regression sum of squares (df)	158.645 (7)
Residual sum of squares (df)	154.323 (671)
F	98.542***
R^2	.507***
Adjusted R^2	.502***

^a N = 1,021 (or 679 when including one mediating and four control variables).

Values are linear regression standardized beta coefficients.

*** $p < .0001$

** $p \leq .01$

* $p \leq .05$

$p \leq .10$

Effects of independent variables. Both independent variables of *adaptive motivation* proved to be significant predictors. In particular, as proposed by Hypothesis 1, *threat perception* showed a significant association with *adaptive motivation* ($\beta = .305, p < .0001$). This result suggested that individuals are more likely to be motivated to adapt to the new and changing demands and challenges in their jobs under employment and wage reforms to the extent that they perceive certain aspects of reforms (e.g., non-automatic renewal of employment contracts) as threats to their survival.

At the same time, *opportunity perception* was positively associated with *adaptive motivation* ($\beta = .360, p < .0001$). This finding supported Hypothesis 2. *Adaptive motivation* is more likely when individuals perceive certain aspects of reforms (e.g., more pay for greater contribution) as opportunities for growth and development. Results for tests of the mediating variable were in line with my prediction. As *organizational commitment* increases, *adaptive motivation* increases ($\beta = .174, p < .0001$). This supported Hypothesis 21.

The results of the control variables were consistent with my expectations. As annual increment increases, *adaptive motivation* increases ($\beta = .070, p = .011$) and as average monthly bonus increases, *adaptive motivation* increases ($\beta = .064, p = .019$). Furthermore, as the number of people in work unit increases, *adaptive motivation* increases ($\beta = .052, p = .057$), suggesting the increased intensity of competition as the size of the workgroup increases under the new competition-based employment system. And as contract duration increases, *adaptive motivation* increases ($\beta = .045, p = .101$), suggesting that longer contractual periods work as an incentive in motivating individuals to adapt to new and changing environmental demands and challenges in their jobs.

It seems beneficial to also report this outcome in tandem with a related finding in Table 8.3 – *Results of Regression Analysis: Relationship between Risk of Noncompliance and Pressure to Perform* on p. 258, whereby the shorter the contracted period, the more *pressure to perform* it tends to create in individuals. Put together, these two findings suggested that longer contractual periods work as an incentive while shorter contractual periods also have adaptive benefits to the extent that they forewarn individuals of the automatic non-renewal of contracts should they fail to perform.

What is noteworthy in these results compared to those in the initial testing of Hypotheses 1 – 2 in section 8.2.1 is that, when *organizational commitment* as a mediator was added to the equation, the total variance explained increased by six percent from .473 ($p < .0001$) to .502 ($p < .0001$). As expected, the effects of the independent variables remained significant but were now smaller. In particular, the regression coefficient for *threat perception* reduced from .360 ($p < .0001$) to .305 ($p < .0001$). Similarly, the regression coefficient for *opportunity perception* reduced from .405 ($p < .0001$) to .360 ($p < .0001$).

8.9 The Proposed vs. Existing Models

8.9.1 Summary of Findings of the Proposed Model

Variance explained. The proposed model comprises 21 hypotheses derived from a causal chain of 12 variables, of which eight are dependent variables. Table 8.11 summarizes the results of the regression analyses of the dependent variables, which were all highly statistically significant ($p < .0001$). Despite the fact that all the dependent variables in the proposed model were tested empirically for the first time in this study, the adjusted R^2 of the regression analyses is near or above .30 for all except *pressure to perform*, which has only one independent variable as the model now stands.

What is worth particular mention is that the most crucial dependent variable in the model – *adaptive motivation*, yielded the most encouraging result, with an adjusted R^2 of .502. Results concerning its two proposed antecedents were also satisfactory. In particular, the regression analyses of *threat perception* and *opportunity perception* yielded an adjusted R^2 of .421 and .362 respectively.

Number of cases. The total number of usable cases in the study is 1,134, with the number of cases used in the various regression analyses involving the dependent and mediating variables ranging from 942 to 1,068. These numbers were reduced, however, when control and dummy variables were included. The extreme cases concerned the

control variables Party trainee and months from contract expiry, the valid responses of which were relatively significantly less compared to all other control variables – 677 and 408 respectively. Consequently, the number of cases in the final regression was reduced to 452 for *perceived organizational support*, which involved the control variable Party trainee, and to 319 for *overall situation enhancement*, which involved the control variable months from contract expiry.

The number of cases used in the final regression of *adaptive motivation*, *threat perception*, *pressure to perform*, *opportunity perception*, *willingness to bear cost*, and *organizational commitment* were substantially more, ranging from 679 to 942. On balance, the number of cases used in the final regressions of the dependent variables was above the acceptable level.

Table 8.11
Summary of Results of Regression of Dependent Variables ^a

Dependent variable	Hypotheses	Adjusted R^2	N
1. Adaptive motivation	H1 – 2, 21	.502***	1,021 (679 ⁴)
2. Threat perception	H3 – 4	.421***	1,020 (726 ²)
3. Pressure to perform	H5	.127***	1,068 (793 ⁶)
4. Opportunity perception	H6 – 7	.362***	1,024 (854 ^{4†})
5. Perceived organizational support	H9, 11 – 12	.482***	961 (452 ⁴)
6. Overall situation enhancement	H13 – 14	.401***	990 (319 ⁴)
7. Willingness to bear cost	H8, 10, 15 – 18	.268***	942 (942 ^{1†})
8. Organizational commitment	H19 – 20	.312***	1,017 (854 ^{4†})

^a N in parenthesis is number of cases when control and dummy variables are added. The superscript in the parenthesis is the total number of control and dummy variables.

[†] = Plant dummy included.

*** All p 's < .0001

Control variable effects. A total of 14 control variables were included in the regression analyses: annual increment, average monthly bonus, contract duration, education, gender, honorary title of Model Laborer/Advanced Worker, job tenure, marital status, months from contract expiry, number of people in work unit, Party trainee, point on position scale, ratio of largest to smallest bonus, and skill-based pay.

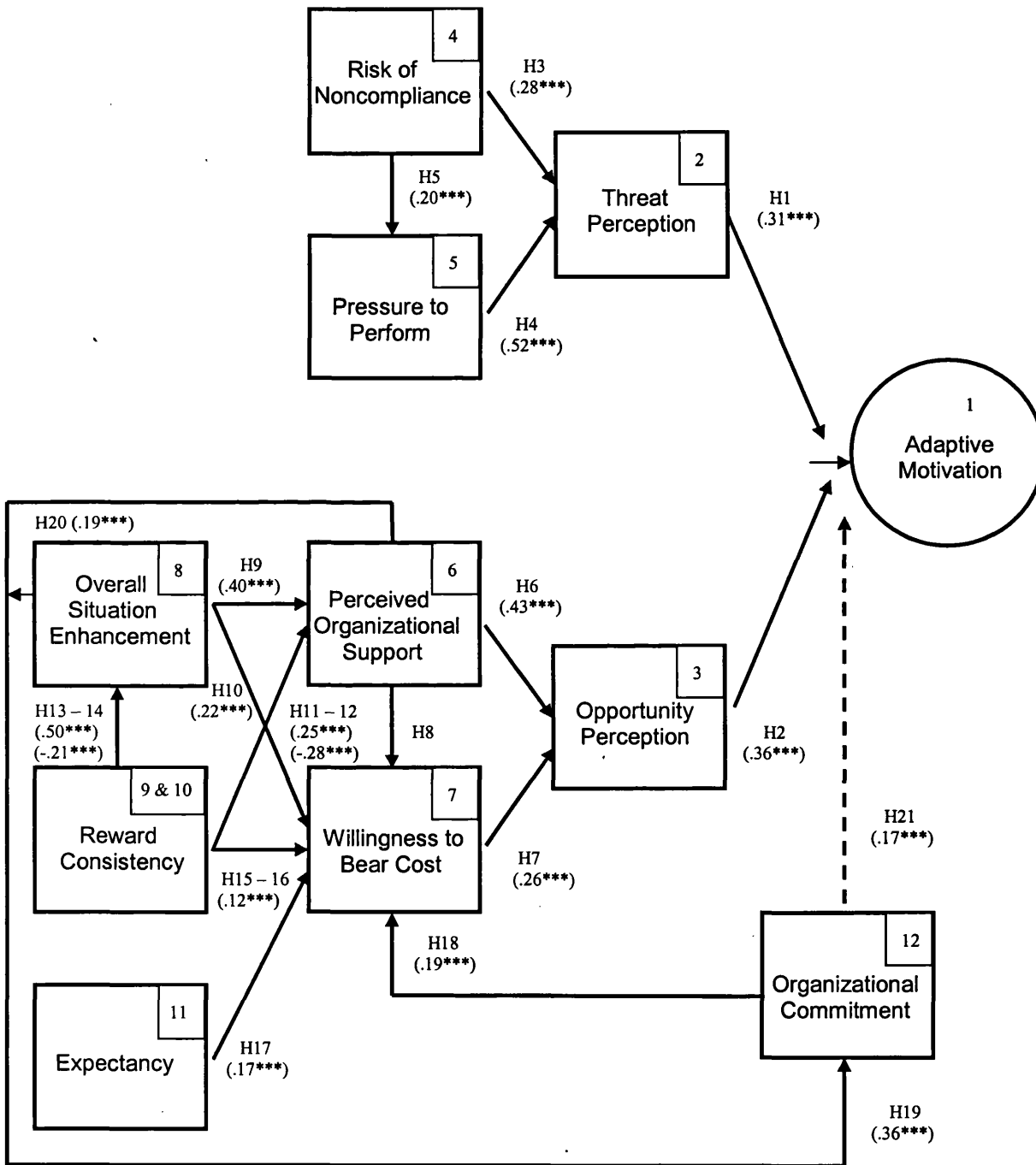
Findings concerning three theory-based control variables merit special attention. First, results of regression analyses showed that the number of people in work unit had a significant association with *adaptive motivation* ($\beta = .052, p = .057$) and *threat perception* ($\beta = .063, p = .027$) but not other dependent variables. These results supported my expectation that social monitoring affects *adaptive motivation* and *threat perception*.

Second, result of regression analysis indicated that the control variable contract duration had a significant association with *pressure to perform* ($\beta = -.101, p = .007$) but not with any other dependent variable. This result agreed with my expectation that the shorter the duration of employment contract, the more pressure individuals feel they have to perform in their jobs. This outcome is likely due to the fear of job loss or not having their employment contracts renewed if deemed a non-performer.

Third, results of regression analyses indicated that the control variable education had a significant association with *opportunity perception* ($\beta = -.081, p = .003$) and with *overall situation enhancement* ($\beta = -.136, p = .002$) but not other dependent variables. These results suggested that the more qualified portion of the workforce is also harder to please, probably because there are more alternative opportunities outside the enterprise for career development and the overall fulfillment of their needs.

Results of final testing. Results of the final testing of the proposed model of “environmental perception and adaptive motivation” as discussed in Sections 8.5 – 8.8 above are presented in Figure 8.3. Of the 21 hypotheses concerning the antecedents of *adaptive motivation* and of *threat perception* and *opportunity perception*, 19 were empirically supported.

Figure 8.3
Tested Antecedents of Environmental Perception and Adaptive Motivation^{ab}



^a Standardized regression coefficients are shown next to hypothesis numbers. Reward consistency is measured by two distinct scales: (1) observed frequency of deserved rewards and (2) observed frequency of undeserved rewards. Thus where results are significant two regression coefficients are shown for Hypotheses 11 - 12, 13 - 14, and 15 - 16. Effects of H8 and H16 are not shown since they do not seem to persist in the main analysis in which other variables are also included. Hypothesis 21, with path in dotted lines, refers to a mediating relationship.

^b Numbers in the upper right-hand corner of scales correspond to those in Table 6.1 Definitions of Key Variables on p.188

*** All p's < .0001

8.9.2 How It Compares to Existing Theories in Explanatory Power

I have been able to analyze the findings of the empirical study based on the proposed framework of “environmental perception and adaptive motivation”. It would at this point be helpful to compare, based on the same data, the explanatory power of the proposed model against that of leading theories of motivation. Based on Steers and Porter’s (1991) and Mitchell and Daniels’ (2003) reviews of the literature, I focused on two competing theories that are relevant to the research context at hand, and that is, *equity* and *expectancy*. I also included *organizational commitment* as a mediating variable as I have done in my own model. Given that the outcome measure of the main empirical study is *adaptive motivation* and in view of the concern for consistency, the measure of *adaptive motivation* is used in the testing of competing theories.

To test the role of *organizational commitment* (Mowday, Porter et al. 1982) as a mediating variable between *equity* and *expectancy* and the outcome in *adaptive motivation*, I regressed *adaptive motivation* on *organizational commitment*. To test equity theory (Adams 1963), which proposed that motivation is enhanced by the equitable distribution of rewards, I regressed *adaptive motivation* on *equity* as measured by *observed frequency of deserved rewards*. Since the conceptualization of *equity* in this context is compatible to that of *observed frequency of deserved rewards*, one of the two dimensions of reward consistency in the proposed model (see Section 6.4.3 for a detailed discussion), the measure of *observed frequency of deserved rewards* was used. In addition, to test Vroom’s (1964) expectancy (VIE) theory, which proposed that reward attainability leads to motivation, I regressed *adaptive motivation* on *expectancy*.

Clarifications are due as to the manner the remaining two concepts of VIE theory, namely *valence* and *instrumentality* (or “V” and “I”), are given due consideration. As conceptualized by Vroom (1964), *valence* refers to a person’s preference to a specific (categorical) option over another, as in occupational choice. Although the concept was later interpreted, albeit without any theoretical justification, by motivation scholars as “attractiveness of a reward” (see Pinder 1984 for a review), the concept remains limited in its power to predict motivation in work settings in which individuals and teams do not have single and straightforward, but multiple and often competing, goals and priorities.

So, whether interpreted one way or the other, the concept of valence remains conceptually incapable of explaining why a person will choose a particular course of action in the face of two (or more) equally or similarly attractive rewards. As such, there was no cause for the concept's inclusion in the current framework (for a solution to this problem, see discussion in Section 6.3.2 – *Willingness to Bear Cost*).

Second, the notion of deservingness in the conceptualization of *observed frequency of deserved rewards* already encompasses that of instrumentality in that the former is a much broader concept that addresses not only the link between performance and reward (i.e., what instrumentality specifically aims to measure) but also any discrepancies that may exist in relation to the input-outcome relationship in the case of relevant others. As the concept of instrumentality is already represented by one of the twin dimensions of *reward consistency* (see Section 6.4.2 – *Reward Consistency* for a detailed discussion), its repeated inclusion would have added no value to the framework.

This treatment in testing the expectancy theory was adopted in view of the research context and in response to Mitchell and Daniels' (2003) caution that people seldom make the kind of mental calculations the theory asserted that they make, and that is, distinctively in terms of *valence instrumentality*, and *expectancy*.

Control variables. In the absence of theoretically based control variables concerning the relationship between *expectancy*, *equity*, and *organizational commitment* and the dependent variable of *adaptive motivation*, I attempted to include the usual demographic variables such as age, gender, marital status, education, and job tenure. I did so also for the plant dummies.

I first report on regressions of *adaptive motivation* on the individual antecedents, then the regression on the antecedents simultaneously, with the inclusion of control variables in both instances. In agreement to my prediction concerning the mediating role of *organizational commitment*, the variable showed a significant association with *adaptive motivation* ($\beta = .489, p < .0001$), demonstrating a statistically significant variance (Adjusted $R^2 = .272, p < .0001$). As predicted by equity theory, equity as measured by *observed frequency of deserved rewards* showed a significant association with *adaptive*

motivation ($\beta = .452, p < .0001$), demonstrating a statistically significant variance (Adjusted $R^2 = .237, p < .0001$). And as predicted by expectancy theory, *expectancy* showed a significant association with *adaptive motivation* ($\beta = .377, p < .0001$), demonstrating a statistically significant variance (Adjusted $R^2 = .178, p < .0001$).

Table 8.12
Results of Regression Analysis of Existing Theories:
Antecedents of Adaptive Motivation ^a

Independent Variable	Adaptive motivation
Intercept	1.124***
Organizational commitment	.327***
Observed frequency of deserved rewards	.278***
Expectancy	.181***
No. of people in work unit	.109***
Annual increment	.076*
Contract duration	.055
Regression sum of squares	122.802
(df)	(6)
Residual sum of squares	194.198
(df)	(680)
F	71.667***
R^2	.387***
Adjusted R^2	.382***

^a N = 975 (or 687 when including three control variables). Values are linear regression standardized beta coefficients.

*** $p < .0001$

** $p \leq .01$

* $p \leq .05$

$p \leq .10$

Table 8.12 presents the results of the main analyses of the two independent variables and one mediating variable in relation to *adaptive motivation*. The results indicated a statistically significant variance (Adjusted $R^2 = .382, p < .0001$). All three variables proved to be significant predictors. And *organizational commitment* was positively associated with *adaptive motivation* ($\beta = .327, p < .0001$). This finding supported the prediction of the mediating role of *organizational commitment*. *Adaptive motivation* is more likely when individuals are more committed to the organization.

As predicted by equity theory, equity (as measured by *observed frequency of deserved rewards*) showed a significant association with *adaptive motivation* ($\beta = .278$ $p < .0001$). This result suggested that individuals are more likely to be motivated to adapt to new and changing demands and challenges in their jobs to the extent that they witness a higher level of justice in the frequency distribution of deserved rewards in the organization. Finally, *expectancy* is positively associated with *adaptive motivation* ($\beta = .181$, $p < .0001$). This finding supported expectancy theory. *Adaptive motivation* is more likely when individuals feel that they have more control over the results of their work.

Three demographics-based measures also contributed to the regression equation. In particular, as the number of people in work unit increased, *adaptive motivation* increased ($\beta = .109$, $p = .000$) and as annual increment increased, *adaptive motivation* increased ($\beta = .079$, $p = .012$). Results also revealed that individuals with a longer contractual duration had a higher level of *adaptive motivation* ($\beta = .055$, $p = .072$). However, none of the five plant dummies contributed to the regression equation and were thus excluded.

In sum, the results indicated that *organizational commitment*, *equity*, and *expectancy* all contributed to explaining *adaptive motivation*. This was the case whether the variables were tested individually on their own or in an integrated fashion, as was done in the main analyses. Results showed that the integrated approach, which included all three variables at the same time, was able to explain more variance in the outcome in *adaptive motivation* (Adjusted $R^2 = .382$, $p < .0001$). However, their combined explanatory power compared unfavorably to that of the proposed model (Adjusted $R^2 = .502$, $p < .0001$), which accounted for 31.4% more variance.

In addition to the operationalization in the form of *observed frequency of deserved rewards*, equity theory could no doubt have been more extensively tested with existing scales of distributive justice (Ambrose and Cropanzano 2003), procedural justice (Cropanzano and Folger 1991), and interactional justice (Moorman 1991). I, however, did not pursue this course because the dependent measures of these scales tended to be organizational commitment and citizenship behavior, and dysfunctional or retaliatory actions rather than motivation, which is the focus of my study (see discussion on equity theory in Section 3.1.1 – *Expectancy, Goal Setting, Equity, and Reinforcement*).

8.10 Conclusion

The objective of this chapter is two-fold. The first is to analyze and report on the results of the proposed framework of “environmental perception and adaptive motivation”. The second is to compare the results of competing theories based on the same data. The results of the linear regression analyses indicated that more than 50% of the variance in *adaptive motivation* was explainable by *threat perception* and *opportunity perception*.

In contrast, only 38% of such variance was attributable to the concepts of *equity* (as measured by *observed frequency of deserved rewards*) and *expectancy* combined. As a matter of fact, findings supported my theoretical argument that the impact of equity and expectancy is indirect, that is, by way of their impact on *willingness to bear cost*, which in turn affects *opportunity perception* and *adaptive motivation*. Even in their capacity as antecedents of *willingness to bear cost*, *equity* and *expectancy* turn out as less powerful predictors than *overall situation enhancement* and *organizational commitment*.

Other notable findings evolved around *threat perception* and its twin concept of *opportunity perception*. First, individuals revealed a higher *threat perception* than *opportunity perception*. In terms of impact, *threat perception* had an almost equal effect as *opportunity perception* on *adaptive motivation*. Results of the antecedents of environmental perception agreed with the predicted effects of *risk of noncompliance* on *threat perception*, and of *willingness to bear cost* on *opportunity perception*.

In particular, *threat perception* is heightened when *risk of noncompliance* increases and *opportunity perception* is enhanced when *willingness to bear cost* increases. Along these lines are the results demonstrating the parallel forces of pressure and support, which also lead to *threat perception* and *opportunity perception* respectively. In particular, *threat perception* is heightened when *pressure to perform* increases and *opportunity perception* is enhanced when *perceived organizational support* increases.

In sum, results of the final regression analyses supported 19 of the 21 hypotheses tested, including the key propositions concerning environmental perception and *adaptive motivation*. I shall examine their implications in Chapter 9 – *Discussion*.

Chapter 9

Discussion

This chapter consists of three sections. Section 9.1 reviews the implications of key findings of the proposed model of “environmental perception and adaptive motivation”. Section 9.2 considers the implications of other findings related to the antecedents of *threat perception* and *opportunity perception*. It also clarifies the roles of existing concepts in the complex process of *adaptive motivation*. Section 9.3 reviews the study’s limitations and potential extensions for future research. And Section 9.4 concludes.

9. Discussion

This dissertation raises some thought-provoking questions. At the outset, it was hypothesized, contrary to predictions of existing theory, that motivation would occur in the face of adversity, such as amidst high levels of employment uncertainty and compensation risks. My empirical study provides support for this argument. The results show that motivation varies across individuals as a result of two factors – *threat perception* and *opportunity perception*.

Below, I review a total of 23 findings and their implications in relation to the outcome in motivation and the testing of 21 hypotheses in the research framework. I first review the key findings in relation to the core argument about environmental perception and *adaptive motivation*, then other findings concerning the antecedents of threat and opportunity perceptions. To assist understanding of the complex dynamics in my research setting and the interpretation of empirical findings thereof, I incorporate, where appropriate, insights from focus group studies preparatory to the questionnaire survey on which my main study was based.

9.1 Implications of Key Findings

In this section, I review a total of 12 key findings including the outcome in *adaptive motivation* and its relationships with threat and opportunity perceptions. Closely related to these are the findings on the antecedents of *threat perception* – *risk of noncompliance* and *pressure to perform*; and the antecedents of *opportunity perception* – *perceived organizational support* and *willingness to bear cost*. The significance of the findings rests with the central position of these seven concepts in the proposed framework of “environmental perception and adaptive motivation”.

Table 9.1 summarizes the 11 key findings numbered Findings 1 – 11, and their various implications for theory and practice.

Table 9.1
Key Findings and Implications

Key Findings	Implications
1. The vast majority of individuals indicated an increase in their motivation to adapt to changing and increasingly challenging demands in their jobs as a result of the employment and wage reforms.	Employment uncertainty and compensation risks are the critical circumstances that drive adaptive motivation in today's fast-changing and competitive workplace.
2. Nearly half of the individuals perceived a higher level of threats than of opportunities concerning the reforms.	Threat is the leading environmental factor.
3. Threat perception had a similarly significant impact as opportunity perception on adaptive motivation.	The role of threat perception in motivation cannot be ignored. Organizations wishing to take advantage of uncertainty and risks to motivate need to balance between employing threat <i>and</i> opportunity perceptions.
4 & 5. Individuals with higher threat and opportunity perceptions indicated a higher level of adaptive motivation.	Environmental perceptions are effective predictors of adaptive motivation.
6. Organizational commitment mediates the relationship between environmental perception and adaptive motivation.	Organizational commitment's adaptive benefits open a new dimension in research. Cultivation of deepened organizational commitment in a crisis will help maximize the positive effects of environmental perception on adaptive motivation.
7. Threat and opportunity perceptions account for more variance in motivation than equity and expectancy.	The proposed model is more promising for predicting motivation under uncertainty and risks.
8 & 9. When motivated by threat perception, individuals experienced significant degrees of (i) risk of noncompliance and (ii) pressure to perform.	Effects of risk of noncompliance and pressure to perform illuminate trends in tightening disciplinary measures and work intensification as likely sources of threat. Risk of noncompliance and pressure to perform provide the missing theoretical explanation for effects of goal specificity and difficulty in goal setting theory.
10 & 11. When motivated by opportunity perception, individuals experienced significant degrees of (i) perceived organizational support and (ii) willingness to bear cost.	A supportive organizational culture and genuine managerial efforts in lowering the costs and/or increasing the benefits for employees to oblige the organization are conducive to opportunity perception.
Findings 8 & 10 above: Complementary roles of pressure and support	There is a balance of two distinct, predominant forces of "push and pull" behind threat and opportunity perceptions.
Findings 9 & 11 above: Complementary roles of risk and cost	The concerns of " <i>Can I afford not to?</i> " and " <i>Is it worth it for me?</i> " prompted by risk of noncompliance and willingness to bear cost reinforce threat and opportunity perceptions as twin drivers of motivation.

9.1.1 Environmental Perception and Adaptive Motivation

Finding 1: Outcome in adaptive motivation. Results indicated that for the vast majority of the 1,134 survey respondents motivation to adapt to new and increasingly challenging demands in their jobs has improved as a result of the employment and wage reforms. The reforms have drastically altered the form and substance of employment and pay for China's 100 million state industrial workers, from guaranteed lifetime employment to one that is competition-based and from near subsistence-level egalitarian wage to higher, differentiated, and deductible base pay and bonuses.

The changes signify a clear and determined shift from an entitlement environment governed by needs to a contingent environment that simulates the forces of market competition. The new, harsh realities are unprecedented uncertainty and risks in employment and pay. Since the situation at hand is representative of the world's largest industrial workforce and illuminates the employment uncertainty and compensation risks prevalent in today's workplace in general (see Heery and Salmon 2000 for a review), the empirical evidence seems sufficient to support my premise that employment uncertainty and compensation risks are the critical circumstances driving *adaptive motivation* in today's fast-changing and competitive workplace.

Finding 2: Threat as the leading environmental factor. Results showed that nearly half of the individuals perceived more threats than opportunities considering the employment and wage reform measures. This finding is not surprising given that the motivation strategy of the research organization was anchored by the objective to "awaken the workers' to a sense of threats or "risk consciousness" in relation to the increasingly challenging demands of the business and economic environment in which it operated. The notion of threat was strategically framed by the enterprise management in reference to external events and that is, shrinking state subsidies and intensifying market competition that bore on the organization's survival. In so doing, the organization effectively put itself at the same level or "in the same boat", so to speak, with the workforce in feeling threatened to fight for survival.

While the employment and wage reforms have created opportunities for the workers in many ways and particularly in terms of more promising career prospects for those able to take up more responsibility and higher base pay and bonuses for better performance, parallel measures that created threats to the basic survival of the employees especially in terms of terminable employment for all and contingent base pay and bonuses were perhaps more striking to the employees. I suspect that it is due to this reason that threats were reported to be greater than opportunities in relation to the reforms. This observation is consistent with findings in the decision sciences and strategy literatures that individuals are generally more sensitive to losses than to gains (Cyert and March 1963; Simon 1965; Jackson and Dutton 1988).

The survey respondents represent the top performing operation units of the enterprise and were referred to by the steel conglomerate as ‘pick of the crop’. The fact that they were among the top performers and technically survivors of a series of large-scale workforce structuring and downsizing efforts makes this finding all the more profound. What is noteworthy is that though never before conceptualized or explored theoretically in the work motivation literature, evidence shows that threat is the leading environmental factor in a fast-changing and turbulent workplace.

Finding 3: Level of significance of threat vs. opportunity perception. In support of *Hypotheses 1 and 2*, results of regression analysis showed that *threat perception* had an almost equally significant impact as *opportunity perception* on *adaptive motivation*. This finding lends additional support to my argument that the role of *threat perception* in motivation is central and cannot be ignored.

Having made this point, I need to clarify that certain elements need to be in place for the perception of threat to induce, rather than inhibit, motivation. Insights from in-depth focus group interviews prior to the questionnaire survey are worth noting. In particular, individuals indicated that threat perception motivated them to adapt to new and increasingly challenging demands in their jobs for two main reasons. First, the individuals attributed the source of threat to forces of the external environment at large. This is somewhat reflective of the organization’s success in strategically framing threat to motivate. The anti-thesis would be that the enterprise was seen as the “threatener” and

the workers its victims. But this did not seem to be the case at the research organization. As a matter of fact, individuals acknowledged not without empathy that the enterprise was as much threatened by intensifying environmental demands as the employees themselves. This point is consistent with the identity-based perspective of employee cooperation (Tyler 1999).

Second, individuals felt that while adaptive motivation or behavior could not guarantee continued employment or the level of pay given the inevitability of continual organizational downsizing and cost-cutting, the swiftness to adapt would nevertheless help increase their chances of survival and success in the midst of change. This observation is in line with findings in research on strategy (Staw, Sandelands et al. 1981) and stress (Fleming, Baum et al. 1984), which suggested that people tend to respond more constructively to threatening situations when they feel that they can cope or have a coping strategy.

Findings 4 & 5: Environmental perception and adaptive motivation. In support of *Hypotheses 1 and 2* constituting the core argument of the proposed framework, results of regression analysis indicated that environmental perception accounts for a significant level of variance in *adaptive motivation*. Results showed that although independent aspects of *threat perception* and *opportunity perception* enhance *adaptive motivation*, the two together created a much greater motivational impact. These are perhaps the most crucial findings in the entire study. They suggested that motivational programs that consist of elements capable of simultaneously fashioning both perceptions would be more effective than those that manage to create only *threat perception* or *opportunity perception* alone. This position overturns that of existing motivation research, which, with its focus on rewards, only relates to the opportunity aspect of the equation.

From this unconventional stance, all is not lost for individuals who are not consistently sufficiently enticed by the opportunities on offer or who sometimes find the payoffs too far-fetched or uncertain. Because the perception of threat is likely to leave them little room to slack, become discouraged and settle for less. *Threat perception* can thus work as a back up for *opportunity perception*, and vice versa, in motivating employees – if they can't always get motivated one way, they will likely the other. This suggestion is

consistent with my conceptual description and synthesis of two asymmetrical yet non-mutually exclusive sources of motivation: (i) protection motivation, which relates to threat perception and is prompted by the motive to defend one's current interests and status quo, and (ii) achievement motivation, which relates to opportunity perception and is driven by the motive to advance one's interests beyond the current level (see Section 5.2.3 – *Proposed Concept of Opportunity Perception* for a detailed discussion).

The implications are profound. Now that knowledge of the dual sources of motivation is theoretically and empirically established by this study, and the risk and insecurity theses about today's workplace firmly in place (Beck 1999; Beck 2000; Heery and Salmon 2000), motivation researchers could no longer afford not examining employment uncertainty for all and compensation risks for non-executive/non-sales employees without severely distorting the reality of motivation in today's workplace.

From a practice point of view, for managers to pretend that there are only rewards to be had would not help either. For without acknowledging the threats to the employees in the organizational system of reward and punishment, management would not be in a position to systematically devise a strategy to help them cope and subsequently benefit from their reciprocal motivation and behavior to adapt to new and increasingly challenging demands in their jobs. As discussed in Key Finding 3 above, this is the point where threat perception can turn into a negative, rather than constructive, force and consequently lead to many of the so called "unintended consequences" (see, for example, Kerr 1975) of motivational programs that only talk about rewards.

Finding 6: Organizational commitment as a mediator. In support of *Hypothesis 21*, results of regression analysis showed that the more committed the employees are to the organization, the more likely they will be motivated to adapt to new and increasingly challenging demands in their jobs. The indirect associations suggest that *organizational commitment* can enhance adaptive motivation through certain social control and/or affective mechanisms. According to O'Reilly (1989), there are three processes or stages of commitment: (1) compliance, (2) identification, and (3) internalization. Social control relates to the first stage – compliance, whereby an employee cooperates with the organization mainly to obtain something in return, for example, continued employment

and a certain level of pay. However, when commitment deepens, employees accept the influence of the organization in order to maintain a satisfying, self-defining relationship. They also find the values of the organization to be intrinsically rewarding and congruent with personal values.

Conceiving of commitment as developing in this manner allows us to understand the possible ways *organizational commitment* mediates adaptive motivation. In particular, the latter, deepened state of commitment represents the case with those employees in my research organization who remained committed when the enterprise ran into difficulties and despite probable organizational decline. In this relation, *organizational commitment* is no longer simply loyalty to an organization but also an ongoing process through which organizational actors express their concern for the organization and its continued success and well-being (Neale and Northcraft 1991).

A comparable perspective of *organizational commitment* as a positive affective mechanism is that people make sense of situations when they are committed (Staw 1974; Comer and Laird 1975) and therefore have a positive attitude even under uncertainty and risks. This is consistent with research in the budding field of positive psychology, which maintains that positive emotion carries direct and immediate adaptive benefits and can also occur in situations of adversity (Fredrickson 2001).

Coupled with insights from recent research on positive emotions in general and positive emotions under uncertainty and risks, my own findings of the mediating influence of *organizational commitment* on the relationship between environmental perception and adaptive motivation are informative for researchers and managers of motivation in two main aspects. First, they indicate that future research examining the effects of *organizational commitment* needs to assess its adaptive benefits while individuals remain in their jobs as well as broaden its purview to address situations of uncertainty and risks. Second, the results suggest that successful implementation of a motivation strategy especially at a time when the organization is facing severe environmental challenges may require the cultivation of a deepened sense of commitment within the organization for employees' threat and opportunity perceptions to have the maximum positive effect.

9.1.2 Superior Explanatory Power of Threat and Opportunity Perception

Finding 7: Superior explanatory power of threat and opportunity perception. I adopted a view of *adaptive motivation* in the fast-changing and turbulent workplace to derive a model of environmental perception to explain motivation. In support of *Hypotheses 1, 2, and 21*, results of regression analysis indicated that threat and opportunity perceptions explain substantially more variance in motivation than equity and expectancy. In the testing of both the proposed and competing models, the outcome in *adaptive motivation* was enhanced by the mediation of *organizational commitment*.

From a measurement point of view, one may argue that the scales of *equity* and *expectancy* could be improved to yield better results vis-à-vis those of the proposed model. But the same could also be said of the scales of threat and opportunity perceptions. After all, given that the latter are new and relatively less developed measures, they are expected to have more room for betterment than the scales of *equity* and *expectancy*, which have been continually refined and improved upon over the course of more than four decades.

From a theoretical point of view, several possibilities are in need of exploration as to why the long-established notions of *equity* and *expectancy* are inferior in explanatory power to the model of environmental perception. The first possibility is that *equity* and *expectancy* are altogether inappropriate concepts for the prediction of motivation. The second possibility is that *equity* and *expectancy* are useful explanatory variables but their influences are not as simple or direct as have been previously assumed. Related to the second possibility is yet the likelihood that the setting in which *expectancy* and *equity* had been conceptualized does not reflect the reality of today's workplace.

I take the position that *equity* and *expectancy* are not inappropriate concepts but that their effects on motivation are not straightforward but indirect. I base my argument on the intricacy of workplace dynamics the respective theorists failed to capture. To illustrate, equity theory assumes that workers have nothing to lose in lowering their work efforts in inequitable situations. In doing so, the theory did not acknowledge the potential limitation in employee discretion to respond negatively to inequity without

putting one's career or other interests at risk. In a downsizing workplace that also puts a certain emphasis on norms and social expectations as is the case in my research organization, issues of political sensitivity and social desirability are likely to restrain employees feeling unfairly treated from "getting even" in the manner suggested by equity theory.

The loophole in expectancy-based theories is not so much about issues of political sensitivity and social desirability as is with the proposition that *instrumentality* is a necessary condition for motivation to occur. An alternative to *instrumentality* as a decision rule of motivation is normative concerns, which are typically about ideology-based principles and strategically inspired means and preferences rather than immediately realizable ends. As much as instrumental and ideological concerns are not mutually exclusive, a framework that accounts for both is likely to be more effective. The proposed model fulfills this requirement. Without prejudgment of whether it is the instrumental or ideological that makes the individuals tick, it delineates the outcome in the employees' own judgment of the situation at hand as presenting a threat and/or an opportunity to them personally.

Given that important issues of political sensitivity and social desirability as well as normative concerns have not been captured in *equity* and *expectancy* theories respectively, it is perhaps no wonder that regression results from testing both of these concepts in a combined model still compare less favorably in explanatory power to the proposed framework. This finding suggests that there is a more fruitful way of predicting motivation in a complex environment than had been possible before. Issues of complexity explored above are in no way exhaustive. They do, however, illuminate the need for the reassessment of existing theories as having the direct, mechanical motivational impact claimed.

9.1.3 Factors Conducive to Threat and Opportunity Perception

Findings 8 & 9: Impact of risk of noncompliance and pressure to perform on threat perception. In support of *Hypotheses 3 and 4*, results of regression analysis showed that

risk of noncompliance and *pressure to perform* account for significant variances in *threat perception*. Results also showed, in support of *Hypothesis 5*, that *risk of noncompliance* is linked to *pressure to perform*, thus confirming the hypothesized direct and indirect effects of *risk of noncompliance* on *threat perception*.

As much as *risk of noncompliance* helps to intensify the *pressure to perform* while the two also independently contribute to *threat perception*, tightening disciplinary measures especially in continued employment and pay, and work intensification, which relate to *risk of noncompliance* and *pressure to perform* respectively, can be identified as the very developments and trends that contribute to employee *threat perception*. Since these developments are not unique to my research setting, they have a critical role to play in environmental perception and motivation not only in China but across today's workplace in general (see Sewell and Wilkinson 1990; Burchell, Day et al. 1999; Green 2001).

The findings about the effects of *risk of noncompliance* and *pressure to perform* are critical in illuminating the global trends in the tightening of organizational disciplinary measures and the intensification of work. However, these findings should not be taken hastily to mean that the key to the problem of motivation is simply to heighten the level of *threat perception* by way of increased risk of noncompliance and pressure to perform (such as in the form of work intensification and tightened discipline). In fact, these results are helpful and constructive only if they are understood alongside Findings 10 & 11, which point to the importance at the same time of *perceived organizational support* and *willingness to bear cost* in motivating workers through *opportunity perception*.

Many meaningful avenues exist for further analysis concerning *risk of noncompliance* and *pressure to perform*. One of them is the reassessment of goal setting theory. Although goal setting as a performance theory has been extensively used for nearly three decades to predict motivation to the extent that it is today considered "a leading motivation theory", there remains no theoretical justification for the link between the proposed features of goal specificity and goal difficulty and motivation or performance (see detailed discussion in Section 3.1.1 – *Expectancy, Goal Setting, Equity, and Reinforcement*).

One way of looking at specific and difficult goals is their representation of raised standards and expectations, a byproduct of work intensification. In view of tightening organizational disciplinary measures, a plausible explanation for the positive effect of goal specificity is that the more specific the goals, the clearer and more inexcusable the employee's failure to deliver, thus contributing to risk of noncompliance. Along the same lines, difficult goals may have a positive impact because the more difficult the goals, the more likely the failure to deliver, thus contributing to *pressure to perform*.

While *risk of noncompliance* and *pressure to perform* increase *threat perception*, whether the latter translates into motivation in this context depends in turn on the extent to which the employees are aware of or able to find a way to achieve the specific goals set despite their difficulty. As discussed above under Finding 3 – *Level of significance of threat perception vs. opportunity perception*, having a coping strategy or being able to cope is of the essence. In the absence of this, goal specificity and goal difficulty will likely inhibit, rather than improve, motivation because the perceived threat they contribute to would have become unmanageable for the individual concerned.

This line of argument is coherent with two existing theoretical perspectives in the management literature. The first is found in crisis research, which proposes that, unless constructively managed, fear of failure incapacitates decision makers (Smart and Vertinsky 1977). The second appears in work on strategy in the form of threat-rigidity effect under adversity (Staw, Sandelands et al. 1981), the counterproductive outcomes of which is manifest in the restriction of information processing and tightening of control when an organization is unable to cope.

In fact, these perspectives can also help explain findings about the lack of motivational success of goal setting in the context of complex tasks (Weingart 1992; George-Falvy 1996). There are no doubt limitations both in terms of sensibility and feasibility as to the degree goals should and can be meaningfully specified for complex tasks. Furthermore, since complex tasks are by nature evolving and inherent with high levels of complication, ambiguity, and uncertainty, it is hard to see how setting difficult goals for complex tasks could increase motivation. The point is not to make the tasks more difficult than they already are, but to help individuals to cope with and succeed in them.

In the absence of a substantive theoretical justification for goal setting theory, I was able to demonstrate the rationale as well as specify the conditions for goal specificity and goal difficulty to work in today's fast-changing and complex workplace. As much as I have made references only to two explanatory variables in this brief analysis, significant potential remains concerning the efficacy of other variables in the proposed framework for assessing other aspects of goal setting and other management tools and techniques.

Findings 10 & 11: Impact of perceived organizational support and willingness to bear cost on opportunity perception. In support of *Hypotheses 6 and 7*, results of regression analysis showed that *perceived organizational support* and *willingness to bear cost* account for significant variance in *opportunity perception*. These findings provided insights into the emotional mechanisms and mental reckoning through which individual *opportunity perception* of organizational change events (such as employment and wage reforms) is shaped and formed.

One way of assessing the contribution of *perceived organizational support* and willingness to bear cost in shaping *opportunity perception* is to consider the undesirable consequences of their antitheses. For instance, when employees do not perceive an enthusiastic level of support from the organization in their attempt to adapt to changing and increasingly challenging demands or deal with stressful situations in their jobs, they are unlikely to be convinced of the organization's sincerity and readiness to reward the effort, however attractive or attainable the reward may seem in the first place. So, rather than seeing the reward or offer as an opportunity, the individuals are likely to approach it with gaming and distrust (Lewicki, Mcallister et al. 1998; Risher 1999).

At the same time, when individuals do not find it worth their time or energy to adapt to the changing and increasingly challenging demands or contend with difficult situations in their jobs, a possible explanation is that the cost of doing so is too high for them. The possible outcomes are that individuals will either ignore the reward or offer altogether if the opportunity cost is too high, or see it as a threat in the event of a direct conflict(s) with protected personal values and interests. Low *willingness to bear cost* may also be a reflection that the individual perceives the benefits to be insufficient to justify the effort. The likely consequences in this case are that the individual will be indifferent to the

reward, or consider the offer a disgrace or the exchange exploitation. One way or the other, it is not likely that the individual will view it in a positive light as an opportunity.

This counter analysis helps demonstrate that there is no guarantee an organizational reward, no matter how attractive or attainable, will be viewed as an opportunity by the employees. In other words, the link between reward and its positive reception is more complex than existing theorists had assumed. This argument corresponds with my findings concerning *perceived organizational support* and *willingness to bear cost*, which suggest that a supportive organizational culture and genuine managerial efforts in lowering the costs and/or increasing the benefits for the employees to oblige the organization are likely to contribute positively to *opportunity perception*.

Further implications of findings 8 & 10: Complementary roles of pressure and support. The findings concerning the antecedents of *threat perception* and of *opportunity perception* have so far been discussed separately from each other. When the antecedents of *threat perception* and *opportunity perception* are assessed alongside each other, however, the effects of pressure to perform on threat perception and of perceived organizational support on opportunity perception stand out in their prediction of environmental perception. This demonstrates that behind threat and opportunity perceptions there is a balance of two distinct, predominant forces of “push and pull” that simultaneously contribute to adaptive motivation more than any other forces.

The view about the “push and pull” forces of the environment raises questions about a number of previous discussions in the motivation and human resource management literatures. For example, Steers and Porter maintain that “motivation comes down to the complex interactions between push forces within the person and the pull forces originating from the environment” (Steers and Porter 1991: 108). To begin with, this position disagrees with an earlier one taken by Porter and his other colleagues, which points out that in practice most organizations try to use the wide array of rewards and punishments they have available to accomplish a number of purposes (Porter, Lawler III et al. 1975). Putting aside the lack of substantiation and explanation for the recent self-contradictory view of Porter and Steers, it is opportune especially in an age of workforce

restructuring and organizational downsizing to set the records straight by acknowledging the environment as capable of presenting both promises and threats.

From the basis that the environment is a source of both opportunities and threats, my argument follows that these forces are not mutually exclusive but complementary of each other. Drawing on similar views in international conflict and resolution (Tedeschi 1970), I argue that organizations have tremendous incentives to extend pressure and support at the same time in shaping and raising threat and opportunity perceptions among employees to bring about adaptive motivation in a time of change. As much as the “push and pull” forces of *pressure to perform* and *perceived organizational support* can be identified as features of “hard and soft HRM” respectively, findings about their parallel impact on threat and opportunity perceptions may thus help to settle outstanding debates that hinge on the mutual exclusivity of control vs. commitment (Walton 1985) and hard vs. soft HRM (Hirsch 1976; Frey 1997).

Complementarity between pressure and support means that the goal of high-commitment HRM in creating a dedicated and flexible workforce (Baron and Kreps 1999) can be more efficiently fulfilled with the simultaneous tightening of organizational disciplinary measures and improved organizational support. I argue that this would hold regardless of the state of the economy, that is, whether it is a boom or a downturn. It seems inevitable in the latter condition, however, that exertion of additional pressure on employees to perform will have a stronger immediate appeal to organizations because resource scarcity leads to tightened control (see Whetton 1981).

But this is not to say that under these circumstances organizations would not benefit from also extending a higher than usual level of support to their employees. As a matter of fact, at a time when external pressures (such as cost- and time-based competition, which often translate into various forms of cost-cutting and work intensification) seem ever more acute, internal support (such as coaching, trust, and encouragement) are likely to have a much greater impact on employee *opportunity perception* than at a time when external pressures are at a minimal. This suggestion is in line with the resiliency literature, which maintain that support works as a protective mechanism in relation to a wide range of adversities for those afflicted (Anthony 1987; Rutter 1987; Barney 1995).

My view concerning the parallel forces of *pressure to perform* and *perceived organizational support* is consistent with Truss et al's (1997) unconventional revelation that even if the rhetoric of HRM is "soft", in reality organizations are found to adopt a mixture of hard and soft approaches. This suggests that rather than being substituted one for the other, the utilitarian-instrumental and developmental-humanist principles of people management (Legge 1995), which translate into "carrots and sticks", are used simultaneously by organizations to achieve motivational results. This is in line with Deery's (2002) observation that organizations often adopt a combination of control and commitment regimes in human resources management.

Further implications of findings 9 & 11: Complementary roles of risk and cost.

Although relatively less dominant than *pressure to perform* and *perceived organizational support*, findings about the respective effects of *risk of noncompliance* on *threat perception* and of *willingness to bear cost* on *opportunity perception* are critical to the formulation of a more complete picture of environmental perception. Unlike decision science research, existing theorization about motivation in the work setting have tended to emphasize individuals' response to certainty rather than to uncertainty (see discussions in Sections 4.3 and 5.1). My results enlarge motivation theory by informing how personal concerns about risk and cost shape and influence environmental perceptions under uncertainty, which in turn bear on motivation.

What makes the effects of *risk of noncompliance* and *willingness to bear cost* on environmental perception particularly interesting is that they bring to light two major issues in individual decision-making that had been previously neglected in work motivation research. The first relates to the concern of "*Can I afford not to?*" and suggests that when individuals are motivated by *threat perception*, the strength of motivation reflects the extent of aversion to noncompliance risk. The second relates to the concern of "*Is it worth it for me?*" and suggests that when people are motivated by *opportunity perception*, the strength of motivation reflects the degree of perceived worthiness of a pursuit or an undertaking.

While risk and cost represent the criteria organizations typically take into account in designing incentives contracts (see Milgrom and Roberts 1992), the significance to the employees rests with their representative states of fear and hope that help shape and influence threat and opportunity perceptions in the face of probable, albeit uncertain, punishments and rewards. In an environment of downsizing and cost-cutting, for example, slowness in responding to the *risk of noncompliance* is likely to cost one's job. Readiness in complying with set standards and expectations of performance, however, may bring about incentive benefits.

It follows that individuals who are considerably fearful *and* hopeful of the changes that are taking place in their environment are likely to develop high levels of *risk of noncompliance* and *willingness to bear cost* and subsequently *threat perception* and *opportunity perception*. It would therefore be desirable for environmental changes (such as reform measures in employment and pay) to simultaneously generate in the employees (i) enough fear to the extent they will be averse to the risk of noncompliance (or noncompliance risk-averse) and (ii) sufficient hope to the extent that they will be willing to bear the cost of compliance (or compliance cost-bearing).

9.2 Implications of Related Findings

In this section, I review a total of 12 related findings concerning three sets of variables that influence *perceived organizational support* and *willingness to bear cost*, which in turn explain *opportunity perception*. Although the variables under discussion do not immediately explain motivation as such, their indirect effects are not to be underestimated. The significance of their findings rests with their links to expectancy and equity theories and to organizational rewards as a whole. Importantly, they reveal something of the complexity of the motivation process and the contextual richness of how individual employees respond to payoffs in a broader sense than has been previously conceptualized or understood.

Table 9.2 summarizes the 12 related findings numbered Findings 12 – 23, and their various implications for theory and practice.

Table 9.2
Other Related Findings and Implications

Findings	Implications
12 & 13. Individuals with higher levels of (i) overall situation enhancement and (ii) reward consistency reported higher perceived organizational support.	Organizations interested in supporting their employees and helping them succeed need to be concerned with making concrete improvements in the well-being of deserving individuals and ensuring reward consistency for all.
14. Concerning the two dimensions of reward consistency, undeserved rewards had a slightly more significant impact than deserved rewards on perceived organizational support.	Individuals are relatively more sensitive to the incidents of undeserved rewards than to that of deserved rewards.
15. Concerning the two dimensions of reward consistency, undeserved rewards had nearly half as significant an impact in negative terms as deserved rewards in positive terms on overall situation enhancement.	Management would be better off focusing on ensuring that only the worthy are rewarded than on topping up on rewards but failing to prevent double standards in distribution.
16. Individuals with a higher level of perceived organizational support indicated a higher level of willingness to bear cost.	Employees would find it more worthwhile to put forth their best effort at work when the organization is behind them and eager to help them succeed.
17. Individuals who observed a higher frequency of undeserved rewards indicated a lower level of willingness to bear cost.	Employees would be less willing to bear the costs of contingent organizational rewards if they are aware of other alternative means of attaining the reward.
18 – 21. Individuals with higher levels of (i) overall situation enhancement, (ii) reward consistency, and (iii) organizational commitment, and (iv) expectancy indicated greater willingness to bear cost.	Although expectancy and reward consistency help make it worthwhile for employees to put forth their best effort at work, what seems to make the greatest difference is how much better off they believe they can become as a result.
22 – 23. Individuals with higher levels of (i) perceived organizational support and (ii) overall situation enhancement indicated greater organizational commitment.	Firms that help their employees succeed and make concrete improvements in their well-being can expect to be reciprocated with higher organizational commitment.
Findings 13, 15, & 19 above: Individuals who observed a higher level of reward consistency indicated higher levels of (i) perceived organizational support, (ii) overall situation enhancement, and (iii) willingness to bear cost.	Rewards do not directly explain motivation. If rewards fail to fuel perceived organizational support, willingness to bear cost, or overall situation enhancement, they may not contribute to motivation.
Findings 12, 17, & 23 above: Individuals with a higher level of overall situation enhancement indicated higher levels of (i) perceived organizational support, (ii) willingness to bear cost, and (iii) organizational commitment.	Workers desire enhancement of the overall situation rather than isolated- or single-aspect improvement in their work or pay. Management needs to properly assess the costs and benefits of a reward scheme to the employees to help ensure success.
Finding 20 above: Expectancy has only a modest effect on willingness to bear cost compared to other variables.	All is not lost if productive effort measures low or is unstable if workers look forward to a better tomorrow and are committed.

9.2.1 Role of Existing Concepts in Adaptive Motivation

Findings 12 & 13: Impact of *overall situation enhancement* and *reward consistency* on *perceived organizational support*. In support of *Hypotheses 9, 11 – 12*, results of regression analysis showed that both *overall situation enhancement* and *reward consistency* account for significant variances in *perceived organizational support*. In keeping with *Hypotheses 13 and 14*, results also indicated that *reward consistency* has a positive impact on *overall situation enhancement*. These results are encouraging in a number of ways. First, they confirm my proposition that *reward consistency* has both direct and indirect impact on *perceived organizational support*. Second, they imply that employees have sound rational bases that involve both general and specific issues in judging organizational support. Third, they suggest that *perceived organizational support* is a touchstone of whether potential changes in rewards and overall situation for the employees will translate into positive influences in the motivation process.

These implications are important for both theory and practice. To begin with, existing motivation theory puts a lot of emphasis on how employees look at organizational rewards. For instance, expectancy theory focuses on perceived attainability and equity theory, justice in reward procedures and distribution. However, how people look at organizational rewards cannot be inferred as how they view the organization. In fact, it is only when employees' perception of organizational rewards enhances their perception of the organization will the former be likely to increase motivation. Therefore, the suggestion that employee perceptions of reward features (e.g., attractiveness and attainability) automatically lead to motivation is an oversimplification.

One complexity is that however attractive or attainable an organizational reward may be, if the employees believe that the cost of attaining it exceeds the benefit, there will be no net benefit to be had and no overall situation enhancement for the individuals concerned. So, what the management may promote in their rhetoric as "a good deal" may end up being cynically viewed by the employees as "an ordeal". When these conditions prevail, it is unlikely for perceived organizational support to increase.

The second complexity is that although it seems reasonable to assume that employees are concerned that the deserving will receive their reward, this condition alone is insufficient to increase their perception of the organization support. Because employees are concerned at the same time that the undeserving are not getting the reward. When the latter expectation is violated, that is, when there are double standards, attainability is likely to take on a new meaning for the employees and result in disillusion and resentment rather than motivation.

All these point to one critical understanding – organizations serious about supporting their employees and helping them succeed (or desirous about being seen in this light) need to be concerned about making concrete improvements in the overall situation or well-being of deserving employees and ensuring at the same time that rewards are not allocated to those undeserving of them. Put differently, firms that pay no or little attention to making sure that organizational rewards increase *perceived organizational support* and *overall situation enhancement* for the employees run a high risk of facing unintended negative consequences in motivation.

Finding 14: Comparative impact of the two dimensions of reward consistency on perceived organizational support. A closer look at the results supporting *Hypotheses 11 and 12* concerning the impact of *reward consistency* on *perceived organizational support* revealed something rather unexpected. In particular, *observed frequency of undeserved rewards* accounts for more variance (in the negative sense) than *observed frequency of deserved rewards* (in the positive sense). This suggests that employees are more concerned about and sensitive to occurrences of people getting rewards they do not deserve. Importantly, it implies that positive feelings brought about by consistency in the distribution of deserved rewards cannot compensate for bad feelings caused by the distribution of undeserved rewards.

Indeed, administrative tolerance for double standards in reward distribution could have dire consequences. To begin with, it communicates a dispiritingly message to the workforce at large that the organization does not care enough for those who work hard for its success to safeguard their interests. In a way, it also reflects on the extent of powerlessness and susceptibility (Schervish 1983) of affected employees to attain favorable outcomes in connection to their contribution at work vis-à-vis those who are in

a manipulative position to willfully allocate the rewards to those who fall short in proving themselves worthy. It is therefore no wonder that *observed frequency of undeserved reward* is found to have a more significant impact on *perceived organizational support* than *observed frequency of deserved rewards*.

Employee sensitivity to double standards in rewards distribution may have also stemmed from a rationally defensive motive – the pie won't get bigger; if rewards are given out in any part to undeserving individuals, others would necessarily end up getting less than they deserve. This premise would certainly hold in situations of resource scarcity and tightening budget control. It is thus reasonable to expect the distribution of undeserved rewards to result in greater than usual levels of tension and disaccord when an organization is undergoing massive downsizing and cost cutting. These implications seem a far cry from existing motivation research, which neither acknowledge the connection between organizational rewards and *perceived organizational support* nor accounts for the important issue of double standards in reward distribution.

Finding 15: Comparative impact of the two dimensions of reward consistency on overall situation enhancement. Results showed, in support of *Hypotheses 13 and 14*, that the two dimensions of reward consistency are linked to *overall situation enhancement*, thus confirming the hypothesized effects of *reward consistency* on *overall situation enhancement*. In particular, *observed frequency of deserved rewards* accounts for more variance than *observed frequency of undeserved rewards*. This entails that employees' first and foremost concern is the extent to which the bottom line has actually improved for those who made the requisite investment in their jobs and worked hard for it. Since *observed frequency of undeserved rewards* explains nearly half as much variance in negative terms, it follows that the positive impact of distribution of deserved rewards can be considerably offset by incidents of undeserved rewards distribution.

Taken together, the significant effects of both dimensions of *reward consistency* suggest that people assess *overall situation enhancement* in both absolute and relative terms. That is, people judge in proportion to the extent to which deserving members of the workforce are better off as well as the degree to which the well-being of others is not undeservedly lifted. Given that existing motivation research focuses on specific reward

features and pays no attention to improvement in the bottom line rewards are meant to create for employees, it is no wonder that the significance of *reward consistency* has never been explored in relation to *overall situation enhancement*.

New understanding from the findings discussed herewith points to fresh insights in reward management. Importantly, it suggests that in creating a sense of improved well-being for employees who work hard for it, management will be better off focusing on ensuring that only the worthy are given the rewards than on necessarily topping up on the reward budget but failing to steer clear of double standards in reward distribution. As much as the negative effects of distribution of undeserved rewards can work against the positive effects of the distribution of deserved rewards, prevention of the former would help maximize the perception of *overall situation enhancement*. What is reward management is therefore also very much a matter of impression management

Finding 16: Impact on perceived organizational support on willingness to bear cost.

In support of *Hypothesis 8*, results of regression analysis showed that *perceived organizational support* has a significant impact on *willingness to bear cost*. This suggests that employees find it more worthwhile to put forth their best effort at work when the organization is behind them and eager to help them succeed. On the contrary, it would be disconcerting for individuals to feel they are fighting the battle alone.

It thus seems worthwhile for management to do everything they can to help employees feel “not alone” in their attempt to adapt to new and increasingly challenging demands in their jobs. Possible ways of achieving this is for management to increase communication and feedback, provide moral support and guidance, and demonstrate trust in the employees’ ability to deliver. Certainly, these would mean harder work than the expression of superficial concern can accomplish. But if efforts of the more challenging kind are taken seriously by management, employees can be expected to reciprocate by being more willing to bear all costs in the process of getting the work done so as not to let the management down. The relationship between *perceived organizational support* and *willingness to bear cost* is therefore reflective of a benevolent cycle.

So far, I have discussed findings of the preliminary analysis of *perceived organizational support* as a single explanatory variable in the regression of *willingness to bear cost*. It is important to note that the effect of *perceived organizational support* seems suppressed, however, in the main analysis in which other independent variables are included. In search of an explanation for such occurrence, it seems sensible to step back and consider the relationships between *perceived organizational support* and other antecedents of *willingness to bear cost*.

This approach proves fruitful as three out of four other explanatory variables are related to *perceived organizational support*. In particular, *overall situation enhancement* and *reward consistency* are predictors of *perceived organizational support*, with both dimensions of *reward consistency* also having indirect effects through their effects on *overall situation enhancement* (as has been discussed in detail under Findings 12 – 15 above). Furthermore, *perceived organizational support* is a significant predictor of *organizational commitment* (as will be discussed in detail under Finding 22 below).

These supplemental findings suggest that *perceived organizational support's* effect on *willingness to bear cost* did not suddenly cease to exist, so to speak. But rather, its influence would have in part manifest indirectly through its effect on *organizational commitment*. In addition, since *overall situation enhancement* and *reward consistency* together account for nearly 50% of the variance in *perceived organizational support*, it seems rather evident that the effect of *perceived organizational support* on *willingness to bear cost* can be largely attributed to *overall situation enhancement* and *reward consistency* in the first place. So, although the effect of *perceived organizational support* on *willingness to bear cost* does not seem to show through directly in the presence of other variables, it is clear that its indirect influences can be logically traced both conceptually and empirically based on supplemental findings concerning both its dependent and independent variables.

Findings 17: Impact of observed frequency of undeserved rewards on willingness to bear cost. In support of *Hypothesis 16*, results of regression analysis showed that *observed frequency of undeserved rewards* has a significant negative impact on *willingness to bear cost*. This suggests that when there are double standards in reward

distribution, employees would be hesitant, rather than convinced, that it is worthwhile to put forth their best effort at work.

The last thing an organization intending to use contingent rewards to motivate is to give the employees a reason to believe that there are alternative means of attaining the rewards without having to work hard for them or making the requisite investment in their jobs. Management tolerance for double standards in reward distribution thus seems to be a sure way of frustrating employees' cost and benefit calculations. As double standards in reward distribution occur, so may the relationship between *reward consistency* and *willingness to bear cost* suffer as a result. To prevent these undesirable outcomes, organizations must make sure that there is no exception to the rule, whether as a result of administrative negligence, policy discrepancies and loopholes, or isolated cases of favoritism.

So far, I have discussed findings of the preliminary analysis of *observed frequency of undeserved rewards* as the only explanatory variable in the regression of *willingness to bear cost*. It is necessary to note that such effect seems compromised in the main analysis in which other independent variables are included. An examination of supplemental findings confirming the hypothesized effects of both dimensions of *reward consistency* on *overall situation enhancement*, however, helps to clarify this concern.

In particular, the supplemental findings suggest that the effect of *observed frequency of undeserved rewards* on *willingness to bear cost* would have largely manifest through its effect on *overall situation enhancement*, which in turn accounts for most variance among all explanatory variables of *willingness to bear cost*. So, although the effect of *observed frequency of undeserved rewards* no longer seems to show through directly in the presence of other variables, it appears evident that its indirect influence can be logically traced both conceptually and empirically through its relationship with *overall situation enhancement*.

Findings of 18 – 21: Impact of overall situation enhancement, reward consistency, expectancy, and organizational commitment on willingness to bear cost. In keeping with *Hypotheses 10, 15, and 17 – 18*, results of regression showed that *overall situation*

enhancement, observed frequency of deserved rewards, organizational commitment, and expectancy account for significant variances in *willingness to bear cost*.

Supplemental findings that show both dimensions of *reward consistency* having significant effects on *overall situation enhancement* further demonstrate that *observed frequencies of deserved rewards* and of *observed frequency of undeserved rewards* have significant indirect effects on *willingness to bear cost*.

One way of assessing the findings of the four explanatory variables of *willingness to bear cost* is to compare the relative levels of variance attributable to them individually. The assessment results in the following ranking in the variance explained, from the greatest to the smallest: *overall situation enhancement, organizational commitment, expectancy, and observed frequency of deserved rewards*. This suggests that while *expectancy* and *reward consistency* help make it worthwhile for employees to put forth their best efforts in their jobs, what however seem to make the most difference in the outcome in *willingness to bear cost* are (1) how much better off the individuals believe they could become as a result, and (2) the level of their *organization commitment*.

A closer examination of *overall situation enhancement* and *organizational commitment* as the two most significant and similarly influential explanatory factors of *willingness to bear cost* revealed the parallel influences of rational calculations and emotional involvement. On the one hand, *overall situation enhancement* involves the rational assessment of the extent to which people's situation or well-being has improved as a result of their hard work or personal investment in their jobs. On the other hand, *organizational commitment* deals with the level of employee identification with and involvement in the organization as may manifest in pride in, and loyalty and dedication to the institution. These two aspects may therefore be seen as capturing both the employees' hearts and minds in contributing to *willingness to bear cost*.

The above finding concerning the complementarity of rationality and emotion is consistent with what has been widely acknowledged in other social sciences literature. In particular, behavioral economists, who challenge the conventional wisdom that underlies most, if not all, economic theories, that individuals are perfectly rational wealth-

maximizers acting only in their own self-interest, talk about emotional arousal as a source of bounded rationality (see, for example, Kaufman 1999). Along the same lines, organization scholars Lawrence and Lorsch (1969) proposed that man has an affective side that helps process information rapidly and usefully. This capability of the emotions is especially valuable in predicting motivation and behavior in situations of uncertainty and risks, such as those that characterize the fast-changing and complex workplace, where incomplete information necessarily renders total reliance on rationality both infeasible and insensible.

Though in line with what is long established in the broader social sciences disciplines reviewed above, the findings in my study about the parallel forces of rationality and emotion represent a provocative stance. In particular, it contradicts the position of existing work motivation research, which focuses on rationality only and renders the interplay between rationality and emotion an unpopular proposition. But if *overall situation enhancement* and *organizational commitment* influenced *willingness to bear cost*, which in turn influenced *opportunity perception* and subsequently motivation (see review of supporting evidence under Findings 11 and 8 (ii) respectively), the complementary influences of rationality and emotion in the causal chain must be given their due recognition.

Findings 22 – 23: Impact of perceived organizational support and overall situation enhancement on organizational commitment. In support of *Hypotheses 19 and 20*, results of regression analyses showed that *perceived organizational support* and *overall situation enhancement* account for significant effects on *organizational commitment*. Supplemental findings that show *overall situation enhancement* having a significant impact on *perceived organizational support* indicate that *overall situation enhancement* also has a significant indirect effect on *organizational commitment*.

As discussed in the previous section, Findings 18 – 21 showed that *overall situation enhancement* and *organizational commitment* can tap into the hearts and minds of employees to the extent that these factors contribute both rationally and emotionally to *willingness to bear cost*. In similar ways, *overall situation enhancement* reflecting the workings of the rational mind, and *perceived organizational support* involving

employees' feelings about how much they are being appreciated, cared for, and supported by the organization, are both found to account for significant variances in *organizational commitment*.

These findings have important implications. First, supporting *Hypothesis 19* on the effect of *perceived organizational support* on *organizational commitment*, my finding is consistent with an established argument in the organizational behavior literature concerning the reciprocal relationship of the two variables. The basic argument is that people are likely to become committed to an organization when they feel that the organization is committed to them (Gouldner 1960; Fuller, Barnett et al. 2003). In other words, it is a kind of emotional investment made by employees in the organization on the condition that the organization shows support for them in the first place.

Second, supporting *Hypothesis 20*, my finding indicates that *overall situation enhancement* can play an important role in promoting (and undermining) *organizational commitment*. It suggests that *organizational commitment* is in part conditional upon the employees' assessment of whether the organization is making a genuine effort in benefiting those who work hard for its success. This sends out an important message to management that *organizational commitment* is something an organization needs to substantially invest in and consciously work for, rather than take for granted. The upside is that organizations that help their employees succeed and make concrete improvements in their well-being can expect to be reciprocated with higher *organizational commitment*.

The additional significance of this finding is that it provides evidence for an important causal relationship that is not discussed in the existing organizational behavior literature. Specifically, it broadens the focus of existing organizational commitment research, which addresses the normative, affective, and continuance as the three aspects of its manifestation (Neale and Northcraft 1991) and, has up to now, identified perceived organizational support as the single most important explanatory variable (see Rhoades and Eisenberger 2002 for a review). Future research should therefore include both *perceived organizational support* and *overall situation enhancement* in predicting *organizational commitment*.

What is more, the collective findings supporting *Hypotheses 19 and 20* concerning *perceived organizational support* and *overall situation enhancement* reinforce my prior argument (supported in the first instance by Findings 18 – 21) that rationality and emotion simultaneously significantly contribute to the causal chain affecting motivation. As a matter of fact, this recurring theme illuminates the critical elements in my research on motivation in a fast-changing and turbulent environment, and that is, uncertainty and risks. For in as much as information is inconsistent or incomplete, as may likely be the case in the presence of employment uncertainty and compensation risks, rationality and emotion are expected to manifest their dual complementary effects on individual motivation as a complex, rather than straightforward, process of decision-making.

Further Implications of Findings 13, 15, & 19 above: Impact of reward consistency on perceived organizational support, overall situation enhancement, and willingness to bear cost. Of a total of 23 findings discussed above, Findings 13, 15, and 19 are particularly pertinent to the focus of existing motivation research – rewards. For this reason, it is important for me to also review them collectively in light of this theme.

To capitulate, Finding 13 and 19 relate to the direct effects of *reward consistency* (its two dimensions being *observed frequency of deserved rewards* and *observed frequency of undeserved rewards*) on *perceived organizational support* and *willingness to bear cost*. Finding 15 relates to the indirect effects of the two dimensions of *reward consistency* in the sense that they affect *overall situation enhancement*, which in turn affects both *perceived organizational support* and *willingness to bear cost*.

The direct and indirect effects of *reward consistency* behind these findings emphasize the employees' cost and benefit calculations (as reflected in *overall situation enhancement* and *willingness to be cost*) on the one hand and their feelings toward the organization (in terms of *perceived organizational support*) on the other. These calculations and feelings contribute to *opportunity perception*, which in turn contributes to motivation. What these relationships suggest is that the link between reward and motivation is complex and multi-faceted.

As a matter of fact, *reward consistency* predicts *perceived organizational support* and *willingness to bear cost* better when the web of complex indirect relationships among them is included than when only multiple simultaneous direct effects are studied. For instance, *reward consistency* influences *overall situation enhancement*, which in turn accounts for significant variances in *perceived organizational support*, *willingness to bear cost*, and *organizational commitment*, all of which bear indirectly on motivation.

Furthermore, the multiple direct and indirect effects of both dimensions of *reward consistency* figure in the prediction of *perceived organizational support* and *willingness to bear cost* when these total effects are considered, so that neither *perceived organizational support* nor *willingness to bear cost* is adequately explained from a single perspective. For instance, even *observed frequency of undeserved rewards*, which does not seem to explain *willingness to bear cost* when regressed alongside *overall situation enhancement*, *organizational commitment*, and *expectancy*, affects *willingness to bear cost* through effect upon more direct links with *overall situation enhancement*.

A conclusion that can be drawn from these findings is that it paid off to not presume as existing motivation scholars have presumed that reward directly predicts motivation. By studying the effects of *reward consistency* on select concepts along the causal chain of motivation in the proposed framework, I was able to gain a more complete understanding of the motivation process than has been gained in previous efforts. Moreover, I learned that such simplistic explanations of motivation as the instrumentality and equity viewpoints, (the difference between which has been clarified and the concepts incorporated into my broader conceptualization of *reward consistency*), were not so relevant in this study for directly explaining motivation as for explaining *perceived organizational support* and *willingness to bear cost*, which in turn contribute to *opportunity perception*, and subsequently motivation.

Importantly, this means that if organizational rewards do not fuel *perceived organizational support*, *willingness to bear cost*, or *overall situation enhancement*, it is unlikely to subsequently contribute to motivation. So, for rewards to have a positive role in the motivation process, it is not so much the issue of whether they are intrinsic or extrinsic *per se*, or whether they are attainable and attractive enough, as it is their

potential to improve *perceived organizational support*, *willingness to bear cost*, and *overall situation enhancement*.

For instance, offers or gestures of rewards that merely satisfy superficial targets in attractiveness, attainability, and even goal setting but are held in the hearts and minds of employees with suspicion, distrust, discomfort, or contempt are unlikely to contribute to *perceived organizational support*, *willingness to bear cost*, or *overall situation enhancement*, what may be considered as “the gateways to motivation”. This understanding represents a theoretical breakthrough in reward management in that it provides a powerful alternative explanation for the lack of success of a reward system to motivate. In practice, this advancement in knowledge can help managers to anticipate, and subsequently prevent, many of the so-called “unintended consequences” of rewards or reward systems.

Further Implications of Findings 12, 17, & 23 above: Impact of overall situation enhancement on perceived organizational support, willingness to bear cost, and organizational commitment. Although findings on the individual effects of *overall situation enhancement* have been previously individually discussed, a holistic view of the concept’s multiple effects will give us a full picture of its sphere of influence and significance in the motivation process.

To reiterate, Findings 12 and 17 confirm the direct effects of *overall situation enhancement* on *perceived organizational support* and *willingness to bear cost*, both of which in turn have an effect on *opportunity perception*. In particular, *overall situation enhancement* accounts for greater variances in both *perceived organizational support* and *willingness to bear cost* than all other variables, and that include *reward consistency*, *expectancy*, and *organizational commitment*.

This points to the strategic importance in reward management of facilitating positive change in the overall well-being of employees rather than isolated- or single-aspect improvement in their work or pay. However, the role of *reward consistency* is not to be underestimated in this respect. As a matter of fact, supplemental finding demonstrates that the two dimensions of *reward consistency* together explain more than 40% of the

variance in *overall situation enhancement* (see detailed discussion under Finding 15). This suggests that *reward consistency* is a crucial and indispensable link to *overall situation enhancement*.

Finding 23 verifies the direct effect of *overall situation enhancement* on *organizational commitment*, a mediator of the relationship between environmental perception and *adaptive motivation*. This suggests employees' perceptions of and feelings toward the organization can in part be accounted for on a rational basis. This principle seems to hold true also for the outcome in *perceived organizational support*, in which nearly half of the variance is accounted for by *overall situation enhancement* (see detailed discussion under Finding 12).

In sum, these findings reveal the complex and wide-ranging effects of *overall situation enhancement*, and in so doing suggest numerous ways to improve the connections between organizational rewards and multiple factors in the causal chain leading to motivation. The fact that links between organizational rewards and motivation are not as straightforward as previously understood should not in any way undermine their significance. As a matter of fact, it is the intricacy of these tested relationships that helps strengthen my position for motivation researches to refrain from making oversimplifications and subsequently hasty conclusions about them.

On the practice side, care can be taken to see that organizational rewards perform their proper function in creating net gains and improving the bottom line for members of the workforce. That is to say, if the costs of attaining a reward no matter how desirable, exceeds the benefits sought, outcomes in *perceived organizational support*, *willingness to bear cost*, and *organizational commitment* would almost certainly all suffer. And when they do, it is hard to see how organizational rewards or whatever an organization cares to call them can help lead to motivation.

The implication of this analysis is that as much as it is requisite to assess the costs and benefits of a new incentive scheme to a firm prior to introduction, it would benefit the management to assess its costs and benefits to the workforce also. This is no easy task; it entails a thorough understanding of the hopes and desires, values and preferences of the

workforce in economic, social, and ideological terms, which if not well- understood or balanced, could seriously upset the web of complex relationships between organizational rewards and motivation. For this reason, conducting dual diligence from the perspectives of the firm *and* the employees can make favorable consequences more likely.

Further implication of Finding 20 above: Impact of expectancy on willingness to bear cost. Despite ongoing criticisms about its validity (Pinder 1984) and ability to capture the reality of the individual decision making process (Mitchell and Daniels 2003), *expectancy* as a theory (Vroom 1964; Porter and Lawler III 1968) has dominated the field of work motivation for more than three decades. For this reason, I feel it important to explore the implications of Finding 20 concerning the limited effect of expectancy.

Under Findings 18 – 21, I have previously discussed results of the antecedents of *willingness to bear cost* and contrasted the superior explanatory power of *overall situation enhancement* and *organizational commitment* against that of *expectancy*. A relevant question is: Where does the lesser explanatory power of *expectancy* put the concept in future research? Taken at face value, it would seem that *expectancy* has a very limited role to play. But this limitation must be assessed in view of the dynamics of the workplace under consideration.

For instance, the setting of this study represents a fast-changing and turbulent workplace, one in which individuals faced unprecedented levels of employment uncertainty and compensation risks. In addition, there were ambiguities in management reform as well as operational, workforce, and organizational restructuring activities. The identification of uncertainty and risks illustrates the possibility of an unstable, if not weakened, link between effort and performance. This suggests that the reliability and importance of *expectancy* as a measure by which forces of motivation may be estimated will reduce with the increase in risk and uncertainty in the workplace.

As much as low *expectancy* is a sign of adversity, and *willingness to bear cost* a possible condition even under adversity, it is only reasonable that *expectancy* turned out to be a relatively weak predictor of *willingness to bear cost* in a workplace characterized by

uncertainty and risks. As a matter of fact, low or unstable *expectancy* may not be so much of a unique phenomenon in the reforming Chinese industry as a general trend in the increasingly knowledge-based global economy. This would especially be the case where the level of resources and support fluctuates, performance outcomes are driven by exogenous non-controllable factors such as business cycle effects, and/or management and employees vary in opinion as to what constitutes performance (see detailed discussions in Section 4.3.1 – *Adversity and Expectancy Theory*).

However, all is not lost if productive effort measures low at times or is altogether unstable. In particular, Findings 18 and 20 concerning *overall situation enhancement* and *perceived organizational commitment* suggest that *willingness to bear cost* is sustainable as long as the employees look forward to a better tomorrow and are committed to the organization. Taken together, findings on *expectancy* and other competing predictors of *willingness to bear cost* suggest the need for motivation scholars to refocus attention away from expectancy and toward uncertainty and risks. Indeed, given the current trends and developments in today's fast-changing and complex workplace it would seem less fruitful to dwell excessively on the simplistic notion of *expectancy* than to adapt to a new research agenda of alternative explanations of motivation under uncertainty and risks.

9.3 Limitations and Extensions

My study represents the first attempt that I am aware of to theoretically construct and empirically examine a framework of motivation under uncertainty and risks that concerns members of the workforce who are neither senior executives nor sales personnel. I believe that the evidence and insights gained are valuable, but the study must be considered in light of its limitations. I shall review them in terms of measures, theoretical perspective, and empirical focus. I shall also explore the extensions that could be made of this study in future research.

The first limitation relates to the measures. In a detailed discussion in Chapter 7, I was able to conclude on the scale reliability and sample adequacy of the data. A remaining

concern is the use of self-report scales, which raises the possibility of common method bias producing the results (Crampton and Wagner 1994). Since the variables under examination were attitudinal, it was necessary to assess the perceptions of employees directly. The case of overstated correlations cannot be entirely ruled out, yet it seems highly unlikely. For instance, common methods would have triggered large correlations among the major variables. Although the independent variables of threat and opportunity perceptions have statistically significant correlations with other variables, on the whole the correlations are not large enough to call for any specific concern (see Table 7.2 – *Descriptive Statistics, Reliabilities, Variances Extracted, and Person Correlations* on p. 238). In fact, the significant effects threat and opportunity perceptions have on the outcome in *adaptive motivation* increase my confidence in the validity of the findings.

The second limitation relates to the theoretical perspective. My model emphasizes that the motivation process is complex and cannot be directly estimated by expectancy-based explanations. One may argue that this is true only to the extent that the work environment under consideration is characterized by uncertainty and risks. No doubt it is possible in certain organizations that employment and pay are guaranteed and not contingent in any way upon variable factors such as employee or corporate performance, thus making expectancy applications more relevant and reliable. But then even if there is no variability in environmental factors, there are likely to be individual considerations such as cost concerns associated with not just economic but also the more delicate social and normative issues, which my model takes into consideration and is aimed to tackle.

The third limitation is that I focused my empirical inquiry on two forms of risks – employment and pay. Although employment uncertainty and compensation risks are critical issues in both the Chinese enterprise reform setting as well the global workplace, there are also other types of risks that are relevant to individual employees such as health and safety risks as well as reputational risks (see Degraeve and Nicholson 2004 for a discussion). In explaining motivation under uncertainty and risks in the work setting, which is an unprecedented undertaking, what is perhaps more important is that the proposed framework accounts for and is open to a wide range of economic, social, normative, and other concerns, thus enabling the testing of other (additional) categories of uncertainty and risks should the situation at hand warrant attention to these areas.

Punishment consistency. Several extensions of this study could make significant contributions to a new research agenda of motivation under uncertainty and risks. First, in parallel to the proposed concept of *reward consistency*, which contributes indirectly to *opportunity perception*, an examination of *punishment consistency* would be helpful. We could then better understand how *punishment consistency* and *threat perception* are directly or indirectly associated. Although I was mindful in this study of the potential impact of *punishment consistency* and have as a matter of fact included four questionnaire items (namely, I.2, I. 3, I.5 and I.17) to test its effects, the scale had to be excluded from the analysis due to outcome in low reliability.

Antecedents of *risk of noncompliance* and *pressure to perform*. A second extension could be the further development of variables to predict *risk of noncompliance* and *pressure to perform*, both of which in turn predict *threat perception*. As the research framework now stands, no explanatory variable of *risk of noncompliance* is available. Although I was able to verify my hypothesis with empirical evidence that *risk of noncompliance* influenced *pressure to perform*, the R^2 is below a 0.2 level with only one explanatory variable. By exploring the dynamics that bear on *risk of noncompliance* and *pressure to perform*, we could learn much more about the causal chain leading to *threat perception*. After all, at least based on the findings of this study, employees had relatively higher levels of *threat perception* than *opportunity perception* under the employment and wage reforms. So knowing more about what makes employees feel threatened is an essential step forward.

Alternative expectancy. A third extension of this study is the further development of a variable that can help explain *willingness to bear cost* better than has been possible in the current study. My particular concern is the finding that the four proposed explanatory variables – *overall situation enhancement*, *organizational commitment*, *reward consistency*, and *expectancy* – together explain less than 30% of the variance in *willingness to bear cost*. It therefore seems likely that an additional strong predictor has to yet to be identified. A possible contender is the notion of *alternative expectancy*, i.e., the extent to which the individuals believe that there is some other (or better) alternative means for them to achieve an end, based on their own perception (Sun 2001b).

In light of the fact that an increasing number of today's work roles are characterized by complexity, ambiguity, and uncertainty (see Pelled, Eisenhardt et al. 1999; Smithson and Lewis 2000), *alternative expectancy* seems to be a particularly poignant measure as workers operate under uncertainty and risks and the links between input, performance, and reward are neither clear nor straightforward (ILO 2001: 147 - 161). Under these circumstances, a worker may be motivated to "do his best" despite low or uncertain perceived input-outcome expectancy because "there is no other way."

My study aligns well with research on risk in the decision sciences and executive pay literatures. I have included in my analysis the notion of risk aversion in my conceptualization of *risk of noncompliance*, which affects *threat perception* directly as well as indirectly through its effect on *pressure to perform*. But there are other existing concepts especially in the decision sciences that can be further explored to help enlarge understanding of employee threat and opportunity perceptions I modeled in my study. For example, existing concepts of preference for status quo, endowment effect, and overcompensation (risk homeostasis) also contribute to risk psychology. These issues are beyond the scope of the present study, but they may provide fertile ground for subsequent studies on motivation under uncertainty and risks.

9.4 Conclusion

Overall, evidence in this study appears to be supportive of my view that environmental perception affects *adaptive motivation* in a fast-changing and turbulent workplace. Importantly, risk and pressure influence *threat perception* while support and cost bearing influence *opportunity perception*. When employees are approving of the level of *overall situation enhancement* and *reward consistency*, they see the organization as supportive. Moreover, when they are impressed with the *overall situation enhancement*, *reward consistency*, and productive effort and are themselves committed to the organization, they find it worthwhile to bear the requisite costs of success in their jobs.

Reciprocal effects are also at play. Above all, when employees are pleased with the level of *overall situation enhancement* and of organizational support, they become more

committed to the organization that helps and cares for them. At the same time, *organizational commitment* mediates the relationships between environmental perception and *adaptive motivation* in the sense that it broadens the employees' capacity to cope in adversity and to rise to new challenges.

The various implications for theory and practice of a total of 23 findings have both been discussed in detail and summarized in Tables 9.1 and 9.2 above. What is particularly noteworthy in this closing section is that the motivation process proves to be more complex, and indeed fascinating, than has been previously understood. In sum, the most significant advancement in knowledge of this study is in relation to threat.

As demonstrated by the influence of *threat perception* on *adaptive motivation*, the effects of probable punishments are just as influential as the potential effects of rewards. This is consistent with the finding in the growing behavioral economics literature (Kahneman and Tversky 1979; Thaler 1980; Tversky and Kahneman 1981; Kahneman and Tversky 1982), which showed that individuals view risk concerning perceived losses with a higher level of sensitivity and attention than they view risks concerning perceived gains.

In other words, *ceteris paribus*, protection motivation is a stronger driving force than achievement motivation. This insight, when understood in light of my finding that employees perceived more threats than opportunities under employment and wage reforms, suggest that the neglect of "threat" in work motivation research will risk leaving more than half of the puzzle unresolved in any work setting where there is significant level of uncertainty and risks.

Chapter 10

Conclusion and Outlook

This chapter consists of three components. Section 10.1 summarizes the study and its major findings. Section 10.2 discusses the implications for organizational approaches to motivation and for the role of risks in motivation research. Section 10.3 reviews the contributions of this dissertation and provides directions for future research.

10. Conclusion and Outlook

This thesis contains first and foremost the theoretical development of a model to explain adaptive motivation under China's employment and wage reforms, which brought about the harsh, unprecedented reality of "survival of the fittest" for state industry as a whole and for its 100 million-strong workforce. Uncertainty and risks are accounted for in the proposed research model like no motivation theory has done and amply attested to by the findings of the empirical study. This chapter is a summary of the most significant themes of the thesis and a statement of its paramount purpose.

10.1 Summary of this Research

I have tried to capture in this study the role of uncertainty and risks in motivation. The desire for this unconventional and admittedly ambitious undertaking stemmed from my firsthand observation of the individual motivation process in the enterprise setting of China's employment and wage reforms. Being fast-changing and turbulent the environment under consideration was embedded in a multitude of uncertainty and risks at both enterprise and individual levels. But there did not seem to be a work motivation theory that considered uncertainty and risks. It therefore became clear to me that the solution to my problem was to embark on the development of a research model to explain what I have identified in my research setting as a form of "adaptive motivation", that is, individuals' motivation to adapt to new and changing environmental demands and challenges in their jobs.

Basis of proposed model. I adopted an interdisciplinary approach, which incorporated insights on motivation and behavior under risks from 10 different social sciences disciplines ranging from evolutionary economics to decision science to strategy and international conflict resolution (see complete listing in Table 6.1 – *Definitions of Key Variables*). The result is a model of "environmental perception and adaptive motivation" (see Figure 6.1 – *Proposed Antecedents of Environmental Perception and Adaptive Motivation*). Importantly, the framework (1) captures with a more intricate and balanced

treatment what leading theories considered in relation to expectancy and equity; and at the same time (2) explores what existing theories have overlooked, that is, the complementary forces of pressure and support, and of risk and cost-bearing, and their respective effects on *threat perception* and *opportunity perception*, which in turn bear on *adaptive motivation*.

The findings of my empirical study based on a sample of 1,134 questionnaire surveys indicate that adaptive motivation has increased as a result of employment and wage reforms for the vast majority of the employees surveyed. As regards influences of the conventional concepts of expectancy and equity theories, my findings somewhat contradict those of existing studies, which presumed that the motivational effects are direct and automatic. In keeping with my propositions, my findings indicated that *expectancy* and *reward consistency* contribute to motivation indirectly through their effects on *perceived organizational support* and *willingness to bear cost*, which in turn affect *opportunity perception* and subsequently *adaptive motivation*.

Provocatively, this suggests that rationality-based calculations, (which guided the thinking of existing theories), will affect motivation to the extent that they influence individual perception of support and resolve on cost bearing (see Chapter 9 for a detailed discussion). But since considerations affecting individual perception of support and resolve on cost bearing are potentially multi-faceted, the effects of expectancy and equity should be explored in conjunction with other potential factors (such as personal preferences and ideological concerns) rather than being untenably overestimated, as existing studies had allowed to happen.

Environmental perception and adaptive motivation. Moving to the core argument of my research on “environmental perception and adaptive motivation”, results of regression analyses are clearly in favor of the view that threat and opportunity perceptions are drivers of *adaptive motivation*. In fact, the twin concepts of threat and opportunity perceptions are found to have significantly greater explanatory power than that of expectancy and equity combined, which were also tested with the same data. If motivation under adversity is a phenomenon whose antecedent forces are beyond the

grasp of existing theory, which was proven the case in this study both conceptually and empirically, then the proposed model is a realistic alternative to current frameworks.

To support this argument, it suffices me to point out that threat and opportunity perceptions together with the mediation of *organizational commitment* explained more than 50% of the variance in the outcome in *adaptive motivation*. The result implies a coherent understanding and that is, in times of organizational adversity and/or crisis, when instrumentality is least expected to play a major role in the motivation process, ideologically and morally based mentality and sentiments (as manifest by the Chinese workers in the form of a deep-rooted commitment to the state-owned enterprise, which symbolizes the state), are likely to magnify their mediating influence in the face of pressing environmental demands and challenges.

In terms of the independent effects of threat and opportunity perceptions, what is particularly noteworthy is that *threat perception* had a nearly equal impact on *adaptive motivation* as opportunity perception under the employment and wage reforms. Furthermore, results demonstrate that risk and pressure, (as measured by *risk of noncompliance* and *pressure to perform*), significantly influence *threat perception* while support and cost bearing, (as measured by *perceived organizational support* and *willingness to bear cost*), significantly influence *opportunity perception*. What is important to bear in mind is that *adaptive motivation* is at its best or highest level when *both* threat and opportunity perceptions are high.

Motivating with threat effects. While threat has its limitations (Nicholson 2003), it seems clear from the findings of this study that promoting individuals' recognition of opportunities *and* threats in the environment while providing support to help them succeed can enhance adaptive motivation in a fast-changing and turbulent workplace. Notwithstanding the insights gained from existing threat literature, the purpose and execution of the proposed threat effects are strategically different from the brutal use of managerial threats, whereby the "threatener" has the upper hand (see Boulding 1978); the threat effects of unionism on wage determination (see Freeman, Ichniowski et al 1985), and the international conflict negotiator's claim of "If you don't do this, I'll do that" (see Tedeschi 1970).

In essence, it is not to coerce the adversary to submit to one's will as such, but to forearm the threatened to adapt to formidable environmental demands and challenges. The threat effects behind adaptive motivation relate to pressing environmental issues that bear on the organization and its members to the extent that it creates a shared destiny and desire in them to work together to counteract and systematically overcome external threats. For example, as identified by management of my research organization, The Steel Conglomerate, the source of threat was intensifying domestic and global competition and the risks of organizational decline and bankruptcy. Accordingly, the strategic direction of the enterprise was to "catch up" with (rather than be hit by) the domestically competitive and internationally vibrant iron and steel businesses and the focus of its socialization campaign, preparedness.

The notion of preparedness is not new; it too was the focus of advertising campaigns of nations that came under threat, albeit of a distinct category. For example, September has been earmarked as National Preparedness Month "to educate and empower American citizens to prepare for and respond to potential attacks and other emergencies" (Homeland Security 2005). Having been "prepared" for similar attacks and emergencies, British citizens were able to produce "an incredible response of stoicism, of discipline and order" when faced with similar challenges (Mayor of London 2005). Whether it is in relation to nations, organizations, or individuals, the idea behind the proactive coping strategy is the same: "If ye are prepared, ye shall not fear" (D&C 38:30). As such, the proposed threat effects are of a positive and adaptive nature in that they create an urgent sense for preparation and in so doing drive motivation, *even under uncertainty and risks*.

The value of threat effects lies then in its potential of (1) bringing institutions (governments and organizations alike) and individuals together; and (2) giving them a common cause and objective to prepare and be at their best in adapting to changing environmental challenges and demands, as has also been powerfully demonstrated at The Steel Conglomerate.

Best practice in Chinese management. In the state sector's adaptation to economic self-reliance under the economic reform, the establishment of employment and wage systems that effectively prepare the industry's 100 million-strong workforce for the

market-led environment is a pressing issue. A common practice in advancing the reforms has been for the state to “pick the winners” and widely publicize their successes. There are great potential gains associated with this and there are risks as well. The potential for emulating the success of best practices is present, and salutary impact of accelerated reforms based on this approach is indeed possible, but not a foregone conclusion. Moreover, given the peculiar conditions and circumstances of individual enterprises (*changing*), it is uncertain how many enterprises can reap the advantages of the so-called best practices without subjecting themselves to the painstaking processes of trial and error. The critical issue is the ambiguity associated with the applicability of best practices across different enterprises.

Reformers at the state and industry levels who advocate and embrace the dualistic approach to reward and punishment (with which the concepts of opportunity and threat perceptions are congruent) in transforming the state sector are perhaps well versed with the legalistic origin (*fajia*) of this ancient management philosophy (see Fu 1996 for a discussion). However, they seem to lack any unified and effective framework for organizing and understanding the facts and patterns that evolve once these ideas are put into practice. This study represents a major step in a much-needed direction in providing theoretical justification for the success of innovative reform measures at The Steel Conglomerate and specifying the conditions under which a similar level of success in workplace reforms may be realistically pursued by other enterprises.

10.2 Implications

In the wake of “deepening of reforms” in modern enterprise management and in national employment and wage policies, Chinese enterprises and their workers alike have been confronted with unprecedented levels of uncertainty and risks. Along with the nation’s WTO accession, acceleration of the dismantling of previous industry policy and the “creative destruction” of outdated industrial plants to liberate capital for infusing the small and medium-sized enterprise sector (see Lee 2000) is set to take place. These developments are of great importance not only for China, but also for developing

countries as a whole, and indeed, for the entire structure of world political economy in the twenty-first century (Nolan 2001: xxiii).

From a global perspective, it is no coincidence that, as we enter the new millennium, questions regarding the impact of the changing environment, evolution of the adaptive and flexible workforce, and emergence of the insecure workplace are arousing intense discussion in industrial relations and other related disciplines. Compared to the stable, predictable, and incentives-laden workplace all too often taken for granted by work motivation theories of the 1960s – 1980s that have continued to dominate the field, the organizational environment has today changed beyond all recognition.

My study represents an attempt to bring such change into focus and provide a framework therein to guide research and practice. In particular, the proposed framework and its findings have important implications for organizational approach to motivation and the future role of risks in motivation research. The newfound directions outlined in the succeeding analysis are likely to develop and take root, as a retreat to an exclusive – or even dominant – focus on the stable and predictable organizational environment appears unlikely due to the inexorable processes of competition set in motion by globalization and other formidable forces of change.

10.2.1 Rethinking Organizational Approaches to Motivation

Many of the existing theories in work motivation have been developed with the assumption that environmental factors are simplistic, well defined, stable, and predictable (see discussion in Section 5.1 of Chapter 5). The most critical future developments in motivation research with respect to the world risk society (Beck 1992; Beck 2000) and the insecure workplace therein (Hartley, Jacobson et al. 1990; Heery and Salmon 2000) may come from overturning this fundamental assumption.

As demonstrated by the proposed model of “environmental perception and adaptive motivation” and the accompanying empirical evidence in this study, the notion of environmental change (as opposed to a stable environment) has potential for expanding

our understanding of motivation in a fast-changing and turbulent workplace. Before proceeding to a consideration of an alternative approach to motivation in view of that, it seems meaningful to place this bold and potentially controversial suggestion within a framework of existing vs. emergent organizational approaches to motivation. Such a framework would serve as an instrument not only for systematically assessing first and foremost the efficacy of the existing approach in tackling some of the most poignant issues in today's work environment but also for laying the foundation of my argument for the emergence of a new "environmental change model" of motivation.

As shown in Table 10.1, the framework consists of three analytical components – assumptions, policies, and expected motivational outcomes. These components are predicated on and modeled after the work of Miles, Porter, and Craft (1966) and Steers and Porter (1991). In fact, details in the table concerning the existing approach, which encompasses the human relations and human resources schools, represent a direct adaptation of the work of these important authors. As seen in the third column of the table, however, the framework goes above and beyond the existing approach to include what I shall argue below as the emergent, environmental change model of motivation.

Limitations of the Human Relations and Human Resources Schools

Despite the fact that large-scale, complex organizations have existed for several hundred years, managerial attention to the role of motivation in such organizations is a most recent phenomenon (Steers and Porter 1991: 14). Much of the discussion past the era of scientific management, especially since the early 1930s, has to do with the assessment of the relative advantages of different approaches for ameliorating contemporary motivation problems from withheld effort on the job to absenteeism to voluntary turnover. In particular, two schools of thought – the human relations and human resources models – stand out as the most influential in guiding the development in the field for a total of more than 70 years up to now.

Table 10.1
Existing and Emergent Patterns of Organizational Approaches to Motivation

Existing approach		Emergent approach
Human relations model	Human resources model	Environmental change model
Assumptions		
<ol style="list-style-type: none"> 1. People want to feel useful and important. 2. These needs are more important than money in motivating people to work. 3. People desire to belong and to be recognized as individuals 	<ol style="list-style-type: none"> 1. Work is not inherently distasteful. People want to contribute to meaningful goals which they have helped establish. 2. Most people can exercise far more creative, responsible self-direction and self-control than their present jobs demand. 	<ol style="list-style-type: none"> 1. People need to feel a sufficient level of pressure to perform in their jobs. 2. When faced with high levels of environmental uncertainty and risks in their jobs, people particularly need to also feel that the organization is there to help them succeed.
Policies		
<ol style="list-style-type: none"> 1. The manager's basic task is to make each worker feel useful and important. 2. He or she should keep subordinates informed and listen to their objections to his or her plans. 3. The manager should allow subordinates to exercise some self-direction and self-control on routine matters. 	<ol style="list-style-type: none"> 1. The manager's basic task is to make use of "untapped" human resources. 2. He or she must create an environment in which all members may contribute to the limits of their ability. 3. He or she must encourage full participation on important matters, continually broadening subordinate self-direction and control. 	<ol style="list-style-type: none"> 1. The organization's challenge is to strike a balance between warding off the tendency to slack by imposing sanctions and unleashing the potential to excel by offering incentives. 2. Ways to achieve this include: <ol style="list-style-type: none"> (a) Strict compliance to both punishment consistency and reward consistency i.e., no exceptions and no double standards. (b) Provision of productivity-enhancing resources, training, and guidance. (c) Continual investment in enhancing the well-being of the worthy.
Expected Motivational Outcomes		
<ol style="list-style-type: none"> 1. Sharing information with subordinates and involving them in routine decisions will satisfy their basic needs to belong and to feel important. 2. Satisfying these needs will improve morale and reduce resistance to authority – people will "willingly cooperate". 	<ol style="list-style-type: none"> 1. Expanding subordinate influence, self-direction, and self-control will lead to direct improvements in operating efficiency. 2. Work satisfaction may improve as a "by-product" of subordinates making full use of their resources. 	<p>Raising individuals' awareness of <i>and</i> preparedness for threats <i>and</i> opportunities in the business and organizational environments will help motivate them to adapt to new and changing environmental demands and challenges in their jobs.</p>

Source of existing approach: Steers & Porter's (1991) and Miles, Porter, & Craft (1966).

Source of emergent approach: Supportive findings of the proposed model of *Environmental Perception and Adaptive Motivation*.

Human relations model. The human relations school (Mayo 1933; Roethlisberger and Dickson 1939; Mayo 1945) views motivation largely as a social process whereby the supervisor's role is not simply that of a taskmaster but also a guide and counselor who understands and sympathizes with the needs and desires of the workers. In contrast to the scientific management school, the human relations school does not assume people as "typically lazy, often dishonest, aimless, dull, or mercenary" but that they actually want to feel useful and important. As a matter of fact, it goes so far as suggesting that these intrinsic needs are more important motivators than extrinsic incentives.

Based on this rationale, importance is placed on the manager's role to fulfill the intrinsic needs of employees, inform and consult with them on important matters affecting them, and maintain a two-way dialogue and communication with them. For the most part, it advocates a certain degree of autonomy and self-direction on day-to-day activities. The expected motivational outcomes of these employee-friendly policies are that rather than being adversarial or confrontational, workers will be more willing to cooperate and overall morale will improve (see Steers and Porter 1991 for a review).

Human resources model. Although the human relations school has dominated the field for no less than three decades up to at least the early 1960s, alternatives were being sought as both the real and the relative success of related policies diminish in the face of growing concern for complex set of factors that may motivate different individuals. The human resources approach, which has been referred to under various different titles: McGregor's (1960) "Theory Y", Likert's (1967) "System 4", Schein's (1972) "Complex Man", and Miles' (1965) "Human Resources" model, in general takes on a considerably less idealistic and more progressive approach than the human relations school.

The core argument of the approach is that people have complex and multiple needs and that different types of incentives will appeal to different people. It assumes that people are to a certain extent self-motivated and therefore willing and ready to contribute to meaningful goals especially if they have had a part with setting these goals. This means that given increased autonomy and empowerment in decision-making on the job, work can be far from being unpleasant or distasteful.

In fact, it is argued that employees can attain a sense of job satisfaction from undertaking and accomplishing meaningful roles and tasks by way of self-direction and control. It is thus up to the manager to create an environment that is conducive to putting workers' talents and capabilities to best use, such as with job redesign and enrichment in task variety and responsibility. The expected motivational outcomes of these empowerment and development-oriented policies are improvements in both operating efficiency and job satisfaction. The key is not managerial command-and-control but employee self-direction and restraint (see Steers and Porter 1991 for a review).

Relevance of an Emergent, Environmental Change Model

Apparently, the human relations school has its benefits in pacifying and subsequently securing a higher level of cooperation from an otherwise adversarial or confrontational workforce especially when unionism was in its hay day. Similarly, the human resources approach could improve job satisfaction and perhaps even operating efficiency by focusing on employee development and empowerment at a time when high voluntary turnover threatened internal organizational stability and competitiveness. The substantial achievements of these approaches in the past, however, are not sufficient for understanding motivation in today's fast-changing and turbulent workplace. The expectations of performance are changing. Traditionally, work performance has meant the satisfactory fulfillment of well-defined and specified job descriptions, and motivation the direction, strength, or persistence of work effort.

Over time, the nature of performance has given way to complex and constantly changing requirements. The concern for productivity has not disappeared and issues of adaptability and flexibility have been added to the mix (Howard 1995; Ilgen and Pulakos 1999; Pulakos, Arad et al. 2000). Accordingly, firms have become more concerned about the pursuit of an adaptive and flexible workforce (Lane 1991; Smith, Ford et al. 1997; Kozlowski, Gully et al. 1999). As emergent nonmember-based organizations (NMO) concerned with the well-being of workers are seen struggling to develop strategies and tactics to survive and expand in an economic environment where traditional unionism is greatly weakened (Freeman and Hersch 2005), so are individuals expected to struggle and adapt to new and changing challenges and demands at work.

Despite the sea change in the expectations of organizations regarding the motivation and performance of their workers, alternatives to the existing approach seem to have arisen only in the form of a “contingency approach”, which incorporated the use of both the human relations and human resources models at one time or another (see Steers and Porter 1991). My premise is that the considerable body of knowledge about the pressing need for a flexible and adaptable workforce (Smith, Ford et al. 1997; Auer and Speckesser 1998; Ilgen and Pulakos 1999) has an important place in motivation in today’s complex and fast-changing workplace.

This is not to suggest that the human relations and human resources model have outlived their usefulness; rather, it is to suggest that we should at the same time be conscious of additional knowledge about the changing nature and expectations of today’s workforce in the broader industrial relations and organization literatures to help recognize a new, “environmental change approach” to motivation.

Environmental change model. A motivational tool that works in today’s environment needs to be realistically in tune with the pace and magnitude of changes confronted by organizations today. With reference to the existing approach outlined in Table 10.1, I shall review the contrasting assumptions, policies, and expected outcomes of the emergent approach I refer here as the “environmental change model”. A main feature of this model is that, rather than being wishfully prescriptive, its elements have their origin in the conceptualization of the proposed research framework and its empirical findings (see Figure 8.3 – *Tested Antecedents of Environmental Perception and Adaptive Motivation* for an overview).

In particular, it reveals with timeliness a new organizational approach to motivation through the window of China’s employment and wage reforms. Because the reality of employment uncertainty and compensation risks (if not also of other risks) are as direct and immediately recognizable for individuals in other parts of the world as they are for Chinese workers, the new, emergent organizational approach to motivation is likely to have a universal application in workplaces characterized by uncertainty and risks.

As summarized in the third column of Table 10.1, the basic assumptions governing the “environmental change model” of motivation are: (1) rather than being left to their own free agency (an assumption firmly held by the existing approach), people need to feel an adequate level of pressure to perform in their jobs; and (2) when faced with high levels of environmental uncertainty and risks in their jobs, such as those concerning their employment and compensation, people particularly need to also feel that the organization is there to help them succeed. In other words, the ideal situation for people to be motivated to adapt to the changing and challenging demands in their jobs is to experience adequate pressure on the one hand and sufficient support on the other.

Given these conditions for motivation, the organization’s challenge is thus to strike a balance between warding off the slightest temptation or tendency to slack with the deterrence of sanctions and unleashing the desire or potential to excel with the enticement of incentives. There are at least three ways that will help an organization establish such a balance. First, the organization needs to ensure strict compliance to both punishment consistency and reward consistency in not making exceptions or allowing double standards in the enforcement of organizational punishments and rewards. This will help reduce confusion about what justifies punishment and what merits reward.

Second, the organization needs to take the initiative to provide the requisite resources, training, and guidance to enhance productivity at times when additional performance expectations and demands are imposed on the employees. If, however, the organization left the employees to themselves to confront substantial challenges without help or assistance, it would be unlikely for them to develop the trust and respect for the organization to the extent that they would be willing to reciprocate in contributing to its continued success. The practical and/or symbolic significance of organizational support cannot be emphasized more especially in situations of adversity where success or performance is subject to many uncontrollable factors and is therefore hard to come by or has no guarantee.

Third, the organization needs to continually invest in the advancement of the interests of members of the workforce who work hard for the success of the firm. This appears to be one of the most trying challenges facing the organization that operates under mounting

pressures to streamline and cut-costs in order to stay in business. While it is not always realistic for the organization to find substantial extra budget to invest in the economic well-being of workers when it is under severe financial constraints, the proposed course of action may nevertheless in some measure be fulfilled by making sure that managerial staff and chief executives do not (continue to) enjoy unjustified privileges and payouts whilst workers are unfairly left to bear its negative consequences.

In this respect, valuable lessons may be learned for the Chinese enterprise as well as the Western firm from their Japanese counterpart that managed to win the hearts and minds of the workforce by investing in their “emotional well-being” in times of adversity, that is, taking the lead to cut managerial and chief executive compensation first and in much larger proportions to pay cuts for ordinary staff. Another area the organization can invest in without having to come up with a large financial budget is by introducing work practices that would help contribute to work-family balance. Examples are flexi-work schedules and other family-friendly work arrangements (ILO 2001).

In sum, with the contemporary concern of motivating workers to adapt to new and changing environmental demands and challenges in their jobs, the solution is no longer just the creation of job enrichment and decision-making opportunities suggested by the human resources school or making workers feel useful and well cared for proposed by the human relations model. The assumptions reviewed above of the emergent, environmental change model observed in the setting of the Chinese enterprise illuminate the pressing need for more demanding and multifaceted organizational policies.

In particular, it seems that the empirically proven motivational approach of my research organization in strategically raising the workers’ awareness of and subsequent preparedness for environmental threats and opportunities sustained through a fine balance of pressure and support could be of tremendous value to enhancing *adaptive motivation* and performance in other organizational settings. Although the reforming Chinese industry has its unique environmental challenges and demands, what is critical is that, like the Chinese enterprise, today’s organizations in general are faced with an unprecedented level of environmental uncertainty and risks, which are increasingly being transferred in different shapes and forms beyond the ranks of senior executives

and commission-based sales staff to ordinary members of the workforce (Beck 2000; Heery and Salmon 2000; Nolan, Wichert et al. 2000).

The usefulness of the emergent, “environmental change model” in guiding adaptive motivation thus has significant potential outside the peculiar setting in which it is first identified and hereby conceptually accredited.

10.2.2 The Future Role of Risks in Work Motivation Research

The Strange World With No Risk

Although the fact does not seem to be recognized explicitly, existing work motivation theory is predicated on the assumption that no risk is involved with the individual’s low or lacking in motivation. This stance suggests that motivation is all about achieving additional gain or improving the status quo. As such, motivation could stem only from the motive to achieve but not also the motive to protect (see Chapter 5 for a discussion on the distinction between the two). At first glance, such a generalization may appear to be both innocuous and highly useful to analysis, because then scholars can focus on the more socially desirable and research-accessible effects of incentives. But such an approach is not without costs to the field of motivation.

In the rarefied world of zero risk, for instance, individuals can supposedly choose what to do and the consequences thereof. There is nothing to lose as a result of one’s actions. Individual employees can decide without any undesirable or negative consequences in sight, as to how or how much they work. They have total discretion and liberty and, hence, are inclined to put forth their efforts only in the hope of reward, rather than for fear of punishment. Pressure, in all its forms, is therefore only self-generated.

Consequently, there can be no externally imposed costs involved with the individual’s lack of response to the call to contribute one’s best or adapt to changing requirements and expectations at work. As such, the power of coercion and disciplinary action lies exclusively within the individual. Quite simply, then, it seems that the context in which

motivation is assumed to take place is remarkably specialized and indeed, remote from reality. One only has to note the magnitude of employment and compensation risks in today's workplace to find this a gross misrepresentation of the world of motivation.

Although it is acknowledged in the motivation literature that punishments exist and are actually found to have an effect on absenteeism (e.g., Ford 1981; Harvey and Nicholson 1993), positive reinforcement is generally regarded as more effective than punishment in motivating employees (see Kreitner and Luthans 1984). Notwithstanding the absence of profound justification, the idea that reward is what really matters is so entrenched that motivation studies to date remain focused on rewards.

The serious neglect of punishments in motivation research may have been a direct result of the field's isolation from other disciplines. It is possible that the more a discipline isolates itself intellectually, the greater the chances of employing unrealistic and outdated assumptions about the subject matter concerned. Not surprising, risk is extensively discussed in other disciplines, ranging from economics to decision science to international conflict and negotiation (see discussion in Sections 4.1 – 4.2; and Section 5.2). It therefore seems that a sensible corrective measure in this respect is to explore, as I attempted to do in this study, other social sciences disciplines that examined risk.

Reckoning Risks

In determining the future role of risks in work motivation research at the conclusion of this study, an important consideration is how prevalent risks are in the context of today's workplace. In this regard, Steers, Mowday, and Shapiro's (2004) account of the changing contemporary workplace is worth noting:

“Today's workplace is characterized by an increasingly short-term focus, time as a critical performance variable, increasing interdependence among employees (often manifested in some form of team organization), evolving affective responses to the workplace experience, increasing value and motive conflicts on the part of the employees, and a clear recognition of the transitory nature of careers ” (Steers, Mowday et al. 2004: 384).

In this succinct description, one can straightforwardly identify six characteristics by which today's workplace has evolved: (1) short-term focus, (2) time pressure, (3) interdependence, (4) affective responses, (5) conflicts, and (6) transitory careers. Each element reflects the common forces of a contingent economic environment (intensifying competition, rapid organizational changes, and the call for adaptive flexibility), with inevitable negative consequences of inadaptability or noncompliance to continually revised standards and requirements. As shown in Table 10.2, the manifestations of these characteristics are clearly and immediately relevant to the ordinary employees, with risks as a common denominator despite the area of impact.

Characteristic 1, short-term focus, emphasizes rapidly changing market conditions and environmental demands (Miles, Snow et al. 1997) as the driver and the introduction of policies to minimize costs on the one hand and maximize organizational flexibility on the other. Not surprisingly, on the labor front, permanent employment is being increasingly replaced by fixed-term labor contracts (Treu 1992) (as has been the case for all 100 million of China's state industry workers), if not other forms of precarious work that promise no security or guarantee of pay or employment for the long term. The results are unprecedented levels of employment and employment risks. These risks are further magnified in the absence of alternative employment and income opportunities.

Table 10.2
Some of the Characteristics of the Changing Contemporary Workplace

Characteristic	Manifestation	Example of risks
1. Short-term focus	Fixed-term labor contracts	Employment and income risks
2. Time pressure	Nonnegotiable deadlines	Noncompliance and health risks
3. Interdependence	Team organization	Performance and compensation risks
4. Affective responses	Negative response to inequity	Political risks
5. Conflicts	Irreconcilable goals	Performance and ethical risks
6. Transitory careers	Contingent/project-based work	Career investment and income risks

Note: The list on the left is based on Steers, et al.'s (2004) description of the changing workplace. Rather than being exhaustive, it is meant to list characteristics recently recognized by experts in the field.

Characteristic 2, time pressure, emphasizes the impact of time-based competition on time as a critical performance variable. The speed of product development, response to customers, and problem solving all have dramatic effects on today's organization and employee (Waller, Conte et al. 2001). In manufacturing in particular, it is noted that the deployment of just-in-time and total quality management resulted in intensified surveillance, discipline, and control (Edwards and Whitston 1991; Edwards, Collinson et al. 1998), with severe penalties attached to underperformance or the failure to comply. Since heightened time pressure, as most commonly manifested in the form of clear, unmistakable deadlines, will necessarily lead to work intensification and excessive work-related stress unless skill or technology is improved (Green 2001), its multiple consequences will give rise to both noncompliance and health risks.

Characteristic 3, interdependence, relates to the emergence of the team organization that results in coordination and cooperation as well as conflict and tension between individual members of a team. The development of the team as the basic operational unit may be attributed to the call for adaptive flexibility (Lane 1991) that is vital to continued survival and success in today's evolving and complex business environment. Although distributing work to teams shifts the unit of responsibility of work from individuals to teams, individuals are the ones who get promoted, transferred, trained, and rewarded in organizations (Ilgen and Sheppard 2001). As a result, where means interdependence is high, i.e., the degree to which the task that one team member faces is significantly affected by the performance of another team member (Beersma, Hollenbeck et al. 2003), individual exposure to performance and compensation risks are also expected to be high.

Characteristic 4, affective responses, emphasizes emotions that could both aid and impede individual adaptation and survival in the work setting. As Seo, Feldman Barrett, and Bartunek (2004) point out, positive emotions can enhance creativity and flexibility (Isen, Daubman et al. 1987) as well as proactive coping in adversity (Aspinwall and Taylor 1997). On the other hand, negative emotions such as those that may be harbored toward events of organizational injustice could have dire consequences especially in times of organizational crisis or decline. During these times, negative affective responses may typically not be seen as appropriate or sensible, even if the injustice or adverse condition itself could be objectively established. As new threats of job loss and pay cut

demand new responses to inequity and other adverse situations at work, so are the political risks involved in negative affective responses likely to increase.

Characteristic 5, conflicts, emphasizes awareness and/or experience of discrepancies, incompatible desires, or irreconcilable goals (Boulding 1963) amidst conflicting demands in modern-day work life. For example, it is no longer unusual for individuals to be given multiple tasks, if not also put on multiple work teams, with competing deadlines and demands. The allocation of resources across competing demands is thus a common issue faced by executives and workers (Sawyer 1990). In the decision process, protected values, i.e., those that resist trade-offs with other values, particularly economic values (Baron and Spranca 1997), including ethical concerns and other normative issues and preferences such as work-family balance, are likely to be most at risk. While consequences of performance deficit in today's insecure workplace need no further elaboration, tension between performance and ethical risks is expected to be high.

Characteristic 6, transitory careers, emphasizes some of the most aggressive labor utilization strategies aimed at reducing cost and increasing organizational flexibility. For example, functional flexibility involves the training and using of labor across functional boundaries, engaging workers in a wider range of duties than their job titles suggest to the extent that their involvement could be systematically adjusted upward, downward, or horizontal in grade terms (Reilly 2001). In addition, numerical flexibility enables the employer to readily alter the size of the workforce to meet the changing demand for labor through the processes of externalization, i.e., the use of fixed-term contractors, seasonal or casual labor, temporary agency staff, ex-employees, consultants and freelancers, interim managers, and outsourcing of the whole activity to a subcontractor (Treu 1992; Reilly 2001; Kalleberg 2001b). What accompany these transitory work arrangements are higher levels of career investment and income risks.

Although this discussion touches only on some of the characteristics of the contemporary workplace, they attest in great measure to the realities facing individuals today especially in terms of the unprecedented scope and magnitude of uncertainty and risks evident in global economy (Lavigne 1995) and in today's fast-changing and turbulent workplace. Indeed, the recognition of these developments by Steers, Mowday,

and Shapiro (2004) and the groundbreaking works on the world risk society of Beck (1999; 2000) and on the “insecure thesis” of Heery and Salmon (2000) all pointed to the remarkable aptness and urgency of giving risks a proper role in motivation research.

In the following section, I will review the contributions of this dissertation and explore what needs to be investigated beyond this study to improve our understanding of motivation under uncertainty and risks.

10.3 Contributions and Directions for Future Research

Advancement in research and theory. Notwithstanding extremely high research barriers and the absence of an existing research framework that seemed fitting for the situation at hand, this study has fulfilled its mission of providing a firsthand evaluation of the dual motivational effects of China’s wage *and* employment systems reform, by far the world’s most substantial and far-reaching workplace reform of its kind.

This dissertation has two main theoretical contributions: (1) the model of “environmental perception and adaptive motivation” has yielded more convincing empirical support than existing theories, which were tested with the same primary dataset of more than 1,000 workers; and (2) the framework may be used to rigorously and analytically assess the timely phenomenon of “motivation under uncertainty and risks” in work settings with two unique advantages over rival approaches:

- (A) The proposed model benefited from the insights of a wide range of social sciences literature to bear on individuals’ motivation to adapt to new and changing environmental demands and challenges in their jobs; and
- (B) It sets a new agenda and direction for future motivation research. Instead of dwelling on the long-embraced and seemingly secure premise of a stable and predictable environment of existing work motivation theory, it explores issues of threats and opportunities facing individuals in the process of adaptation for survival and growth in a fast-changing and turbulent workplace.

Contribution to practice. In the organization's call for adaptation and survival amidst intensifying global competition, rapid technological changes, and increased resources constraints, the implementation of workplace innovations that help effectively transform organizational members into an "adaptive and flexible workforce" (Pulakos, Arad et al. 2000) is a pressing issue. A central dilemma seems to be the mismatch between management assumptions and employee responses to workplace reforms that are typically accompanied by uncertainty and risks.

As experts noted, the lack of theoretical sophistication and clarity behind many of these reforms (e.g., performance-related pay) might have contributed to their true impact being largely a mystery (Marsden and Richardson 1994; OECD 2005b). This thesis represents a key to this worrisome dynamic by providing guidance on the rationale behind the success of workplace reforms and the conditions in which success may be systematically repeated.

Directions for future research. Risk embodies an element of vulnerability that makes noncompliance costly. What then makes noncompliance too costly to bear (or compliance particularly worthwhile to pursue)? Although parallel measures of risk and cost-bearing and of pressure and support in the research framework (see Chapters 6 – *Antecedents of Threat and Opportunity Perceptions*; and Chapter 9 – *Discussion*) begin to shed light on motivation from the perspective of environmental perception, more theoretical and empirical work is needed to identify and measure specific aspects of workers' experiences with *risk of noncompliance* and *pressure to perform* that invoke *threat perception* on the one hand, and with *perceived organizational support* and *willingness to bear cost* that enhance *opportunity perception* on the other.

To this end, the characteristics of the changing contemporary workplace, manifestations, and examples of risks presented in Table 10.2 could be a useful starting point. Research in other professional settings and geographical areas is expected to further enrich and extend the proposed line of study.

Much work also needs to be done in terms of exploring the determinants of *risk of noncompliance* and *pressure to perform*, which in turn influence *threat perception*. This

gap in knowledge is evident when viewed in light of the advancement of knowledge in this thesis concerning the antecedents of *perceived organizational support* and *willingness to bear cost*, which in turn influence *opportunity perception* (for an overview, see Figure 8.3 – *Tested Antecedents of Environmental Perception and Adaptive Motivation*). The latter may to a large extent be attributed to existing knowledge in the field that can be rather more readily expanded to relate to the dynamics of *opportunity perception*, which incidentally also reflects the entrenched bias toward the effects of incentives but not of sanctions in explaining motivation.

In sum, investigating motivation under uncertainty and risks (rather than continuing to unrealistically presume stability and security) is especially important today as individuals strive to adapt to new and rapidly changing environmental demands and challenges in their jobs and employers struggle to cut cost and increase organizational flexibility in order to thrive, if not simply survive, in the face of globalization and intensifying competition. Given the centrality of uncertainty and risk issues in today's workplace and society at large, and the immediate relevance and demonstrated explanatory power of the conceptual approach of this study, further theoretical development and empirical studies using this approach are likely to be fruitful.

REFERENCES

- Abbot, J., & Kleiner, B. H. 1992. Incentive pay: Not just for top management, *Work Study*, Vol. 41: 16 - 19.
- Abrahamson, E. 1996. Management fashion. *Academy of Management Review*, 21: 254 - 285.
- Acar, W. 1986. The social contract and the V-I-E theory: A linear programming formulation. *Behavioral Science*, 31: 278 - 285.
- Achen, C. H. 1982. *Interpreting and using regression*. Newbury Park, CA: Sage.
- Adam, B., Beck, U., & Van Loon, J. (Eds.). 2000. *Risk society and beyond: Critical issues for social theory*. London: Sage.
- Adams, J. S. 1963. Toward an understanding of inequity. *Journal of Abnormal and Social Psychology*, 67: 422 - 436.
- Adams, J. S. 1968. Effects of overpayment: Two comments on Lawler's paper. *Journal of Personality and Social Psychology*, 10: 315 - 316.
- Adger, W. N., & Kelly, P. M. 2001. Social vulnerability and resilience. In W. N. Adger, P. M. Kelly, & N. Huu Ninh (Eds.), *Living with environmental change: Social vulnerability, adaptation and resilience in Vietnam*. London: Routledge.
- Aharoni, Y. A. 1966. *The foreign investment decision process*. Cambridge, MA: Division of Research, Graduate School of Business Administration, Harvard University.
- Alderfer, C. P. 1969. An empirical test of a new theory of human needs. *Organizational Behavior and Human Performance*, 4: 142 - 175.
- Aldis, O. 1961. Of pigeons and men. *Harvard Business Review*, 39(4): 59 - 63.
- Aldrich, H. E., & Wiedenmayer, G. 1993. From traits to rates: An ecological perspective on organizational findings. In J. A. Katz, & R. H. Brockhaus, Sr. (Eds.), *Advances in entrepreneurship, firm emergence, and growth*, Vol. 1: 145 - 195. Greenwich, CT: JAI Press.
- Alexander, R. D. 1975. The search for a general theory of behavior. *Behavioral Science*, 20: 77 - 100.
- Allen, J., & Henry, N. 1996. Fragments of industry and employment: Contract service work and the shift towards precarious employment. In R. Crompton, D. Gallie, & K. Purcell (Eds.), *Changing forms of employment: Organization, skills and gender*: 65 - 82. London: Routledge.
- Allen, N. J., & Meyer, J. P. 1990. The measurement and antecedents of affective, continuance and normative commitment. *Journal of Occupational Psychology*, 63: 1 - 18.
- Allen, T. D., Freeman, D. M., Russell, J. E. A., Reizenstein, R. C., & Rentz, J. O. 2001. Survivor reactions to organizational downsizing: Does time ease the pain? *Journal of Occupational and Organizational Psychology*, 74: 145 - 164.
- Ambrose, M. L., & Cropanzano, R. 2003. A longitudinal analysis of organizational fairness: An examination of reactions to tenure and promotion decisions. *Journal of Applied Psychology*, 88(2): 266 - 275.
- Ambrose, M. L., & Kulik, C. T. 1999. Old friends, new faces: Motivation research in the 1990's. *Journal of Management*, 25(3): 231 - 292.
- Andrasik, F. 1989. Organizational behavior modification in business settings: A methodological and content review. *Journal of Organizational Behavior Management*, 10: 59 - 77.

- Andrews, E. S. 1992. Expanding opportunities for older workers. *Journal of Labor Research*, 13(1): 55 - 65.
- Ansoff, H. I. 1965. *Corporate strategy*. New York: McGraw-Hill.
- Anthony, E. J. 1987. Risk, vulnerability and resilience: An overview. In E. J. Anthony, & B. J. Cohler (Eds.), *The invulnerable child*: 3 - 48. New York: Guilford Press.
- Antonides, G. 1991. *Psychology in economics and business*. Boston, MA: Kluwer Academic Publishers.
- Argenti, J. 1976. *Corporate collapse*. New York: Halstead.
- Armitage, K. 1997. The wages of fear, *The British Journal of Administrative Management*: May/June: 25.
- Armstrong, M., & Murlis, H. 1994. *Reward management: A handbook of remuneration strategy and practice* (3rd ed.). London: Kogan Page.
- Arrow, K. E. 1996. The theory of risk-bearing: Small and great risks. *Journal of Risk and Uncertainty*, 12: 103 - 111.
- Arthur, M. B., & Rousseau, D. M. 1996. *The boundaryless career: A new employment principle of a new organizational era*. New York: Oxford University Press.
- Arvey, R. D., & Ivancevich, J. M. 1980. Punishment in organizations: A review, propositions and research suggestions. *Academy of Management Review*, 5: 123 - 132.
- Aryee, S., Budhwar, P. S., & Chen, Z. X. 2002. Trust as a mediator of the relationship between organizational justice and work outcomes: test of a social exchange model. *Journal of Organizational Behavior*, 23: 267 - 285.
- Asch, B. 1990. Do incentives matter? The case of navy recruiters. *Industrial and Labor Relations Review*, 43: 89 - 107.
- Asch, P., & Quandt, R. 1988. Betting bias in exotic bets. *Economic Letters*, 28: 215 - 219.
- Ashford, S. J., & Cummings, L. L. 1983. Feedback as an individual resource: Personal strategies of creating information. *Organizational Behavior and Human Performance*, 32: 370 - 398.
- Ashkenas, R., Ulrich, D., Jick, T., & Kerr, S. 1995. *The boundaryless organization: Breaking the chains of organizational structure*. San Francisco: Jossey-Bass.
- Ashmos, D. P., Duchon, D., & McDaniel, R. R., Jr. 2000. Organizational responses to complexity: the effect on organizational performance. *Journal of Organizational Change Management*, 13(6): 577 - 594.
- Aspinwall, L. G., & Taylor, S. E. 1997. A stitch in time: self regulation and proactive coping. *Psychological Bulletin*, 121: 417 - 436.
- Atkinson, J. W. 1964. *An introduction to motivation*. Princeton, NJ: Van Nostrand.
- Auer, P., & Speckesser, S. 1998. Labor markets and organizational change: Future working structures for an ageing work force. *Journal of Management and Governance*, 1: 177 - 206.
- Averill, J. R. 1973. Personal control over aversive stimuli and its relations to stress. *Psychological Bulletin*, 80: 286 - 303.
- Baglioni, G. 1990. Industrial relations in Europe in the 1980s. In G. Baglioni, & C. Crouch (Eds.), *European industrial relations: The challenge of flexibility*. London: Sage.
- Baker, R. A., Ware, R. J., Spires, G. H., & Osborn, W. C. 1966. The effects of supervisory threat on decision making and risk taking in a simulated combat game. *Behavioral Science*, 3: 167 - 176.

- Balkin, D. B., & Banister, B. 1993. Explaining pay forms for strategic employee groups in organizations. *Journal of Occupational and Organizational Psychology*, 66: 139 - 151.
- Balkin, D. B., & Gomez-Mejia, L. R. (Eds.). 1987. *New perspectives on compensation*. Englewood Cliffs, NJ: Prentice Hall.
- Bandura, A. 1977. *Social learning theory*. Englewood Cliffs, NJ: Prentice Hall.
- Bandura, A. 1986. *Social foundations of thought and action*. Englewood Cliffs, NJ: Prentice-Hall.
- Bannock, G., Baxter, R. E., & Davis, E. 1998. *Penguin Dictionary of Economics*. London: Penguin Books.
- Barber, A. E., & Bretz Jr., R. D. 2000. Compensation, attraction, and retention. In S. L. Rynes, & B. Gerhart (Eds.), *Compensation in organizations: Current research and practice*: 32 - 60. San Francisco: Jossey-Bass.
- Barkema, H. G., & Gomez-Mejia, L. R. 1998. Managerial compensation and firm performance: A general research framework. *Academy of Management Journal*, 41(2): 135 - 145.
- Barney, J. 1995. Looking inside for competitive advantage. *Academy of Management Executive*, 9(4): 49 - 61.
- Baron, J., & Ritov, I. 1994. Reference points and omission bias. *Organizational behavior and human decision processes*, 59: 475 - 498.
- Baron, J., & Spranca, M. 1997. Protected values. *Organization Behavior and Human Decision Processes*, 70(1): 1 - 16.
- Baron, J. N., & Kreps, D. M. 1999. *Strategic human resources: Frameworks for general managers*. New York: John Wiley & Sons
- Baron, R. M., & Kenny, D. A. 1986. The moderator-mediator variable distinction in social psychology research: Conceptual, strategic, and statistical considerations. *Journal of Personality and Social Psychology*, 51: 1173 - 1182.
- Bartol, K. M., & Locke, E. A. 2000. Incentives and motivation. In S. L. Rynes, & B. Gerhart (Eds.), *Compensation in organizations: Current research and practice*: 104 -147. San Francisco: Jossey-Bass.
- Bazerman, M. H. 1984. The relevance of Kahneman and Tversky's prospect theory on organizational behavior. *Journal of Management*, 10: 333 - 343.
- Beck, U. 1992. *Risk society: Towards a new modernity* (M. Ritter, Trans.). London: Sage.
- Beck, U. 1999. *World risk society*. Oxford: Blackwell.
- Beck, U. 2000. *The brave new world of work* (P. Vamiller, Trans.). Cambridge: Polity Press.
- Beersma, B., Hollenbeck, J. R., Moon, H., Conlon, D. E., & Ilgen, D. R. 2003. Cooperation, competition, and team performance: Toward a contingency approach. *Academy of Management Journal*, 46(5): 572 - 590.
- Bélanger, J., Edwards, P. K., & Haiven, L. (Eds.). 1994. *Workplace industrial relations and the global challenge*. Ithaca, NY: Cornell University Press.
- Belous, R. S. 1989. *The contingent economy: The growth of the temporary, part-time and subcontracted workforce*. Washington, DC: National Planning Association.
- Benson, J., Debroux, P., Yuasa, M., & Zhu, Y. 2000. Flexibility and labour management: Chinese manufacturing enterprises in the 1990s. *International Journal of Human Resource Management*, 11(2): 183 -196.
- Bentler, P. M., & Speckart, G. 1979. Models of attitude-behavior relations. *Psychological Review*, 86(5): 452 - 464.

- Bergström, O., & Storrie, D. 2003. *Contingent employment in Europe and the United States*. Cheltenham: Edward Elgar.
- Berlyne, D. E. 1975. The affective significance of uncertainty. In G. Serban (Ed.), *Psychopathology of human adaptation*: 319 - 341. New York: Plenum Press.
- Beynon, H. 1997. The changing practices of work. In R. K. Brown (Ed.), *The changing shape of work*: 20 - 53. London: Macmillan Press.
- Bian, Y. J. 1994. Guanxi and the allocation of urban jobs in China. *The China Quarterly*, 140: 971 - 999.
- Blair, M. 1995. *Ownership and control: Rethinking corporate governance for the twenty first century*. Washington, DC: The Brookings Institution.
- Blanchflower, D. G. 1991. Fear, unemployment, and pay flexibility. *Economic Journal*: 483 - 496.
- Bliese, P. D., & Castro, C. A. 2000. Role clarity, work overload and organizational support: Multilevel evidence of the importance of support. *Work & Stress*, 14(1): 65 - 73.
- Blinder, A. S. (Ed.). 1990. *Paying for productivity: A look at the evidence*. Washington, DC: The Brookings Institution.
- Bloom, M. C., & Milkovich, G. T. 1998. Relationship among risk, incentive pay, and organizational performance. *Academy of Management Journal*, 41: 283 - 297.
- Bluestone, B., & Harrison, B. 1982. *The deindustrialization of America*. New York: Basic Books.
- Boardman, A. E., Greenberg, D. H., Vining, A. R., & Weimer, D. L. 1996. *Cost-benefit analysis: Concepts and practice*. Upper Saddle River, NJ: Prentice Hall.
- Boswell, T., & Stevis, D. 2001. Globalization and international labor organizing. In D. B. Cornfield, K. E. Campbell, & H. J. McCammon (Eds.), *Working in restructured workplaces: Challenges and new directions for the sociology of work*: 367 - 380. London: Sage Publications.
- Boulding, K. E. 1963. *Conflict and defense*. New York: Harper & Row.
- Boulding, K. E. 1978. *Ecodynamics: A new theory of societal evolution*. London: Sage
- Brief, A. P., & Aldag, R., J. 1977. The intrinsic-extrinsic dichotomy: Toward conceptual clarity. *Academy of Management Review*, 2(3): 496 - 500.
- Brockner, J. 1988. The effects of work layoffs on Survivors: Research, theory, and practice. *Research in Organizational Behavior*, 10: 213 - 255.
- Brockner, J., Grover, S., Reed, T., DeWitt, R., & O'Malley, M. 1987. Survivors' reactions to layoffs: We get by with a little help for our friends. *Administrative Science Quarterly*, 32: 526 - 541.
- Brockner, J., Wiesenfeld, B. M., & Martin, C. L. 1995. Decision frame, procedural justice, and survivors' reactions to job layoffs. *Organizational Behavior and Human Decision Processes*, 63: 59 - 68.
- Brown, D. W., & McDougal, S. L. 1977. Noncompliance with law: A utility analysis of city crime rates. *Social Science Quarterly*, 58(2): 195 - 214.
- Brown, R. K. 1997. Flexibility and security: Contradictions in the contemporary labour market. In R. K. Brown (Ed.), *The changing shape of work*: 69 - 86. London: Macmillan Press.
- Brown, S. P., Cron, W. J., & Slocum, J. W. 1997. Effects of goal directed emotions on salesperson volitions, behavior, and performance: A longitudinal study. *Journal of Marketing*, 61: 39 - 50.
- Brown, W., & Walsh, J. 1994. Managing pay in Britain. In K. Sisson (Ed.), *Personnel management: A comprehensive guide to theory and practice*. Oxford: Blackwell.

- Burchell, B. J., Day, D., Hudson, M., Ladipo, D., Mankelow, R., Nolan, J., Reed, H., Wichert, I., & Wilkinson, F. 1999. *Job insecurity and work intensification; flexibility and the changing boundaries of work*. London: Joseph Rowntree Foundation.
- Burnham, M. A., Pennebaker, J. W., & Glass, D. C. 1975. Time consciousness, achievement striving, and the Type A coronary-prone pattern. *Journal of Abnormal Psychology*, 84: 76 - 79.
- Cai, F., Wang, M., & Wang, D. 2001. The current situation of employment and its prospect: analysis of labor market in shaping. In G. Liu (Ed.), *Analysis of Chinese economic prospect: Spring report of 2001*: 145 - 162. Beijing: Social Science Literature Press.
- Cai, Y. S. 2002. The resistance of Chinese laid-off workers in the reform period. *China Quarterly*, 170: 327 - 344.
- Campbell, J., & Pritchard, R. D. 1976. Motivation theory in industrial and organizational psychology. In M. Dunnette (Ed.), *Handbook of industrial and organizational psychology*: 63 - 130. Chicago: Rand McNally.
- Cannell, M., & Long, P. 1991. What's changed about incentive pay? *Personnel Management*, 23(10): 58 - 63.
- Cannell, M., & Wood, S. 1992. *Incentive Pay*. London: Institute of Personnel Management.
- Cappelli, P., & Sherer, P. D. 1991. The missing role of context in OB: The need for a meso-level approach. *Research in Organizational Behavior*, 13: 55 - 110.
- Cappelli, P., Bassi, L., Katz, H., Knoke, D., Osterman, P., & Useem, M. 1997. *Change at work*. New York: Oxford University Press.
- EN.REFLISTCasey, B., Dragendorf, R., Heering, W., & John, G. 1989. Temporary employment in Great Britain and the Federal Republic of Germany: An overview. *International Labour Review*, 128(4): 449 - 466.
- Casey, J. T., & Deliquié, P. 1995. Stated vs. implicit willingness to pay under risk. *Organizational Behavior and Human Decision Processes*, 61(2): 123 - 137.
- Cassirer, N., & Reskin, B. 2000. High Hopes: Organizational position, employment experiences, and women's and men's promotion aspirations. *Work and Occupations*, 27(4): 438 - 463.
- CBI/Ernst & Young. 1994/95. Counting costs to keep competitive. *Pay and Performance Review*. CBI/Ernst and Young.
- Chen, Z., & Lin, S. 2000. State-owned enterprise reform, ownership structure and managerial incentives. In P. J. Lloyd, & X. G. Zhang (Eds.), *China in the global economy*: 106 - 124. Cheltenham: Edward Elgar.
- Child, J. 1994. *Management in China in the age of reform*. Cambridge: Cambridge University Press.
- Christensen, K. 1989. Flexible staffing and scheduling in U.S. corporations (Research Bulletin No. 240). New York: The Conference Board.
- Clarke, S. 2005. Post-socialist trade unions: China and Russia. *Industrial Relations Journal*, 36(1): 2 - 18.
- Clarke, S., & Lee, C. H. 2002. The significance of tripartite consultation in China. *Asia-Pacific Business Review*, 9(2): 61 - 80.
- Clarke, S., Lee, C. H., & Li, Q. 2004. Collective consultation and industrial relations in China. *British Journal of Industrial Relations*, 42(2): 235 - 254.

- Coady, D. P., & Wang, L. 2000. Incentives, allocation and labour-market reforms during transition: The case for urban China, 1986 - 1990. *Applied Economics*, 32(4): 511 - 526.
- Cohen, Y., & Pfeffer, F. 1986. Organizational hiring standards. *Administrative Science Quarterly*, 31: 2 - 24.
- Coleman, H. J., Jr. 1999. What enables self-organizing behavior in businesses. *Emergence*, 1(1): 33 - 48.
- Comer, R., & Laird, J. D. 1975. Choosing to suffer as a consequence of expecting to suffer: why do people do it? *Journal of Personality and Social Psychology*, 32: 92 - 101.
- Compensation and Benefits Review. 1996. Case study: Pay at risk, *Compensation and Benefits Review*, 28(3): 60 - 61.
- Cook, J. D., Hepworth, S. J., Wall, T. D., & Warr, P. B. 1981. *The experience of work: A compendium and review of 249 measures and their use*. London: Academic Press.
- Cook, T., & Campbell, D. 1976. The design and conduct of quasi-experiments and true experiments in field settings. In M. Dunnette (Ed.), *Handbook of Industrial & Organizational Psychology*. Chicago: Rand McNally.
- Cooke, F. L. 2005. *HRM, work, and employment in China*. London & New York: Routledge.
- Cornfield, D. B., Campbell, K. E., & McCammon, H. J. 2001. *Working in restructured workplaces: Challenges and new directions for the sociology of work*. London: Sage Publications.
- Crampton, S. M., & Wagner, J. A. 1994. Percept-percept inflation in microorganizational research: an investigation of prevalence and effect. *Journal of Applied Psychology*, 79: 67 - 76.
- Cropanzano, R., & Folger, R. 1991. Procedural justice and worker motivation. In R. M. Steers, & L. W. Porter (Eds.), *Work motivation and work behavior* (5th ed.): 131 - 143. New York: McGraw-Hill.
- Crowe, D. 1992. A new approach to reward management. In M. Armstrong (Ed.), *Strategies for human resource management: A total business approach*. London: Kogan Page.
- Cyert, R. M., & March, J. G. 1963. *A behavioral theory of the firm*. Englewood Cliffs, NJ: Prentice-Hall.
- D&C. 1981. *The Doctrine and Covenants of the Church of Jesus Christ of Latter-Day Saints*. (First published in 1835 in Kirtland, OH). Salt Lake City, UT: The Church of Jesus Christ of Latter-Day Saints.
- Daniels, D., & Mitchell, T. R. 1995. Differential effects of self-efficacy, goals, and expectations on task performance: Unpublished manuscript, School of Business Administration, University of Washington at Seattle.
- Daus, C. S. 2005. The case for the ability-based model of emotional intelligence in organizational behavior. *Journal of Organizational Behavior*, 26(4): 453 - 467.
- Davis, D. D. 1995. Form, function, and strategy in boundaryless organization. In A. Howard (Ed.), *The changing nature of work*: 112 - 138. San Francisco: Jossey-Bass.
- Davis, E. 1994. Putting pay at risk, *Small Business Reports*, Vol. 19: 2.
- Davy, J. A., Kinicki, A. J., & Scheck, C. L. 1997. A test of job security's direct and mediated effects on withdrawal cognitions. *Journal of Organizational Behavior*, 18: 323 - 349.

- De Vellis, R. F. 1991. *Scale development: Theory and applications*. Newsbury Park, CA: Sage.
- Deci, E. L. 1975. *Intrinsic motivation*. New York: Plenum.
- Deci, E. L., Koestner, R., & Ryan, R. M. 1999. A meta-analytic review of experiments examining the effects of extrinsic rewards on intrinsic motivation. *Psychological Bulletin*, 125(6): 627 - 668.
- Deci, E. L., & Ryan, R. M. 1985. *Intrinsic motivation and self-determination in human behavior*. New York: Plenum.
- Deckop, J. R., Merriman, K. K., & Blau, G. 2004. Impact of variable risk preferences on the effectiveness of control by pay. *Journal of Occupational & Organizational Psychology*, 77(1): 63 - 80.
- Deery, S. 2002. Employee reactions to human resource management: A review and assessment. *Journal of Industrial Relations*, 44(3): 458 - 466.
- Deery, S., & Mitchell, R. (Eds.). 1999. *Employment relations: Individualisation and union exclusion, an international study*. Sydney, NSW: Federation Press.
- Deery, S., Plowman, D., Walsh, J., & Brown, M. 2002. *Industrial relations: A contemporary analysis* (2nd ed.) Sydney: McGraw-Hill.
- Degraeve, Z., & Nicholson, N. (Eds.). 2004. *Risk: How to make decisions in an uncertain world*. Norwich: Format Publishing.
- Deng, X. P. 1987. *Speeches and writings of Deng Xiaoping*. Oxford: Pergamon.
- Deng, X. P. 1989. *Fundamental issues in present-day China/Deng Xiaoping; translated by The Bureau for the Compilation and Translation of Works of Marx, Engels, Lenin and Stalin under the Central Committee of the Communist Party of China*. Beijing: Foreign Language; Oxford: Pergamon
- Denhardt, R. B., & Jeffress, P. W. 1971. Social learning and economic behavior: The process of economic socialization. *The American Journal of Economics and sociology*, 30(2): 113 - 126.
- Denison, E. F. 1974. Has the potential output of the U.S. economy been misstated? *Monthly Labor Review*, 97(12): 34 - 42.
- Deyo, F. C. 2001. Labor and post-Fordist industrial restructuring in East and Southeast Asia. In D. B. Cornfield, K. E. Campbell, & H. J. McCammon (Eds.), *Working in restructured workplaces: Challenges and new directions for the sociology of work*: 409 - 423. London: Sage.
- Dickens, R., Gregg, P., & Wadsworth, J. (Eds.). 2003. *The labour market under new Labour: The state of working Britain 2003*. Basingstoke: Palgrave Macmillan.
- Dillon, W. R., & Goldstein, M. 1984. *Multivariate analysis: Methods and applications*. New York: Wiley.
- Ding, D. Z., & Warner, M. 2001. China's labour-management system reforms: Breaking the 'three old irons' (1978-1999). *Asia Pacific Journal of Management*, 18(3): 315 - 334.
- Donovan, J. J. 2001. Work motivation. In N. Anderson, D. S. Ones, H. K. Sinangil, & C. Viswesvaran (Eds.), *Handbook of industrial , work and organizational psychology*, Vol. 2: 53 - 76. London: Sage.
- Donovan, J. J., & Radosevich, D. R. 1998. The moderating role of goal commitment on the goal difficulty-performance relationship: A meta-analytic review and critical re-analysis. *Journal of Applied Psychology*, 83: 308 - 315.
- Dowling, W. F. 1973. At Emery Air Freight: Positive reinforcement boosts performance. *Organizational Dynamics*, 2(1): 41 - 50.

- Drache, D., & Gertler, M. S. 1991. *The new era of global competition*. Montreal: McGill-Queens University Press.
- Drucker, P. F. 1992. The new society of organizations. *Harvard Business Review*, 70(5): 95 - 104.
- Dunlap, A. J. 1996. *Mean business: How I save bad companies and make good companies great*. New York: Times Books.
- Dutton, J. E. 1993. The making of organizational opportunities: An interpretative pathway to organizational change. *Research in organizational behavior*, 15: 195 - 226.
- Dutton, J. E., & Jackson, S. E. 1987. The categorization of strategic issues by decision makers and its links to organizational action. *Academy of Management Review*, 12(1): 76 - 90.
- Dweck, C. S. 1986. Motivational processes affecting learning. *American Psychologist*, 41(10): 1040 - 1048.
- Dymsza, W. A. 1984. Global strategic planning: A model and recent developments. *Journal of International Business Studies*, 15(2): 169 - 184.
- Eberts, R., Hollenbeck, K., & Stone, J. 2002. Teacher performance incentives and student outcomes. *Journal of Human Resources*, 37(4): 913 - 927.
- Edelman, L. F., & Benning, A. L. 1999. Incremental revolution: Organizational change in highly turbulent environments. *Organization Development Journal*, 17(4): 79 - 93.
- Edwards, P. K., Collinson, M., & Rees, C. 1998. The determinants of employee responses to total quality management: Six case studies. *Organization Studies*, 19: 449 - 475.
- Edwards, P. K., & Whitston, C. 1991. Workers are working harder: Effort and shopfloor relations in the 1980s. *British Journal of Industrial Relations*, 29(4): 593 - 601.
- Edwards, R. 1979. *Contested terrain: The transformation of the workplace in the twentieth century*. New York: Basic Books.
- Ehrenberg, R. G. 1990. Introduction: Do compensation policies matter? *Industrial and Labor Relations Review*, 43 (Special Issue): 38 - 128.
- Eisenberger, R., Huntington, R., Hutchison, S., & Sowa, D. 1986. Perceived organizational support. *Journal of Applied Psychology*, 71: 500 - 507.
- Eisenhardt, K. M. 1988. Agency and institutional explanations of compensation in retail sales. *Academy of Management Journal*, 31: 488 - 511.
- Eisenhardt, K. M. 1989. Agency theory: An assessment and review. *Academy of Management Review*, 14: 57 - 74.
- Eisenhardt, K. M., & Tabrizi, B. N. 1995. Accelerating adaptive processes: Product innovation in the global computer industry. *Administrative Science Quarterly*, 40: 84 - 110.
- EIU. 2000. Country Report: China: 8 - 14. London: The Economist Intelligence Unit.
- Elger, T. 1990. Technical innovation and work reorganization in British manufacturing in the 1980s: continuity, intensification or transformation? *Work, Employment & Society*, 4 (May: Special issue): 67 - 102.
- Elliott, L., & Atkinson, D. 1998. *The age of insecurity*. London: Verso.
- Erez, A., & Isen, A. M. 2002. The influence of positive affect on the components of expectancy motivation. *Journal of Applied Psychology*, 87(6): 1055 - 1067.
- Erez, M. 1977. Feedback: A necessary condition for goal setting/performance relationship. *Journal of Applied Psychology*, 62: 624 - 627.

- Etzioni, A. 1961. *A comparative analysis of complex organizations on power, involvement and their correlates*. New York: The Free Press.
- Evan, W. M., & Simmons, R. G. 1969. Organizational effects of inequitable rewards: Two experiments in status inconsistency. *Administrative Science Quarterly*, 14: 224 - 237.
- Eysenck, M. W. 1982. *Attention and arousal: Cognition and performance*. New York: Springer-Verlag.
- Fairbank, J. F., Spangler, W. E., & Williams, S. D. 2003. Motivating creativity through a computer-mediated employee suggestion management system. *Behaviour & Information Technology*, 22(5): 305 - 314.
- Farr, J. L., Hofmann, D. A., & Ringenbach, K. L. 1993. Goal orientation and action control theory: Implications for industrial and organizational psychology. In C. L. Cooper, & I. T. Robertson (Eds.), *International Review of Industrial and Organizational Psychology*, Vol. 8: 193 - 232. Chichester: John Wiley & Sons.
- Featherman, D. L., & Hauser, R. M. 1978. *Opportunity and change*. New York: Academic Press.
- Fernie, S., & Metcalf, D. 1998. It's not what you pay it's the way you pay it and that's what gets results: Jockey's pay and performance. *Labour*, 13(2): 385 - 411.
- Ferrari, J. R. 2001. Procrastination as self-regulation failure of performance: Effects of cognitive load, self-awareness, and time limits on 'working best under pressure'. *European Journal of Personality*, 15: 391 - 406.
- Festinger, L. 1954. A theory of social comparison processes. *Human Relations*, 7: 114 - 140.
- Field, R. M. 1992. China's industrial performance since 1978. *China Quarterly*, 131: 577 - 612.
- Fleisher, B. M., & Wang, X. J. 2001. Efficiency wages and work incentives in urban and rural China. *Journal of Comparative Economics*, 29(4): 645 - 662.
- Fleming, R., Baum, A., & Singer, J. E. 1984. Toward an integrative approach to the study of stress. *Journal of Personality and Social Psychology*, 46: 939 - 949.
- Ford, J. D., & Baucus, D. A. 1987. Organizational adaptation to performance downturns: An interpretation-based perspective. *Academy of Management Review*, 12(2): 366 - 380.
- Ford, J. E. 1981. A simple punishment procedure for controlling employee absenteeism. *Journal of Organizational Behavior Management*, 3(2): 71 - 79.
- Forslund, A. 1994. Wage setting at the firm level – insider versus outsider forces. *Oxford Economic Papers*, 46(2): 245 - 261.
- Foschi, M. 1998. Double standards: Types, conditions, and consequences. *Advance in Group Process*, 15: 59 - 80.
- Foschi, M., & Foddy, M. 1988. Standards, performances, and the formation of self-other expectations. In M. J. Webster, & M. Foschi (Eds.), *Status generalization: New theory and research*: 248 - 260. Stanford, CA: Stanford University Press.
- Foster, J. 1997. The analytical foundations of evolutionary economics: From biological analogy to economic self-organization. *Structural change and economic dynamics*, 8: 427 - 451.
- Foster, J. 2000. Is there a role for transaction cost economics if we view firms as complex adaptive systems? *Contemporary Economic Policy*, 18(4): 369 - 385.
- Frazier, M. W. 2002. *The making of the Chinese industrial workplace: State, revolution and labor management*. Cambridge: Cambridge University Press.

- Fredrickson, B. L. 1998. What good are positive emotions? *Review of General Psychology*, 2(3): 300 - 319.
- Fredrickson, B. L. 2001. The role of positive emotions in positive psychology: The broaden-and-build theory of positive emotions. *American Psychologist*, 56(3): 218 - 226.
- Fredrickson, J. W. 1985. Effects of decision motive and organizational performance level on strategic decision processes. *Academy of Management Journal*, 28: 821 - 843.
- Freeman, R. B., Hersch, J., & Mishel, L. 2005. *Emerging labor market institutions for the 21st century*. Chicago: The University of Chicago Press.
- Freeman, R. B., Ichniowski, C., & Lauer, H. 1985. Collective bargaining laws and threat effects of unionism in the determination of police compensation. Cambridge, MA: National Bureau of Economic Research.
- Freeman, R. B., & Rogers, J. 1999. *What workers want*. Ithaca, NY: Cornell University Press.
- Frey, B. S. 1997. *Not Just for the Money: An Economic Theory of Personal Motivation*. Cheltenham: Edward Elgar Publishing.
- Fried, Y., & Slowik, L. H. 2004. Enriching goal-setting theory with time: An integrated approach. *Academy of Management Review*, 29(3): 404 - 422.
- Friedman, D. 1988. *The misunderstood miracle: Industrial development and political change in Japan*. Ithaca, NY: Cornell University Press.
- Frost, P. J., & Mahoney, T. A. 1976. Goal setting and the task process: An interactive influence on individual performance. *Organizational Behavior and Human Performance*, 17: 328 - 350.
- Fu, Z. 1996. *China's legalists: The earliest totalitarians and their art of ruling*. Armonk, NY: M. E. Sharpe.
- Fuller, J. B., Barnett, T., Hester, K., & Relyea, C. 2003. A social identity perspective on the relationship between perceived organizational support and organizational commitment. *The Journal of Social Psychology*, 143(6): 789 - 791.
- Furubotn, E. G., & Richter, R. 2000. Institutions and economic theory of the new institutional economics. Ann Arbor, MI: The University of Michigan Press.
- Gan, B. Y., Tang, X. T., & Wu, X. P. 1997. *Wage distribution at state enterprises* (guoyouqiye gongzi fenpei yanjiu). Chengdu: Xinan caijing daxue chubanshe. (In Chinese).
- Gang, F., & Woo, W. T. 1996. State enterprise reform as a source of macroeconomic instability: The case of China. *Asian Economic Journal*, 10(3): 207 - 224.
- Gaston, N. 1991. Employment uncertainty as a job characteristic. *Research in Labor Economics*, 12: 85 - 115.
- Geary, J. F. 1992. Pay, control and commitment: Linking appraisal and reward. *Human Resource Management Journal*, 2(4): 36 - 54.
- George, J. M., Reed, T. F., Ballard, K. A., Colin, J., & Fielding, J. 1993. Contact with AIDS patients as a source of work-related distress: Effects of organizational and social support. *Academy of Management Journal*, 36: 157 - 171.
- George-Falvy, J. 1996. *Effects of task complexity and learning stage on the relationship between participation in goal setting and task performance*. Paper presented at the 56th Annual Meeting of the Academy of Management, Cincinnati, OH.

- Gerbing, D. W., & Anderson, J. C. 1988. An updated paradigm for scale development incorporating unidimensionality and its assessment. *Journal of Marketing Research*, 25: 186 - 19
- Gerhart, B., & Milkovich, G. T. 1992. Employee compensation: Research and practice. In M. D. Dunnette, & L. M. Hough (Eds.), *Handbook of Industrial and Organizational Psychology*: 481 - 567. Palo Alto, CA: Consulting Psychologists Press.
- Gersick, C. J. G. 1991. Revolutionary change theories: A multilevel exploration of the punctuated equilibrium paradigm. *Academy of Management Review*, 16: 10 - 36.
- Ginzberg, E. 1985. *Understanding human resources: Perspectives, people, and policy*. New York: University Press of America.
- Gomez-Mejia, L. R., & Balkin, D. 1992. *Compensation, organization strategy and firm performance*. Cincinnati, OH: South-Western.
- Gomez-Mejia, L. R., Paulin, G., & Grabki, A. 1996. Executive compensation: A guide for practice. In G. R. Ferris, S. D. Rosen, & D. T. Barnam (Eds.), *Handbook of human resources management*: 548 - 573. Oxford: Oxford University Press.
- Gomez-Mejia, L. R., & Wiseman, R. M. 1997. Reframing executive compensation: An assessment and outlook. *Journal of Management*, 23: 291 - 374.
- Gottschalk, P., & Moffitt, R. 1994. The growth in earnings instability in the United States labor market. *Brookings Papers in Economic Activity*, 2: 217 - 254.
- Gouldner, A. W. 1960. The norm of reciprocity. *American Sociological Review*, 25: 165 - 167.
- Gray, S. R., & Cannella, J., Albert A. 1997. The role of risk in executive compensation. *Journal of Management*, 23(4): 517 - 430.
- Green, F. 2001. It's been a hard day's night: The concentration and intensification of work in late twentieth-century Britain. *British Journal of Industrial Relations*, 39(1): 53 - 80.
- Greenberg, J. 1990. Employment theft as a reaction to underpayment inequity: The hidden cost of pay cuts. *Journal of Applied Psychology*, 75: 561 - 568.
- Greenberg, J. 1993. Stealing in the name of justice: Informational and interpersonal moderators of theft reactions to underpayment inequity. *Organizational Behavior and Human Decision Processes*, 54: 81 - 103.
- Greenberger, D. B., Strasser, S., & Lee, S. 1988. Personal control as a mediator between perceptions of supervisory behaviors and employee reactions. *Academy of Management Journal*, 31(2): 405 - 417.
- Gregg, P., Knight, G., & Wadsworth, J. 2000. Heaven knows I'm miserable now: job insecurity in the British labour market. In E. Heery, & J. Salmon (Eds.), *The Insecure workforce*: 78 - 111. London: Routledge.
- Griesinger, D. W. 1990. The human side of economic organization. *Academy of Management Review*, 15(3): 478 - 499.
- Gross, S. E., & Duncan, D. 1999. AmeriSteel's gainsharing plan at the cutting edge, *Human Resource Management International Digest*, Vol. 7: 6 - 8.
- Grossman, S. P. 1975. Some experimental observations on the neuroanatomical substrates of learned adaptive behaviors. In G. Serban (Ed.), *Psychopathology of human adaptation*: 11 - 24. New York: Plenum Press.
- Groves, T., Hong, Y., McMillan, J., & Naughton, B. 1994. Autonomy and Incentives in Chinese State Enterprises. *Quarterly Journal of Economics*, 109: 183 - 209.
- Groves, T., Hong, Y., McMillan, J., & Naughton, B. 1995. China's evolving managerial labor market. *Journal of Political Economy*, 103(4): 873 - 892.

- Gu, E. X. 2000. Massive layoffs and the transformation of employment relations in urban China. *Labour, Capital and Society*, 33(1): 46 - 74.
- Guiso, L., Jappelli, T., & Pistaferri, L. 2002. An empirical analysis of earnings and employment risk. *Journal of Business & Economic Statistics*, 20(2): 241 - 253.
- Hackman, J. R. (Ed.). 1977. *Work design*. Glenview, IL: Scott, Foresman & Company.
- Hackman, J. R. 1987. The design of work teams. In J. Lorsch (Ed.), *Handbook of organizational behavior*: 315 - 342. Englewood Cliffs, NJ: Prentice-Hall.
- Hagland, M. 1997. Dangling modifiers, *Hospital & Health Networks*, Vol. 71: 70 - 74.
- Hair, J. F., Jr., Anderson, R. E., Tatham, R. L., & Black, W. C. 1998. *Multivariate data analysis*. New York: Macmillan.
- Hall, D. T., & Mirvis, P. H. 1995. Careers as lifelong learning. In A. Howard (Ed.), *The changing nature of work*: 323 - 361. San Francisco: Jossey-Bass.
- Hammer, M., & Champy, J. 1994. *Reengineering the corporation: A manifesto for business revolution*. New York: Harper Collins.
- Hannan, M., & Freeman, J. 1989. *Organizational ecology*. Cambridge, MA: Harvard University Press.
- Hansen, D. 1997. Worker performance and group incentives: A case study. *Industrial and Labor Relations Review*, 51: 37 - 49.
- Hartley, J. 1996. Organizational Change. In P. Warr (Ed.), *Psychology at Work*: 408 - 433. London: Penguin.
- Hartley, J., Jacobson, D., Klandermans, B., & van Vuuren, T. 1991. *Job insecurity: Coping with jobs at risk*. London: Sage.
- Harwig, F., & Dearing, B. E. 1979. *Exploratory data analysis*. Newbury Park, CA: Sage.
- Harvey, J., & Nicholson, N. 1993. Incentives and penalties as means of influencing attendance: A study in the UK public sector. *The International Journal of Human Resource Management*, 4(4): 841 - 858.
- Harvey, J. H. 2001. The psychology of loss as a lens to a positive psychology. *American Behavioral Scientist*, 44(5): 838 - 853.
- Harvey, O. J. (Ed.). 1966. *Experience structure & adaptability*. New York: Springer Publishing.
- Hay, D. A., & Liu, G. S. 1998. Cost behavior of Chinese state-owned manufacturing enterprises in the 1980s. *International Review of Applied Economics*, 12(1): 25 - 37.
- Heery, E. 1996. Risk, representation and the new pay. *Personnel Review*, 25(6): 54 - 65.
- Heery, E., & Abbott, B. 2000. Trade unions and the insecure workforce. In E. Heery, & J. Salmon (Eds.), *The Insecure workforce*: 155 - 180. London: Routledge.
- Heery, E., & Salmon, J. 2000. The insecurity thesis. In E. Heery, & J. Salmon (Eds.), *The Insecure workforce*: 1 - 24. London: Routledge.
- Heneman. 1992. *Merit Pay: Linking Pay Increases to Performance Ratings*. Reading, MA: Addison-Wesley.
- Heneman, R. L., Ledford Jr., G. E., & Gresham, M. T. 2000. The changing nature of work and its effects on compensation on compensation design and delivery. In S. L. Rynes, & B. Gerhart (Eds.), *Compensation in organizations*: 195 - 240. San Francisco, CA: Jossey-Bass.
- Heneman, R. L., & Werner, J. M. 2005. *Merit pay: Linking pay to performance in a changing world* (2nd ed.). Greenwich, CT: Information Age Publishing.
- Herrick, N. Q. 1981. The means and end of work. *Human Relations*, 34(7): 611 - 632.
- Heywood, J. S. 1989. Do union members receive compensating differentials? *Journal of Labor Research*, 10(3): 271 - 273.

- Highhouse, S., & Paese, P. 1996. Contrast effects on strategic-issue framing. *Organizational Behavior and Human Decision Processes*, 65: 5 - 105.
- Hinton, B. L., & Barrow, J. C. 1975. The superior's reinforcing behavior as a function of reinforcement received. *Organizational Behavior and Human Performance*, 14: 123 - 143.
- Hirsch, F. 1976. *The social limits to growth*. Cambridge, MA: Harvard Business Press.
- Hirsch, P., Michaels, S., & Friedman, R. 1987. "Dirty hands" versus "clean models": Is sociology in danger of being seduced by economics? *Theory and Society* 16(3): 317 - 336.
- Hirsch, P. M. 1993. Undoing the managerial revolution? Needed research on the decline of middle management and internal labor markets. In R. Swedberg (Ed.), *Explorations in economic sociology*: 145 - 157. New York: Russell Sage.
- Hirsch, P. M., & Naquin, C. E. 2001. The changing sociology of work and the reshaping of careers. In D. B. Cornfield, K. E. Campbell, & H. J. McCammon (Eds.), *Working in restructured workplaces: Challenges and new directions for the sociology of work*: 427 - 453. London: Sage.
- Hirschman, A. O. 1979. *Exit, voice, and loyalty: Responses to decline in firms, organizations, and states*. Cambridge, MA: Harvard University Press.
- Holton, R. H. 1990. Human resource management in the People's Republic of China. *Management International Review*, 30 (Special issue): 121 - 136.
- Holman, R. L. 1995. Japan Energy to cut wages. *Wall Street Journal - Eastern Edition*, 226(27): A6.
- Holz, C. A. 2003. *China's industrial state-owned enterprises: Between profitability and bankruptcy*. New Jersey: World Scientific.
- Hom, H. L., & Arbuckle, B. 1988. Mood induction effects upon goal setting and performance in young children. *Motivation and emotion*, 12: 113 - 122.
- Homeland Security. 2005. *National organizations partner to launch National Preparedness Month*. U.S. Department of Homeland Security website: www.ready.gov or www.dhs.gov.
- Hopkins, B. L., & Mawhinney, T. C. (Eds.). 1992. *Paying for performance: History, controversy, and evidence*. New York: The Haworth Press.
- Horai, J., & Tedeschi, J. T. 1969. Effects of credibility and magnitude of punishment on compliance to threats. *Journal of Personality and Social Psychology*, 12(2): 164 - 169.
- Horai, J., & Tedeschi, J. T. 1975. Compliance and the use of threats and promises after a power reversal. *Behavioral Science*, 20: 117 - 124.
- Hostager, T. J., Neil, T. C., Decker, R. L., & Lorentz, R. D. 1998. Seeing environmental opportunities: effects of intrapreneurial ability, efficacy, motivation and desirability. *Journal of Organizational Change and Management*, 11(1): 11 - 25.
- Howard, A. 1995. *The changing nature of work*. San Francisco: Jossey-Bass.
- Howard, P. 1991. Rice bowls and job security: the urban contract labor system. *Australian Journal of Chinese Affairs*, 25: 93 - 114.
- Howe, C. 1992. Foreword. In M. Korzec, *labor and the failure of reform in China*: vii - x. New York: St. Martins Press.
- Huey, J. 1994. Waking up to the new economy. *Fortune*, 27 June: 36 - 46.
- Huseman, R. C., Hatfield, J. D., & Miles, E. W. 1987. A new perspective on equity theory: The equity sensitivity construct. *Academy of Management Review*, 12(2): 222 - 234.

- Hutton, W. 1995. *The state we're in*. London: Jonathan Cape.
- Hutton, W. 1996. Fool's gold in a fool's paradise, *The Observer, Review*. 2 June: 1 - 2.
- Hyman, R. 1988. Flexible specialization: Miracle or myth? In R. Hyman, & W. Streeck (Eds.), *New technology and industrial relations*. Oxford: Basil Blackwell.
- IDS. 1985. The Merit Factor. London: Income Data Services.
- IDS. 1991. Flexible benefits, *IDS study 481*. London: Income Data Services.
- Ilgen, D. R., & Pulakos, E. D. (Eds.). 1999. *The changing nature of performance*. San Francisco: Jossey-Bass.
- Ilgen, D. R., & Sheppard, L. 2001. Motivation in work teams. In M. Erez, U. Klienbeck, & H. Thierry (Eds.), *Work motivation in the context of a globalizing economy*: 169 - 179. London: Lawrence Erlbaum Associates.
- ILO. 2001. World employment report: Life at work in the information economy. Geneva: International Labour Organization.
- Ingram, P., & Clay, K. 2000. The choice-within-constraints new institutionalism and implications for sociology. *Annual Review of Sociology*, 26: 525 - 546.
- IPM. 1992. Performance management in the UK: An analysis of the Issues. London: Institute of Personnel Management.
- Ippolito, R. 1995. Toward explaining the growth of defined contribution plans. *Industrial Relations*, 34: 1 - 20.
- IRRR. 1994. Pay delegation in the Civil Service: An Update, *Industrial Relations Review and Report*: SS6.
- Isen, A. M., Daubman, K. A., & Nowicki, G. P. 1987. Positive affect facilitates creative problem-solving. *Journal of Personality and Social Psychology*, 51:1122 - 1131.
- Jackson, M., Leopold, J., & Tuck, K. 1993. *The decentralization of collective bargaining*. Basingstoke: Macmillan.
- Jackson, S. E., & Dutton, J. E. 1988. Discerning threats and opportunities. *Administrative Science Quarterly*, 33: 370 - 387.
- Jacoby, S. M. 1985. *Employing bureaucracy: Managers, unions, and the transformation of work in American industry, 1900 - 1945*. New York: Columbia University Press.
- Jacoby, S. M. 1999. Are career jobs headed for extinction. *California Management Review*, 42(1): 123 - 145.
- Jefferson, G., & Xu, W. 1991. The impact of reform on socialist enterprises in transition: Structure, conduct and performance in Chinese industry. *Journal of Comparative Economics*, 15(1): 45 - 64.
- Jenkins, D. G. 1986. Financial Incentives. In E. A. Locke (Ed.), *Generalizing from laboratory to field settings*: 167 - 180. Lexington: DC Heath.
- Johnson, E., & Tversky, A. 1983. Affect, generalization and the perception of risk. *Journal of Personality and Social Psychology*, 45: 20 - 31.
- Johnson, J., & Nalbandian, C. 1998. Managing the emotional realities of job loss. *Public Management*, 80(2): 4 - 7.
- Johnson, J. V., & Hall, E. M. 1988. Job strain, work place social support, and cardiovascular disease: A cross-sectional study of a random sample of the Swedish working population. *American Journal of Public Health*, 78:1336 - 1342.
- Jones, G. R. 1983. Psychological orientation and the process of organizational socialization: An interactional perspective. *Academy of Management Review*, 8(3): 464 - 474.
- Kahneman, D., & Tversky, A. 1979. Prospect theory: An analysis of decision under risk. *Econometrica*, 47: 263 - 291.

- Kahneman, D., & Tversky, A. 1982. The psychology of preferences. *Scientific American*, 246: 136 - 141.
- Kalleberg, A. L. 2001a. The advent of the flexible workplace: Implications for theory and research. In D. B. Cornfield, K. E. Campbell, & H. J. McCammon (Eds.), *Working in restructured workplaces: Challenges and new directions for the sociology of work*: 437 - 453. London: Sage.
- Kalleberg, A. L. 2001b. Organizing flexibility: The flexible firm in a new century. *British Journal of Industrial Relations*, 39(4): 479 - 504.
- Kandel, E., & Lazear, E. 1992. Peer pressure and partnerships. *Journal of Political Economy*, 100(4): 801 - 817.
- Kanfer, R. 1990. Motivation theory and industrial organizational psychology. In M. D. Dunnette, & L. M. Hough (Eds.), *Handbook of industrial and organizational psychology*, 2nd ed., Vol. 1: 75 - 170. Palo Alto, CA: Consulting Psychologists Press.
- Kanter, R. M. 1989. *When giants learn to dance: Mastering the challenge of strategy, management, and careers in the 1990s*. New York: Simon & Schuster.
- Katzenbach, J., & House, R. 1992. *Managing uncertainty: A pragmatic approach*. New York: Van Nostrand Reinhold.
- Kauffman, S. 1995. *At home in the universe*. New York: Oxford University Press.
- Kaufman, B. E. 1999. Emotional arousal as a source of bounded rationality. *Journal of Economic Behavior and Organization*, 38: 135 - 144.
- Kelley, H. H. 1967. Attribution theory in social psychology. In D. Levine (Ed.), *Nebraska symposium on motivation*: 192 - 240. Lincoln: University of Nebraska Press.
- Kelly, J. E. 1998. *Rethinking industrial relations: Mobilisation, collectivism and long waves*. London: Routledge.
- Kennedy, L. 1992. The new pay game... and how you measure up. *Fortune*, Vol. 126: 116 - 119.
- Kerlinger, F. N. 1986. *Foundations of behavioral research* (3rd ed.). New York: Holt, Rinehart, & Winston.
- Kerr, S. 1975. On the folly of rewarding A, while hoping for B. *Academy of Management Journal*, 18: 769 - 783.
- Kerstholt, J. H. 1995. Decision making in a dynamic situation: The effect of false alarms and time pressure. *Journal of Behavioral Decision Making*, 8: 181 - 200.
- Kessler, I. 1994. Performance pay. In K. Sisson (Ed.), *Personnel Management: A comprehensive guide to theory and practice in Britain* (2nd ed): 465 - 494. Oxford: Blackwell.
- Kessler, I., & Purcell, J. 1992. Performance related pay: Objectives and application. *Human Resource Management Journal*, 2(3): 34 - 59.
- Kiesler, S., & Sproull, L. 1982. Managerial response to changing environments: Perspectives on problem sensing from social cognition. *Administrative Science Quarterly*, 27(4): 548 - 570.
- King, W. C., & Miles, E. W. 1994. The measurement of the equity sensitivity construct. *Journal of Occupational and Organizational Psychology*, 67: 133 - 142.
- King, W. C., Miles, E. W., & Day, D. D. 1993. A test and refinement of the equity sensitivity construct. *Journal of Organizational Behavior*, 14: 301 - 317.
- Kirschenbaum, A., & Mano-Negrin, B. 1999. Underlying labour market dimensions of 'opportunities': The case of employee turnover. *Human Relations*, 52(10): 1233 - 1255.

- Kirzner, I. M. 1973. *Competition and entrepreneurship*. Chicago: Chicago University Press.
- Kirzner, I. M. 1979. *Perception, opportunity, and profit: Study in the theory of entrepreneurship*. Chicago & London: The University of Chicago Press.
- Kittay, S., Serban, G., Kolb, L. C., & Sabshin, M. 1975. Psychopathology of human adaptation: Psychological and physiological mechanisms in human adaptation and maladaptation. In G. Serban (Ed.), *Psychopathology of human adaptation*: 1 - 7. New York: Plenum Press.
- Klein, H. J. 1991. Further evidence on the relationship between goal setting and expectancy theories. *Organizational Behavior and Human Decision Processes*, 49: 230 - 257.
- Klinger, E., Barta, S. G., & Mahoney, T. A. 1975. Motivation, mood, and mental events: Patterns and implications for adaptive processes. In G. Serban (Ed.), *Psychopathology of human adaptation*: 95 - 112. New York: Plenum Press.
- Kochan, T. A., Katz, H. C., & McKersie, R. B. 1986. *The transformation of American industrial relations*. New York: Basic Books.
- Kohn, A. 1993. Why incentive plans cannot work. *Harvard Business Review*, 71(5): 54 - 63.
- Komaki, J. L. 1986. Applied behavior analysis of organizational behavior: Reciprocal influence of the two fields. In B. M. Staw, & L. L. Cummings (Eds.), *Research in organizational behavior*, Vol. 8: 297 - 334. Greenwich, CT: JAI Press.
- Komaki, J. L., Coombs, T., Redding, J., & Schepman, S. 2000. A rich and rigorous examination of applied behavioral analysis research in the world of work. *International Review of Industrial and Organizational Psychology*, 15: 265 - 367.
- Konovsky, M. A., & Cropanzano, R. 1991. Perceived fairness of employee drug testing as a predictor of employee attitudes and job performance. *Journal of Applied Psychology*, 76(5): 698 - 707.
- Korzec, M. 1992. *Labor and the failure of reform in China*. New York: St. Martins Press.
- Kotler, P. 1967. *Marketing management, analysis, planning, and control*. Englewood Cliffs, NJ: Prentice-Hall.
- Kotler, P. 1997. *Marketing management, analysis, planning, implementation, and control* (9th ed). Upper Saddle River, NJ: Prentice-Hall.
- Kozlowski, S. W. J., Gully, S. M., Nason, E. R., & Smith, E. M. 1999. Developing adaptive teams: A theory of compilation and performance across levels and time. In D. R. Ilgen, & E. D. Pulakos (Eds.), *The changing nature of performance*: 240 - 294. San Francisco: Jossey-Bass Publishers.
- Kreitner, R., & Luthans, F. 1984. A social learning approach to behavioral management: Radical behaviorists "mellowing out". *Organizational Dynamics*, 13(2): 47 - 65.
- Krueger, N. F., Jr. 2000. The cognitive infrastructure of opportunity emergence. *Entrepreneurship Theory and Practice*, 24(3): 5 - 23.
- Kueh, Y. Y. 1999. Economic reform in Chinese industry: Efficiency and instability. In Y. Y. Kueh, J. C. H. Chai, & G. Fan (Eds.), *Industrial reform and macroeconomic instability in China*: 3 - 19. Oxford: Clarendon Press.
- Kuhn, A., & Beam, R. D. 1982. *The logic of organization*. San Francisco: Jossey-Bass.
- Kurtyka, J. 1999. The science of complexity: A new way to view industry change. *Journal of Retail Banking Services*, 21(2): 51 - 58.

- Laker, D. R. 1991. Job search, perceptions of alternative employment and turnover. *Journal of Applied Research*, 7: 6 - 16.
- Lamarck, J. B. 1809. *Zoological philosophy* (H. Elliot, Trans.) (Reprinted 1963 ed.). New York: Hafner.
- Lamertz, K. 2002. The social construction of fairness: social influence and sense making in organizations. *Journal of Organizational Behavior*, 23: 19 - 37.
- Lane, C. 1988. New technology and clerical work. In D. Gallie (Ed.), *Employment in Britain*. Oxford: Basil Blackwell.
- Lane, J., Feinberg, R. M., & Broadman, H. 2002. Do labour strategies matter? An analysis of two enterprise-level data sets in China. *International Journal of the Economics of Business*, 9(2): 225 - 237.
- Lane, P. J., Cannella, J., Albert A., & Lubatkin, M. H. 1998. Agency problems as antecedents to unrelated mergers and diversification: Amid and Lev reconsidered. *Strategic Management Journal*, 19(6): 555 - 578.
- Lane, R. E. 1991. *The market experience*. Cambridge: Cambridge University Press.
- Langmore, J., & Quiggin, J. 1994. *Work for all: Full employment in the nineties*. Victoria: Melbourne University Press.
- Larrick, R. P., Nisbett, R. E., & Morgan, J. N. 1993. Who uses the cost-benefit rules of choice? Implications for the normative status of microeconomic theory. *Organizational Behavior and Human Decision Processes*, 56: 331 - 347.
- Latham, G. P., & Baldes, J. J. 1975. The "practical significance" of Locke's theory of goal setting. *Journal of Applied Psychology*, 60(1): 122 - 124.
- Latham, G. P., & Huber, V. L. 1992. Schedules of Reinforcement: Lessons from the Past and Issues for the Future. In B. L. Hopkins, & T. C. Mawhinney (Eds.), *Paying for Performance: History, Controversy, and Evidence*: 5 - 26. New York: The Haworth Press.
- Latham, G. P., & Locke, E. A. 1979. Goal setting – A motivational technique that works. *Organizational Dynamics*, 8(2): 68 - 80.
- Latham, G. P., & Steele, T. P. 1983. The motivational effects of participation versus goal setting on performance. *Academy of Management Journal*, 26(3): 406 - 417.
- Lattimore, P., Baker, J., & Witte, A. 1992. The influence of probability on risky choice: A parametric examination. *Journal of Economic Behavior and Organization*, 17: 377 - 400.
- Lawler, E. E. III. 1968. Effects of hourly overpayment on productivity and work quality. *Journal of Personality and Social Psychology*, 10: 306 - 313.
- Lawler, E. E. III. 1971. *Pay and organizational effectiveness: a psychological view*. New York: McGraw-Hill.
- Lawler, E. E. III. 1973. *Motivation in work organizations*. Monterey, CA: Brooks/Cole.
- Lawler, E. E. III. 1987. The design of effective reward systems. In J. W. Lorsch (Ed.), *Handbook of Organizational Behavior*: 255 - 271. Englewood Cliffs, N. J.: Prentice Hall.
- Lawler, E. E. III. 1995. The new pay: A strategic approach. *Compensation & Benefits Review*, July-August: 14 - 22.
- Lawler III, E. E. 2000. *Rewarding excellence: Pay strategies for the new economy*. San Francisco, CA: Jossey-Bass.
- Lawler, E. E. III., & Suttle, J. L. 1973. Expectancy theory and job behavior. *Organizational Behavior and Human Performance*, 9: 482 - 503.

- Lawrence, P., & Lorsch, J. 1969. *Developing organizations: Diagnosis and action*. Reading, MA: Addison-Wesley.
- Lawrence, P. R., & Lorsch, J. W. 1967. *Organization and environment: Managing differentiation and integration*. Cambridge, MA: Graduate School of Business Administration, Harvard University.
- Lazarus, R. S., & Folkman, S. 1984. *Stress, appraisal, and coping*. New York: Springer.
- Lazear, E. 1995. *Personnel Economics*. Cambridge, MA: MIT Press.
- Le Pine, J. A., Colquitt, J. A., & Erez, A. 2000. Adaptability to changing task contexts: Effects of general cognitive ability, conscientiousness, and openness to experience. *Personnel Psychology*, 53: 563 - 593.
- Lee, K. Y. 2000. Speech to the 21st Century Forum. Beijing, 14 - 16 June.
- Legge, K. 1995. *Human resource management: Rhetorics and realities*. Basingstoke: Macmillan.
- Leibenstein, H. 1966. Allocative efficiency vs. "X-efficiency". *American Economic Review*, 56: 392 - 413.
- Lepper, M. R., Henderlong, J., & Gingras, I. 1999. Understanding the Extrinsic Rewards on Intrinsic Motivation – Uses and Abuses of Meta-Analysis: Comment on Deci, Koestner, and Ryan (1999). *Psychological Bulletin*, 125(6): 699 - 676.
- Levin, I. P., Johnson, R. D., Deldin, P. J., Carstens, L. M., Cressey, L. J., & Davis, C. R. 1986. Framing effects in decisions with completely and incompletely described alternatives. *Organizational Behavior and Human Decision Processes*, 38: 48 - 64.
- Lewicki, R. J., Mcallister, D. J., & Bies, R. J. 1998. Trust and distrust: New relationships and realities. *Academy of Management Review*, 23(3): 438 - 458.
- Libby, R., & Fishburn, P. C. 1977. Behavioral models of risk taking in business decision: A survey and evaluation. *Journal of Accounting Research*, 15: 272 - 292.
- Likert, R. 1967. *The human organization*. New York: McGraw-Hill.
- Lin, J. Y., Cai, F., & Li, Z. 2001. *State-owned enterprise reform in China*. Hong Kong: For Hong Kong Centre for Economic Research by The Chinese University Press.
- Lindbeck, A., & Snower, D. J. 1988. *The insider-outsider theory of employment and unemployment*. Cambridge, MA: MIT Press
- Lindblom, C. E. 1959. The science of muddling through. *Public Administration Review*, 19(1/2): 79 - 88.
- Lindblom, C. E. 1968. *The policy making process*. Englewood Cliffs, NJ: Prentice-Hall.
- Liu, D. Q., & Otsuka, K. 2004. A Comparison of management incentives, abilities, and efficiency between SOEs and TVEs: The case of the iron and steel industry in China. *Economic Development and Cultural Change*, 52(4): 759 - 780.
- Liu, J. S., & Lian, Qin (Eds.). 1994. A study of China's wage system reform and wage practices (*Zhongguo gongzitizhi gaigehe gongzigongzuo yenjiu*). (In Chinese). Beijing: *Laodong gongzi yenjiusuo*.
- Locke, E. A. 1968. Toward a theory of task motivation and incentives. *Organizational Behavior and Human Performance*, 3: 157 - 189.
- Locke, E. A. 1975. Personnel attitudes and motivation. *Annual Review of Psychology*, 26: 457 - 480.
- Locke, E. A. 1978. The ubiquity of the technique of goal setting in theories of and approaches to employee motivation. *Academy of Management Review* 3(3): 594 - 601.
- Locke, E. A. 1991. The motivation sequence, the motivation hub, and the motivation core. *Organizational Behavior and Human Decision Processes*, 50: 288 - 299.

- Locke, E. A., & Latham, G. P. 1984. *Goal setting: A motivational technique that works!* NJ: Englewood Cliffs: Prentice Hall.
- Locke, E. A., & Latham, G. P. 1990. *A theory of goal setting and task performance.* Upper Saddle River, N. J.: Prentice Hall.
- Locke, E. A., Shaw, K. N., Saari, L. M., & Latham, G. P. 1981. Goal setting and task performance: 1969 - 1980. *Psychological Bulletin*, 90(1): 125 - 152.
- Lopes, L. 1987. Between hope and fear: The psychology of risk. *Advances in Experimental Social Psychology*, 29: 255 - 295.
- Lorenz, E. H. 1992. Trust and the flexible firm: International comparisons. *Industrial Relations*, 31: 455 - 472.
- Lounamaa, P., & March, J. G. 1987. Adaptive coordination of a learning team. *Management Science*, 33(1): 107 - 123.
- Luthans, B. C., & Sommer, S. M. 1999. The impact of downsizing on workplace attitudes. *Group and Organization Management*, 24(1): 46 - 70.
- Luthans, F., & Kreitner, R. 1974. The management of behavioral contingencies. *Personnel*, 51: 7 - 16.
- Luthans, F., & Kreitner, R. 1975. *Organizational behavior modification.* Glenview, IL: Scott, Foresman.
- Luthans, F., & Kreitner, R. 1985. *Organizational behavior modification and beyond.* Glenview, IL: Scott, Foresman.
- Luthans, F., & Stajkovic, A. D. 1999. Reinforce for performance: The need to go beyond pay and even rewards. *Academy of Management Executive*, 13(2): 49 - 57.
- Ma, J. 2000. *The Chinese economy in 1990s.* London: Macmillan. Laodong gongzi yenjijusuo (In Chinese).
- Ma, Z. Y. (Ed.). 1994. *Case study series of the national team of 100 large and medium-sized enterprises (quanguo baijia dazhongxing qiye tiaocha).* Beijing: Dangdai zhongguo chubanshe. (In Chinese).
- Macías, E. F. 2003. Job instability and political attitudes towards work: Some lessons from the Spanish case. *European Journal of Industrial Relations*, 9(2): 205 - 222.
- Madsen, T. L., & McKelvey, B. 1996. Darwinian dynamic capability: Performance effects of balanced intrafirm selection processes. *Academy of Management Conference*, Business policy and strategy division: 26 - 30.
- Maehr, M. L., & Braskamp, L. A. 1986. *The motivation factor: A theory of personal investment.* Lexington, MA.: Lexington Books.
- Mahoney, T. 1992. Multiple pay contingencies: Strategic design of compensation. In G. Salaman (Ed.), *Human Resource Strategies*: 337 - 346. London: Sage.
- March, J. G. 1978. Bounded rationality, ambiguity, and the engineering of choice. *Bell Journal of Economics*, 9: 587 - 608.
- March, J. G., & Simon, H. A. 1958. *Formal organizations.* New York: Wiley.
- Marholin, D., II, & Gray, D. 1976. Effects of group response-cost procedures on cash shortages in a small business. *Journal of Applied Behavioral Analysis*, 9(1): 25 - 30.
- Marsden, D., & French, S. 1998. What a performance: Performance related pay in the public services. London: Centre for Economic Performance.
- Marsden, D., & Richardson, R. 1994. Performing for pay? The effects of 'merit pay' on motivation in a public service. *British Journal of Industrial Relations*, 32(2): 243 - 261.
- Marshall, J. 1995. Putting more pay at risk, *US Banker*, Vol. 105: 73 - 75.

- Martin, C. L. 1987. *Distributive and procedural justice effects on satisfaction and commitment*. Unpublished doctoral dissertation, Georgia Institute of Technology, Athens, GA.
- Martin, G. 1994. Performance-related pay in nursing: Theory, practice and prospect. *Health Manpower Management*, 20(5): 10 - 19.
- Martocchio, J. 1998. *Strategic compensation*. Upper Saddle River, N. J.: Prentice Hall.
- Maslow, A. H. 1943. A theory of human motivation. *Psychological Review*, 1: 370 - 396.
- Mayes, B. T. 1978. Some boundary conditions in the application of motivation models. *Academy of Management Review*, 3: 51 - 58.
- Mayor of London. 2005. *Mayor's statement, 7 July 2005*, Vol. 2005: The Londoner website: www.london.gov.uk/mayor/londoner.
- Mayo, E. 1933. *The human problems of an industrial civilization*. New York: Macmillan.
- Mayo, E. 1945. *The social problems of an industrial civilization*. Cambridge, MA: Harvard University Press.
- Mayo, J. W., & Murray, M. N. 1991. Firm size, employment risk and wages: Further insights on a persistent puzzle. *Applied Economics*, 23(8): 1351 - 1559.
- McAllister, D. J., Mitchell, T. R., & Beach, L. R. 1979. The contingency model for selection of decision strategies: An empirical test of the effects of significance, accountability, and reversibility. *Organizational Behavior and Human Performance*, 24: 228 - 244.
- McGregor, D. 1960. *The human side of enterprise*. New York: McGraw-Hill.
- McGregor, D. M. 1976. The human side of enterprise. In W. R. Nord (Ed.), *Concepts and controversy in organizational behavior*, 2nd ed.: 56 - 64. Santa Monica, CA: Good Year Publishing.
- McKenzie, R. B., & Lee, D. R. 1998. *Managing through incentives: How to develop a more collaborative, productive, and profitable organization*. New York: Oxford University Press.
- McLaverly, P., & Drummond, H. 1993. Work, effort, and performance. *Employee Relations*, 15(3): 37 - 44.
- McMillan, J., & Naughton, B. 1996. Reforming China's state-owned firms. In J. McMillan, & B. Naughton (Eds.), *Reforming Asian socialism: The growth of market institutions*: 167 - 174. Ann Arbor, MI: The University of Michigan Press.
- McNutt, R. P. 1991. Variable pay: An important part of the future. *Compensation & Benefits Review*, 23(3): 65 - 66.
- Mento, A. J., Locke, E. A., & Klein, H. J. 1992. Relationship of goal level to valence and instrumentality. *Journal of Applied Psychology*, 77: 395 - 405.
- Metcalf, D., Hansen, K., & Charlwood, A. 2001. Unions and the sword of justice: Unions and pay systems, pay inequality, pay discrimination and low pay. *National Institute Economic Review*, 176(1): 61 - 75.
- Meulders, D., & Wilkins, L. 1987. Labor market flexibility: Critical introduction to the analysis of a concept. *Labour and Society*, 12: 3 - 17.
- Meyer, A. D. 1982. Adapting to environmental jolts. *Administrative Science Quarterly*, 27: 515 - 537.
- Meyer, C. 2002. Survival under stress. *MIT Sloan Management Review*, 44(1): 96.
- Meyer, H. H. 1987. How can we implement a pay-for-performance policy successfully? In D. B. Balkin, & L. R. Gomez-Mejia (Eds.), *New perspectives on compensation*: 179 - 186. Englewood Cliffs, NJ: Prentice Hall.

- Miles, J. A., & Greenberg, J. 1993. Using punishment threats to attenuate social loafing effects among swimmers. *Organization Behavior and Human Decision Processes*, 56: 246 - 265.
- Miles, R. E. 1965. Human relations or human resources? *Harvard Business Review*, 43(4): 148 - 163.
- Miles, R. E., Coleman, H. J., Jr., Snow, C. C., Miles, G., & Mathews, J. A. 1998. Complexity theory and the evolution of organizational forms. Working paper, Haas School of Business, University of Berkeley.
- Miles, R. E., Porter, L. W., & Craft, J. A. 1966. Leadership attitudes among public health officials. *American Journal of Public Health*, 56: 1990 - 2005.
- Miles, R. E., Snow, C. C., Mathews, J. A., Miles, G., & Coleman, H. J., Jr. 1997. Organizing in the knowledge age: Anticipating the cellular form. *Academy of Management Executive*, 11: 7 - 24.
- Milgrom, P., & Roberts, J. 1992. *Economics, organization, and management*. New Jersey: Prentice-Hall.
- Milkovich, G. T., & Wigdor, A. K. 1991. Pay for performance: Performance appraisal and merit pay. Washington, DC: National Academy Press.
- Miller, J. G. 1965. Living systems: Basic concepts. *Behavioral Science*, 10(3): 193 - 237.
- Miller, J. G. 1978. *Living systems*. New York: McGraw-Hill.
- Miller, J. S., Wiseman, R. M., & Gomez-Mejia, L. R. 2002. The fit between CEO compensation design and firm risk. *Academy of Management Journal*, 45(4): 745 - 756.
- Minematsu, S., Sakata, H., Zheng, X. P., & Yamada, J. 1998. The major issues of the regional development Strategies in China. *OECD Journal of Development Assistance*, 3(2): 110 - 160.
- Mintzberg, H. 1979. An emerging strategy of "direct" research. *Administrative Science Quarterly*, 24: 582 - 589.
- Mintzberg, H., Raisinghani, D., & Théorêt, A. 1976. The structure of "unstructured" decision processes. *Administrative Science Quarterly*, 21: 246 - 276.
- Mirvis, P. H. 1993. *Building the competitive workforce: Investing in human capital for corporate success*. New York: John Wiley.
- Mishan, E. J. 1975. *Cost-benefit analysis*. London: George Allen & Unwin.
- Mishra, A. K., & Spreitzer, G. M. 1998. Explaining how survivors respond to downsizing: The roles of trust, empowerment, justice, and work redesign. *Academy of Management Review*, 23: 567 - 588.
- Mitchell, D. J. B., Lewin, D., & Lawler III, E. E. 1990. Alternative pay systems, firm performance, and productivity. In A. S. Blinder (Ed.), *Paying for Productivity: A Look at the Evidence*: 15 - 94. Washington, DC: The Brookings Institution.
- Mitchell, T. R. 1974. Expectancy models of job satisfaction, occupational preference, and effort: A theoretical, methodological, and empirical appraisal. *Psychological Bulletin*, 81: 1053 - 1077.
- Mitchell, T. R., & Daniels, D. 2003. Motivation. In W. C. Borman, D. R. Ilgen, & R. J. Klimoski (Eds.), *Comprehensive Handbook of Psychology*, Vol. 12: 225 - 254. New York: John Wiley & Sons, Inc.
- Mitchell, T. R., Hopper, H., Daniels, D., George-Falvy, J., & James, L. R. 1994. Predicting self-efficacy and performance during skill acquisition. *Journal of Applied Psychology*, 79(4): 506 - 517.

- Mitchell, T. R., Thompson, K., & George-Falvy, J. 2000. Goal setting: Theory and practice. In C. L. Cooper, & E. A. Locke (Eds.), *Industrial and Organizational Psychology: Linking Theory with Practice*: 216 - 249. Oxford, U.K.: Blackwell.
- Mitsubishi Research Institute. 1996. China information. (11): 12. (In Japanese).
- Miyazaki, H., & Neary, H. M. 1983. The Illyrian firm revisited. *Bell Journal of Economics*, 14(1): 259 - 270.
- Monge, P. R., Cozzens, M. D., & Contractor, N. S. 1992. Communication and motivational predictors of the dynamics of organizational innovation. *Organization Science*, 3: 250 - 274.
- Moorman, R. H. 1991. Relationship between organizational justice and organizational citizenship behavior: Do fairness perceptions influence employee citizenship? *Journal of Applied Psychology*, 76(6): 845 - 855.
- Morgan, G. 1993. Organizations as political systems. In C. Mabey, & B. Mayon-White (Eds.), *Managing change*, 2nd ed.: 212 - 217. London: Paul Chapman.
- Morgan, G. 1996. *Images of organizations*. Thousand Oaks, CA: Sage.
- Morgan, J. N., & Duncan, G. J. 1982. Making your choices count: Economic principles for everyday decisions, *Making your choices count: Economic principles for everyday decisions*. Ann Arbor, MI: University of Michigan Press.
- Moskowitz, G. B., Gollwitzer, P. M., Wasel, W., & Schaal, B. 1999. Preconscious control of stereotype activation through chronic egalitarian goals. *Journal of Personality & Social Psychology*, 77(1): 167 - 184.
- Mowday, R. T. 1991. Equity theory predictions of behavior in organizations. In R. M. Steers, & L. W. Porter (Eds.), *Motivation and Work Behavior*: 111 - 129. New York: McGraw-Hill
- Mowday, R. T., Porter, L. W., & Steers, R. M. 1982. *Employee-organization linkages: The psychology of commitment, absenteeism, and turnover*. New York: Academic Press.
- Mowen, M., & Mowen, J. 1986. An empirical examination of the biasing effects of framing on business decisions. *Decision Sciences*, 17: 596 - 602.
- Murlis, H. 1996. Can unity be preserved in the midst of diversity? *People Management*, Vol. 2: 21.
- Murphy, P. R., & Jackson, S. E. 1999. Managing work role performance: Challenges for twenty-first century organizations and their employees. In D. R. Ilgen, & E. D. Pulakos (Eds.), *The changing nature of performance: Implications for staffing, motivation, and development*: 325 - 365. San Francisco: Jossey-Bass Publishers.
- Nadler, D. A., Gerstein, M. S., & Shaw, R. B. 1992. *Organizational architecture: Designs for changing organizations*. San Francisco: Jossey-Bass.
- Naughton, B. 1995. *Growing out of the plan: Chinese economic reform, 1978 - 1993*. Cambridge: Cambridge University Press.
- Neale, M. A., Huber, V. L., & Northcraft, G. B. 1987. The framing of negotiations: Contextual vs. task frames. *Organizational Behavior and Human Decision Processes*, 39: 228 - 241.
- Neale, M. A., & Northcraft, G. B. 1991. Factors influencing organizational commitment. In R. M. Steers, & L. W. Porter (Eds.), *Motivation and work behavior*, Vol. 5th: 290 - 297. New York: McGraw-Hill.
- Nee, V., & Ingram, P. 1998. Embeddedness and beyond: Institutions, exchange, and social structure. In M. C. Brinton, & V. Nee (Eds.), *The new institutionalism in sociology*: 19 - 45. New York: Russell Sage Foundation.

- Nicholson, N. 2001. Evolutionary perspective on change and stability in personality, culture and organization. In M. Erez, U. Klienbeck, & H. Thierry (Eds.), *Work motivation in the context of a globalizing economy*: 381 - 394. London: Lawrence Erlbaum Associates.
- Nicholson, N. 2003. How to motivate your problem people. *Harvard Business Review*, 81(1): 56 - 65.
- Nolan, J. P., Wichert, I. C., & Burchell, B. F. 2000. Job insecurity, psychological well-being and family life. In E. Heery, & J. Salmon (Eds.), *The insecure workforce*: 181 - 209. London: Routledge.
- Nolan, P. 2001. *China and the global business revolution*. Basingstoke, NY: Palgrave.
- Nord, O. 1969. Beyond the teaching machine: The neglected area of operant conditioning in the theory and practice of management. *Organizational Behavior and Human Performance*, 4(4): 375 - 401.
- Nord, W. R. (Ed.). 1976. *Concepts and controversy in organizational behavior* (2nd ed.). Santa Monica, CA: Good Year Publishing.
- Nugent, J. B., Perrigne, I. M., & Qiu, J. 1999. Competition, incentives, and productivity in Chinese township and village enterprises. *Pacific Economic Review*, 4(2): 91 - 113.
- Nunnally, J. C., & Bernstein, I. H. 1994. *Psychometric theory*. New York: McGraw-Hill.
- Oaklander, H. 1991. Japanese lifetime employment revisited, *Center for Applied Research, Lubin School of Business, Pace University, NY*, Working Paper no. 104.
- OECD. 1999. Employment outlook. Paris: Organization for Economic Cooperation and Development.
- OECD. 2005a. Employment outlook. Paris: Organization for Economic Cooperation and Development.
- OECD. 2005b. Performance-related pay policies for government employees. Paris: Organization for Economic Cooperation and Development.
- O'Hara, K., Johnson, C. M., & Beehr, T. A. 1985. Organizational behavior management in the private sector: A review of empirical research and recommendations for future investigation. *Academy of Management Review*, 10: 848 - 864.
- Olds, J. 1956. *The growth and structure of motives*. Glencoe, Illinois: The Free Press.
- O'Neil, G. L. 1995. Linking pay to performance: Conflicting views and conflicting evidence. *Asia Pacific Journal of Human Resources*, 33(2): 1 - 20.
- Opsahl, R. L., & Dunnette, M. D. 1966. The role of financial compensation in industrial motivation. *Psychological Bulletin*, 66: 95 - 116.
- O'Reilly, C. 1989. Corporations, culture and commitment: Motivation and social control in organizations. *California Management Review*, 31(4): 9 - 25.
- Organ, D. W. 1973. Boundary roles and individual differences: Working paper, Indiana University.
- Osterman, P. 1988. *Employment futures: Reorganization, dislocation, and public policy*. Oxford: Oxford University Press.
- Ouchi, W. 1979. A conceptual framework for the design of organizational control mechanisms. *Management Science*, 25: 833 - 848.
- Parker, E. 1999. Are wage increases in Chinese state Industry efficient? Productivity in Nanjing's machine-building industry. *Contemporary Economic Policy*, 17(1): 54 - 67.
- Paternoster, R. 1987. The deterrent effect of the perceived certainty and severity of punishment: A review of the evidence and issues. *Justice Quarterly*, 4: 173 - 217.

- Peach, E. B., & Wren, D. A. 1992. Pay for performance from Antiquity to the 1950s. In B. L. Hopkins, & T. C. Mawhinney (Eds.), *Paying for Performance: History, Controversy, and Evidence*: 5 - 26. New York: The Haworth Press.
- Pearce, J. L. 1987. Why Merit Pay Doesn't Work: Implications from Organization Theory. In D. B. Balkin, & L. R. Gomez-Mejia (Eds.), *New Perspectives on Compensation*: 169 - 178. Englewood Cliffs, NJ: Prentice-Hall. Reprinted 1991 in R. M. Steers, & L. W. Porter (Eds.), *Motivation and work behavior*: 498 - 506. New York: McGraw-Hill.
- Pelled, L. H., Eisenhardt, K. M., & Xin, K. R. 1999. Exploring the black box: An analysis of work group diversity, conflict, and performance. *Administrative Science Quarterly*, 44: 1 - 28.
- Perrucci, C., Perrucci, R., Targ, D., & Targ, H. 1988. *Plant closings*. Hawthorne, NY: Aldine de Gruyter.
- Perry, N. J. 1988. Here come richer, riskier pay plans, *Fortune*, Vol. 118: 50 - 54.
- Pettigrew, A., & Whipp, R. 1993. Understanding the environment. In C. Mabey, & B. Mayon-White (Eds.), *Managing change*, 2nd ed.: 5 - 19. London: Paul Chapman.
- Pfeffer, J., & Baron, J. N. 1988. Taking the workers back out: Recent trends in the structuring of employment. In B. M. Staw (Ed.), *Research in organizational behavior*, Vol. 10: 257 - 303. Westport, CT: JAI.
- Pfeffer, J., & Salancik, G. R. 1978. *The external control of organizations: A resource dependence perspective*. New York: Harper & Row.
- Phillips, J. S., & Freeman, S. M. 1985. Contingent pay and intrinsic task interest: Moderating effects of work values. *Journal of Applied Psychology*, 70(2): 306 - 313.
- Pinder, C. C. 1984. Valence-instrumentality-expectancy theory, *Work motivation*. Glenview, IL: Scott, Foresman. Reprinted 1991 in R. M. Steers, & L. W. Porter (Eds.), *Motivation and work behavior*: 144 - 164. New York: McGraw-Hill.
- Pinder, C. C. 1998. *Work motivation in organizational behavior*. Upper Saddle River, N. J.: Prentice Hall.
- Pinfield, L. T., & Atkinson, J. S. 1988. The flexible firm. *Canadian Business Review*, 15: 17 - 19.
- Piore, M. 1986. Perspectives on labor market flexibility. *Industrial Relations*, 25: 146 - 166.
- Piore, M., & Sabel, C. 1984. *The second industrial divide*. New York: Basic Books.
- Pollert, A. 1988. The "flexible firm": Fixation or fact? *Work, Employment, and Society*, 2: 281 - 316.
- Porter, L. W., & Lawler III, E. E. 1968. *Managerial attitudes and performance*. Homewood, IL: Richard D. Irwin.
- Porter, L. W., Lawler III, E. E., & Hackman, J. R. 1975. *Behavior in organizations*. New York: McGraw-Hill.
- Porter, M. E. 1991. Canada at the crossroads: The reality of a new competitive environment. Ottawa: Government of Canada and the Business Council on National Issues.
- Potts, J. 2000. *The new evolutionary microeconomics: Complexity, competence and adaptive behavior*. Cheltenham: Edward Elgar.
- Powell, T. C. 1992. Strategic planning as competitive advantage. *Strategic Management Journal*, 13: 551 - 558.
- Prendergast, C. 1999. The provision of incentives in firms. *Journal of Economic Literature*, 37: 7 - 63.

- Primeaux, W. J. 1977. An assessment of X-efficiency gained through competition. *Review of Economics and Statistics*, 59(1): 105 - 108.
- Pritchard, R. D., Dunnette, M. D., & Jorgenson, D. O. 1972. Effects of perceptions of equity and inequity on worker performance and satisfaction. *Journal of Applied Psychology*, 56: 75 - 94.
- Pulakos, E. D., Arad, S., Donovan, M. A., & Plamondon, K. E. 2000. Adaptability in the workplace: Development of a taxonomy of adaptive performance. *Journal of Applied Psychology*, 85(4): 612 - 624.
- Ramanujam, R. 2003. The effects of discontinuous change on latent errors in organizations: The moderating role of risk. *Academy of Management Journal*, 46(5): 608 - 617.
- Rasch, R. H., & Tosi, H. L. 1992. Factors affecting software developers' performance: An integrated approach. *MIS Quarterly*, 16: 395 - 413.
- Rastegary, H., & Landy, F. J. 1993. The interactions among time urgency, uncertainty, and time pressure. In O. Svenson, & A. J. Maule (Eds.), *Time pressure and stress in human judgment and decision making*: 217 - 239. New York: Plenum.
- Reilly, P. 2001. *Flexibility at work: Balancing the interests of employer and employee*. Hampshire: Gower.
- Rhoades, L., & Eisenberger, R. 2002. Perceived organizational support: A review of literature. *Journal of Applied Psychology*, 87(4): 698 - 714.
- Risher, H. 1999. Are public employers ready for a "new pay" program? *Public Personnel Management*, 28(3): 323 - 343.
- Robinson, P. 2000. Insecurity and the flexible workforce: Measuring the ill-defined. In E. Heery, & J. Salmon (Eds.), *The insecure workforce*: 25 - 38. London: Routledge.
- Roethlisberger, F., & Dickson, W. J. 1939. *Management and the worker*. Cambridge, Mass.: Harvard University Press.
- Rogers, C. R., & Skinner, B. F. 1956. Some issues concerning the control of human behavior: A symposium. *Science*, 124: 1057 - 1066.
- Rogers, R. W. 1975. A protection motivation theory of fear appeals and attitude change. *Journal of Psychology*, 91: 93 - 114.
- Roney, C. R., Higgins, E. T., & Shah, J. 1995. Goals and framing: How outcome focus influence motivation and emotion. *Journal of Personality and Social Psychology*, 21: 1151 - 1160.
- Rook, J. C. 1987. Adaptation. In R. J. Corsini (Ed.), *Concise encyclopedia of psychology*: 14. New York: John Wiley & Sons.
- Rosenfeld, M. 1986. Substantive equality and equal opportunities: A jurisprudential appraisal. *California Law Review*, 74(5): 1687 - 1712.
- Roskies, E., & Louis-Gerin, C. 1989. Job insecurity in managers: Antecedents and consequences. *Journal of organizational behavior*, 11: 345 - 359.
- Rousseau, D. M. 2000. Psychological contract issues in compensation. In S. L. Rynes, & B. Gerhart (Eds.), *Compensation in organizations*: 273 - 310. San Francisco: Jossey-Bass.
- Rubin, B. A., & Smith, B. T. 2001. Reemployment in the restructured economy. In D. B. Cornfield, K. E. Campbell, & H. J. McCammon (Eds.), *Working in restructured workplaces: Challenges and new directions for the sociology of work*: 323 - 342. London: Sage.
- Rubin, I. 1977. Universities in stress: Decision making under conditions of reduced resources. *Social Science Quarterly*, 58: 242 - 254.

- Rueschemeyer, D., & Evans, P. B. 1985. The state and economic transformation: Toward an analysis of the conditions underlying effective intervention. In P. B. Evans, D. Rueschemeyer, & T. Skocpol (Eds.), *Bringing the state back in*: 44 - 77. London: Cambridge University Press.
- Rutledge, R. W., & Karim, K. E. 1999. The influence of self-interest and ethical considerations on managers' evaluation of judgments. *Accounting, Organizations, and Society*, 24(2): 173 - 184.
- Rutter, M. 1987. Psychosocial resilience and protective mechanisms. *American Journal of Orthopsychiatry*, 57(3): 316 - 331.
- Rynes, S. L., & Gerhart, B. (Eds.). 2000. *Compensation in organizations: Current research and practice*. San Francisco: Jossey-Bass.
- Sachs, J. D., & Woo, W. T. 1997. Understanding China's economic performance, *NBER Working Paper* 5935.
- Salancik, G. R., & Pfeffer, J. 1978. A social information processing approach to job attitudes and task design. *Administrative Science Quarterly*, 23: 224 - 252.
- Sawyer, J., & Guetzkow, H. 1965. Bargaining and negotiation in international relations. In H. C. Kelman (Ed.), *International behavior*: 464 - 520. New York: Holt, Rinehart & Winston.
- Sawyer, J. E. 1990. Effects of risk and ambiguity on judgments of contingency relations and behavior resource allocation decisions. *Organizational Behavior and Human Decision Processes*, 45: 85 - 110.
- Sayers, S. 1988. The need to work: A perspective from philosophy. In R. E. Pahl (Ed.), *On work: Historical, comparative and theoretical approaches*: 722 - 741. London: Basil Blackwell.
- Scase, R., & Goffee, R. 1989. *Reluctant managers*. London: Unwin Hyman.
- Schein, E. 1972. *Organizational psychology*. Englewood Cliffs, NJ: Prentice-Hall.
- Schervish, P. G. 1983. *The structural determinants of unemployment : vulnerability and power in market relations*. New York: Academic Press.
- Schmidt, S. R. 1999. Long-run trends in workers' beliefs about their own job security: Evidence from the General Social Survey. *Journal of Labor Economics*, 17(4): 127 - 141.
- Schminke, M., Ambrose, M. L., & Cropanzano, R. S. 2000. The effect of organizational structure on perceptions of procedural fairness. *Journal of Applied Psychology*, 85(2): 294 - 304.
- Schor, J. B. 1991. *The overworked American*. New York: Basic Books.
- Schumpeter, J. 1976. *Capitalism, socialism and democracy*. New York: Harper & Row.
- Schuster, J. R., & Zingheim, P., K. 1992. *The new pay: Linking employee and organizational performance*. New York: Lexington.
- Schwab, D. P. 1980. Construct validity in organizational behavior. In B. M. Staw, & L. L. Cummings (Eds.), *Research in Organizational Behavior*, Vol. 2: 3 - 43. Greenwich, CT: JAI Press.
- Schwab, D. P., Olian-Gottlieb, J. D., & Heneman, H. G. I. 1979. Between-subjects expectancy theory research: A statistical review of studies predicting effort and performance. *Psychological Bulletin*, 86(1): 139 - 147.
- Schweitzer, M. E., Ordóñez, L., & Douma, B. 2004. Goal setting as a motivator of unethical behavior. *Academy of Management Journal*, 47(3): 422 - 432.
- Scott, W. G. 1976. Organization theory: A reassessment. In W. R. Nord (Ed.), *Concepts and controversy in organizational behavior* (2nd ed.): 360 - 372. Santa Monica, CA: Good Year Publishing.

- Seijts, G. H., Latham, G. P., Tasa, K., & Latham, B. W. 2004. Goal setting and goal orientation: An integration of two different yet related literatures. *Academy of Management Journal*, 47(2): 227 - 239.
- Sekigawa, E. 2003. A Japanese first - wage cuts. *Aviation Week & Space Technology*, 159(15): 41.
- Seo, M.-G., Feldman Barrett, L., & Bartunek, J. M. 2004. The role of affective experience in work motivation. *Academy of Management Review*, 29: 423 - 439.
- Sewell, G., & Wilkinson, B. 1990. "Someone to watch over me": Surveillance, discipline and the just-in-time labor process, Unpublished paper, Cardiff Business School.
- Shaw, J. B., & Weekley, J. A. 1985. The effects of objective work-load variations of psychological strain and post-workload performance. *Journal of Management*, 11(1): 87 - 98.
- Sheppard, H. L., & Herrick, N. O. 1972. *Where have all the robots gone? Worker dissatisfaction in the 70's*. New York: Free Press.
- Shirley, M. M., & Xu, L. C. 1999. The empirical effects of performance contracts: Evidence from China, *Policy Research Working Paper Series: 1919*. Washington DC.
- Shore, L. M., & Shore, T. H. 1995. Perceived organizational support and organizational justice. In R. S. Cropanzano, & K. M. Kacmar (Eds.), *Organizational politics, justice, and support: Managing the social climate of the workplace*: 149 - 164. Westport, CT: Quorum.
- Shuey, K. M., & O'Rand, A. M. 2004. New risks for workers: Pensions, labor markets, and gender. *Annual Review of Sociology*, 30(1): 453 - 477.
- Simon, H. A. 1955. A behavioral model of rational choice. *Quarterly Journal of Economics*, 69: 99 - 118.
- Simon, H. A. 1957. *Administrative behavior* (2nd ed.). New York: Macmillan.
- Simon, H. A. 1965. *The new science of management decision*. Englewood Cliffs, NJ: Prentice-Hall.
- Simon, H. A. 1996. Bounded rationality and organizational learning. In M. D. Cohen, & L. S. Sproull (Eds.), *Organizational learning*. Thousand Oaks, CA: Sage.
- Simons, T., & Roberson, Q. 2003. Why managers should care about fairness: The effects of aggregate justice perceptions on organizational outcomes. *Journal of Applied Psychology*, 88(3): 432 - 442.
- Sims, J., H. P. 1980. Further thoughts on punishment in organizations. *Academy of Management Review*, 5: 133 - 138.
- Singer, J. D. 1958. Threat-perception and the armament-tension dilemma. *Journal of Conflict Resolution*, 2: 90 - 105.
- Singer, J. E. 1966. Motivation for consistency. In S. Feldman (Ed.), *Cognitive consistency: Motivational antecedents and behavior consequents*: 48 - 75. New York: Academic Press.
- Singh, J. V. 1986. Performance, slack, and risk-taking in organizational decision-making. *Academy of Management Journal*, 29(3): 562 - 585.
- Sitkin, S. B., & Pablo, A. L. 1992. Reconceptualizing the determinants of risk behavior. *Academy of Management Review*, 17(1): 9 - 38.
- Sitkin, S. B., & Weingart, L. R. 1995. Determinants of risky decision-making behavior: A test of the mediating role of risk perceptions and propensity. *Academy of Management Journal*, 38(6): 1573 - 1592.
- Skinner, B. F. 1953. *Science and human behavior*. New York: Macmillan.

- Skinner, B. F. 1969. *Contingencies of reinforcement*. New York: Appleton-Century-Crofts.
- Sliwka, D. 2003. On the hidden costs of incentive schemes, IZA Discussion Paper Series No. 844: 1 - 38. Bonn: The Institute for the Study of Labor.
- Slovic, P., Fischhoff, B., & Lichtenstein, S. 1977. Behavioral decision theory. *Annual Review of Psychology*, 28: 1 - 9.
- Smart, C., & Vertinsky, I. 1977. Designs for crisis decision units. *Administrative Science Quarterly*, 22: 640 - 657.
- Smidts, A. 1997. The relationship between risk attitude and strength of preference: A test of intrinsic risk attitude. *Management Science*, 43: 357 - 370.
- Smith, A. 1776. *The wealth of nations* (1982 ed.). New York: Penguin Books.
- Smith, E. M., Ford, J. K., & Kozolowski, S. W. J. 1997. Building adaptive expertise: Implications for training design. In M. A. Quinones, & A. Dudda (Eds.), *Training for 21st century technology: Applications of psychological research*: 89 - 118. Washington, DC: APA Books.
- Smith, V. 1997. New forms of work organization. *Annual Review of Sociology*, 23: 315 - 339.
- Smither, J. W., London, M., Flautt, R., Vargas, Y., & Kucine, I. 2003. Can working with an executive coach improve multiscore feedback ratings over time? A quasi-experimental field study. *Personnel Psychology*, 56(1): 23 - 34.
- Smithson, J., & Lewis, S. 2000. Is job security changing the psychological contract? *Personnel Review*, 29(6): 680 - 702.
- Snyder, M. 1979. Self-monitoring processes. In L. Berkowitz (Ed.), *Advances in experimental social psychology*, Vol. 12: 86 - 124. New York: Academic Press.
- Spector, P. E. 2005. Introduction: emotional intelligence. *Journal of Organizational Behavior*, 26(4): 409 - 411.
- SSB. Various years from 1991 - 2003 *China Statistical Yearbook (Zhongguo tongji nianjian)*. Beijing: State Statistical Press (In Chinese).
- SSB. Various years from 1991 - 1997. *China Statistical Yearbook*. Beijing: State Statistical Press.
- Stafford, B. 1989. De-industrialization in advanced economies. *Cambridge Journal of Economics*, 13: 541 - 554.
- Stajkovic, A. D., & Luthans, F. 1997. A meta-analysis of the effects of organizational behavior modification on task performance. *Academy of Management Journal*, 40: 1122 - 1149.
- Starbuck, W. H., & Hedberg, B. L. T. 1977. Saving an organization from a stagnating environment. In H. Thorelli (Ed.), *Strategy + structure = performance*: 249 - 258.
- Staw, B. M. 1974. Attitudinal and behavioral consequences of changing a major organizational reward: a natural field experiment. *Journal of Personality and Social Psychology*, 29: 742 - 751.
- Staw, B. M. 1977. Motivation in organization: Toward synthesis and redirection. In B. M. Staw, & G. R. Salancik (Eds.), *New directions in organizational behavior* (2nd ed.): 55 - 96. Chicago: St. Clair Press.
- Staw, B. M. 1986. Organizational psychology and the pursuit of the happy/productive worker. *California Management Review*, 28 (4): 40 - 53. Reprinted 1991 in R. M. Steers, & L. W. Porter (Eds.), *Motivation and work behavior*: 264 - 277. New York: McGraw-Hill.

- Staw, B. M., Sandelands, L. E., & Dutton, J. E. 1981. Threat-rigidity effects in organizational behavior: A multi-level analysis. *Administrative Science Quarterly*, 26: 501 - 524.
- Steers, R. M., Mowday, R. T., & Shapiro, D. L. 2004. Introduction to special topic forum: The future of work motivation theory. *Academy of Management Review*, 29(3): 379 - 387.
- Steers, R. M., & Porter, L. W. 1974. The role of task-goal attributes in employee performance. *Psychological Bulletin* 81(7): 434 - 452.
- Steers, R. M., & Porter, L. W. 1991. *Motivation and work behavior* (5th ed.)
- Steinbruner, J. D. 1974. *The cybernetic theory of decision*. Princeton, NJ: Princeton University Press.
- Stewman, S., & Konda, S. L. 1983. Careers and organizational labor markets: Demographic models of organizational behavior. *American Journal of Sociology*, 88: 637 - 685.
- Stone, D. N., & Ziebart, D. A. 1995. A model of financial incentive effects in decision making. *Organizational Behavior and Human Decision Processes*, 61(3): 250 - 261.
- Sun, B. C. 2000a. Pay and motivation in Chinese enterprises. In M. Warner (Ed.), *Changing workplace relations in the Chinese economy*: 205 -223. London: Macmillan.
- Sun, B. C. 2000b. *Creating jobs, creating workers: Enterprise reform and employment strategies for redundant workers in the People's Republic of China*. Paper presented at the 12th World Congress of the International Industrial Relations Association, Tokyo.
- Sun, B. C. 2001a. *Motivation theory in the age of industrial relations reform*. Paper presented at the 53rd annual meeting of the Industrial Relations Research Association, New Orleans.
- Sun, B. C. 2001b. *Toward a general theory of opportunity perception*. Paper presented at the AMR Theory Development Workshop, 61st Annual Meeting of Academy of Management, Washington, DC.
- Sun, B. C. 2002. *The impact of utility-based pay in a high-commitment workplace*. Paper presented at the Industrial Relations Research Association, New Orleans.
- Sutinen, J. G., & Kuperan, K. 1999. A socio-economic theory of regulatory compliance. *International Journal of Social Economics*, 26(1): 174 - 193.
- Swedberg, R. 2005. *The Max Weber dictionary: Key words and central concepts*. Stanford, CA: Stanford Social Sciences: Stanford Social Sciences.
- Takahara, A. 1992. The politics of wage policy in post-revolutionary China.
- Tang, Y. Z. 1998. *The shock of economic system reform (Zhuanguizhong dezhenhan)* (In Chinese.) Beijing: China Labor Press.
- Taylor, W., Chang, K., & Li, Q. 2003. *Industrial relations in China*. Cheltenham: Edward Elgar.
- Tedeschi, J. T. 1970. Threats and promises. In P. Swingle (Ed.), *Structure of Conflict*, Vol. 20: 155 - 191. New York: Academic Press.
- Tedeschi, J. T., Horai, J., Lindsfold, S., & Faley, T. 1970. The effects of opportunity costs and target compliance on the behavior of a threatening source. *Journal of Experimental Social Psychology*, 6: 205 - 213.
- Tedeschi, J. T., Schlenker, B. R., & Bonoma, T. V. 1973. *Conflict, power, and games; the experimental study of interpersonal relations*. Chicago: Aldine Publishing.

- Tekleab, A. G., Takeuchi, R., & Taylor, M. S. 2005. Extending the chain of relationships among organizational justice, social exchange, and employee reactions: The role of contract violations. *Academy of Management Journal*, 48(1): 146 - 157.
- Thaler, R. H. 1980. Toward a positive theory of consumer choice. *Journal of Economic Behavior and Organization*, 1: 39 - 61.
- The Economist. 1994. The OECD and jobs: Adapt and survive, June 11: 64.
- Thompson, J. D. 1967. *Organizations in action*. New York: McGraw-Hill.
- Thompson, S. C. 1981. Will it hurt less if I control it? A complex answer to a simple question. *Psychological Bulletin*, 90: 89 - 101.
- Tichy, N. M., & Sherman, S. 1993. *Control your destiny or someone else will*. New York: Doubleday.
- Tilly, C. 1996. *Half a job: Bad and good jobs in a changing labor market*. Philadelphia: Temple University Press.
- Time Magazine. 1987. Rebuilding to survive. 16 February: 36 - 40.
- Time Magazine. 1989. Where's the gung-ho? 18 September: 26 - 28.
- Tittle, C. R., & Logan, C. H. 1973. Sanctions and deviance: Evidence and remaining questions. *Law and Society Review*, 7: 371 - 392.
- Toda, M. 1983. Future time perspective and human cognition: An evolutionary view. *International Journal of Psychology*, 18: 351 - 365.
- Treu, T. 1992. Labor flexibility in Europe. *International Labour Review*, 131(4 - 5): 497 - 512.
- Truss, C., Gratton, L., Hope-Hailey, V., McGovern, P., & Stiles, P. 1997. Soft and hard models of human resource management: A reappraisal. *Journal of Management Studies*, 34(1): 54 - 73.
- Tsang, S. K., & Cheng, Y.S. 1999. Empirical evidence of the twin expansion of investment and wage outlay. In Y. Y. Kueh, J. C. H. Chai, & G. Fan (Eds.), *Industrial reform and macroeconomic instability in China*: 215 - 231. Oxford: Clarendon Press.
- Tsui, A. S., & Ashford, S. J. 1994. Adaptive self-regulation: A process view of managerial effectiveness. *Journal of Management*, 20(1): 93 - 121.
- Tubbs, M. E., Boehne, D. M., & Dahl, J. G. 1993. Expectancy, valence, and motivational force functions in goal-setting research: An empirical test. *Journal of Applied Psychology*, 78: 361 - 373.
- Turnbull, P., & Wass, V. 1997. Job insecurity and labor market lemons: The (MIS) management of redundancy in steel making, coal mining and port transport. *Journal of Management Studies*, 34(1): 27 - 51.
- Turner, J. A. (Ed.). 2001. *Pay at risk: Compensation and employment risk in the United States and Canada*. Kalamazoo, MI: W. E. Upjohn Institute for Employment Research.
- Tversky, A., & Kahneman, D. 1974. Judgment under uncertainty: Heuristics and biases. *Science*, 185: 1124 - 1131.
- Tversky, A., & Kahneman, D. 1981. The framing of decisions and the psychology of choice. *Science*, 211: 453 - 463.
- Tversky, A., & Kahneman, D. 1986. Rational choice and the framing of decisions. *Journal of Business*, 59(4): S251 - 278.
- Tversky, A., & Kahneman, D. 1991. The framing of decision and the rationality of choice. *Science*, 185: 1124 - 1131.
- Tyler, T. R. (Ed.). 1999. *Why people cooperate with organizations: An identity-based perspective*. Greenwich, CT: JAI Press.

- Van den Berg, A., Masi, A. C., Smith, M. R., & Smucker, J. 2001. To cut or not to cut: A cross-national comparison of attitudes toward wage flexibility. In D. B. Cornfield, K. E. Campbell, & H. J. McCammon (Eds.), *Working in restructured workplaces: Challenges and new directions for the sociology of work*: 349 - 365. London: Sage.
- Van der Wee, H. 1986. *Prosperity and upheaval: The world economy 1945 - 1980* (R. Hogg, & M. R. Hall, Trans.). London: Penguin.
- Van Eerde, W., & Thierry, H. 1996. Vroom's expectancy models and work-related criteria: A meta-analysis. *Journal of Applied Psychology*, 81: 575 - 586.
- Van Vuuren, T., Klandermans, B., Jacobson, D., & Hartley, J. 1991. Employees' reactions to job insecurity. In J. Hartley, D. Jacobson, B. Klandermans, & T. Van Vuuren (Eds.), *Job insecurity: Coping with jobs at risk*: 79 - 103. London: Sage.
- Van Yperen, N. W., & Hagedoorn, M. 2003. Do high job demands increase intrinsic motivation or fatigue or both? The role of job control and job social support. *Academy of Management Journal*, 46(3): 339 - 348.
- Verespej, M. A. 1997. Top-to-bottom incentives, *Industry week*, Vol. 246: 30.
- Varley, A. 1994. The exceptional and the everyday: Vulnerability analysis in the international decade for natural disaster reduction. In A. Varley (Ed.), *Disasters, development, and environment*: 1 - 12. Chichester: John Wiley and Sons.
- Veroff, J., & Veroff, J. B. 1972. Reconsideration of a measure of power motivation. *Psychological Bulletin*, 78(4): 279 - 291.
- Vesna, D. 2001. The sources of threat credibility in extended deterrence. *Journal of Conflict Resolution*, 45(3): 341 - 369.
- Vlek, C., & Stallen, P. J. 1980. Rational and personal aspects of risk. *Acta Psychologica*, 45: 273 - 300.
- Volberda, H. W. 1996. Toward the flexible form: How to remain vital in hypercompetitive environments. *Organization Science*, 7: 359 - 374.
- Vroom, V. 1964. *Work and motivation*. New York: John Wiley & Sons.
- Wageman, R. 1995. Interdependence and group effectiveness. *Administrative Science Quarterly*, 40: 145 - 180.
- Waldersee, R., & Luthans, F. 1994. The impact of positive and corrective feedback on customer service performance. *Journal of Organizational Behavior*, 15: 83 - 95.
- Waldrop, M. M. 1992. *Complexity: The emerging science at the edge of order and chaos*. New York: Simon & Schuster.
- Waller, M. J., Conte, J., M., Gibson, C. B., & Carpenter, M. A. 2001. The effect of individual perceptions of deadlines on team performance. *Academy of Management Review*, 26(4): 586 - 600.
- Wallulis, J. 1998. *The new insecurity: the end of the standard job and family*. Albany, NY: State University of New York Press.
- Walton, R. E. 1985. From control to commitment in the workplace. *Harvard Business Review*, (March - April): 77 - 84.
- Wang, D. H. 1999. *Unemployment challenges for China (tiaozhan shiyede zhongguo)*. Beijing: Jingjiribao chubanshe. (In Chinese).
- Warner, M. 1995. *The management of human resources in Chinese industry*. Basingstoke: Macmillan Press.
- Warner, M. 1996. Economic reforms, industrial relations and human resources in the People's Republic of China: An overview. *Industrial Relations Journal*, 27: 195 - 210.

- Warner, M. 2001. China's labor-management system reforms: Breaking the "three old irons" (1978 - 1999). *Asia Pacific Journal of Management*, 18(3): 315 - 334.
- Weber, M. 1956. *Wirtschaft and gesellschaft* (D. Sliwka, Trans.). Tübingen: J.C. B. Mohr.
- Weber, M. (Ed.). 1968. *Economy and society: An outline of interpretative sociology*. Berkeley, CA: University of California Press.
- Weingart, L. R. 1992. Impact of group goals, task component complexity, effort, and planning on group performance. *Journal of Applied Psychology*, 77(5): 682 - 693.
- Weitzman, M. L., & Kruse, D., L. 1990. Profit sharing and productivity. In A. S. Blinder (Ed.), *Paying for Productivity: A Look at the Evidence*: 95 - 142. Washington, DC: The Brookings Institution.
- Welbourne, T. M., & Gomez-Mejia, L. R. 1995. Gainsharing: A critical review and a future research agenda. *Journal of Management*, 21: 559 - 609.
- Welsh, D. H. B., Luthans, F., & Sommer, S. M. 1993. Organizational behavior modification goes to Russia: Replicating an experimental analysis across cultures and tasks. *Journal of Organizational Behavior Management*, 13: 15 - 33.
- Werner, E. E. 1993. Risk, resilience, and recovery: Perspectives from the Kauai longitudinal study. *Development and Psychopathology*, 5: 503 - 5151.
- Whetton, D. A. 1981. Organizational responses to scarcity: Exploring the obstacles to innovative approaches to retrenchment in education. *Educational Administration Quarterly*, 17: 80 - 97.
- White, G. 1987. The politics of economic reform in Chinese industry: The introduction of the labor contract system. *The China Quarterly*, 111: 365 - 389.
- White, G. 1996. The new pay – Losing sight of reality? *Management Research News*, 19(4/5): 56 - 57.
- Whyte, M. K. 1999. The changing role of workers. In M. Goldman, & R. MacFarquhar (Eds.), *The paradox of China's post-Mao reforms*. Cambridge, MA: Harvard University Press.
- Wiersma, U. J. 1992. The effects of extrinsic rewards in intrinsic motivation: A meta-analysis. *Journal of Occupational and Organizational Psychology*, 65: 101 - 114.
- Wilkinson, I. 2001. *Anxiety in a risk society*. London: Routledge.
- Williams, K. 1992. Poor pay outlook. *Management Accounting*, 74(6): 26.
- Williams, R. S. 1998. *Performance management: Perspectives in employee performance*. London: International Thomson Business Press.
- Williamson, O. E. 1985. *The economic institutions of capitalism*. New York: Free Press.
- Wilson, J. 1966. Innovation in organizations: Notes toward a theory. In J. D. Thompson (Ed.), *Approaches to organizational design*: 193 - 218. Pittsburgh, PA: University of Pittsburgh Press.
- Wilson, T. 1995. *Innovative reward system for the changing workplace*. New York: McGraw-Hill.
- Wiseman, R. M., & Gomez-Mejia, L. R. 1998. A behavioral agency model of managerial risk taking. *Academy of Management Review*, 23(1): 133 - 153.
- Wiseman, R. M., Gomez-Mejia, L. R., & Fugate, M. 2000. Rethinking compensation risk. In S. L. Rynes, & B. Gerhart (Eds.), *Compensation in organizations: Current research and practice*: 311 - 347. San Francisco: Jossey-Bass.
- Witt, U. 1997. Self-organization and economics – What is new. *Structural change and economic dynamics*, 8: 489 - 507.

- Womack, J. P., Jones, D. T., & Roos, D. 1990. *The machine that changed the world*. New York: Rawson.
- Wong, T. 1989. The salary structure, allowances and benefits of a Shanghai electronics factory. *The China Quarterly*, 117: 135 - 144.
- Wood, R. E., George-Falvy, J., & Debowski, S. 2001. Motivation and information search on complex tasks. In M. Erez, U. Klienbeck, & H. Thierry (Eds.), *Work motivation in the context of a globalizing economy*: 27 - 48. London: Lawrence Erlbaum Associates.
- Wood, R. E., Mento, A. J., & Locke, E. A. 1987. Task complexity as a moderator of goal effects: A meta-analysis. *Journal of Applied Psychology*, 72(3): 416 - 425.
- Wood, S. 1989. The transformation of work? In S. Wood (Ed.), *The transformation of work? Skill, flexibility and the labor process*: 1 - 43. London: Unwin Hyman.
- Woodward, S. L. 1995. *Socialist unemployment: The political economy of Yugoslavia, 1945 - 1990*. Princeton, NJ: Princeton University Press.
- World Bank. 2000. *World Bank Development Report, 1999/2000*. New York: Oxford University Press.
- Wright, E. O., & Cho, D. 1992. State employment, class location, and ideological orientation: A comparative analysis of the United States and Sweden. *Politics and Society*, 20(2): 167 - 196.
- Wright, P., Mukherji, A., & Kroll, M. J. 2001. A reexamination of agency theory assumptions: extensions and extrapolations. *The Journal of Socio-Economics*, 30: 413 - 429.
- Wysocki, B. J. 1995. The outlook: Unstable pay becomes ever more common, *Wall Street Journal*: December 4: A1. New York.
- Xu, L. C. 2000. Control, incentives and competition: The impact of reform on Chinese state-owned enterprises. *Economics of Transition*, 8(1): 151 - 173.
- Yang, Z., & Han, Z. 1999. Wage reforms and the effectiveness of aggregate wage target control. In Y. Y. Kueh, J. C. H. Chai, & G. Fan (Eds.), *Industrial reform and macroeconomic instability in China*: 187 - 231. Oxford: Clarendon Press.
- Yao, S. 1997. Profit sharing, bonus payment, and productivity: A case study of Chinese state-owned enterprises. *Journal of Comparative Economics*, 24(3): 281 - 296.
- Yates, J. F. 1990. *Judgment and decision making*. Englewood Cliffs, NJ: Prentice Hall.
- Zhai, F., & Wang, Z. 2002. WTO accession, rural labor migration and urban unemployment in China. *Urban Studies*, 39(12): 2199 - 2217.
- Zhu, C. J., & Dowling, P. J. 1994. The impact of the economic system upon human resource management practices in China. *Human Resource Planning*, 17: 1 - 21.
- Zhu, Y. 2002. Recent developments in China's social security reforms. *International Social Security Review*, 55(4): 39-54.
- Zhuang, J., & Xu, C. 1996. Profit-sharing and financial performance in the Chinese state enterprises: Evidence from panel data. *Economics of Planning*, 29(3): 205 - 222.
- Zingheim, P., K., & Schuster, J. R. 1995a. Introduction: How are the new pay tools being deployed? *Compensation and Benefits Review*, 27(4): 10 -13.
- Zingheim, P., K., & Schuster, J. R. 1995b. Moving one notch north: Executing the transition to the new pay. *Compensation & Benefits Review*, 27 (4): 33 - 39.

Appendix A: Questionnaire

《企业竞争上岗、分配改革对职工的影响》调研问卷

本问卷是为研究企业内部竞争机制对职工的影响而设计的。问卷采用无记名方式填写、密封上交后由课题组直接拆阅，不向首钢管理层提供任何个人答卷信息，绝对不会对您个人利益有任何损害。

问卷分十大内容，答案无所谓对与错。敬请全部作答，如实填写。我们会通过所有的问卷，发现其中存在的带有普遍性的问题，提出有关改进的建议，以求日后的政策更为完善、合理。

谢谢合作！

劳动人事学院 课题组

第一部分: 竞争上岗、分配改革的机遇和挑战

下面第1-20题想了解贵企业竞争上岗、分配改革带来的机遇和挑战。请您用下列计分方法。回答时请用圆圈。

很不同意	较不同意	完全没看法	较同意	很同意
1	2	3	4	5

1. “人尽其才”在本企业的推行, 为我迎来了较好的发展机遇。 1 2 3 4 5
2. “优胜劣汰”竞争机制执行以来, 我感到在岗位上受到越来越严峻的考验。 1 2 3 4 5
3. 企业为我提供了有利于竞争上岗的培训、学习和发展机会。 1 2 3 4 5
4. 岗位技能测评公开大排队的做法, 对我有很大的压力。 1 2 3 4 5
5. 劳动合同到期后是否能续签, 使我对目前的工作缺乏安全感。 1 2 3 4 5
6. 企业转岗基地的建立, 使我对目前的工作不敢掉以轻心。 1 2 3 4 5
7. 企业现行的减员、下岗分流政策, 没有对我个人造成威胁。 1 2 3 4 5
8. 不管工资到时能长多少, 如果我能提高目前的技术水平, 对我会有很大的意义。 1 2 3 4 5
9. 目前企业对于个人技术等级提高后能长的工资, 对我没有任何吸引力。 1 2 3 4 5
10. 如果能按要求圆满完成生产任务, 我会有一定的满足感。 1 2 3 4 5
11. 完成不了生产任务就要被扣奖的做法, 对我有很大警惕作用。 1 2 3 4 5
12. 完成不了生产任务就要被扣奖的数额本身, 我不在乎。 1 2 3 4 5
13. 不管实际差距有多少, 如果在班组里能拿到比别人多的奖金, 我会有很大的优越感。 1 2 3 4 5
14. 目前班组成员之间体现的实际奖金差距本身, 对我起不了任何作用。 1 2 3 4 5
15. 不管实际加奖数额有多少, 如果能超额完成任务, 我会特别大的满足感。 1 2 3 4 5
16. 超额完成任务的加奖数额本身, 对我就有一定的吸引力。 1 2 3 4 5
18. 本岗位为我提供了完成难度特别大, 而又能争取获得加奖的劳动机会和条件。 1 2 3 4 5
17. 本岗位实际上没有为我提供任何超额完成任务的机会和条件。 1 2 3 4 5
19. 总得来说, 各种竞争上岗和分配改革措施, 为我个人带来更多的是机遇而不是危机。 1 2 3 4 5
20. 在目前的竞争机制下, 我有信心凭自己的努力站得住脚。 1 2 3 4 5

第二部分: 改革的影响

下面A-C题想了解贵企业的竞争上岗、分配改革在各方面的影响。请用下列计分方法。回答时请用圆圈。

减低很多	相对减低了	完全没影响	相对提高了	提高很多
1	2	3	4	5

(A) 精神面貌: 贵企业现行的竞争上岗与分配制度对职工的精神面貌是否起到了积极作用?

1. 对职工的竞争意识 1 2 3 4 5
2. 对职工的忧患意识 1 2 3 4 5
3. 对职工的敬业精神 1 2 3 4 5
4. 对于职工对短期利益的追求 1 2 3 4 5
5. 对职工积极争取提高个人技术水平的热情 1 2 3 4 5
6. 对于职工对企业的忠心程度 1 2 3 4 5
7. 对于群众对领导的信任 1 2 3 4 5
8. 对群众的士气 1 2 3 4 5

(B) 抓硬指标: 贵企业现行的竞争上岗与分配制度对您的工作是否起到了积极作用?

1. 对您在生产过程中, 降本减耗的热情 1 2 3 4 5
2. 对您在生产过程中, 保证质量的热情 1 2 3 4 5
3. 对您在生产过程中, 提高工作效率的热情 1 2 3 4 5
4. 对您在生产过程中, 与有关岗位、班次之间协作的热情 1 2 3 4 5
5. 总的来说, 现行竞争上岗与分配制度对您在生产过程中抓硬指标的热情 1 2 3 4 5

(C) 抓长远利益: 现行的竞争上岗与分配制度对企业长远利益是否都起到了积极作用?

1. 对您积极配合或参与(工艺流程等)开发创新工作的热情 1 2 3 4 5
2. 对您积极兼顾工作硬指标以外工作的热情 1 2 3 4 5
3. 对您把企业的长远利益看作是个人利益的热情 1 2 3 4 5
4. 总的来说, 现行竞争上岗与分配制度对您为企业长远利益做贡献的热情 1 2 3 4 5

第三部分: 劳动与报酬

下面第 1-17 题想了解您的劳动投入是否得到较满意的物质、精神回报。请您用以下计分方法。回答时请用圆圈。

很不同意	较不同意	完全没看法	较同意	很同意
1	2	3	4	5

1. 就单从加强目前工作的稳定性出发, 投入我最大量的精力去工作对我来讲有很大意义。 1 2 3 4 5
2. 若单从争取发展个人前途出发, 在本岗位投入我最大量精力工作对我来讲意义不大。 1 2 3 4 5
3. 若单从争取能手、劳模等荣誉出发, 投入我最大量的精力去工作我认为是值得的。 1 2 3 4 5
4. 就单从物质利益出发, 在本岗位投入我最大量的精力去工作我认为是值得的。 1 2 3 4 5
5. 就单从为企业、为国家做贡献出发, 投入我最大量的精力去工作对我来讲意义不大。 1 2 3 4 5
6. 就单从工作中得到的满足感出发, 投入我最大量的精力去工作我认为是值得的。 1 2 3 4 5
7. 若单从精神报酬出发, 投入我最大量的精力工作对我来讲意义不大。 1 2 3 4 5
8. 我感到目前在企业得到的精神和物质回报, 都远远低于我的劳动投入。 1 2 3 4 5
9. *综合考虑以上各方面, 在目前岗位上投入我最大量的精力去工作我认为是值得的。 1 2 3 4 5
10. 目前真正能驱使您在本岗努力工作的最大动力是什么? (回答时, 请先选出3个英文字母, 然后依重要次序填在下面的空格里)
第一最大动力 第二大动力 第三大动力 a.挣钱 b.争取保住工作 c.争取发展前途 d.群众认可 e.领导认可 f.自身价值的体现 g.为企业做贡献
11. 现行的分配办法, 进一步满足了职工靠努力、靠本事争取多拿奖金的愿望。 1 2 3 4 5
12. 竞争上岗机制的形成, 相对促进了能干、肯干者的工作稳定性。 1 2 3 4 5
13. 企业目前提供的培训与发展机会, 进一步满足了职工争取发展前途的愿望。 1 2 3 4 5
14. 目前岗位技能测评公开大排队的做法, 促进了群众对能干、肯干者的认可。 1 2 3 4 5
15. “优胜劣汰”目前在本企业的实施办法, 促进了领导对能干、肯干者的认可。 1 2 3 4 5
16. “人尽其才”目前在本企业的实施办法, 进一步满足了职工自身价值的体现。 1 2 3 4 5
17. 岗位责任制目前在本企业的推行, 进一步满足了职工争取为企业做贡献的愿望。 1 2 3 4 5

第四部分: 劳动与成效

1. 我被分派的工作内容都是我个人力所能及的。 1 2 3 4 5
2. 领导分配给我的工作任务量超出了本岗位劳动定额的要求。 1 2 3 4 5
3. 我的工作经常有令人无所适从的变动。 1 2 3 4 5
4. 我在本岗位承担的责任和被授予执行任务的权力相对合理。 1 2 3 4 5
5. 我对本岗位工作的技术要求还没有充分掌握。 1 2 3 4 5
6. 领导分配给我的工作任务内容不够明确。 1 2 3 4 5
7. 我工作使用的主要设备(或工具)经常发生故障。 1 2 3 4 5
8. 我在执行工作任务时, 都能得到有关方面的支持与合作。 1 2 3 4 5
9. *综合考虑以上1 - 8题, 我认为我在岗位上投入的劳动, 有相对合理的成效。 1 2 3 4 5

第五部分: 劳动状况

1. 我目前在岗位上并不需要费很大的劲, 就能交差。 1 2 3 4 5
2. 目前, 只有尽最大的努力在岗位上工作, 我才会有安全感。 1 2 3 4 5
3. 就算我在岗位上的表现一般, 也能保住工作。 1 2 3 4 5
4. 在现行的管理制度下, 职工有选择出工不出力的余地。 1 2 3 4 5
5. 在班组里干活, 同事之间完全没有互相监督的群体压力。 1 2 3 4 5
6. 我心目中最重要的人物(领导、家庭成员等)对我所抱的期望, 往往使我在工作上自加压力。 1 2 3 4 5
7. 岗位责任制对于我保质、保量完成任务, 有很严格的要求。 1 2 3 4 5
8. 我的工作压力很大(包括工作数量、质量、难度等方面)。 1 2 3 4 5
9. 我如果没有尽心尽力的去工作, 就无法向自己交代。 1 2 3 4 5
10. 假如我在岗位上不尽力而为, 就很容易在竞争中被淘汰。 1 2 3 4 5
11. 我对于能找到一份比现在更理想的工作, 不抱任何希望。 1 2 3 4 5
12. *综合考虑以上第1 - 11题, 我别无选择, 并必须在本岗位尽我最大的努力去工作。 1 2 3 4 5
13. 我在本岗位竞争求存的过程中, 感到自己更多的是处于主动, 而不是被动状态。 1 2 3 4 5
14. 我目前对工作作出的反应, 更多的是无可奈何, 而不是自觉自愿。 1 2 3 4 5

第六部分: 工作价值观

很不同意	较不同意	完全没看法	较同意	很同意
1	2	3	4	5

1. 劳动合同实施后, 职工对于为企业付出能得到多少报酬, 比以前更在意了。 1 2 3 4 5
2. 现行的竞争上岗制度使我意识到, 更重要的是发展自身的竞争优势, 而不是追求短期利益。 1 2 3 4 5
3. 在现行的考核制度下, 工作比别人卖力气, 功劳也不可能落实到个人头上。 1 2 3 4 5
4. 现行的改革措施使我意识到, 更实际的是争取物质报酬, 而不是实现远大理想。 1 2 3 4 5
5. 我为企业做贡献的热情, 在劳动合同实施后减退了。 1 2 3 4 5
6. 企业减员、下岗的一系列政策, 使我越来越感到“此地不宜久留”, 并想趁早离开这个企业。 1 2 3 4 5
7. 农民劳动合同一概不得续签的政策, 不只伤害了当事人, 也影响了广大职工对管理者的信心。 1 2 3 4 5
8. 在深化劳动用工改革的过程中, 职工对爱国、爱党的朴素感情变了质, 产生了信仰危机。 1 2 3 4 5
9. 无论在什么环境下, 我对自己的前途都抱有希望。 1 2 3 4 5
10. 我更相信的是, 人只是受制于命运, 而人改变不了命运。 1 2 3 4 5
11. 在改革的大潮中, 我一直抱着“打不死”的心态面对。 1 2 3 4 5
12. 如果工作上不能全情投入, 是一种很大的遗憾。 1 2 3 4 5
13. 在有选择的情况下, 比别人多干活, 实在没必要。 1 2 3 4 5
14. 我情愿少挣点钱, 也不愿意整天忙忙碌碌的工作。 1 2 3 4 5
15. 齐心协力为企业的前途努力, 也就等于为自己的前途努力。 1 2 3 4 5
16. 我不甘心情愿为企业付出比别人更多的劳动。 1 2 3 4 5
17. 能为企业做贡献是我自身价值最重要的体现。 1 2 3 4 5
18. 我工作的努力程度, 主要取决于我得到的报酬是否公平。 1 2 3 4 5
19. 当我受到委屈的时候, 我会尽量压抑这种情绪, 以免影响工作。 1 2 3 4 5
20. 即使未必能得到相应的物质报酬, 我还是会尽力把工作做好。 1 2 3 4 5

第七部分: 领导与考核

1. 在职工争取完成工作任务的过程中, 领导发挥了积极的指导作用。 1 2 3 4 5
2. 领导对于我的考核等级结果, 提供了有力的依据。 1 2 3 4 5
3. 在日常考核的过程中, 领导为我提供了如何让工作进一步得到改善的积极指导。 1 2 3 4 5
4. 领导以身作则, 忠于职守, 为职工树立了好榜样。 1 2 3 4 5
5. 领导处理矛盾的手段, 不合情理。 1 2 3 4 5
6. 领导在人事管理上, 有积极发挥职工潜能的本领。 1 2 3 4 5
7. 领导采取的分配办法, 不够灵活。 1 2 3 4 5
8. 领导的专业管理水平, 跟不上改革的步伐。 1 2 3 4 5
9. *综合考虑以上 1-8 题, 领导扮演了积极促进职工求存发展的角色。 1 2 3 4 5
10. 本岗位考核等级结果与奖金数额的挂钩办法, 一目了然。 1 2 3 4 5
11. 本岗位考核等级结果与竞争上岗的挂钩办法, 规定不够明确。 1 2 3 4 5
12. 班组里成员之间的劳动成果和奖金分配, 相对公平。 1 2 3 4 5
13. 班组里成员之间的劳动表现差异, 在竞争上岗中体现的不充分。 1 2 3 4 5
14. 在现行的考核制度下, 出工不出力的人, 钻不了空子。 1 2 3 4 5
15. *综合考虑以上 10-14 题, 工作考核和竞争上岗、分配两方面都挂上钩。 1 2 3 4 5

第八部分: 团队氛围

1. 在我的班组里, 成员主观上已经把个人和整体的利益连为一体。 1 2 3 4 5
2. 在我的班组里, 成员更注重的是追求个人的利益, 而不是为团队、为企业做贡献。 1 2 3 4 5
3. 在我的班组里, 为了齐心协力把工作做好, 相互都不计较付出。 1 2 3 4 5
4. 在我的班组里, 工作过分积极, 会被其他人认为是自我表现。 1 2 3 4 5
5. 在我的班组里, 工作过分认真, 会被领导认为是没必要。 1 2 3 4 5
6. 在我的班组里, 不存在出工不出力。 1 2 3 4 5
7. 在我所属的班组里, 成员互相之间的竞争, 非常激烈。 1 2 3 4 5
8. 班组内部的竞争氛围, 更多的是影响了团队的整体合作, 而不是促进了成员的共同进步。 1 2 3 4 5

第九部分：奖惩的执行情况

1 极少 (< 10%)	2 较少 (10 - 49%)	3 居中 (50%)	4 较多 (51-90%)	5 极多 (> 90%)
-----------------	--------------------	---------------	------------------	-----------------

- | | |
|--|-----------|
| 1. 有人因为工作表现好，而保住了工作岗位。 | 1 2 3 4 5 |
| 2. 有人由于工作表现差，而丢了工作岗位。 | 1 2 3 4 5 |
| 3. 有人不是违反厂规厂纪、工作表现差、人际关系不好、又或身体不适应岗位要求，却下了岗。 | 1 2 3 4 5 |
| 4. 有人尽管工作表现差，也能保住工作岗位。 | 1 2 3 4 5 |
| 5. 有人劳动合同不能续签， <u>更多</u> 的是因为没有名额，而不是由于工作表现不如别人。 | 1 2 3 4 5 |
| 6. 有人掌握了新技术、新本领以后，在竞争上岗的过程中，就体现了竞争优势。 | 1 2 3 4 5 |
| 7. 有人由于工作表现出色而取得先进工作者、劳动模范等荣誉。 | 1 2 3 4 5 |
| 8. 有人 <u>不是</u> 由于工作表现出色，却取得先进工作者、劳动模范之类的荣誉。 | 1 2 3 4 5 |
| 9. 在同一个岗位上，劳动贡献比别人大，奖金就拿的比别人多。 | 1 2 3 4 5 |
| 10. 在同一个岗位上，劳动贡献 <u>不是</u> 比别人大，奖金却拿的比别人还要多。 | 1 2 3 4 5 |
| 11. 在同一个岗位上，干好干坏奖金都一样。 | 1 2 3 4 5 |
| 12. 在同一个岗位上，因为承担了更多的工作，就得到领导的认可。 | 1 2 3 4 5 |
| 13. 并非技术水平有所提高、工作表现出色或承担了更多的责任，却得到了领导的重用。 | 1 2 3 4 5 |
| 14. 由于为企业作出了特殊贡献，在分房过程中就享受到优先的待遇。 | 1 2 3 4 5 |
| 15. 并没为企业作出过特殊贡献，却在分房过程中享受到优先的待遇。 | 1 2 3 4 5 |
| 16. 工作表现比别人好，就得到较好的考核结果。 | 1 2 3 4 5 |
| 17. 工作表现比别人差，考核结果就不如别人。 | 1 2 3 4 5 |
| 18. 考核结果 <u>更多</u> 的是取决于与领导的人际关系，而不是个人在岗位上的工作表现。 | 1 2 3 4 5 |
| 19. 考核结果 <u>更多</u> 的是取决于与同事之间的人际关系，而不是个人在岗位上的工作表现。 | 1 2 3 4 5 |
| 20. 综合以上各方面， <u>奖励</u> 与工作表现挂上钩 | 1 2 3 4 5 |
| 21. 综合以上各方面， <u>惩罚</u> 与工作表现挂上钩 | 1 2 3 4 5 |
| 22. 在现行的竞争上岗与分配制度下，职工能真正在公平、公开的基础上竞争 | 1 2 3 4 5 |
| 23. <u>问答题</u> ：您对贵企业的竞争上岗、分配制度有什么意见？另外， <u>奖惩的轻重</u> 、 <u>着重点</u> 等是否都恰到好处？ | |

职工状况 (请勿记名) 回答时请用圆圈。

1. 您的岗位工资：___元； 2. 岗位系数：1.0; 1.2; 1.4; 1.6; 1.8; 2.0; 2.2; 2.4; 2.6; 2.8; 3.0; 3.2; 3.4; 3.6; 3.8
3. 您的技能工资：___元； 4. 技能工资等级：1. 2. 3. 4. 5. 6. 7. 8. 9. 10. 11. 12.
5. 您每月奖金约：___元； 6. 每月平均总收入 (即奖金+其他工资合计) = ___元
7. 您去年平均月收入约：___元；您1997年平均月收入约：___元；您1996年平均月收入约：___元
8. 班组团队与个人的劳动成果，考核上基本没有区分：a.很同意 b.较同意 c.没意见 d.较不同意 e.很不同意
9. 您认为班组成员的奖金差距：a.太少 b.合适 c.太大 10.目前差距大约为：最少___元；最多___元
11. 职工与主管领导的奖金差距：a.太少 b.合适 c.太大 12.与主管领导奖金差距多少倍合适？ 1.2.3.4.5.6.7.8.9.10.
13. 属：a.农民工 b.城镇工 14. 岗位：a.一线 b.二线 c.辅助 d.后勤 e.专业管理技术人员 f.科级
15. 工作性质要求同事之间紧密配合的程度： a.极低 b.较低 c.居中 d.较高 e. 极高
16. 技术级别：a.初级工 b.中级工 c.高级工 d.技师 e.助理工程师 f.工程师或以上
17. 所属单位团队人数 (车间、科室、班组、办公室)：___人 18. 下属人数：0.1.2.3.4.5.6.7.8.9.10.11.12.13.14.15.16.17.18.19.20
19. 劳动合同年限：1. 2. 3. 4. 5. 6. 7. 8. 9.10年；无固定长期合同 20. 合同还剩下多久？ ___年 ___月
21. 劳动合同到期有没有续签的可能？ a.肯定没有 b.可能性较小 c.居中 d.可能性较大 e.肯定有
22. 性别：a.男 b.女 23. 年龄：a.25以下 b.25-30 c.31-35 d.36-40 e.41-45 f.46-50 g.50以上
24. 婚姻状况：a.单身 b.已婚 25.文化程度：a.初中 b.高中或中专 c.大专 d.本科 e.硕士或以上
26. 待岗/转岗经验：a.有 b.没有 27.来自：a.社会招收 b.学校毕业分配 c.复原转业军人 d.首钢以外单位调入
28. 连续工龄：1年以下； 1.2.3.4.5.6.7.8.9.10.11.12.13.14.15.16.17.18.19.20.21.22.23.24.25.25年以上
29. 曾获劳模、能手等荣誉： a.有 b.没有 30. 党员或共青团员： a.是 b.否 31. 预备党员：a.是 b.否

Appendix B: English Translation of Questionnaire

Research Questionnaire:

Impact of Competition-Based Employment and Wage Reforms

This questionnaire is designed for the investigation of the competitive mechanism within the enterprise and its impact on the workforce. The questionnaire is meant to be anonymous and should be sealed upon return. The envelope will be opened and dealt with independently by the Research Team. As such, personal information recorded in the questionnaire will not be individually revealed to the management.

The questionnaire consists of 10 parts and there are no right or wrong answers to the questions asked. We will consolidate responses to the problems that are identified to be of common concern among the workers and suggestions will be made to the management in dealing with these problems in the hope to enhance policy decisions.

Thank you for your cooperation.

The University Research Team

Part A: Opportunities and Threats under “Competition-Based Employment” (*jingzheng shanggang*) and Wage Systems Reform

Questions 1 – 20 are about the opportunities and threats brought about by the “Competition-Based Employment” (*jingzheng shanggang*) and wage systems reform at your enterprise. Please use the scale below to answer the questions and circle your answers.

disagree	strongly disagree	indifferent	agree	strongly agree
1	2	3	4	5

1. The implementation of (the policy of) “Putting People’s Talents and Capabilities to Maximum Use” (*renjing qicai*) has created better (career) development opportunities for me.
2. Since the implementation of the competitive system of “Advancement of the Strong and Elimination of the Weak” (*yousheng lietai*), I have had to face increasingly tougher challenges in my job.
3. The enterprise provides training, learning, and development opportunities that help increase the chances of my success under the “Competition-Based Employment” (*jingzheng shanggang*) system.
4. The enterprise policy of opening ranking workers one by one based on the results of the “Position and Skill Assessment” (*gangwei jineng cheping*) has created a lot of pressure for me.
5. The potential of whether or not I can get a renewal for (my) employment contract makes me feel insecure about my present job.
6. The establishment of the “Employment Transfer Center” (*zhuangang jidi*) keeps me on my toes in my present job.
7. The current enterprise policies of “workforce reduction, layoff, and staff diversion” (*jianyuan, xiagang, fenliu*) do not pose a threat to me.
8. Being able to raise my current skill level (*jishu dengji*) would mean a lot to me, regardless of how much pay increment I could get as a result.
9. The wage increments associated with skill upgrades are not at all attractive to me.
10. I would certainly have a sense of satisfaction if I delivered all my assigned production targets.
11. The policy of deducting the bonus whenever workers fall short of delivering their assigned production targets works as a warning for me.
12. I don’t care for the amount that would be deducted from my bonus if I could not deliver my assigned production targets.

13. Getting a bigger bonus than others in the work group would give me a sense of superiority, regardless of the actual differential.
14. The actual bonus differentials between group members do not do anything to me.
15. Being able to exceed the production target would give me a great sense of satisfaction, regardless of the actual amount of extra bonus I might get.
16. The actual amount of extra bonus associated with having delivered above and beyond the production targets is certainly attractive to me.
17. I have been provided the (necessary) conditions and opportunities in my job to fulfill particularly difficult work targets that are associated with the offer of an extra bonus if and when accomplished.
18. I have not been provided the (necessary) conditions and opportunities in my job to deliver above and beyond the production targets in my job.
19. Overall, the various measures of “Competition-Based Employment” (*jingzheng shanggang*) and wage systems have provided me more opportunities than threats.
20. I am confident that I can establish a foothold in the current competitive system by virtue of my adaptive efforts.

Part B: The Impact of Reform

Sections (A), (B), and (C) below are about “Competition-Based Employment” (*jingzheng shanggang*) and wage systems reform and their impact on the various aspects of work. Please use the scale below to answer all of the following questions and circle your answers.

greatly reduced	reduced	no impact	increased	greatly increased
1	2	3	4	5

(A). *Esprit de corps* (*jingsheng mianmau*): Has the implementation of the current “Competition-Based Employment” and wage reforms policies at your enterprise had a positive impact on workers’ *esprit de corps* concerning:

1. Workers’ “awareness of competition” (*jingzheng yishi*)
2. Workers’ “sense of apprehension” (*youhuan yishi*)
3. Workers’ “spirit of reverence in giving one’s best at work” (*jingye jingsheng*)
4. Workers’ pursuit of short-term gains
5. Workers’ enthusiasm toward actively pursuing skill improvement
6. Workers’ loyalty to the organization
7. Workers’ trust in leadership
8. Morale of the “masses” (*qunzhongde shiqi*)

(B). Achieving “Tangible (Work) Targets” (*zhua yingzhibiao*): Has the implementation of the current “Competitive-Based Employment” and wage systems at your enterprise had a positive impact on your work in terms of:

1. Your enthusiasm for “cost-cutting and energy-saving” (*jiangben jianhao*) in the production process
2. Your enthusiasm for “quality assurance” in the production process
3. Your enthusiasm for increasing efficiency in the production process
4. Your enthusiasm for cooperating with (people of) related positions and shifts
5. Your overall enthusiasm for achieving tangible goals in the process of production

(C). Achieving “Long-Term Gains” (*zhua changyuan liyi*): Has the implementation of the current “competition-Based Employment” and wage systems had a positive impact on the long-term interests of the enterprise concerning:

1. Your enthusiasm for actively cooperating with or participating in the “development and innovation” (*kaifa chuangxin*) aspects of the production process
2. Your enthusiasm for taking on extra work that is outside the parameters of (your) tangible (work) targets
3. Your enthusiasm for taking the enterprise’s long-term interests as your own
4. Your overall enthusiasm for making a contribution to the enterprise’s long-term interests

(Page 2 of Chinese Questionnaire:)

Part C: Effort and Reward

Questions 1 – 17 are about whether your work effort has yielded satisfactory material and intrinsic rewards. Please use the scale below to answer the questions and circle your answers.

disagree	strongly disagree	indifferent	agree	strongly agree
1	2	3	4	5

1. Even if it’s solely for the sake of job stability, exerting maximum (adaptive) effort at work means a lot to me.
2. If it’s solely for the sake of career development, exerting maximum (adaptive) effort in my current job does not make much sense to me.

3. Even if it's solely for the sake of pursuing honors of "Model Laborer" (*laomo*), etc., exerting maximum (adaptive) effort at work is worth it for me.
4. Even if it's solely for the sake of material gains, exerting maximum (adaptive) effort at work is worth it for me.
5. If it's solely for the sake of contributing to the enterprise or the country, exerting maximum (adaptive) effort in my job does not make much sense to me.
6. Even if it's solely for the sake of job satisfaction, exerting maximum (adaptive) effort at work is worth it for me.
7. If it's solely for the sake of intrinsic reward, exerting maximum (adaptive) effort in my current job does not mean a lot to me.
8. I feel that both the material and intrinsic rewards I receive at the enterprise are significantly below the level of my input at work.
9. Considering all of the above aspects, exerting maximum (adaptive) effort at work in my current job is worth it for me.
10. What is the greatest driving force of your motivation to work hard (to adapt) in your current position?

(Please choose 3 items from the list below and then enter them in the boxes provided in order of importance to you.)

greatest driving force 2nd greatest driving force 3rd greatest driving force

- a. making money
- b. keeping my job
- c. career development
- d. recognition by the masses
- e. recognition by the leadership
- f. realization of own self worth
- g. making a contribution to the enterprise

11. The current methods of (wage) distribution have further satisfied the desires of the workers to attain more bonuses by way of their own hard work and capabilities.
12. The establishment of the "Competition-Based Employment" (*jingzheng shanggang*) system has increased job stability for those who are able and willing to work hard.
13. The training and development opportunities provided by the enterprise have further satisfied the workers' desire for career development.
14. The policy of openly ranking workers one by one based on the results of "Job Performance and Skill Assessment" (*gangwei jineng cheping*) has increased the masses' recognition of workers who are capable and willing to work hard.

15. The current policy of “Advancement of the Strong and Elimination of the Weak” (*yousheng lietai*) has further increased management’s recognition of workers who are capable and willing to work hard.
16. The policy of “Putting People’s Talents and Capabilities to Maximum Use” (*renjing qichai*) has further satisfied the workers’ desire for the realization of self-worth.
17. The current implementation of the “position responsibility system” (*gangwei zheren zhi*) has further satisfied the workers’ desire to contribute to the enterprise.

Part D: Effort and Outcome

1. The work assigned to me in my job is within my ability to handle.
2. The work assigned to me in my job exceeds the level required of my position.
3. I experience frequent changes in my work to which I find difficult to adapt.
4. The authority vested in my job is compatible to the level of my responsibilities.
5. I have not yet mastered all the essential skills required in my job.
6. Instructions on work assignments given me by leadership are not clear enough.
7. The equipment (or tools) on which I depend to do my job frequently break(s) down.
8. I have the support and cooperation from the various parties concerned in carrying out my duties and responsibilities at work.
9. Taking the above questions 1 – 8 into consideration, I believe I have reasonable control over the results of my work.

Part E: Conditions of Work

1. I don’t need to exert a lot of effort in my job in order to answer (to the boss).
2. At present, the only way at for me to have a sense of security is to put forth my best (adaptive) effort at work.
3. Even if my work performance was average, I would still be able to keep my job.
4. Under the current management system, workers have the choice to “show up for work without putting in (genuine) effort” (*chugong buchuli*).
5. When it comes to working as a group, there is no monitoring pressure among peers.

6. The expectations of people important to me (i.e. leadership, family members, etc.) often cause me to impose pressure on myself at work.
7. The “position responsibility system” (*gangwei zherenzhi*) has strict requirements in the quality and quantity of the delivery of my work targets.
8. I have a lot of pressure at work (in terms of workload, quality, task difficulty, etc.)
9. I would not be able to answer to myself if I didn’t put forth my best effort at work.
10. I would easily be eliminated in the process of competition if I didn’t put forth my best (adaptive) effort at work.
11. My hopes are not high at all in finding a job that is better than the one I now have.
12. Taking the above questions 1 – 12 into consideration I feel that I have no choice but to put in maximum (adaptive) effort at work.
13. I feel that I am playing more of an active than a passive role in the process of competing for survival.
14. My (motivational) response to the current work situation is due to the demands imposed on me rather than what one may call self- initiation or motivation.

(Page 3 of Chinese Questionnaire:)

Part F: Work Values

1. Since the implementation of the “limited duration contracts” (*guding hetong*), the workers have become more concerned about the amount of reward they get when making a contribution to the enterprise.
2. The current “Competition-Based Employment” (*jingzheng shanggang*) system made me realize the importance of developing competitive capabilities rather than pursuing short-term gains.
3. Under the current appraisal system, the credit won’t go to the individual even if he is more dedicated than others at work.
4. The current reform measures made me realize that the thing to go for is material rewards rather than long-term aspirations.
5. My enthusiasm to contribute to the enterprise has reduced since the implementation of “limited duration contracts” (*guding hetong*).

6. The various policies of the enterprise in workforce reduction and layoff has convinced me more and more that “this is not a place for anyone to stay on (for long)” (*chidi buyi juli*); and the earlier the better for me to leave the enterprise.
7. The (enterprise’s) policy of not renewing any of the rural workers’ labor contracts are not only hurting those directly concerned but also has an adverse impact on the workers’ confidence in management.
8. In the process of the “deepening” of the employment reform, the simple sentiments of the workers toward loving the Party and the country have been diluted; leading to a crisis in (the workers’) beliefs.
9. Whatever circumstances I am in, I never lose hope of the future.
10. I believe man is subject to the forces of destiny and cannot do anything to change it.
11. Throughout the reform process, I have adopted an attitude of being “the unbeatable” (*dabushi*).
12. It would be regretful indeed for anyone to not be totally immersed in his work.
13. It’d be totally unnecessary to work harder than others if you have a choice not to.
14. I’d rather be making less money than to have to be busy working all day.
15. It is important that we pull together (in heart and might) for the good of the enterprise because if it is the same as working for one’s own future.
16. I am not willing to give more than others for the enterprise.
17. The most important realization of my self-worth is making a contribution to the enterprise.
18. The level of my work effort is strongly influenced by whether I think I will be fairly compensated for it.
19. When I feel compromised, I will try to suppress the feeling and not let it affect my work.
20. It is important to me that I do the best possible job even though I may not always be materially compensated for it.

Part G: Leadership and Appraisal

1. While workers are in the process of trying to accomplish their work targets, leadership plays an active role in guiding them.

3. In my workgroup, members are not calculative about individual differences in input as long as the group can work as a team and do a good job together.
4. In my workgroup, anyone working extra hard will be considered by others as a show-off.
5. In my workgroup, anyone being over-zealous about his work will be considered by leadership as totally unnecessary.
6. In my workgroup, the behavior of “showing up for work without putting in (genuine) effort” (*chugong buchuli*) does not exist.
7. Within my workgroup, competition among individual members is very intense.
8. The competitive atmosphere in my workgroup does more to impede the cooperation of the group as a whole than promote the collective advancement of its members.

(Page 4 of Chinese Questionnaire:)

Part I: Execution of Rewards and Punishments

1 very seldom (< 10%)	2 seldom (10-49%)	3 sometimes (50%)	4 often (51-90%)	5 very often (>90%)
--------------------------	----------------------	----------------------	---------------------	------------------------

1. Someone with good work performance got to keep his job.
2. Someone lost his job because of poor work performance.
3. Someone lost his job for reasons other than having committed an offence, performed poorly on the job, having bad human relations, or not being physically fit for the job.
4. Someone managed to keep his job despite poor work performance.
5. Someone did not get a renewal for his contract not so much due to poor work performance as to the lack of quota (headcount).
6. Someone managed to master a new skill or capability and as a result achieved a competitive advantage in the process of “Competition-Based Employment” (*jingzheng shanggang*).
7. Someone received the honor of “Model Laborer” (*laomo*) or “Advanced Worker” (*xianjin gongzuozhe*) due to outstanding performance on the job.

8. Someone received the honor of “Model Laborer” (*laomo*) or “Advanced Worker” (*xianjin gongzuozhe*) for reasons other than having demonstrated outstanding performance on the job.
9. Someone got a bigger bonus than others in the same position because of having made a greater contribution at work.
10. Someone got a bigger bonus than others in the same position for reasons other than having made a greater contribution at work.
11. Someone got an equal amount of bonus as others in the same position regardless of having done better or worse in his job.
12. Someone received management recognition because of having taken up extra responsibilities in his work.
13. Someone received management recognition for reasons other than having achieved higher skill qualifications, outstanding performance, or having taken up extra responsibilities in his work.
14. Someone received preferential treatment in housing allocation because of having made a special contribution to the enterprise.
15. Someone received preferential treatment in housing allocation without having made any special contribution to the enterprise.
16. Someone received better appraisal results due to better performance on the job.
17. Some received not so good appraisal results due to relatively poor performance on the job.
18. Appraisal results are to a greater extent dependent on relationships with the superiors rather than one’s performance on the job.
19. Appraisal results are to a greater extent dependent on relationships with one’s colleagues rather than one’s performance on the job.
20. Considering the various aspects mentioned above, reward is linked to performance on the job.
21. Considering the various aspects mentioned above, punishment is linked to performance on the job.
22. Under the current “Competition-Based Employment” (*jingzheng shanggang*) system, workers have been able to compete on open and fair grounds.
23. Q&A: What is your opinion about the “Competition-Based Employment” and wage systems at your enterprise? In addition, are rewards and punishments effective and appropriate in their intensity and focus?

Personal Data (Please do not enter your name) Please circle your answers.

1. Your position-based pay (*gangwei gongzhi*): \$ _____
2. Point on position scale (*gangwei xishu*):
1.0; 1.2; 1.4; 1.6; 1.8; 2.0; 2.2; 2.4; 2.6; 2.8; 3.0; 3.2; 3.4; 3.6; 3.8
3. Your skill-based pay: \$ _____
4. Point on Skill scale: 1.2.3.4.5.6.7.8.9.10.11.12
5. Your average monthly bonus is about: \$ _____
6. Your average monthly income (i.e. total of bonus + other forms of pay) = \$ _____
7. Your average monthly income last year: \$ _____; Your average monthly income in 1997; Your average monthly income in 1996: \$ _____
8. There is no differentiation between group and individual results in work appraisal.
a. strongly disagree b. disagree c. no opinion d. agree e. strongly agree
9. You consider that bonus differentials between workgroup members are:
a. too little b. about right c. too much
10. The differential as of now is about: minimum \$ _____; maximum \$ _____
11. Bonus differentials between workers and supervisor are:
a. too little b. about right c. too much
12. What is the appropriate wage differential between the supervisor and workers?
1.2.3.4.5.7.8.9.10 times
13. Your contract is of: a. rural status (*rongmingong*) b. urban status (*chengzhengong*)
14. The nature of your position is:
a. front line production (*yixian*) b. secondary line production (*erxian*)
c. supporting (*fuzhu*) d. back-room services (*houqin*) e. professional, managerial or technical staff (*zhuangye guanli jishu ren yuan*) f. (*junior*) supervisory grade (*keji*)
15. The degree of coordination between colleagues due to the nature of work:
a. very low b. low c. average d. high e. very high

16. Your skill classification: a. elementary school b. secondary school c. high school
d. technician e. assistant engineer f. engineer and above
17. Total number of people in your respective unit (shop floor, operating area, work
group, or office): _____
18. Number of subordinates: 0.1.2.3.4.6.7.8.9.10.11.12.13.14.15.16.17.18.19.20
19. Duration of your employment contract (*laodong hetong*):
1.2.3.4.5.6.7.8.9.10 years; (permanent), open-ended contract (*wugongdingqi hetong*)
20. Number of ___ years and ___ months before the expiry of your employment contract
21. What are the chances of your getting a renewal for your labor contract?
a. no chance at all b. small chance c. average d. big chance e. absolute certainty
22. Gender: a. female b. male
23. Age: a. under 25 b. 25 – 30 c. 31 – 35 d. 36 – 40 e. 41 – 45 f. 46 – 50 g. above 50
24. Marital status: a. single b. married
25. Education: a. elementary school b. high school or technical high school (*zhong
zhuan*) c. junior college e. bachelor's degree f. post-graduate degree
26. Experience in temporary layoff or transfer: a. Yes b. No
27. (Employment) background:
a. open (labor market) recruitment (*shehui zhaoping*) b. allocated (by the State)
to this enterprise upon graduation (*xuexiao biye fenpei*) c. "recovered ex-military
staff" (*fuyuan zhuanye junren*) d. transfer from outside this firm (*benqiye yiwai
danwei diaoru*)
28. Years of service:
<1; 1.2.3.4.5.6.7.8.9.10.11.12.13.14.15.16.17.18.19.20.21.22.23.24.25 years or more
29. Have you been awarded "Model Laborer" (*laomo*) or "Advanced Worker" (*xianjin
gongzhouzhe*)? a. Yes b. No
30. (Communist) Party member (*dangyuan*) or Young Communist Party Member
(*gongqing tuanyuan*): a. Yes b. No
31. Party member trainee (*yubei dangyuan*): a. Yes b. No