The London School of Economics and Political Science

Entrepreneurs, pivots and shocks: an exploration of organizational learning processes in nascent ventures

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With gratitude

Harry, Uta & Eva

&

Ma, Pa & Omar

For being my tribe

Declaration

I certify that the thesis I have presented for examination for the MPhil/PhD degree of the London School of Economics and Political Science is my own work.

The first paper has been co-authored with Prof. Harry Barkema and Dr. Uta Bindl. All Authors contributed equally to the paper.

I declare that my thesis consists of 49,408 words.

Abstract

Knowledge is considered the most strategically important organizational resource (Grant, 1996). How organizations process knowledge and learn is increasingly important for the study of entrepreneurship due to rapid changes and high levels of uncertainty. This thesis constitutes three empirical papers; paper 1 studies underlying micro-mechanisms at the level of the individual entrepreneur to explain how and why tie strength influences organizational learning in the context of Nigerian women entrepreneurs in a financial training setting, and how learning impacts their eudaimonic well-being in four contextually relevant dimensions; sense of self, doing good for others, freedom to participate in social settings and control over the environment. The second paper explores intraorganizational learning in nascent ventures during internal shocks to explore the role of emotions in the process of recovery. The third paper studies intraorganizational knowledge transfer, as a subprocess of organizational learning, at the level of organizational groups to explore how nascent ventures overcome cognitive and affective impediments to knowledge transfer within the organization by using emotional appeals.

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Abstract

Chapter 1: Introduction

General overview

The entrepreneurial climate in emerging economies is undergoing profound changes. The 'demographic dividend' has translated into millions of unemployed youth, seeking jobs in the labour market with limited opportunities for formal employment. Similar trends can be seen in emerging African economies, where the main factors holding back competitiveness, in terms of doing business are access to financing, corruption and the inadequate supply of infrastructure (Africa Competitiveness Report, WEF, 2015). Despite these challenges, emerging economies like Nigeria have one of the highest rates of entrepreneurial activity with roughly one-third of the population between the ages of 18-64 engaging in some form of entrepreneurship (Global Entrepreneurship Monitor). Interest in entrepreneurship has been growing, premised on a broad recognition of its significance as a driver of economic growth, in both, developed and developing countries (Shane & Venkataraman, 2000; Van Praag & Versloot, 2007). The role of entrepreneurs in creating and growing business ventures is increasingly viewed as a mechanism of socio-economic change (Acs et al, 2011; Brush et al, 2009; Ahl, 2006). Research on entrepreneurship, however, has predominantly focused on Western developed economies such as France, Germany and Italy, or the United States, where adults involved in entrepreneurial activity are less than 15% per cent, compared to the Global south, where entrepreneurial rates are some of the highest in the world. For entrepreneurship and organizational theorists, this has been a missed opportunity.

According to Naman and Slevin (1993), successful organizations will engage in a continuous process of learning and adaptation in order to keep up with the challenging nature of environments in the future. Almost three decades later, the dynamic nature of a changing economic landscape makes a compelling case to develop a deeper understanding of organizational learning in the context of entrepreneurship. However, entrepreneurship and the growth process is essentially non-linear and discontinuous. It is a process that is characterized by significant and critical learning events (Deakins & Freel, 1998). Research on learning events is premised on the idea that incidents can play a critical role in an ongoing process of learning. These incidents can take the form of opportunities or crisis and tend to create a discontinuity in the flow of organizational functioning (Cope, 2005; Mensar, 1995). Such discontinuities can trigger transformational learning (Appelbaum and Goransson, 1997) since existing routines are rendered ineffectual, compelling individuals to make sense of the situation at hand, which requires higher levels of learning, often resulting from critical reflection (Fiol & Lyles, 1985). The notion that discontinuous learning events can stimulate different levels of learning is particularly relevant in the context of nascent ventures that operate in volatile and uncertain markets, and follow non-linear growth trajectories during which, "the ability of entrepreneurs to maximise knowledge as a result of experiencing these learning events determines how successful their firm eventually becomes," (Deakin & Freel, 1998, p.153). Thus, the three papers, which constitute this thesis, are theoretically tied to organizational learning in the context of entrepreneurship.

Overview of theoretical linkages and key contributions

Chapter 2 presents the first paper, titled; *The strength of strong ties for enterprise learning implications for eudaimonic well-being₁.* In this paper, I explore underlying micro-mechanisms at the level of the individual entrepreneur to explain how and why tie strength influences organizational learning. I conducted a longitudinal qualitative study of Nigerian women entrepreneurs who formed new social ties in a financial training setting, and explored social ties and information flows among entrepreneurs, as well as manifestations of organizational learning and well-being. The concept of entrepreneurial eudaimonic well-being was informed by Amartya Sen's capability approach, which offers a strong theoretical foundation to conceptualize well-being (Sen, 1992; Nussbaum, 2000). A key contribution of this study is the development and validation of a new contextualized, measurement *scale for entrepreneurs' eudaimonic well-being*, informed by the qualitative study, which captures individual experiences and perceptions of entrepreneurs themselves (cf. Diener et al., 2018), rather than using theory and measures developed in employed-work settings. Another contribution of this study to the organizational learning literature is the development of a new concept of *household learning.*

Chapter 3 presents the second paper, titled, *Shocks and shake-ups: intraorganizational learning processes in nascent ventures.* In this paper I explore intraorganizational learning and negative affect to understand how nascent ventures learn from internal shocks. I investigated this through a longitudinal study of seven ventures in Lagos and Abuja. The key contribution of this paper is the development of a process model of

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organizational protective routines, which surfaces how founders respond to threat and/or embarrassment by purposefully reconfiguring subnetworks between tasks, tools and members i.e. intraorganizational learning.

Chapter 4 presents the third paper, titled, *Intraorganizational knowledge transfer: an exploration of cognitive and affective pathways in nascent ventures.* In this paper, I study intraorganizational knowledge transfer, as a subprocess of organizational learning, at the level of organizational groups to explore how nascent ventures overcome cognitive and affective impediments to knowledge transfer within the organization. I surface two implementation pathways, cognitive and affective, which contribute to the existing research on knowledge transfers primarily by exploring the role of negative emotions in impeding organizational learning processes.

Epistemological considerations

This research is underpinned by interpretivist epistemology, with the view that the world is subjective and constructed by the individual. The empirical accounts and explanations in this thesis, conform closely to the situation being studied and are likely to be understood and made use of by those in the situation since the theoretical explanations have been derived from their interpretation of events as opposed to the researchers assumptions (Turner, 1981). Hence, the resulting body of research – the three qualitive studies - are inductive, grounded in data but also account for the dynamic interrelationships amongst the emergent concepts.

In order to create intimacy with the phenomenon of interest (Bansal & Corley, 2011), an inductive approach was necessary, to discover the most relevant concepts for the purposes of theory building and validation of constructs (Gioia et al. 2012). This

entailed, viewing participants in the study as informants of their experience to understand how *they* interpret their experiences which are deeply embedded in their social context. This was important to identify all the steps in a process, how those steps are connected, and what conditions one step creates for the next to occur.

To an extent, it borrows from post-positivism the idea that research can only be generalized to a specific time and place. As one type of interpretivism, phenomenology, has been central to this research and the three studies that constitute it. I cannot claim epistemological purity since my engagement with data sometimes pushed me towards Husserl's descriptive phenomenology, sometimes towards Heidegger's interpretive phenomenology and in many instances towards Merleau-Ponty's perceptual phenomenology. Together, somewhere on a spectrum, these epistemologies have shaped my ambitions as a researcher to develop deep intimacy with the phenomenon of interest; to understand and interpret the world view of founders and their perceptions of their own lived entrepreneurial experiences. To this end, I used an interpretivist approach in all three studies that constitute this thesis, following an inductive logic to generate insights grounded in experiential data.

Ethical considerations

Ethical considerations were addressed by asking permission from informants about recording interviews and briefly explaining to them the purpose of this research. None of the entrepreneurs requested anonymity but given the personal nature of the information some of them shared, in the final write-up, pseudonyms have been used to prevent any reputational harm to their enterprises or themselves.

Chapter 2

THE STRENGTH OF STRONG TIES FOR ENTERPRISE LEARNING:

IMPLICATIONS FOR EUDAIMONIC WELL-BEING

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INTRODUCTION

A large body of evidence shows entrepreneurs' social networks—other individuals an entrepreneur socially connects with—are critical for growing their small enterprises and for success (e.g., Jack, 2005; Maurer & Ebers, 2006). Their social networks with other entrepreneurs, for instance, could be an important source of new information for how to improve their enterprise (Greve & Salaff, 2003), that is, for organizational learning: changes in the organization's routines and underlying knowledge and beliefs (Levitt & March, 1988), such as improvements in HRM, marketing, and sales. However, little is known about how entrepreneurs can effectively use their social networks for organizational learning (Harrison & Leitch, 2005), or why, including what the mechanism is. Our research addresses this important omission.

Prior research from a social-network perspective has explored the more general question of how entrepreneurs use their social ties to acquire novel information (Kreiser, Patell, & Fiet, 2013; Uzzi, 1997). The dominant perspective builds on Granovetter's (1973) weak-ties hypothesis that weak social ties—sporadic contacts—serve as bridges to disconnected social circles and fresh ideas, whereas strong ties—intimate bonds with social cliques—lead, from an information-flow perspective, to largely redundant information (Granovetter, 1973, 1983; Krackhardt, 1992). The use of weak ties prevents such blindness to new opportunities (Burt, 1992), increasing firm performance and growth (Kreiser et al., 2013; Uzzi, 1996). This perspective would suggest weak rather than strong ties enable entrepreneurs to acquire novel information, and hence the organizational learning of enterprises. However, alternatively, Uzzi (1997) suggested strong ties may enable small and medium-sized firms to adapt to other firms in supplier-manufacturer relationships. Hence, a first unresolved question we explore in this study is whether weak or strong ties of entrepreneurs are more effective for organizational learning, and why.

Answering this question about the implications of tie strength for organizational learning requires us to address three challenges. First, prior research has typically confounded two separate issues: the *strength* of social ties, and the *redundancy of information at the source* (Granovetter, 1983; Krackhardt, 1992). Hence, when studying implications of tie strength, we need to mitigate this information-redundancy bias of strong ties. That is, conceptually and empirically separate the strength of social ties from the novelty of information at the source is key. Second, prior research exploring whether weak or strong ties lead to new information has explored their implications for project or firm performance (Kreiser et al., 2013; Stam, Arzlanian, & Elfring, 2014). However, empirical relations between tie strength and performance may be explained by a myriad of factors other than information flows, including emotional support (Shane, 2003), the partner's reputation (Jack, 2005), and the flow of tangible resources (Batjargal, 2010). Directly testing whether social ties actually lead to acquired new information, or —in our case—to organizational learning, is necessary. Third, we know little about the underlying micro-mechanisms at the level of the individual entrepreneur explaining how and why tie strength influences organizational learning, despite the importance of such mechanisms for understanding how and why social ties enable information flows in small enterprises (Gedajlovic, Honig, Moore, Payne, & Wright, 2013). As Aral (2016: 1936) argued in this context, "A focus on micro-mechanisms could help … theory to contribute… by becoming more precise, contextual, and rigorous."

Finally, previous research on small enterprises has overwhelmingly restricted itself to implications for economic performance (Shepherd, Wennberg, Suddaby & Wiklund, 2019). Yet at the background of entrepreneurship research but at the foreground of the experience of many entrepreneurs is that economic performance is not the only relevant outcome for them. Entrepreneurs often highly value non-material outcomes as well, such as autonomy or the freedom to determine one's own actions—often reasons to become an entrepreneur in the

first place (Carter, Gartner, Shaver, & Gatewood, 2003). Such *eudaimonic well-being*, namely, individuals' ability to actualize their human potential and to live a good and meaningful life (Ryan & Deci, 2001; Sonnentag, 2015), has received little attention in entrepreneurship research (Stephan, 2018; Wiklund, Nikolaev, Shir, Foo, & Bradley, 2019). Prior research in employed-work settings has found that improvements in work design can improve employee well-being (see Parker, 2014, for a review). We argue that improving the "work design" of entrepreneurs—as implied by organizational learning, i.e., changes in organizational practices and routines in their enterprises - may achieve similar outcomes. However, we currently do not know whether, how, and why organizational learning influences entrepreneurs' eudaimonic well-being, nor do we know how it manifests itself in entrepreneurs or how to measure it. Prior research has used measures developed in employed work contexts (Stephan, 2018), or used generic concepts and measures of eudaimonic well-being (Ryff, 1989). However, the understanding and experience of what eudaimonic well-being is may differ across cultures (Diener, Lucas, & Oishi, 2018) and across work and entrepreneurial contexts; hence a new conceptualization and measure of entrepreneurial eudaimonic well-being is needed as part of a new generation of entrepreneurship research (Stephan, 2018; Wiklund et al., 2019). We therefore explore how organizational learning influences entrepreneurs' eudaimonic well-being, and develop a new measure capturing entrepreneurs' eudemonic well-being.

We address our key questions in a mixed-method, longitudinal study of women entrepreneurs in Nigeria, who initially met for a six-week financial training program, and over time—through face-to-face contacts and social media—developed social ties of varying strength. Hence, unlike earlier social network research, we explored a setting where information from *each source*—independent of tie strength—*was new*, providing a natural zero point of social-tie formation. Moreover, *women* entrepreneurs in particular are well

known to face many economic, social, and cultural constraints on their freedom to act (Venkatesh, Shaw, Sykes, Wamba, & Macharia, 2017). Hence, this organizational context seems an ideal one for studying how improvements in an entrepreneur's "workplace"—in enterprise-related practices implied by organizational learning—influences eudaimonic well-being. In particular, our qualitative Study 1 explored the concepts of social-tie strength, organizational learning, and eudaimonic well-being of entrepreneurs. We adopted a "New Way of Seeing" (Shaw, Tangirala, Vissa, & Rodell, 2018) by informing our understanding of entrepreneurial eudaimonic well-being by Amartya Sen's capability approach, which offers a strong theoretical framework—well-established in the social justice and development literatures—to conceptualize well-being (Sen, 1992; Nussbaum, 2000). This approach led, in our quantitative Study 2, to new measures of entrepreneurial eudaimonic well-being and of organizational learning of small enterprises, and, in Study 3, to developing and testing new theory on how and why social-tie strength influences organizational learning, as well as on the links between organizational learning and the eudaimonic well-being of entrepreneurs and firm performance.

We believe our research offers several important theoretical and methodological contributions. First, in contrast to the dominant literature on social networks of entrepreneurs, which has theorized and found that weak social ties lead to novel information, our new theory and evidence, using a new measure of organizational learning in small enterprises and a research design mitigating the information redundancy bias of strong ties, reveals the strength of strong ties. We find they are effective conduits for fresh information, enabling organizational learning. Second, we theorized and tested a new, micro-level mechanism underlying organizational learning in small enterprises, that is, *entrepreneurial proactive goal regulation*, which is an entrepreneur's active engagement in thinking about and planning for changes in his or her enterprise. This mechanism adds to our understanding of organizational

learning in enterprises through social networks and how it can be improved. In sum, we provide new theory regarding the role of entrepreneurs' social ties with other entrepreneurs in influencing the financial performance of their enterprise, including why this link occurs: because strong social ties with other entrepreneurs increase entrepreneurs' own engagement in proactive goal regulation, and in turn, the amount of (beneficial) organizational learning.

Third, we developed and tested new theory on how organizational learning influences entrepreneurial eudaimonic well-being, for which we also developed and validated a new measurement scale. Moreover, we provide new theory regarding how and why entrepreneurs may influence their own eudaimonic well-being and be able to "lead a good and meaningful life" (Ryan & Deci, 2001). Our new theory, measures, and evidence provide strong support for the recent call in entrepreneurship research (Shepherd et al., 2019; Stephan, 2018; Wiklund et al., 2019), in line with what matters for entrepreneurs in practice (Stephan, 2018), to shift entrepreneurship research toward a more comprehensive, multi-faceted conceptualization and measurement of "enterprise success," going beyond economic performance alone to include living a good and meaningful life, which our research shows can—like economic performance—be strategically managed in predictable ways through effective social networks, enabling organizational learning from other entrepreneurs.

THEORETICAL BACKGROUND

Entrepreneurs' Social Networks as a Key Predictor of Organizational Learning

We define an entrepreneur as a founder, owner, and manager of a small firm (Hite & Hesterly, 2001). Empirical research on the impact of entrepreneurs' social networks on their enterprises (Kreiser et al., 2013; Stam et al., 2014) has typically built on and corroborated Granovetter's seminal "strength-of-weak-ties" hypothesis (Granovetter, 1973; over 50,000

cites): Weak ties serve as one-way, sporadic contacts with and bridges to distant social groups with fresh ideas (Granovetter, 1973; Burt, 1992). They imply little emotional attachment and few obligations, and are adaptable when searching for new information (Gargiulo & Benassi, 2000; Maurer & Ebers, 2006). By contrast, strong ties are seen as long-duration, high-frequency contacts with cohesive social cliques, emotional intensity, and a degree of intimacy and mutual confiding, characterized by trust and motivation to help each other. They imply cognitive lock-in and provide shared, redundant information (Burt, 1992; Granovetter, 1973, 1983). Holding strong ties beyond a certain threshold is therefore seen as too costly for entrepreneurs in terms of maintaining contact and distributing favors (Bradley, McMullen, Artz, & Simiyu, 2012; Gargiulo & Benassi, 2000; Uzzi, 1997).

In sum, weak rather than strong ties are seen as conduits for new information flows. Consistent with this perspective, recent studies (Kreiser et al., 2013), including a meta-analytic study (Stam et al., 2014), found that weak rather than strong ties of entrepreneurs are associated with improved firm performance and growth. However, a few qualitative studies have suggested an opposite view may be plausible. Uzzi (1997) found that suppliers with long-term, close relationships (i.e., strong ties) with manufacturers are able to adapt because they acquire fine-grained knowledge about their clients' business needs. Greve and Salaff (2003) found that entrepreneurs at the initial startup phase benefit from discussions and advice through social ties with family and (other) entrepreneurs they spend considerable effort to develop and maintain (i.e., strong ties).

In our research, we focus on an important question for entrepreneurs seeking to improve business success: Are strong or weak ties more effective for organizational learning (OL)? Answering this question requires us to address the fact that in prior research, strong ties tend to be with social cliques with redundant information (Granovetter, 1985; Burt, 1992; Krackhardt, 1992). The finding that strong ties of entrepreneurs are negatively related to

indicators of acquired novel information, such as project or firm performance (Kreiser et al., 2013; Stam et al., 2014), may therefore be due to information at the source being redundant for strong ties, rather than due to (characteristics of) strong ties themselves (Burt, 1992; Granovetter, 1983). Hence, conceptually and empirically separating the strength of social ties (i.e., tie bandwidth, its capacity to convey information; Aral & Van Alstyne, 2011) from the novelty of information at the source is key. We do so by exploring newly formed social ties and their characteristics in comparison to previously studied strong ties.

Second, prior studies have typically not explored whether or what information or knowledge flows through these ties. However, for a real test of the strength-of-weak-ties hypothesis, "one needs to show not only that the bridging networks segments are disproportionally weak but also that something flows *through* these bridges… the case remains incomplete" (Granovetter, 1983, p. 2289). Three decades later, little has changed: Empirical studies typically still explore, as mentioned, implications of tie strength for project or firm performance, and not whether or what information is actually acquired (Aral & Van Alstyne, 2011). This is problematic because many alternative mechanisms may explain an association between tie strength and performance, such as emotional support (Shane, 2003), entrepreneurial legitimacy (Elfring & Hulsink, 2003), status and reputation (Jack, 2005), and access to tangible resources (Batjargal, 2010). In other words, an empirical association between tie strength and firm performance does not necessarily mean information flows, or, in our context, OL, have taken place. This research also has not typically studied what type of information was acquired, or how information was defined or measured (Aral, 2016). Hence, in this study, we aim to define OL for small enterprises and how it can be measured, to be able to directly test whether OL has taken place.

A growing body of research shows OL is key for the growth and performance of small enterprises (Cope, 2003; Harrison & Leitch, 2005). However, this research has focused

on learning from an entrepreneur's *own* experience (Wang & Chugh, 2014); little is known about how entrepreneurs can use their social networks for OL. Organizational learning has been defined as changes in "the forms, rules, procedures, conventions, strategies and technologies around which organizations are constructed and through which they operate.... and in the structure of beliefs, frameworks, paradigms, codes, culture, and knowledge that buttress, elaborate, and contradict the formal routines" (Levitt & March, 1988, p. 320), where routines, knowledge, beliefs, and so on may change at the individual or organizational level (March, 1991; Madsen & Desai, 2010). Individual-level changes are likely important given an entrepreneur's dominant position in the enterprise as founder, owner, and manager (Cope, 2003). However, Levitt and March's (1988) definition of OL—as changes in routines and underlying knowledge and beliefs—has predominantly been applied to large firms; little is known about the validity of this concept for small enterprises. Moreover, OL has typically not been measured, but inferred from project or firm performance (Harrison & Leitch, 2005). A few studies have developed measures of OL, informed by theory (Dutta & Crossan, 2005; Huber, 1991); however, these measures tend to focus on large firms and capture *how* firms learn: subprocesses of OL, such as the distribution of knowledge across firm units, and storing of knowledge in IT systems (Flores, Zheng, Rau, & Thomas, 2012; Tippins & Sohi, 2003). They do not aim to measure *what* has been learned at (small) enterprises, which is the focus of our research. We therefore explore the validity of this OL concept (Levitt & March, 1988) for the context of small enterprises, and develop a measure as well.

A Capabilities Approach to Understanding Eudaimonic Well-Being of Entrepreneurs

Eudaimonic well-being of entrepreneurs. Eudaimonic well-being (from eudaimonia, or "human flourishing," in Greek) refers to an individual's experience of leading a good and meaningful life, and is largely distinct from hedonic well-being, which is about maximizing

pleasure (or avoiding pain; Kahneman, Diener, & Schwarz, 1999; Ryan & Deci, 2001).

Management research on eudaimonic well-being, using a variety of indicators (e.g., personal development, self-actualization, and full functioning), has focused on employed individuals (see Ryan & Deci, 2001; Sonnentag, 2015, for reviews). Hence, these conceptualizations tend to reflect corporate rather than entrepreneurial settings. However, researchers have found substantial differences in overall personality traits and life values between entrepreneurs and employed workers (Baron, Franklin, & Hmieleski, 2016; Rauch & Frese, 2007), suggesting eudaimonic well-being is likely experienced differently by entrepreneurs.

Moreover, generic measures of eudaimonic well-being have been developed. For instance, Ryff (1989) developed a measurement scale for eudaimonic well-being, building on clinical, existential, developmental, and humanistic theories in psychology that emerged in the US and Western Europe in the 1930s–60s (by Jung, Allport, Frankl, Rogers, Maslow, Erikson). However, how eudaimonic well-being is experienced and understood from the perspective of the individuals themselves may vary significantly across cultures (e.g., Western vs. Buddhism or Confucianism; see Diener et al., 2018, for a review). Moreover, well-being is likely differently understood and experienced by employed workers and by entrepreneurs (Stephan, 2018; Wiklund et al., 2019). A new generation of concepts and measures is therefore needed in entrepreneurship research, which mitigates the potential (implicit) bias of theory and evidence pertaining to corporate settings (Stephan, 2018) or Western (theoretical, philosophical, religious, and cultural) settings (Diener et al., 2018). A new conceptualization of eudaimonic well-being for entrepreneurs (rather than using a general concept) would also better reflect their individual experiences of well-being and enable a more nuanced assessment of it (Wiklund et al., 2019). Finally, and methodologically, as Diener and colleagues (2018) emphasized, capturing the subjective

evaluations of individuals, from their own perspective, may provide a better mechanism for assessing well-being than alternative, "objective" approaches.

     The capability approach. We use a fresh approach to mitigate the above-identified potential biases in our current understanding of eudaimonic well-being of entrepreneurs—a theoretical framework that is well-established outside of core management research, namely, the *capability approach* (Sen, 1992; 1999; Nussbaum, 2000)—and use this framework to broadly sensitize our inductive approach. This approach seeks to capture "the real opportunity that we [human beings] have to accomplish what we value" (Sen, 1992; p. 31), that is, what individuals have reason to value in terms of *real opportunities to do and to be*. Sen did not specify what these capabilities are; he argued they depend on the lived experience of individuals (Sen, 1992, 1999). However, Nussbaum (2000) extended Sen's approach to derive 10 key components of "eudaimonia": 10 central human capabilities that she argued are central to human life.3 Nussbaum's approach to eudaimonic well-being appears to have some validity outside the West, as illustrated by research (Klein, 2016) identifying *nakali* or "self-understanding" of women's agency in urban Mali and local concepts of *dusu* (internal motivation) and *ka da I yere la* (self-belief). However, Nussbaum's "universal" categories have also been criticized for being at odds with the essence of the capability approach as the lived experiences of individuals (Sen, 2001). Alkire (2007) argued Sen's framework is too broad to operationalize, but that Nussbaum's approach is too prescriptive and unclear epistemologically. Instead, she proposed inductive qualitative research, broadly informed by normative assumptions (such as Nussbaum's 10 capabilities) of eudaimonic well-being for broad guidance, as a promising research avenue (Alkire, 2007).

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3 These capabilities are: the opportunity to live a life of normal length; of bodily health and integrity; of the ability to imagine, think, and reason; to have social attachments; to critically reflect on one's life; to engage in valued forms of social interaction; to play; to live with concerns for other species; to control one's own environment (Nussbaum, 2000).

Hence, in our current research, we draw on the capability approach (Sen, 1992, 1999; Nussbaum, 2000) as a "new way of seeing" for management (Shaw et al., 2018), a broad theoretical framework to broadly sensitize our inductive exploration of what eudaimonic well-being means for entrepreneurs. In Study 1, we inductively generate themes to capture eudaimonic well-being—the opportunities to do and to be that entrepreneurs *themselves* experience and perceive as valuable. The emphasis on opportunities is particularly appropriate for an entrepreneurial context; discovering and exploiting opportunities is at the heart of what entrepreneurs do and at the core of the entrepreneurial process (Shane & Venkataraman, 2000).

STUDY 1

We conducted a multi-site inductive study of women entrepreneurs in Nigeria who took part in a six-week training program for investment readiness and financial literacy. We aimed to explore how and why social ties among entrepreneurs influenced OL, what forms OL took in their lives, and how they experienced eudaimonic well-being.

Study 1 Methods

Research setting. Four hundred eighty-four women entrepreneurs took part in the same training program over six weeks, through small group activities, face-to-face plenary sessions, and WhatsApp chat groups. Nigeria has one of the highest Total Early-Stage Entrepreneurial Activity (TEA) indicators in the world: 39.86% of Nigerians between 18 and 64 years are either nascent entrepreneurs or owner-managers of a business (Global Entrepreneurship Monitor, 2015). We identified participants through a local institution affiliated with the training program. Our sample consisted of women entrepreneurs from Lagos and Abuja (76% and 24% of the sample, respectively) who met the criteria of being

owner-managers of a business, had been operational for two or more years, and had at least one employee (Glaub, Frese, Fischer, & Hoppe, 2014). To achieve maximum variation in our theoretical sampling (Polkinghorne, 2005), we selected entrepreneurs with a wide range of experience (2 to 17 years), age (31-51 years), marital status, number of children (0 to 8 children), and annual profit (300,000 to 11,800,000 Naira).

Data collection. We conducted 37 semi-structured interviews with women entrepreneurs, and 93 hours of observation in Lagos and Abuja, during three rounds of data collection over an 11-month period to understand how events and relationships between constructs unfolded over time. In ***Round 1***, we conducted an initial round of data collection to familiarize ourselves with the setting. The first and third author observed lectures and break-out sessions at the local training center for 48 observation hours, leading to 20 pages of field notes capturing entrepreneurial social interactions. Informal interviews with three women entrepreneurs and a training instructor helped develop the interview protocol for the next round. In ***Round 2***, we conducted 21 semi-structured interviews, typically lasting 40-55 minutes, at the local training center. We began with background questions about entry into entrepreneurship. Next, we asked about social interactions among women entrepreneurs in cohorts and small groups and changes they intended to make in their lives. Finally, we asked them what it meant to them "to be an entrepreneur." Their answers helped us understand what they considered to be valuable opportunities and the meaning they attached to what they did and who they wanted to be (Schwandt, 2014; Glaser 1978; see Appendix A for the interview protocol). One week later, we re-interviewed five entrepreneurs who had provided particularly rich insights, in natural settings such as homes and offices, for more in-depth talks about entrepreneurial experiences, lasting 60-120 minutes. In ***Round 3***, six months later, we interviewed 11 entrepreneurs: six prior informants, enabling us to follow changes in their lives over an 11-month period, and five new informants to probe deeper into emerging

themes regarding household changes and their impact on entrepreneurs (Patton, 1990; Schatzman & Strauss, 1973). The third author also made field visits, typically lasting two to four hours and involving shadowing at offices, homes, and client sites. Informal conversations with entrepreneurs, staff members, household members, and clients led to an additional 10 pages of field notes and helped triangulate reports by women entrepreneurs.

Data analysis. Given the aim of this study—to inductively explore concepts —we used the Gioia methodology and thematic coding to arrive at a data structure (Gioia, Corley, & Hamilton, 2013). All 37 interviews were recorded, transcribed, and uploaded to NVivo 11, along with field notes. We analyzed the data in three stages. In Stage 1, after the second data-collection round, the third author conducted line-by-line coding of 10 interviews to generate an initial list of open codes using informant terms (Strauss & Corbin, 1998), as well as provisional codes that were a priori theoretical constructs, based on prior literature on social networks, OL, and eudaimonic well-being (Eisenhardt, 1989). Several interesting themes emerged, including the formation of ties of varying strength, changes at work and at home, and how entrepreneurs perceived themselves. To check the plausibility of codes, the first and second author independently coded 10 interviews and three interviews, respectively, to refine the coding (Scandura & Williams, 2000). Discrepancies in coding were resolved through discussion, leading to several additional first-order codes, which purposely remained descriptive and informant-centric (Corley & Gioia, 2004). In the final step of Stage 1, the third author coded the 26 remaining interviews and collapsed 48 first-order codes into 8 second-order codes (Corley & Gioia, 2004; Strauss 1987). In Stage 2, after the third data-collection round, we refined and articulated our themes into a data structure (Gioia et al., 2013). We coded the 11 new interviews and triangulated insights with observational data from our memos, which elaborated on existing categories such as OL (see Figure 1). New categories emerged as events unfolded over time; entrepreneurs reported how they

implemented changes and felt more in control of their work and/or household environment, which helped us refine our data structure. Finally, in Stage 3, we engaged again with the literature on social ties, OL, and eudaimonic well-being to deepen our understanding of emergent categories until they became conceptually dense, using the constant comparative method (Locke, 2015), refining categories by moving back and forth between theory and analysis (Gioia et al., 2013; Glaser, 1978). We adapted the concept of capabilities, particularly Nussbaum's approach (2003), to develop contextually relevant categories, such as entrepreneurs' experiences of being able to develop a sense of self. These new insights guided the development of our consolidated data structure (see Figure 1).
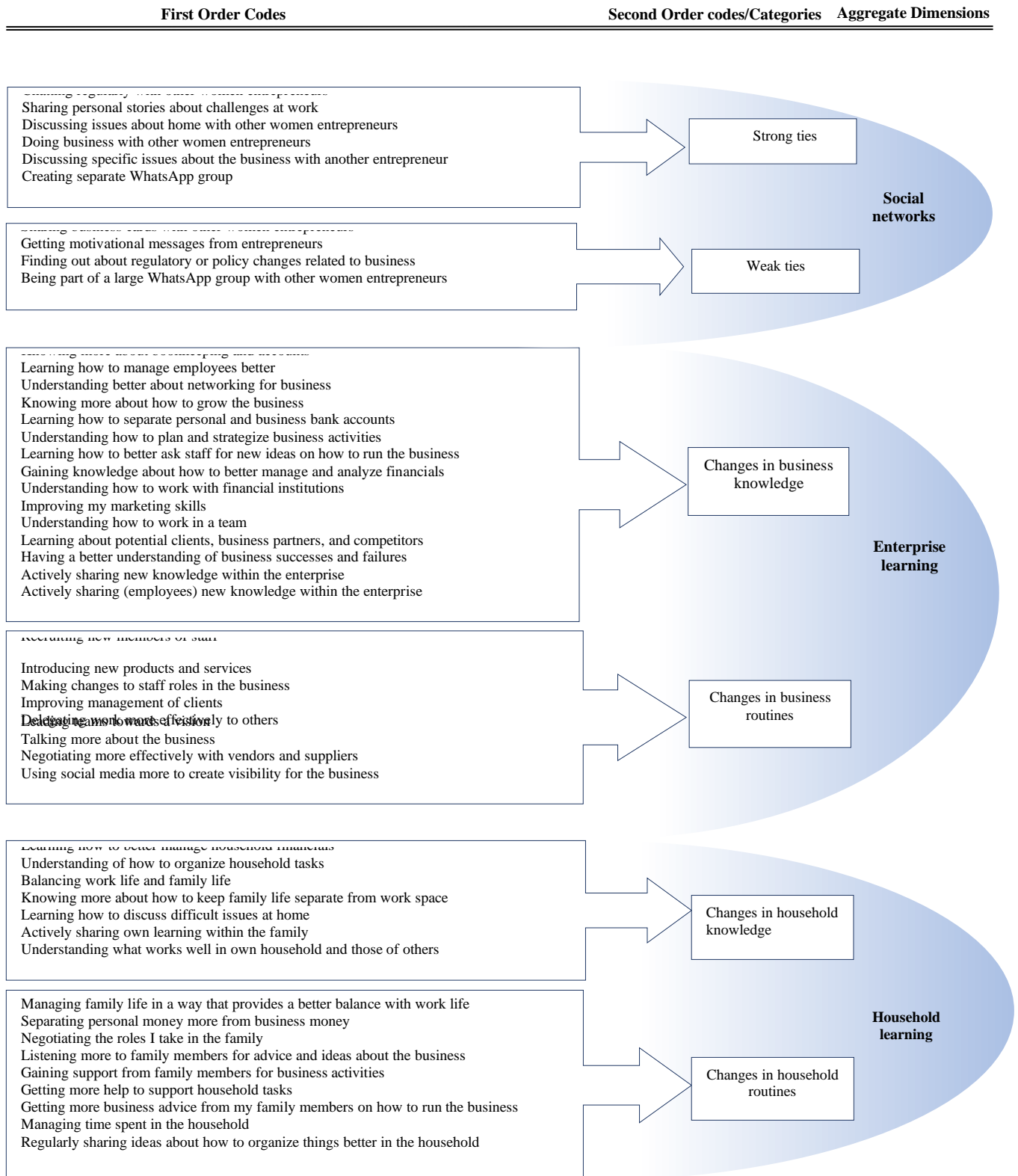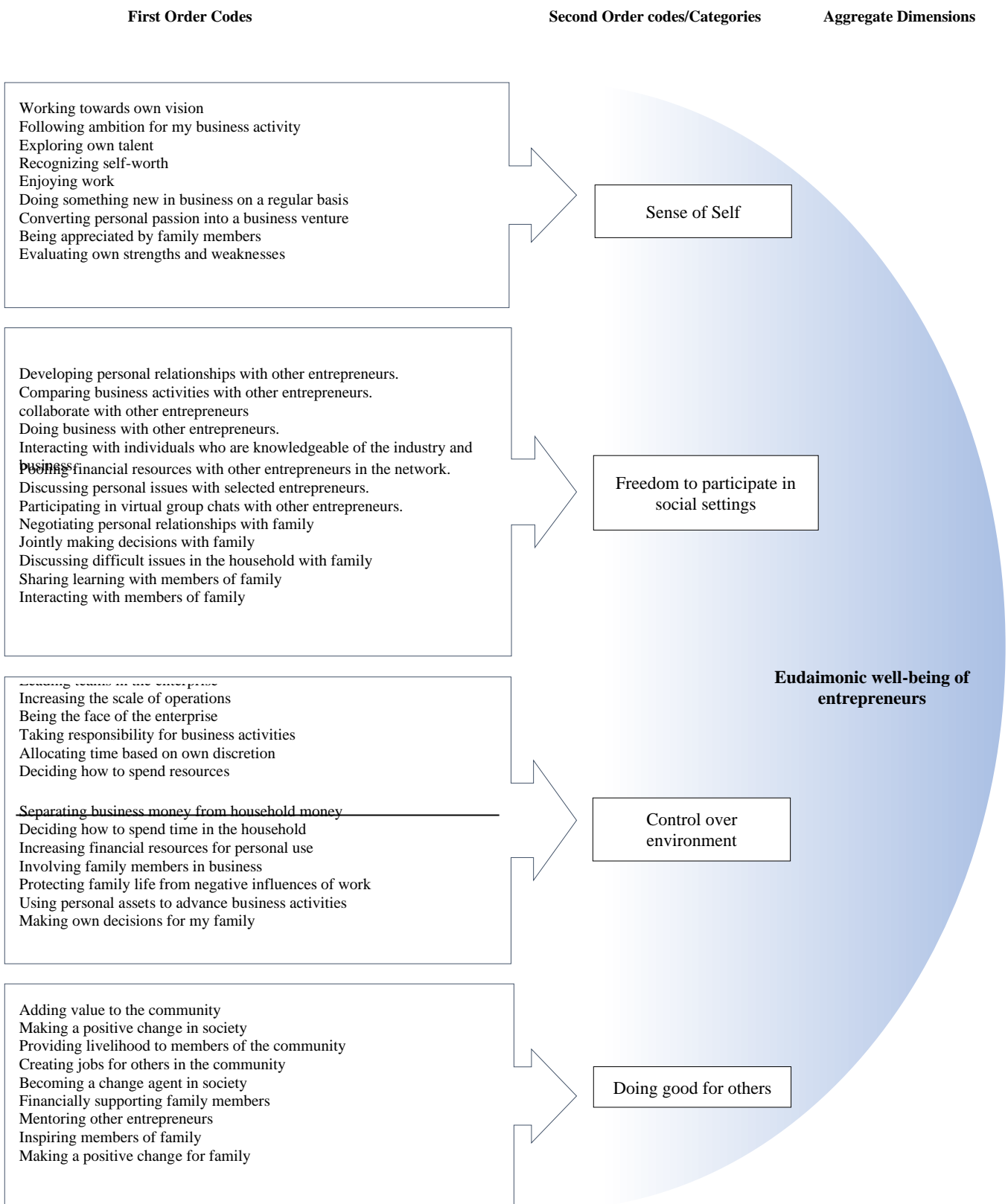
FIGURE 1
Data Structure

First Order Codes	Second Order codes/Categories	Aggregate Dimensions

Sharing personal stories about challenges at work
Discussing issues about home with other women entrepreneurs
Doing business with other women entrepreneurs
Discussing specific issues about the business with another entrepreneur
Creating separate WhatsApp group

→ **Strong ties**

Getting motivational messages from entrepreneurs
Finding out about regulatory or policy changes related to business
Being part of a large WhatsApp group with other women entrepreneurs

→ **Weak ties**

→ **Social networks**

Learning how to manage employees better
Understanding better about networking for business
Knowing more about how to grow the business
Learning how to separate personal and business bank accounts
Understanding how to plan and strategize business activities
Learning how to better ask staff for new ideas on how to run the business
Gaining knowledge about how to better manage and analyze financials
Understanding how to work with financial institutions
Improving my marketing skills
Understanding how to work in a team
Learning about potential clients, business partners, and competitors
Having a better understanding of business successes and failures
Actively sharing new knowledge within the enterprise
Actively sharing (employees) new knowledge within the enterprise

→ **Changes in business knowledge**

Recruiting new members of staff

Introducing new products and services
Making changes to staff roles in the business
Improving management of clients
Delegating work more effectively to others
Talking more about the business
Negotiating more effectively with vendors and suppliers
Using social media more to create visibility for the business

→ **Changes in business routines**

→ **Enterprise learning**

Learning how to better manage household financials
Understanding of how to organize household tasks
Balancing work life and family life
Knowing more about how to keep family life separate from work space
Learning how to discuss difficult issues at home
Actively sharing own learning within the family
Understanding what works well in own household and those of others

→ **Changes in household knowledge**

Managing family life in a way that provides a better balance with work life
Separating personal money more from business money
Negotiating the roles I take in the family
Listening more to family members for advice and ideas about the business
Gaining support from family members for business activities
Getting more help to support household tasks
Getting more business advice from my family members on how to run the business
Managing time spent in the household
Regularly sharing ideas about how to organize things better in the household

→ **Changes in household routines**

→ **Household learning**

FIGURE 1
Data Structure (continued)

| First Order Codes | Second Order codes/Categories | Aggregate Dimensions |

Working towards own vision
Following ambition for my business activity
Exploring own talent
Recognizing self-worth
Enjoying work
Doing something new in business on a regular basis
Converting personal passion into a business venture
Being appreciated by family members
Evaluating own strengths and weaknesses

Sense of Self

Developing personal relationships with other entrepreneurs.
Comparing business activities with other entrepreneurs.
collaborate with other entrepreneurs
Doing business with other entrepreneurs.
Interacting with individuals who are knowledgeable of the industry and business.
Pooling financial resources with other entrepreneurs in the network.
Discussing personal issues with selected entrepreneurs.
Participating in virtual group chats with other entrepreneurs.
Negotiating personal relationships with family
Jointly making decisions with family
Discussing difficult issues in the household with family
Sharing learning with members of family
Interacting with members of family

Freedom to participate in social settings

Leading teams in the enterprise
Increasing the scale of operations
Being the face of the enterprise
Taking responsibility for business activities
Allocating time based on own discretion
Deciding how to spend resources

Separating business money from household money
Deciding how to spend time in the household
Increasing financial resources for personal use
Involving family members in business
Protecting family life from negative influences of work
Using personal assets to advance business activities
Making own decisions for my family

Control over environment

Eudaimonic well-being of entrepreneurs

Adding value to the community
Making a positive change in society
Providing livelihood to members of the community
Creating jobs for others in the community
Becoming a change agent in society
Financially supporting family members
Mentoring other entrepreneurs
Inspiring members of family
Making a positive change for family

Doing good for others

Continued Data Structure of Qualitative Study of Women Entrepreneurs in Nigeria illustrating first order and second order categories for eudaimonic well-being of women entrepreneurs

Study 1 Findings

We explored how and why social ties may influence OL of small enterprises and how OL and eudaimonic well-being, in turn, manifested in entrepreneurs' lives. Below, we describe the themes we developed through our analyses.

  Social ties among women entrepreneurs. Women entrepreneurs formed social ties through interactions with others during small group activities, and in WhatsApp chat groups. They quickly formed strong ties with a few other women entrepreneurs, or "special bonds": "It brought us much closer to each other so now [we] form a special bond other than the general class…some of us became closer friends apart from the cohort." Entrepreneurs described "always chatting" with two or three entrepreneurs, often daily, with whom they had developed a relationship and could rely on for advice and support about how to manage their personal and professional responsibilities. Many recalled approaching women who seemed active, assertive, or like-minded. As one entrepreneur said, "From the cohort, you can actually see that this person has a direct impact on my business. So you reach out to the person personally from the cohort. That's where you can learn." They also described feeling energized during interactions: "It's almost like a clique where you all empower each other, everyone is just inspired…we were all *gingered* to do more with each other."

  We also found evidence of *weak ties* among entrepreneurs that formed during networking sessions, often by quickly exchanging business cards. However, most women entrepreneurs reported "losing touch" or "not being in contact" with the women they had met during these sessions. Our observations showed most entrepreneurs were part of WhatsApp chat groups with 50-100 other women entrepreneurs in which interaction varied, infrequently posting generic messages about "not giving up" and "staying strong," or about informing each other of regulatory and policy changes about enterprises. As one entrepreneur said, "There are times that people say things on our WhatsApp group and they may not pass a

comment, they may not say anything but they have spoken to you."

Organizational learning through social ties. Women entrepreneurs reported that their social ties led to changes in the household and enterprise (i.e., in OL). Strong ties gave entrepreneurs space to discuss a wide range of issues about management and/or personal challenges in a supportive environment. As one entrepreneur said, "We're all here to learn, so everyone is relaxed, you can get information and really grow in business." Having access to each other's business experiences exposed entrepreneurs to each other's work processes and discussions about business issues. They also developed the comfort to discuss intimate topics related to family life, such as negotiating relationships with spouses, managing household finances, and organizing work at home. Strong ties enabled them to increase the breadth and depth of their knowledge about work and home through their "own sister network." As one entrepreneur explained, "I also learnt a lot from meeting women, sharing our challenges especially when it comes to dealing with family issues, dealing with your spouse and the children, managing your chores… I realized that no one is an island of knowledge, you just get a bit from this person, a bit from that person, and then you add your twenty per cent and it becomes a hundred per cent."

Weak ties, by contrast, provided more simple, factual information such as about regulatory changes for enterprises or facilitation with registration. One entrepreneur mentioned, "I was having problems with registering with them, someone came up with information saying you can do this… it was great for me." Hence, this kind of information through weak ties was more superficial and on an ad hoc basis.

Interestingly, the nature of these social ties—and how strong ties differed from weak ties—was similar in important respects to what was found in prior research, but also different in some key domains. As in classical research (Granovetter, 1973, 1983; Uzzi, 1997), strong

ties were indeed characterized by high-frequency contacts, intimacy and mutual confiding, reciprocal commitments, and a willingness and motivation to help each other. Moreover, strong ties served as conduits for fine-grained information, through discussions with other entrepreneurs, enabling information transfer about their enterprises (Uzzi, 1997) and households. However, unlike prior research, strong ties were not of long duration but had formed recently (in weeks or months rather than years), yet, being with new contacts, appeared to serve as bridges to new information about other enterprises and households.

Planning to make changes. Entrepreneurs shared thinking about making changes in the business and at home: "I am just going to do everything very differently," "I am thinking of making a lot of changes," and "I want to be more assertive in my business." For many, such changes meant scaling up the business, creating a better work-life balance, or improving relationships at home: "Work-life balance is better because I am not so much, work, work, work, work. Actually, I'm still recruiting…it's going to increase my working cost because I have to pay for an extra hand but it makes your work-life better. So everyone will be happy in the end." Exchanging household-related information often inspired them to make changes at home, such as in their spending patterns, getting more support for household work, or planning to separate the workspace from home. One entrepreneur described such plans as "I may not be able to renovate to a fantastic space or something, but somewhere where I can say, this is a workshop, I work from here and make it a workspace for me, outside of my home. I think I can achieve this."

The theme of "planning for changes," salient in reports of interacting with other women entrepreneurs, relates to the construct of *proactivity* (Grant & Ashford, 2008; Parker, Bindl, & Strauss, 2010), which captures self-initiated and change-oriented action directed toward oneself or the situation. In particular, it captures the cognitive stage of *planning* to prepare for change-

oriented action, proposed in frameworks focusing on proactivity as a goal-directed process (;

Frese & Fay, 2001; Grant & Ashford, 2008; Parker et al., 2010). The theme of planning for

changes is, in turn, often linked to actual changes in routines and knowledge in the organization,

that is, *organizational learning*, which we discuss next.

Organizational Learning in the Context of Small Enterprises

Entrepreneurs reported OL in two domains: enterprise and household. We termed

changes in routines and knowledge regarding enterprises as *enterprise learning* and similar

changes in the household as *household learning* (see Table 1).

Enterprise learning: Changes in business knowledge. During interviews,

entrepreneurs stated varying degrees of changes in their business know-how. Changes in

knowledge and beliefs about the enterprise included what tasks had to be done and by whom

and were often described as "I now know better" or "I now understand." Entrepreneurs

typically shared knowledge about work processes through strong ties, sometimes changing

the culture of the enterprise. For instance, new information about client feedback triggered

innovation in an enterprise and prompted its staff members to think of new ways to satisfy

clients. Similarly, through strong ties, entrepreneurs acquired information about financing

options, based on the experience of other entrepreneurs whom they trusted. For instance,

entrepreneurs reported having more knowledge of financing options, changed how they

perceived the relationship between their enterprise and financial institutions. As one

entrepreneur said, "So why would I put myself in a 25% interest than a 9% [interest], if I'm

looking for finance? …You now know your options, you now know that you can go to other

banks, you can speak to other people, you understand."

TABLE 1

Study 1 – **Representative quotes from interview data (organizational learning- enterprise and household)**

Enterprise Learning	Illustrative quotes from interviews
Changes in business knowledge	"So now I have a vision of what, initially it was just like okay let's do it, let's just while in the meantime let's see what happens next year, you know. So now I have to like sit back, okay this is where I want this business to be in the next five years. In the next five years I want to be the number one producer, distributor of water in Abuja." "Before now I never really thought about needing funds for expansion but looking deeply, I realized I can't be where I am now, I can't really move beyond where I am now if I don't get external funds." "So why would I put myself in a 25% interest, you understand, than a 9% if I'm looking for finance. So people were could easily say, oh I'm walking away from that. Rather than before where you would be like almost like begging, can you reduce, please reduce it. You now know your options, you now know that you can go to other banks, you can speak to other people, you understand."
Changes in business routines	"I would say my client base has increased by let's say another maybe 8% and my total in terms of sales has increased in terms of like 10%. So you know what I have learned is that we now do different packages that now attract more from our previous clients. One of the things I did was customer service follow up, things that maybe I never really used to do before. Following up with my clients and things like that has helped me to have return clients and all that. So, really there's been a change." "One of my main challenges was still getting myself out there. Giving myself a bit of visibility and also helping to manage waste and control my operating costs. So those were the few things we really focused on and how I can like really diversifying into other things that are still within my industry without maybe costing me like a huge investment… So you know that helped a lot and also helping to manage waste in terms of our resources so that we can maximize our profit better." I don't keep cash, every transaction, no matter how little, is recorded .and every money goes straight to bank. I don't keep one Naira. At the end of the month we have kept ourselves on salaries, we pay ourselves and all the money remaining is not for anybody, it's for the business. That's how I've been running it. It wasn't like that initially, it wasn't like that."
Household Learning	Illustrative quotes from interviews
Changes in household knowledge	"Now I'm looking to get a new space, I may not be able to renovate to a fantastic space or something, but somewhere where I can say, this is a workshop, I work from here and make it a workspace for me, outside of my home. I think I can achieve this, if I do this a little more, this way, this way." "Like I said, managing the home was one big headache but somewhere along the line, after or during the course of this programme, we had to talk to other women, I realized that there is no award for a superwoman. The best you are likely to get is a thank you and it's not it's not fun growing older before your age, before your time and dying before your time."
Changes in household routines	"I just felt, it's workable. It's possible. Then I started with the making of the bed and a lot of other things have followed since. It's amazing. It just makes my life a lot easier." "I value the opinion of my family you know. My husband my siblings whenever they are around I value it because they tell me when I've gotten in to a trouble. They will even [notice] simple things such as folding towels, any minute thing they will let me know." "He was the one who told me that I should not cut the corners... that is what I did. I followed that advice and it worked for me."

TABLE 2

Study 1 – **Representative quotes from interview data (eudaimonic well-being**

Eudaimonic well-being	Illustrative quotes from interviews
Sense of self	"It's not what anybody has imposed on me, I'm alive and still dreaming holding my vision strong because I know that nobody forced it on me. I dreamt it and it's just a matter of time it will develop, materialize…" "When I sit in that class during lectures I go into the oblivion of seeing myself not just being a sole proprietor but a woman who has the strength, who has the capacity, who has the opportunity to have a conglomerate, not just a business but having a conglomerate and making it all work." "I cannot just sit in the office, I can also go out. I can do a lot of things and I can do them well" "I already knew to have a vision but you know when you're doing day to day work, at times you just get lost and you forget what is important so this helped me re-evaluate and reprioritize." "I didn't think I had that strong ability to be assertive but now I'm beginning to look at myself differently, that if other women are doing it, why can't I?" "At this point some people would have lost it, some people would have lost their mind, some people would have felt the world is against them. But something inside me is still telling me you are very courageous woman you are still bold, you are still there, your life is there you need to stand up. Its, that's for me that's the spirit of entrepreneurship." "People are embracing the change, people are embracing growth, a lot of women are doing beautiful things out of passion but also, they are getting remunerated and they are aiming, their businesses are growing and I don't want to be left in the crowd. I believe, that I have what it takes to do the same so that has been my motivation."
Control over environment	"It also makes you financially liberated, you work for your own money and make your own money. You have the time to yourself so you can know how to schedule your activity for a family and how to balance family life, at the same time have time for your business and have time for yourself." "Now you have more figures and with the figures, you can't just be looking at them, because they are so, now you have them so you can see if this is growing? Is thing on the right track? Is this where it should be? Because there was a part of the training that told us, you need to have a forecast before. So I do one every month. I look back and say, are we meeting our forecast? Do we need to double up next month?"
Freedom to participate in social settings	"We have WhatsApp platform, the women are so resourceful, I find it very relaxing to have, to learn with fellow women in same class. You see yourself as one, as a woman and all that. We have even been able to do business within ourselves. They are most reliable." "We have had many collaboration, partnership. We have to tell ourselves if there is any information out there, if there is something going on there, can we do it this way?" "I now have opportunities to network with other women. Initially I didn't have that opportunity but now we can talk on chat." "We were taught how to approach financial institutions, to be able to get money so we are trying to gather together as a cooperative. So we are trying to apply for a loan so we can move the business to the next level and then work towards the vision we wrote down."
Doing good for others	"I have something going for me and it's helping the economy. So, imagine if I have ten jobs, then more people would be employed, more people would be able to feed their families, and take care of them. So, I'm really working hard to put this structure in place, so I can go out and get more jobs." "I have a young lady with me who I am mentoring, she works in a factory and she waiting to go back to school, yes. She is not my family but the mother needed someone to help, direct her so I said okay bring her to me, I know what to do so right now she is focused, she knows where she is going and all of that." "I found out that working with other woman and helping other women is something that makes me really happy because when you see somebody from nothing to something – it gets greater. I can give you a typical example. I have a woman who came back to me last year with a business idea. She looks up to me as a mentor. Okay, so I have no problems in mentoring her as I like mentoring because I learn a lot when I mentor." "It's about giving back. That's one thing that's really changed. The training changed it. It's not just about business, it's not just about making money, it's about actually giving back to your community. There are so many things, there are so many people, as they are doing their business, they are giving back."

Enterprise learning: Changes in business routines. Entrepreneurs also made changes in how they organized their business, by introducing new routines such as introducing new products and services or modifying existing ones such as through negotiation strategies and client management. One recurring change was to use social media, described by an entrepreneur who switched to digital marketing: "One of my main challenges was still getting myself out there, giving myself a bit of visibility…and control my operating costs. [Now] I can diversify into other things that are still within my industry." We also found changes in banking practices: "I don't keep cash, every transaction, no matter how little, is recorded and every money goes straight to the bank. I don't keep one Naira... it wasn't like that initially."

Household learning: Changes in household knowledge. When entrepreneurs were asked about changes they had made or intended to make, many mentioned new knowledge of how to manage household finances, communicate with partners, and organize household tasks. Sharing stories from their personal lives helped entrepreneurs better understand how others managed their households. For example, through their strong ties, entrepreneurs got advice on how to improve their work-life balance, challenging existing norms of the household, including the reorganizing of work at home and communication between spouses. As one entrepreneur explained, "I am conscious about the fact that for a business to succeed, I have to talk about it with my family and my spouse, and also listen to what they say."

Household learning: Changes in household routines. We also found evidence of changes in how household work was organized. Women entrepreneurs assigned new roles and tasks to household members, which included delegating tasks to partners and children in order to free up time for other activities. One entrepreneur described how she reorganized work at home by getting her children to make their own bed at night: "I started with the making of the bed and a lot of other things have followed since. It's amazing. It just makes

my life a lot easier." We noticed that changes in household routines primarily involved new patterns of interaction among family members. This pattern was recurrent when women entrepreneurs described their interaction with spouses, which included having more conversations about work challenges and seeking advice about difficult decisions. As one entrepreneur said, "I value the opinion of my family you know? My husband, my siblings, whenever they are around, I value it because they tell me when I've gotten into a trouble."

Our findings are consistent with—and give content to—general definitions of OL for the context of small firms (Levitt & March, 1988). We inductively identified the new construct "household learning," which is consistent with and gives content to the definition of OL in the context of households, with themes reflecting routines and underlying knowledge and beliefs (at the organizational and individual level) as key components of OL. Household learning, as a new construct appeared to be salient and important in our setting of entrepreneurs and their social networks, with consequences for their entrepreneurial eudaimonic well-being, discussed next.

Eudaimonic Well-Being of Entrepreneurs

Through interviews and visits, we explored how women entrepreneurs experienced well-being. Below, we discuss emergent categories from our analyses: sense of self, doing good for others, participation in social settings, and control over the business and household environment, constituting the higher-order construct of eudaimonic well-being (see Table 2).

Sense of self. When describing enterprise or household learning, entrepreneurs reported changes in how they perceived their ability to follow their ambition, explore their talent, or convert a personal passion into a business venture. As one said, "I didn't think I had that strong ability to be assertive but now I'm beginning to look at myself differently, that if other women are doing it, why can't I?" They also described renewed confidence to improve their situation and to grow. Similarly, an entrepreneur reflected, "At this point some people

would have lost it…I'm alive and still dreaming holding my vision strong because I know that nobody forced it on me. I dreamt it and it's just a matter of time it will develop."

Doing good for others. Through interviews and visits, we found that entrepreneurs deeply valued their ability to make a difference in the lives of others through their entrepreneurial activity, stating, for example, "Working with other women and helping other women is something that makes me really happy." They felt they could be doing good for others, creating opportunities for them, as part of their entrepreneurial activities, adding value to the community, being a positive change agent, and providing livelihoods or giving back to the community. As one entrepreneur said, "It's about giving back. It's not just about business, it's not just about making money, it's about actually giving back to your community."

Freedom to participate in social settings. Being able to make changes in the enterprise and household gave entrepreneurs the opportunity to engage with their ecosystem consisting of entrepreneurial networks, institutions, household members, and the community in which their activity took place. Networking with others helped them deal better with financial institutions in order to grow their business. As an entrepreneur said, "We are trying to gather together as a cooperative so we can move the business to the next level." Hence, the freedom to participate in social settings at work or at home enabled women to identify and exploit opportunities as well as express their talent.

Control over environment (business and household). We found entrepreneurs frequently understood enterprise and household learning as having more control over their business and household environment. This control meant the ability to re-organize their environment to suit their needs, such as work-life balance, make spending decisions, and manage growth. One entrepreneur said, "You can see if this is growing. Is this thing on the right track? Is this where it should be?" Similarly, one of them described work-life balance as having "the time to yourself so you can know how to schedule your activity for family and

how to balance family life. At the same time have time for your business and have time for yourself." Our interviews revealed they viewed their ability to change their work or home environment to suit their needs as a key predictor of a life well lived.

In conclusion, we found evidence of four subdimensions of eudaimonic well-being. These dimensions meaningfully share features with existing categorizations of eudaimonia, but are also distinct due to their focus on the perspective of entrepreneurs, such as sense of self, which is related to Nussbaum's (2003) central capability, namely, "senses, imagination and thought," but is embedded in the entrepreneurial context. Although participation has been part of extant discourse, freedom to participate in social settings refers to the opportunity to engage with the ecosystem in which the entrepreneurial activity takes place. Similarly, control over one's environment is grounded in entrepreneurs' ability to make changes in their environment to suit their needs at work and at home, which is a departure from the rights-based language previously used in the capabilities framework (Nussbaum, 2003). Finally, doing good for others emerged as a social dimension in our data and extends our understanding of how entrepreneurs value the ability to make a positive impact in society.

Interim Discussion

In Study 1, we found that strong rather than weak ties were conducive to information flows that influenced routines, practices, strategies, and underlying knowledge, culture, beliefs, codes, and so on of the enterprise and/or household, namely, enterprise and household learning. Our data further indicated enterprise and/or household learning, characterized by entrepreneurs' initiated changes in the organization, positively influenced their sense of self, as well as more relational categories, such as doing good for others, freedom to participate in social settings, and control over the environment, which all

contributed to entrepreneurs' overall perception of their own well-being. In the following section, we develop theory based on our findings from this study.

THEORY

The Role of Social Ties for Organizational Learning

Study 1 provides insights into how entrepreneurs use their social ties to exchange knowledge about their enterprises and households, new business opportunities, and changes in the social, economic, and regulatory environment. Participants in our study reported how they confided in each other about problems at work and at home, discussed challenges, and shared knowledge and practices (see section on OL through social ties). We build on these insights to develop a theory on how social ties influence OL in small enterprises.

Social ties and enterprise learning. Entrepreneurs directly participate in daily operations of their enterprise and in key decisions, and often perform key boundary-spanning roles (Hite & Hesterly, 2001; Stam et al., 2014). Hence, social ties with other entrepreneurs, and associated information flows, are potentially important for the development of their firm (Gedajlovic et al., 2013; Maurer & Ebers, 2006), such as for OL (Argote & Miron-Spektor, 2011). As Study 1 suggests, strong (vs. weak) ties with other entrepreneurs are important for sourcing information, prompting changes in routines and underlying knowledge about business functions such as marketing, accounting, and HRM.

Strong social ties favor OL for several theoretical reasons. First, knowledge about organizations, including small enterprises, is complex, that is, holistic and tacit (Teece, 1977; Uzzi, 1997). It is holistic in the sense that effects of individual organizational dimensions, for instance, organizational structures, systems, and processes about HRM, marketing, and operations, are interdependent in their effects on firm performance (Gavetti & Levinthal, 2000; Levinthal, 1997; Winter, 1987). This applies when setting up a new venture (Gavetti & Levinthal, 2000; Levinthal, 1997) and when changing an existing enterprise (Uzzi, 1997).

Hence, effective OL of small enterprises through social ties of entrepreneurs would require transferring knowledge of such interdependencies. Strong ties with high bandwidth are better for transferring knowledge about interdependencies than weak ties (Aral & Van Alstyne, 2011; Hansen, 1999; Reagans & McEvily, 2003), and therefore for OL. Second, OL through social ties likely implies tapping into other entrepreneurs' experiential, tacit knowledge (Polanyi, 1966; Teece, 1977), where discussion and sense-making help generate explicit knowledge that can be transferred (Polanyi, 1966), for which strong rather than weak ties are suitable (Hansen, 1999; Reagans & McEvily, 2003). In sum, OL requires acquiring complex (holistic, tacit) knowledge, and likely increases with social-tie strength.

Moreover, OL may benefit from joint problem-solving, enabled by strong ties (Uzzi, 1997). Research has previously argued that knowledge flows across different units within a firm are particularly effective if this knowledge is adapted and translated to the different setting (Bresman, 2013; Tortoriello, Reagans, & McEvily, 2012). We expect that such translation and adaptation is at least as important for effective OL based on knowledge flows *across* different firms, such as for small enterprises. Uzzi (1997) observed joint problem-solving of entrepreneurs in supplier-manufacturer relationships, where a quid pro quo eventually exists for solving a client's problems. However, we expect joint problem-solving more generally through strong ties as well, facilitated by mutual liking and trust (Krackhardt, 1992), a vulnerability to reveal and share problems (Tortoriello et al., 2012), and mutual confiding, supported by a willingness and availability to help each other (Granovetter, 1973, 1983) and relationship-specific heuristics aiding communication and sense-making (Ibarra & Andrews, 1993), enabled by the frequent, emotionally intensive communication characterizing strong ties (Granovetter, 1973, 1983). In sum, we expect that social tie strength is related to joint problem-solving and to more effective translation and adaptation of organizational knowledge to the context of the focal entrepreneur. Thus, it is related to more

effective OL of entrepreneurs' enterprises, that is, to enterprise learning. Moreover, as another, direct implication (of complex knowledge transfer, suitably adapted to the focal enterprise), we expect that enterprise learning, in turn, improves the enterprise's operational and financial performance. In sum, we expect the following:

H1: Social tie strength is positively associated with enterprise learning.

H2: Enterprise learning is positively associated with enterprise performance.

Social ties and household learning. Families are important for entrepreneurs; they provide human and financial resources, advice, and emotional support (Greve & Salaff, 2003). Entrepreneurs typically operate within the social structure of a family, within a "household": A relatively tight cluster of family members and dependency relationships, which may enable or constrain entrepreneurial actions and freedoms, possibly including a partner, children, parents, and extended family members, depending on the individual, social, and cultural conditions (Venkatesh et al., 2017). As Study 1 showed (see Table 1), households function in many ways like small organizations, with their own rules, processes, and conventions, and underlying beliefs, knowledge, codes, and cultures buttress, elaborate, and contradict these rules (Levitt & March, 1988) at the individual and organizational level.

Hence, as in the case of enterprise learning, we expect that effective OL of households —household learning—through social ties among entrepreneurs requires the flow of complex (holistic, tacit) knowledge as well. The knowledge is holistic because the success of, for instance, changing rules about the division of work among household members may be contingent on the presence of specific belief systems, norms, or values in the household. Like knowledge about enterprises, this knowledge will often be experiential and tacit (Polanyi, 1966). Finally, we expect that effective adaptation and translation of routines and underlying knowledge from one household to another benefits from joint problem-solving in the context of strong ties of entrepreneurs as well. In sum, we expect that household learning also

benefits from the transfer of complex knowledge between entrepreneurs and from joint

problem-solving, which are associated with strong rather than weak ties:

H3: Social-tie strength is positively associated with household learning.

Proactive Goal Regulation as a Key Mechanism between Social-Tie Strength and OL

To extend our core theorizing on the link between strong social ties and OL, and

based on the reports from entrepreneurs in Study 1, we propose that social ties will promote

entrepreneurs' engagement in proactive goal regulation, that is, self-initiated thoughts, plans,

and actions to enact change in oneself or in the environment (e.g., the organization; Grant &

Ashford, 2008; Parker et al., 2010).[4] As outlined earlier, social ties may play a pivotal role in

enabling individuals to access information (Burt, 1992; Granovetter, 1973). As found in

Study 1 and theorized above, entrepreneurs receive relevant information for improvements in

their enterprises and households, in particular, from their strong ties. Such information will

likely promote, in turn, proactive goal regulation by signaling to individuals that their current

situation can be improved (Carver & Scheier, 1998), prompting them to plan to implement

changes (Brandstätter, Heimbeck, Malzacher, & Frese, 2003) in order to reduce perceived

discrepancies between their current and desired state (Raabe, Frese, & Beehr, 2007). Hence,

we expect entrepreneurs to aim to rectify and improve their situation based on information

they receive from their social ties. In support of this cognitive mechanism, prior research has

shown that individuals will start to think about and make plans to implement organizational

changes when they obtain information on how their situation can be improved (Strauss &

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[4] Previous research has shown proactive goal regulation is independent of stable proactivity disposition and fluctuates across time and in response to external stimuli in the environment (Bindl et al., 2012). For instance, research by Campos and colleagues (2017) demonstrates entrepreneurs' engagement in proactive behaviors, such as personal initiative, can be effectively enhanced through external stimuli (in particular, through training that focuses deliberately on enhancing proactivity), and that such enhanced proactivity of entrepreneurs, in turn, leads to increased firm performance. In the context of our theorizing, social ties with other entrepreneurs represent an important external stimulus that, too, may promote proactive goal regulation in entrepreneurs.

Parker, 2018). As mentioned, strong (high-bandwidth) ties enable frequent, rich communication, facilitating information exchange, sense-making (Ibarra & Andrews, 1993), and joint problem-solving (Uzzi, 1997). Because thinking about and planning changes in enterprises, that is, proactive goal regulation, is cognitively demanding and will benefit from an understanding and considerations from different perspectives (Parker, Wang, & Liao, 2019), sense-making and joint problem-solving in the context of strong ties will likely help focal entrepreneurs think about and plan to implement desired changes in their enterprise, such as changing or implementing new routines in terms of HRM, accounting, marketing, or operations. In support of this idea, previous research on proactivity suggests teams that engage in joint proactive problem-solving experience better learning outcomes (Druskat & Kayes, 2000).

Further, strong social ties of entrepreneurs will likely prompt OL through more engagement in proactivity goal regulation based on emotional support provided by such ties. As Study 1 shows, strong ties may provide individuals with positive energy from contacts, a theme widely discussed in the network literature (Baker, Cross, & Wooten, 2003; Owens, Baker, Sumpter, & Cameron, 2016). Strong ties may offer support (Anderson, Park, & Jack, 2007), both in instrumental (problem-solving-oriented) and emotional terms (Nielsen, 2017), encouraging entrepreneurs to initiate changes to improve their situation. Feeling energized, in turn, motivates individuals to see through ideas and planning to enact changes (Bindl, Parker, Totterdell, & Hagger-Johnson, 2012; Sonnentag & Starzyk, 2015), because positive feelings are associated with setting higher and more challenging goals (Ilies & Judge, 2005), improved decision-making, and cognitive flexibility (Fredrickson, 2001; Isen, 2000), as well as future-oriented thinking (Foo, Uy, & Baron, 2009). In sum, we expect strong ties to energize entrepreneurs to engage in proactive goal regulation, promoting enterprise learning. Consistent with our arguments, Rooks, Sserwanga, and Frese (2016) found that

entrepreneurs' social connections with individuals who provide support was positively associated with their engagement in business planning, as well as with greater innovation in the enterprise.

Moreover, whereas earlier research focused on proactive goal regulation *at work* (e.g., Frese & Fay, 2001; Grant & Ashford, 2008), we expect that strong social ties with each other can inspire entrepreneurs to think about and plan positive changes in their households, too. As Study 1 shows, households are critical for entrepreneurs (see also Hirschi, Shockley, & Zacher, forthcoming); hence, entrepreneurs likely use strong ties to make sense of issues in their own households as well (Ibarra & Andrews, 1993), prompting them to think about and plan to improve the situation. We expect that the "energizing" mechanism of social support (Baker et al., 2003; Owens et al., 2016) holds for households as well, prompting proactive goal regulation and thus household learning. In sum, we expect proactive goal regulation is a key mechanism between social ties and increased enterprise and household learning:

H4a: Enterprise-related proactive goal regulation mediates the positive association between social-tie strength and enterprise learning.

H4b: Household-related proactive goal regulation mediates the positive association between social-tie strength and household learning.

The Influence of OL on the Eudaimonic Well-Being of Entrepreneurs

A key aspect of OL constitutes changes in organizational routines (Levitt & March, 1988). In the context of Study 1, entrepreneurs reported how they had implemented changes in routines (organizational rules, systems, structures, processes) to improve their enterprise and household. OL of small enterprises represents entrepreneurs' self-initiated actions to redesign their work (and home) environment (Grant & Parker, 2009; Stewart, Courtright, & Manz, 2011). These actions to improve their work (or household) environment (Bruning & Campion, 2018; Wrzesniewski & Dutton, 2001) help explain how entrepreneurs increase

enrichment—for instance, higher discretion, variety, and social connection with others—in these environments (Grant & Parker, 2009; Humphrey, Nahrgang, & Morgeson, 2007).

A large body of organizational research has shown that enriched work environments, in turn, increase the meaningfulness of one's experience in the environment. In particular, the job-characteristics model (Hackman & Oldham, 1976) implies features of one's work environment, such as being able to relate to others and having more discretion, influence critical psychological states, such as the perceived meaningfulness of one's work (Humphrey et al., 2007; Parker, 2014). In this vein, in Study 1, entrepreneurs reported changes to their enterprises, such as adopting more effective ways to communicate with customers and redesigning business processes that enabled them to better understand outcomes of their work. Entrepreneurs also revised roles and responsibilities at home to improve their interaction with and gain more support from household members. In sum, in line with the idea that the job-characteristics model is applicable to any type of work context (Hackman & Oldham, 1976), we argue that entrepreneurs, by initiating OL in their enterprises and households, enrich these environments, increasing meaningfulness for them in these contexts.

The job-characteristics model constitutes a motivational job design from the perspective of corporate settings, in which management implements top-down changes to improve employees' jobs. Motivational job design has been linked to increased productivity and job satisfaction, as well as to indicators of eudaimonic well-being (Parker, 2014). Relatedly, recent research on job crafting has theorized about the importance of individuals actively changing aspects of their own jobs, bottom-up, to increase their own experienced meaningfulness and purpose at work (Leana, Appelbaum, & Shevchuk, 2009; Wrzesniewski, & Dutton, 2001). Interestingly, both perspectives apply to entrepreneurs, reinforcing each other in suggesting a strong influence of entrepreneurs on their own eudaimonic well-being.

From these perspectives, entrepreneurs will likely actively implement changes in routines in their enterprises and households in ways that are meaningful to them. For instance, entrepreneurs reported in the emerging theme of "doing good for others" that as part of their entrepreneurial activities, they valued the opportunity to improve the livelihoods of others in their community (Study 1). In sum, in the context of small enterprises, where entrepreneurs represent both management and job incumbents who wish to improve their own situation (Cope, 2003), bottom-up and top-down job design and job crafting meaningfully merge, suggesting entrepreneurs potentially have a myriad of ways to enrich their jobs. Such improvement-oriented changes at work, when involving routines of the organization or household, constitute OL (Levitt & March, 1988). In turn, we expect that OL, in the context of small enterprises, leads to more meaningful experiences at work and in the household, effectively enhancing entrepreneurs' own eudaimonic well-being. In sum, we hypothesize:

H5a: Enterprise learning is positively associated with entrepreneurs' eudaimonic well-being.
H5b: Household learning is positively associated with entrepreneurs' eudaimonic well-being.

STUDY 2

The purpose of this study was to develop and validate the OL measures for the distinct domains of enterprise and household learning, as well as a measure of eudaimonic well-being, based on the qualitative research-based findings of Study 1. We followed Hinkin's (2005) recommendations for scale development, using a range of different approaches that included soliciting expert feedback, conducting exploratory factor and confirmatory factor analyses, and assessing convergent and discriminant validity of the newly developed scales, to establish our measures for the context of the focal research.

Study 2 Methods

    Item generation. We inductively developed eudaimonic well-being as well as OL-related items from the qualitative research in Study 1 for the context of small enterprises, and we checked existing measures, particularly of OL in large organizations (e.g., Flores et al., 2012; Tippins & Sohi, 2003), for appropriate wording where relevant (see Appendix B for a complete overview of all developed items). We first shared these items with experts: three training-related staff at the institution of the setting of Study 1 who, although they did not personally conduct the training, were familiar with the women entrepreneurs on whom our investigation focused, as well as, independently, 30 management students at a business school in Lagos who were familiar with the experiences of women entrepreneurs in Nigeria. We asked these experts for their input in identifying unclear items as well as items that did not fit with the overall definitions of the constructs we had developed. We used this qualitative feedback to refine the wording of some of our items to enhance clarity, and we discarded seven items that the experts rated as unclear, to form an initial set of 42 OL items (comprising 25 items on enterprise-related learning and 17 items on household-related learning), as well as 44 eudaimonic well-being-related items that constituted the five dimensions of eudaimonic well-being uncovered in Study 1.

    Sample and procedure. We tested the factor structure, as well as convergent and discriminant validity of our new measures, on an independent sample of Nigerian women entrepreneurs who had completed a similar training program for women entrepreneurs by the same enterprise development center. We invited women entrepreneurs via email to take part in this survey, with the prospect of winning attractive prizes in a prize draw, comparable to the incentives for research participation given to our focal participants in the main study. We initially invited 870 women entrepreneurs to take part in this study; 369 completed our survey, representing a 42.4% response rate. Participants were, on average, 40 years old

(SD=7.61) and most of them were university educated (55.7% of participants had a bachelor's degree and 37.7% a post-graduate degree, whereas 5.3% had a technical or associate degree, and less than 1% had either no or only a high school degree). At the time of our study, participants had typically owned their enterprise for 6.5 years (SD=4.50). Most businesses were located in the south of Nigeria (67%), followed by the north (25%), and the southeast and southwest (8%, together). The most represented industries were manufacturing/production (20.4%), creatives (arts, design, fashion) (14.2%), agriculture/farming (10.9%) hospitality/leisure/travel (10.4%), and education/teaching/training (9.5%), with a large variety of other industries representing another 34.6%. On average, enterprises employed seven full-time employees (SD=10.60). Entrepreneurs worked, on average, 42 hours per week in their enterprise (SD=20.65). In sum, the demographics for this sample were comparable to those in our main sample in Study 3.

We asked participants to provide their demographics and respond to the organizational (enterprise- and household-related) learning and eudaimonic well-being measures, as well as to related scales that we used to assess the validity of our new scales. We used the full versions of the OL and eudaimonic well-being scales (see Appendix B). With regard to enterprise and household learning, we asked participants to what extent they agreed that their enterprises and households had experienced changes in routines and beliefs over the past year (1 = *not at all*, 5 = *very much*). With regard to eudaimonic well-being, we asked participants to what extent they "had the opportunity to engage in" (see Sen, 2001) various dimensions of eudaimonic well-being (1= *strongly disagree*, 5 = *strongly agree*). Table 3 shows the descriptive statistics, internal-consistency reliabilities, and zero-order correlations.

TABLE 3
Study 2 – Means, Standard Deviations, and Correlations of Study Variables

Variables	Mean	SD	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.	12.	13.	14.	15.	16.	17.	18.	19.	20.
1. Enterprise-related learning: *Change in business-related routines*	4.05	0.70	.70																			
2. Enterprise-related learning: *Change in business-related beliefs*	4.05	0.74	.48**	.87																		
3. Household-related learning: *Change in household-related routines*	3.92	0.82	.30**	.23**	.77																	
4. Household-related learning: *Change in household-related beliefs*	4.22	0.68	.47**	.58**	.44**	.90																
5. Enterprise-related learning	4.05	0.63	.83**	.89**	.30**	.61**	.85															
6. Household-related learning	4.09	0.64	.45**	.49**	.82**	.88**	.55**	.87														
7. WB: *Sense of self*	4.55	0.52	.33**	.42**	.19**	.44**	.44**	.39**	.85													
8. WB: *Doing good for others*	4.53	0.50	.29**	.36**	.15**	.28**	.38**	.26**	.39**	.90												
9. WB: *Freedom to participate in work settings*	4.14	0.65	.30**	.37**	.14*	.33**	.39**	.29**	.53**	.52**	.80											
10. WB: *Freedom to participate in family settings*	4.36	0.58	.21**	.25**	.47**	.44**	.27**	.53**	.37**	.37**	.32**	.79										
11. WB: *Control over enterprise environment*	4.56	0.46	.36**	.46**	.22**	.44**	.49**	.40**	.44**	.56**	.42**	.36**	.75									
12. WB: *Control over household environment*	4.02	0.62	.20**	.26**	.19**	.23**	.28**	.25**	.22**	.29**	.25**	.25**	.35**	.71								
13. Learning goal orientation	4.49	0.49	.27**	.34**	.20**	.35**	.36**	.33**	.45**	.31**	.32**	.33**	.42**	.36**	.86							
14. Organizational learning: *Information acquisition*	4.27	0.53	.33**	.35**	.31**	.34**	.40**	.38**	.37**	.43**	.44**	.34**	.44**	.33**	.48**	.70						
15. Organizational learning: *Information distribution*	4.07	0.66	.27**	.41**	.23**	.35**	.40**	.35**	.34**	.33**	.35**	.25**	.36**	.32**	.37**	.65**	.84					
16. Organizational learning: *Procedural memory*	4.11	0.59	.36**	.44**	.27**	.42**	.47**	.42**	.40**	.37**	.43**	.32**	.43**	.30**	.42**	.65**	.66**	.87				
17. Psychological empowerment: *Meaningfulness*	4.76	0.41	.26**	.25**	.11	.21**	.30**	.20**	.35**	.22**	.23**	.20**	.38**	.35**	.46**	.32**	.30**	.34**	.87			
18. Psychological empowerment: *Competence*	4.55	0.47	.26**	.44**	.12*	.38**	.42**	.31**	.44**	.30**	.38**	.24**	.47**	.33**	.41**	.45**	.44**	.47**	.57**	.72		
19. Psychological empowerment: *Self-determination*	4.39	0.59	.21**	.26**	.09	.18**	.28**	.17**	.32**	.24**	.18**	.20**	.30**	.40**	.41**	.33**	.31**	.29**	.49**	.54**	.82	
20. Psychological empowerment: *Impact*	4.51	0.55	.25**	.27**	.08	.18**	.30**	.16**	.30**	.25**	.19**	.18**	.29**	.39**	.38**	.32**	.24**	.32**	.51**	.41**	.63**	.85

Study 2 Results

EFA, CFA, and convergent and discriminant validity of enterprise and household learning. We conducted exploratory factor analyses (EFA) using principal-axis-factoring extraction with an oblimin rotation to test the dimensionality of our two new OL measures (enterprise and household learning). We also assessed convergent and discriminant validity by investigating the associations between these measures and related constructs.

Based on the results of Study 1, we accounted for the possibility that OL may take place in the enterprise (comprising changes in routines and beliefs in enterprises), as well as in the household (comprising changes in routines and beliefs in households), giving four subscales across the two overarching measures of OL. Results from initial EFA support these four, lower-order dimensions. Specifically, after removing several items based on low factor loadings and theoretical considerations (see Appendix B for all items, with clear indications that we removed from the final measure),[5] a four-factor solution resulted in the cleanest factor structure, as indicated by eigenvalues and scree-plots (Osborne & Costello, 2009), with no item cross-loadings greater than .4 on different factors, using Ford, MacCallum, and Tait's (1986) recommended criterion (see Table 4).

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[5] See Appendix B for a complete overview of initial versus final items; all initial factor loadings of removed items are available from the authors upon request.

TABLE 4

Study 2 **– Organizational Learning – Principal Axis Factor-analysis (oblimin rotation)**

Items	Factor loadings			
	1	2	3	4
I have introduced new products and services.	**.52**	-.04	-.01	.05
I have improved the way I manage my clients.	**.70**	.01	-.03	-.08
I now talk to more people about my business.	**.67**	.10	.05	.01
I negotiate more effectively with vendors and suppliers.	**.46**	.12	-.07	-.10
I now use social media more to create visibility for the business.	**.43**	.01	.08	-.00
I now know more about bookkeeping and accounts.	.03	**.72**	-.01	.03
I now know more about how to grow my business.	.24	**.53**	.05	-.11
I now have a better understanding of how to plan and strategize business activities.	.13	**.62**	-.02	-.12
I have gained knowledge about how to better manage and analyze financials.	-.08	**.95**	-.01	.08
I now understand better how to work with financial institutions.	.02	**.70**	.03	-.02
I now have a better understanding of business successes and failures.	.10	**.47**	.03	-.18
I now listen more to my family members (including, if present, partner and/or kids) for advice and ideas about the business.	.03	.00	**.76**	-.01
I have gained support from my family members (including, if present, partner and/or kids) for business activities.	-.00	.08	**.63**	-.00
I now have more help to support me in my household tasks.	.06	.03	**.40**	-.19
I get more business advice from my family members (including, if present, partner and/or kids) on how to run the business.	-.01	-.08	**.86**	.06
I have learnt how to better manage household financials.	-.12	.26	.04	**-.63**
I have a better understanding of how to organize household tasks.	.00	-.02	-.04	**-.87**
I know more about how to balance work life and family life (including, if present, partner and/or kids).	.06	.02	-.06	**-.79**
I know more about how to keep my family life (including, if present, partner and/or kids) separate from my work space.	.09	-.03	-.06	**-.85**
I have learnt better how to discuss difficult issues at home.	-.02	-.05	.25	**-.68**
I now better understand what works well in my own household and those of others.	.10	.07	.19	**-.53**

Next, to investigate convergent and discriminant validity of the higher-order constructs of enterprise and household learning (including their respective lower-order subdimensions of changes in routines and beliefs), we compared our newly developed measures with established measures that are akin to OL, with an emphasis on the most face-valid measures for small enterprises (rather than for large corporations only): information acquisition and information distribution (Flores et al., 2012), as well as procedural memory (Tippins & Sohi, 2003). We also captured entrepreneurs' own predisposition to engage in learning, with learning goal orientation (VandeWalle, 1997).[6] We expected each of these established measures to be meaningfully distinct from but positively correlated with our contextual measures of enterprise and household learning. Results from initial zero-order correlations support our assumptions: Both enterprise and household learning measures show a moderately positive relationship with established learning measures (see Table 3).

We further used confirmatory factor analysis (CFA) in MPlus, version 8 (Muthén & Muthén, 1998-2015), to show our enterprise- and household-related learning measures are indeed meaningfully distinct from other, learning-related constructs. As expected, our theorized eight-factor higher-order model (Model 1) accounting for the lower- and higher-order dimensions of our enterprise and household learning measures, as well as for each of the four learning-related measures established in previous research, provided an overall excellent fit to the data (χ_2/df = 1.81, SRMR = .06, RMSEA = .05, CFI = .91). It also

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[6] To measure information acquisition and information distribution, we used the subscales from Flores et al.'s (2012) measure of OL. A sample item for information acquisition was "We learn from our customers, suppliers, and/or other entrepreneurs and business associates," and for information distribution, "Our business has processes for exchanging knowledge between individuals" (α = .70 and .84, respectively). We used a five-item measure of procedural memory adapted from Tippins and Sohi (2003), asking participants to what extent they agreed with statements such as "We have standard procedures to determine the needs of our customers" (α = .87). Finally, we assessed learning goal orientation with the established, five-item measure by VandeWalle (1997). A sample item was "I often look for opportunities to develop new skills and knowledge" (α = .86). All items were assessed on a 5-point Likert scale (1= *strongly disagree*, 5 = *strongly agree*).

provided a significantly better fit to the data than any of the alternative models, including

Model 2, a five-factor higher-order model in which we subsume the four subdimensions of

enterprise- and household-related learning under one higher-order OL factor ($\Delta \chi_2$, $\Delta df =$

11.45, 5*), and Model 3, the baseline model in which we assume none of the learning-related

measures are meaningfully associated ($\Delta \chi_2$, $\Delta df = 5549.03$, 57*). In sum, although

established constructs of information acquisition and distribution, procedural memory, and

learning goal orientation are related to the enterprise- and household-related learning

measures, they are meaningfully distinct.

EFA, CFA, and convergent and discriminant validity of eudaimonic well-being. We

conducted EFA using principal-axis-factoring extraction with an oblimin rotation, to test the

overall dimensionality of our proposed eudaimonic well-being measure. Additionally, we

assessed convergent and discriminant validity by investigating the associations between our

new well-being measure and related constructs.

Based on the inductive results of Study 1, we expected women entrepreneurs to

experience eudaimonic well-being in terms of five different dimensions: sense of self, doing

good for others, freedom to participate in social settings, control over the enterprise

environment, and control over the household environment. However, results from EFA

indicate a six-factor solution was superior, suggesting the dimension of "freedom to

participate in social settings" should be divided into "freedom to participate in work settings"

and "freedom to participate in family settings" (see Table 5 for an overview of factor

loadings in the final measure, as well as Appendix B for an indication of which items we

removed based on low factor loadings and for theoretical reasons).

TABLE 5

Study 2 – **Eudaimonic Well-being – Principal Axis Factor-Analysis (oblimin rotation)**

Items	Factor loadings					
	1	**2**	**3**	**4**	**5**	**6**
"I have the opportunity to: …"						
...work towards my own vision.	**.83**	.06	.06	-.07	-.10	-.02
...follow my ambition for my business activity.	**.83**	.03	.02	-.02	-.09	.02
... explore my own talent.	**.84**	.02	-.01	.07	.07	-.03
... convert my personal passion into a business venture.	**.44**	.10	-.17	.09	.06	.04
... develop personal relationships with other entrepreneurs.	.14	**.46**	.06	.23	.01	.02
... collaborate with other entrepreneurs.	.07	**.84**	-.05	-.08	-.03	.03
... do business with other entrepreneurs.	.05	**.84**	-.05	-.02	-.05	.01
... pool financial resources with other entrepreneurs in my network.	.09	**.32**	-.11	.19	-.03	.03
... jointly make decisions with my family (including, if present, partner and/or kids) about the household.	-.03	-.02	**-.81**	-.07	-.04	-.02
... share my learning with members of my family (including, if present, partner and/or kids).	.02	.01	**-.84**	.01	.07	.02
...interact with members of my family (including, if present, partner and/or kids) in a way that makes me feel respected.	.01	.08	**-.65**	.09	-.04	.02
... add value to my community.	.09	.05	.01	**.79**	.06	.04
... make a positive change in society.	.07	.03	.03	**.86**	.12	.02
... provide livelihood to members of my community.	-.07	.03	-.03	**.70**	-.16	.08
... create jobs for others in my community.	-.10	.05	.01	**.63**	-.33	-.03
... become a change agent in society.	.02	-.08	-.22	**.68**	-.13	-.05
... lead teams in my enterprise.	.02	.15	-.03	.06	**-.67**	-.02
... increase the scale of our operations.	-.03	.21	-.02	.13	**-.55**	.02
... separate my business money from household money.	.19	-.12	-.07	.11	**-.40**	.03
... take responsibility for business activities.	.15	-.08	-.10	-.04	**-.50**	.18
... make my own decisions for my family (including, if present, partner and/or kids).	.06	-.11	-.03	-.05	.01	**.68**
... increase financial resources that are dedicated for my personal use.	-.06	.13	-.01	.04	.02	**.58**
... use my personal assets to advance my business activities.	.02	.10	.02	.10	-.21	**.34**
... decide on my own time in the household.	-.02	-.01	.01	-.00	.02	**.80**

Notes. N=291. Introductory statement for all items: I have the opportunity to: … F1 = Sense of self, F2 =

Freedom to participate in work settings, F3 = Freedom to participate in family settings, F4 = Doing good for

others, F5= Control over enterprise environment, F6 = Control over household environment.

We also compared our contextualized measure of eudaimonic well-being with an established construct that is akin to experienced eudaimonic well-being in employed work: psychological empowerment (Spreitzer, 1995).[7] We expected each of the subscales of psychological empowerment—meaningfulness, competence, self-determination, and impact—to be significantly distinct from, albeit positively related to, eudaimonic well-being.

Results from initial zero-order correlations support our assumptions, such that all subscales of eudaimonic well-being have a moderately positive relationship with meaningfulness, competence, self-determination, and impact. We further used CFA in MPlus to show the dimensions of eudaimonic well-being are meaningfully related to, albeit distinct from, psychological empowerment. As expected, our theorized 10-factor model (Model 1) accounting for the six distinct dimensions of eudaimonic well-being and the four dimensions of psychological empowerment provides a good fit to the data ($\chi^2/df = 2.09$, SRMR = .06, RMSEA = .06, CFI = .90). It also provides a significantly better fit to the data than any of the alternative models, including Model 2, a five-factor model in which we combine the six subdimensions of eudaimonic well-being into one overarching factor comprising "eudaimonic well-being," and account for each of the distinct subdimensions of empowerment ($\Delta \chi^2$, $\Delta df = 1552.43, 36^*$); and Model 3, a baseline model in which we assume the measures are uncorrelated ($\Delta \chi^2$, $\Delta df = 5295.55, 81^*$). In sum, as expected, although the subscales of eudaimonic well-being are related to psychological empowerment, they are also distinct.

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[7] To measure psychological empowerment, we adapted the established 12-item measure by Spreitzer (1995) to the context of entrepreneurial work. Example items and reliability for all subscales were as follows: Meaningfulness ("My business activities are personally meaningful to me;" $\alpha = .87$); Competence ("I am confident about my ability to run my business;" $\alpha = .72$); Self-determination ("I have significant freedom in determining how I run my business;" $\alpha = .82$), and Impact ("I have a great deal of control over what happens in my business;" $\alpha = .85$). All items were assessed on a 5-point Likert scale, asking participants to what extent they agreed with each of the statements (1= *strongly disagree*, 5 = *strongly agree*).

Study 2 Discussion

The findings of Study 2 support the underlying factorial structure of our newly developed scales. Results from convergent and discriminant validity checks also suggest our measures of enterprise- and household-related learning, as well as of eudaimonic well-being, are meaningfully related to, yet distinct from, established constructs in the literature and are meaningful for the focal research. We used these new measures to test our hypothesized model, revisiting the context from Study 1 in a temporally lagged field study.

STUDY 3

We tested our overarching, theorized model of the influence of strong social ties on OL (via changes in proactive goal regulation)—as well as the influence of OL on eudaimonic well-being and venture performance—investigating a large cohort of women entrepreneurs who participated in a financial training program in Nigeria (see overall context of Study 1). We used a lagged study design over five months to test the full model.

Study 3 Methods

Sample and procedure. The context of the data collection was a larger project that started with inviting all entrepreneurs who had taken part in the same finance course (N=484) to complete evaluations of their six-week training between January and March 2016. The focal study, for the purpose of this research, included data collection from May 2017 (time 1) to October 2017 (time 3). To minimize potential common-method bias, we separated assessment of our core variables in time, and we triangulated assessment of a key dependent variable, venture performance, using both subjective ratings and financial data (Podsakoff, MacKenzie, Lee, & Podsakoff, 2003). Specifically, we assessed overall tie strength, control

variables, and proactive goal regulation at time 1 (15 months after the initial start of the six-week training), enterprise- and household-related learning at time 2 (data was collected 3 months after time 1), and our outcome measures of eudaimonic well-being and venture performance at time 3 (assessed five months after initial data collection).

Response rates were 63.6 % (at time 1, n=308), 55.2% (at time 2, n=267), and 46.9% (at time 3, n=227), respectively. We used all available responses at the respective time points for our final step of measure development, namely, the CFA for our new learning and eudaimonic well-being (Hinkin, 2005). To test our full research model, only those participants who had completed surveys at all three time points (n = 196) were part of our final analyses, with an overall response rate across time of 40.5%.

In the final sample, participants were, on average, 39 years old (SD=8.50) and most of them were university educated (58.7% had a bachelor's, 33.7% a post-graduate degree, 5.6% had a technical degree, and 2% had only a high school degree. No one had less than a high school degree. We merged the two lowest educational categories into "high school or below" for subsequent analyses). Participants typically had owned their enterprise for 6.3 years (SD=3.84). Most businesses were located in the south of Nigeria (56.1%), followed by the north (28.1%), and the southeast and southwest (15.8%, together). Industries most represented were manufacturing/production (19.0%), creatives (arts, design, fashion) (18.5%), agriculture/farming (14.4%), education/teaching/training (9.7%), and hospitality/leisure/travel (7.7%), with a large variety of industries representing another 30.7%. On average, enterprises employed seven full-time employees (SD=7.8). Women entrepreneurs worked, on average, 40 hours per week in their enterprise (SD=21.65).

Measures

Social-tie strength. To assess individuals' social-tie strength, we focused on the entrepreneurs' social ties (Greve & Salaff, 2003; Wasserman & Faust, 1994) with contacts

from the training cohort they had been interacting with since starting the training. Based on discussions with representatives from the training cohort, and on previous recommendations in entrepreneurial network research (Burt & Ronchi, 1994; Greve & Salaff, 2003), we invited participants to list their most important or strongest contacts, with a maximum of five contacts. We asked participants to write down the names of each of these five contacts and to answer the questions on the tie strength (Granovetter, 1973; Pil & Leana, 2009) of each of these contacts. For analyses, we recoded non-completed contacts as the lowest possible contact-related tie-strength score of 1.

To construct a comprehensive index of social-tie strength, we averaged responses across contacts on five items that assessed closeness, frequency, intimacy, and mutual confiding, all of which corresponded to established dimensions of tie strength (Granovetter, 1973), as well as energizing properties across contacts, a theme that emerged in the qualitative study (Study 1). For frequency of contact, we asked participants, "On average, how often do (did) you interact with [name of contact] since the training started (for personal or business reasons, through WhatsApp, email, phone, or visits, etc.)?" (1 = *less than once per month*, 7 = *2x per day, or more*). Similarly, for closeness of contact, we asked participants, "How close is your relationship with [name of contact]?" (1 = *very distant* ["*we interact only when necessary*"], 7 = *very close* ["*she is a very close friend*"]) (for both, see Granovetter, 1973; Reagans & McEvily, 2003). To capture the intimacy of the contact, we asked about contacts' breadth of discussions: "How many of the following topics do (did) you discuss with [name of contact]?" Here, we asked participants to choose all categories that applied to the topics discussed with their contact (adapted from Marsden & Campbell, 1984, based on information from the interviews in Study 1): "work-related opportunities," "work-related challenges," "family/household," "personal life," "politics," "local community events," and "leisure." Similarly, we measured mutual confiding (again, based on the results

of our interviews, as appropriate for our context), asking participants, "To what extent do you and [name of contact] share and ask advice about personal issues?" (1 = *not at all*, 7 = *completely*). Finally, based on the inductive results of our Study 1, we adapted a one-item measure on energizing properties of contact, referring to the amount of positive energy individuals reported they had received from the contact (Owens et al., 2016), which research has proposed as important in the context of social ties inspiring each other (Baker et al., 2003). Specifically, we asked participants, "To what extent does interacting with [name of contact] make you feel inspired?" (1 = *not at all*, 7 = *completely*).

In line with previous social-network research (Baer, 2010; Hansen, 1999; Morrison, 2002), we averaged scores for the different indicators of tie strength, across contacts and items, to yield one overall indicator of tie strength per participant. Reliability of the tie-strength measure was high (α = .88), suggesting the five items used for the index of strong social ties in this study indeed represent the same underlying construct.

Proactive goal regulation. To assess individuals' envisioning and planning of business- and family-related changes, we adapted the measure by Bindl and colleagues (2012) to the context of this study. We asked participants to what extent they had, over the past year, engaged in thinking about and planning for changes in their business and household, respectively (1 = *never*, 7 = *always*). We measured enterprise-related envisioning and planning with four items each (example item for enterprise-related envisioning: "How often have you been thinking about future goals for your business?" and for planning: "… developing a strategy of how to implement changes to your business?"). Similarly, we measured household-related envisioning and planning with four items each (e.g., household-related envisioning: "…thinking about future goals for your household?" and planning: "…developing a strategy of how to implement changes to your household?").

Initial factor analyses of our adapted proactive goal-regulation measure indicate that items loaded onto two separate factors: Enterprise-related envisioning and planning loaded onto one factor of enterprise-related proactive goal regulation ($\alpha = .92$), whereas household-related envisioning and planning loaded onto one overall factor of household-related proactive goal regulation ($\alpha = .96$). We continued our analyses with these two proactive-goal-regulation measures, one for enterprise- and the other for household-related proactivity.

Enterprise and household learning. We used the final measures developed in Study 2 (see Appendix B for all items), asking participants to what extent they agreed with each of the learning-related statements, thinking back over the past year (1 = *not at all*, 5 = *very much*). As a final step in validating our new measure in an independent sample, we conducted CFA with MPlus to compare alternative structures. Fit indices for our hypothesized, higher-order factor model comprising enterprise-related learning (represented by two lower dimensions of changes in enterprise-related routines and beliefs) and, distinctly, household-related learning (represented by two lower dimensions of changes in household-related routines and beliefs; Model 1) are excellent: $\chi2$ (184, N = 267) = 400.93, CFI = .93, RMSEA =.07, and SRMR =.05. Model fit is also significantly better than with the two competing models: Model 2, a higher-order model in which we subsume the four subdimensions of enterprise- and household-related learning under one higher-order OL factor ($\Delta \chi2$, Δdf = 5.07, 1*), and Model 3, the baseline model accounting for the possibility that none of the items are correlated with each other ($\Delta \chi2$, Δdf = 2898.31, 26*). Thus, results indicate enterprise- and household-related learning measures are distinct and are each represented by the subdimensions of changes in routines and beliefs in the corresponding domains of enterprise versus household, respectively.

Eudaimonic well-being. We used the final measure developed in Study 2 (see Appendix B), asking participants to what extent they agreed they had the opportunity to

engage in the different dimensions of eudaimonic well-being (1 = *strongly disagree*, 5 = *strongly agree*). To further test the factorial structure results from Study 2, we conducted a CFA with MPlus to compare alternative structures. Model fit for our hypothesized six-factor model of eudaimonic well-being (Model 1) is excellent: CFI = .93, RMSEA =.06, and SRMR =.05; $\chi 2$ (237, N = 227) = 458.39; $\chi 2/df$ = 1.93. Its model fit is also significantly better than with each of the two competing models: a one-factor model (Model 2) that represents all distinct facets of eudaimonic well-being combined ($\Delta \chi 2$, Δdf = 731.32, 15*), and the baseline model (Model 3), which accounts for the possibility that no items are correlated with each other ($\Delta \chi 2$, Δdf = 2997.70, 39*). Thus, CFA results indicate participants were able to make meaningful distinctions between the different dimensions of eudaimonic well-being in their experiences as business owners. Different dimensions of eudaimonic well-being are, nevertheless, positively correlated (see Table 6), which one would expect because they all belong to one higher-order construct.

Venture performance. We used the established 10-item measure of Subjective Business Success by Wiklund and Shepherd (2003) to assess venture performance across a wide range of criteria. We asked participants to compare the development of their own business over the past year relative to their two most important competitors, based on performance criteria including "sales growth," "revenue growth," "growth in the number of employees," "net profit margin," "product/service innovation," "process innovation," "adoption of new technology," "product/service quality," "product/service variety," and "customer satisfaction" (1 = *much lower*, 5 = *much higher*; α = .94). Studies have recommended the use of subjective measures in the context of relatively new ventures, where indicators of performance may be more difficult to assess and require assessment of broader, non-financial dimensions of performance (Stam & Elfring, 2008; Wiklund & Shepherd,

2005). Moreover, we triangulated this venture-performance measure by using the log-transformed version of firms' past year's financial performance (a latent factor indicated by revenues and profits over the past year), with its use not significantly altering the patterns of our findings. Indeed, both indicators of venture performance are, as expected, positively related ($r = .18$, $p < .01$)[8].

Control variables. In line with previous research on entrepreneurship, we controlled for common venture-related key variables at time 1: business size, which we assessed with the log-transformed number of full-time employees; business age; and geographical region (covering the south, the north, the southeast, and southwest of Nigeria) in which the ventures were located. We also accounted for potential differences in overall levels of experience of entrepreneurs at the start of our study by controlling for the number of previous businesses entrepreneurs had started prior to the current one (if any), for their educational background (less than high school, completed high school, technical or associate degree, bachelor's degree, or post-bachelor's degree; Hmieleski & Baron, 2009), and typical hours worked in the business per week, which all could have a significant influence on our core variables.

Study 3 Results

Table 6 shows descriptives, internal-consistency reliabilities, and zero-order correlations. To test our hypotheses, we conducted structural-equation modeling in MPlus, version 8. To keep the parameter estimates per response to reasonable levels, we used observed mean scores. Because all our hypotheses were directional and theory driven, we used one-tailed tests (Kimmel, 1957). We present the results in Figure 2.

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[8] For completeness, we also conducted supplemental analyses with a financial measure of averaged revenues and profits over the past three months, to account for more recent performance-related developments. Using this alternative measure did not significantly change the pattern of findings.

TABLE 6   *Study 3* – Means, Standard Deviations, and Correlations of Study Variables

Variables	Mean	SD	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.	12.	13.	14.	15.	16.	17.	18.	19.	20.	21.	22.
1. T1_Business Size (number of ft employees)	6.63	7.8	---																					
2. T1_Business Age	6.33	3.84	.18*	---																				
T1_Business Region																								
3. Dummy: Business region - North	.28	.45	-.03	-.02	---																			
4. Dummy: Business region - South-East	.06	.21	.01	-.03	-.14	---																		
5. Dummy: Business region – South	.11	.32	.20**	-.09	-.22**	-.08	---																	
T1_Education																								
6. Dummy: Education – Technical degree	.06	.23	-.04	-.04	.09	-.05	-.02	---																
7. Dummy: Education – Bachelor's degree	.59	.49	.03	.03	-.10	.09	.04	-.29**	---															
8. Dummy: Education – Post-graduate degree	.34	.47	.01	.01	.06	-.10	-.01	-.17*	-.85**	---														
9. T1_No of previous businesses	.87	.95	.19**	.03	.00	-.02	.15*	.15*	-.06	-.01	---													
10. T1_Hours worked (per week)	39.73	21.60	.01	.00	-.08	-.01	-.01	-.09	.09	-.08	.09	---												
11. T1_Social tie strength	2.96	.99	.03	-.05	-.05	.13	-.02	-.09	.05	.00	.09	.12	*.88*											
12. T1_Enterprise-related PGR	6.34	.67	.11	.07	-.03	-.02	-.16*	.07	.01	-.07	.01	.10	.21**	*.92*										
13. T1_ Household-related PGR	5.84	.99	.09	.12	-.02	.01	-.03	-.10	-.01	.09	-.08	-.08	.19**	.52**	*.96*									
14. T2_Enterprise-related learning	4.19	.59	.09	-.14	.13	.08	.08	-.09	.03	-.02	-.03	-.02	.21**	.17*	.23**	*.87*								
15. T2_Household-related learning	4.09	.67	.09	.06	-.02	.01	.11	-.12	.05	-.01	-.01	-.13	.13	.05	.34**	.60**	*.88*							
16. T3_WB: Sense of self	4.67	.47	.10	-.02	-.03	.11	.06	.01	.12	-.16*	.06	-.04	.19**	.26**	.18*	.25**	.19**	*.86*						
17. T3_WB: Doing good for others	4.63	.44	.17*	-.06	-.05	.03	.08	-.09	.12	-.10	.12	.06	.17*	.21**	.07	.24**	.15*	.53**	*.89*					
18. T3_WB: Freedom to participate in work settings	4.29	.57	.07	-.20**	.05	.04	.15*	-.12	.11	-.11	.14*	.01	.23**	.18*	.08	.43**	.23**	.43**	.42**	*.80*				
19. T3_WB: Freedom to participate in family settings	4.52	.48	.11	.02	-.02	-.02	.01	-.08	.06	-.05	-.07	-.01	.04	.22**	.26**	.25**	.33**	.38**	.35**	.40**	*.81*			
20. T3_WB: Control over enterprise environment	4.59	.45	.21**	-.08	.08	.04	.07	-.07	.03	-.04	.05	-.02	.15*	.28**	.18*	.42**	.28**	.53**	.57**	.58**	.53**	*.79*		
21. T3_WB: Control over household environment	4.15	.64	.05	.07	.01	.04	-.08	-.03	.15*	-.17*	.00	.12	.16*	.06	-.03	.15*	.17*	.29**	.37**	.37**	.32**	.27**	*.75*	
22. T3_Venture Performance (SBS)	3.69	.72	.18*	-.06	.01	.02	.05	-.08	.08	-.07	-.03	-.04	.13	.14	.17*	.31**	.10	.34**	.36**	.31**	.20**	.37**	.14	*.94*

Notes. N= 187-196; Internal consistency values (Cronbach's Alphas) appear across the diagonal in italics. *$p < .05$, **$p < .01$.* 'T1-3_' at which time point was measure assessed: Time 1 through 3'. ft employees = full-time employees. Reference category for 'education' dummy variables: high school or below. Reference category for 'business region' dummy variables: south-west. PGR = Proactive goal regulation; WB = Eudaimonic well-being; SBS = Subjective Business Success.

FIGURE 2
Study 3 – **Test of overarching, theorized model**
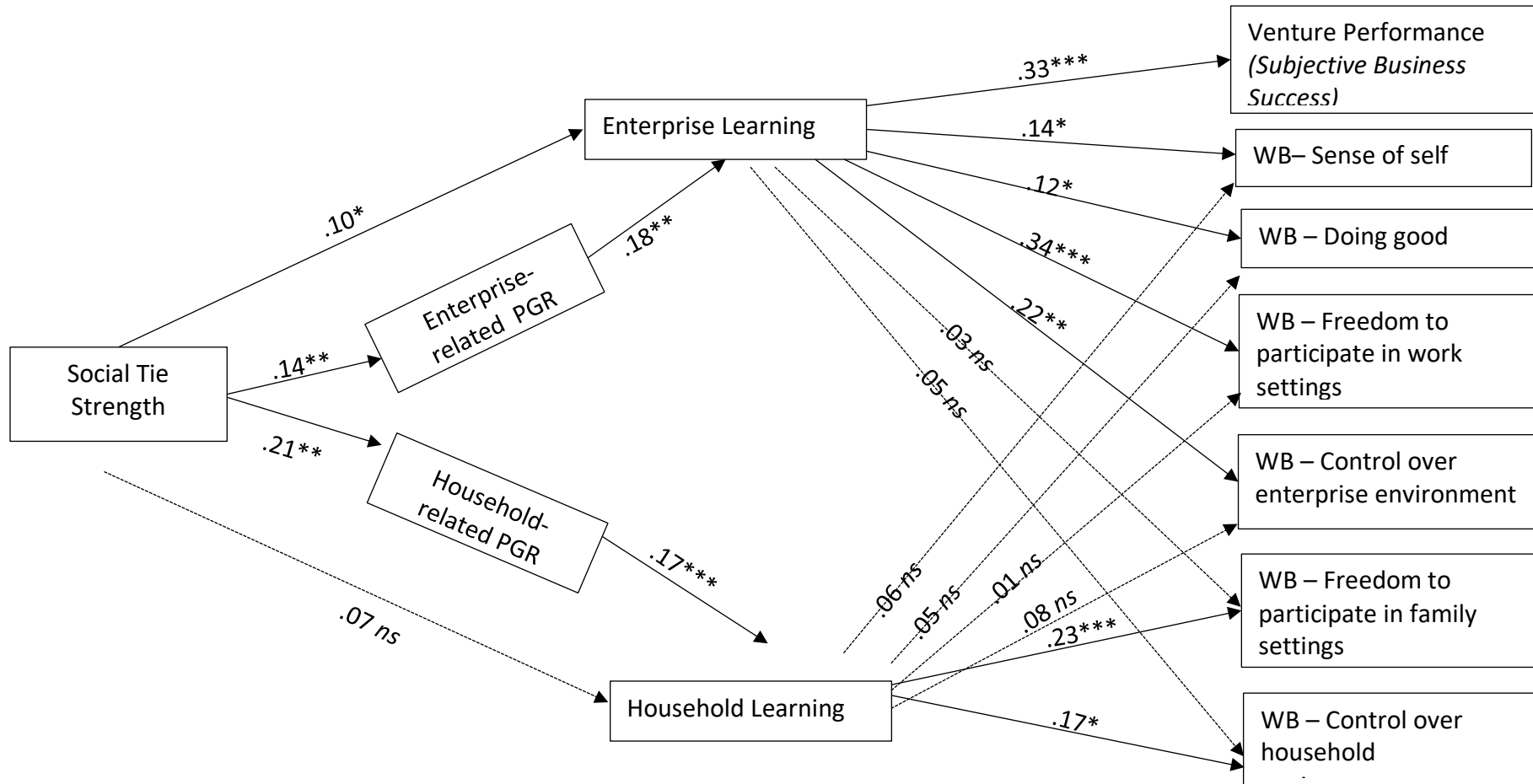
Notes. N=188; Model fit: CFI=.96; SRMR=.04; RMSEA=.08; Chi-square/df (49.32/24=2.06). Control variables: Business size (log-transformed no. of full-time employees at time 1), business age, business region, educational level of entrepreneur, entrepreneurial experience (no. of previous businesses), and hours worked in the business. *$p < .05$, ** $p < .01$, *** $p < .001$; ns* = hypothesized, non-significant paths. PGR = proactive goal regulation; WB = Eudaimonic well-being. One-tail

To test the direct effects of tie strength on enterprise and household learning (Hypotheses 1 and 3), we initially fixed the path of our mediator, proactive goal regulation, at zero. This direct-effect model provided an acceptable fit to the data (Hu & Bentler, 1999): CFI = .89, RMSEA = .06, SRMR = .06, Chi-square/df (126.28/48=2.63). In support of Hypotheses 1 and 3, we found a significantly positive main effect of tie strength on both enterprise and household learning ($B = .13$, $p < .01$; $B = .11$, $p < .05$, respectively), suggesting that, in line with our hypothesis, the stronger the ties that the entrepreneurs had formed with other entrepreneurs from the training cohort, the higher the learning outcomes for their enterprises and households.

To test Hypothesis 4 on whether proactive goal regulation is a mediator in the relationship between strong social ties and enterprise- and household-related learning, we freed the indirect paths of social-tie strength on enterprise and household learning via enterprise- and household-related proactive goal regulation. In initial support for Hypothesis 4, our final, hypothesized model provided an excellent and significantly improved fit to the data (Hu & Bentler, 1999): CFI = .96, RMSEA = .07, SRMR = .03, Chi-square/df (50.07/24=2.09), $\Delta \chi_2$, Δdf = 76.21,24*. In additional support of Hypothesis 4, social-tie strength predicted greater levels of business- and household-related proactive goal regulation ($B = .14$, $p < .01$; $B = .21$, $p < .01$, respectively). Also in line with our theorizing, business-related proactivity predicted greater levels of enterprise learning ($B = .18$, $p < .01$), and household-related proactivity predicted greater levels of household learning ($B = .17$, $p < .001$). In addition, upon adding the indirect paths of social-tie strength to enterprise and household learning via enterprise- and household-related proactivity, the social tie to the household-learning path dropped to non-significance, indicating mediation via proactive goal regulation (the path between tie strength and enterprise learning remained significant at B=.10, p<.05, indicating only partial mediation of proactive goal regulation for this pathway).

We additionally tested the indirect effects of social-tie strength on enterprise and household learning via increased proactive goal regulation directly, calculating bootstrapped 95% confidence intervals as recommended by Hayes (2013), using 10,000 bootstrapped resamples. In additional support of our Hypothesis 4a, the indirect effect of social-tie strength on enterprise learning via enterprise-related proactive goal regulation was significant ($B =$ .03, $SE = .01$, $p < .05$, *95% C. I.*[.01, .07]). We also found support for an indirect effect of tie strength on household learning via increased household-related proactive goal regulation ($B =$ .03, $SE = .02$, $p < .05$, *95% C. I.*[.02, .09]), in line with Hypothesis 4b.

Turning to the role of enterprise learning for venture performance and eudaimonic well-being, in support of Hypothesis 2, enterprise learning predicted greater levels of venture performance ($B = .33$, $p < .001$). Regarding Hypothesis 5a concerning enterprise learning predicting greater levels of eudaimonic well-being, we found partial support for this hypothesis: Whereas enterprise learning did predict greater levels of sense of self and doing good for others ($B = .14$, $p < .05$; $B = .12$, $p < .05$; respectively), as well as participation and control over the enterprise ($B = .34$, $p < .001$; $B = .22$, $p < .01$; respectively), enterprise learning did not predict participation or control over the household ($B = .03$, *ns*; $B = .05$, *ns*; respectively). By contrast, whereas household learning was not significantly associated with sense of self, doing good for others, participation, or control over the enterprise (see Figure 2), it did significantly predict increased levels of participation as well as control over the household ($B = .23$, $p < .001$; $B = .17$, $p < .05$; respectively). In sum, enterprise and household learning had complementary associations with distinct dimensions of eudaimonic well-being—an interesting finding that we return to in the discussion section.

DISCUSSION

Our mixed-method research provides several novel insights into the role of social networks for OL, including how and why (i.e., the mechanism) entrepreneurs' social-tie strength influences OL of their enterprises, and, in turn, indicated OL has positive implications on entrepreneurs' own eudaimonic well-being, beyond economic performance.

Social-Tie Strength and Enterprise Learning

First, we found that strong ties of entrepreneurs may effectively function like bridges to fresh information, and better enable enterprise learning than weak ties, going beyond prior entrepreneurship research emphasizing that weak ties are bridging ties. Building on qualitative research of Nigerian entrepreneurs who formed new social ties during a financial training program—mitigating the information redundancy bias of strong ties of prior research—our quantitative evidence (using a new measurement scale for enterprise learning) corroborated our theory that social-tie strength of focal entrepreneurs with other entrepreneurs is positively related to enterprise learning.

Classical research (cf. Granovetter, 1973) shows that ex post, given the status quo, long-duration, strong social ties tap into social cliques with redundant information. By contrast, ex ante, for instance, in new training sessions (as in our research), entrepreneurs may *strategically* use strong ties to tap into fresh ideas of other entrepreneurs, enabling enterprise learning. Interestingly, the strong ties in our research setting formed quickly (during a six-week training program and immediately after), yet seemed to have social characteristics—frequent contacts, mutual confiding, intimacy, and reciprocal commitments—similar to the social ties formed over years or decades in prior research (Granovetter, 1973; Uzzi, 1997). Given that the enterprises in our research had existed for at least two years (with a mean age of six years), the learning from strong social ties clearly

transcended the initial startup phase (Greve & Salaff, 2003) and happened at more mature stages, enabling these enterprises to improve firm performance as well as entrepreneurs' own well-being, as shown.

We found the OL concept, defined by Levitt and March (1988) as changes in routines and underlying knowledge and beliefs, a definition thus far typically used for large firms (Argote & Miron-Spektor, 2011), was indeed meaningful and valid for the enterprise context, with Study 1 showing a rich variety of changes in business routines and knowledge, enabling the development of a new measurement scale for enterprise learning (in Study 2). Based on reports of entrepreneurs in Study 1, we also developed the new concept of household learning, and in Study 2, a new measurement scale for this concept. These new scales enabled us to directly test our theory on how social-tie strength predicts enterprise and household learning, unlike prior research exploring the link between tie strength and project or firm performance, to which many explanations other than information flows or OL apply (e.g., emotional support, tangible resources, status, and reputation). We hope our new measures will be useful for future research to directly and rigorously test theory on antecedents and consequences of OL in small enterprises.

Entrepreneurial Proactive Goal Regulation as a Mechanism in the Social-Ties–OL Link

We also theorized and tested a new, micro-level mechanism underlying OL—entrepreneurial proactive goal regulation, which is entrepreneurs' active engagement in thinking about and planning for changes in their enterprise—adding to our understanding of how and why OL in enterprises occurs through social networks and how it can be improved. In line with and extending previous findings by Rooks and colleagues (2016), our findings suggest entrepreneurs' social connections matter in prompting (proactive) planning and changes in the organization, as well as greater firm performance and eudaimonic well-being.

These relationships held both for enterprise-related proactive goal regulation and, developed from inductive findings in Study 1, household-related proactive goal regulation. Our findings contribute to the proactivity literature by extending the focus of proactivity to initiating changes not only in work environments, but also in households, with important implications for entrepreneurs' eudaimonic well-being. Our findings also complement important research by Campos and colleagues (2017) that shows women benefit more from proactivity training than men do, by finding that women entrepreneurs initiated proactive changes not only in their enterprises, but also in their households, leading to more beneficial well-being outcomes for entrepreneurs. Relatedly, our findings show that strong social ties with other entrepreneurs may be an important driver of proactivity, indicating that facilitation of networks between entrepreneurs, for instance, in the context of entrepreneurial trainings more broadly, may be a low-cost but effective way to promote organizational learning. In sum, our evidence corroborates the existence of this micro-mechanism both for enterprise and household learning, testifying to its generality, validity, and relevance for OL in key entrepreneurial contexts. A better understanding of when, how, and why strong versus weak ties may act as bridges to new information, and of the micro-mechanisms facilitating these information flows, may lead to more precise, contextual, and rigorous theory in this domain (Aral, 2016). Future research will clearly add to this understanding.

Entrepreneurial Eudaimonic Well-Being

We developed and validated a new, contextualized, measurement scale for entrepreneurs' eudaimonic well-being, informed by our qualitative study, and capturing individual experiences and perceptions of entrepreneurs *themselves* (cf. Diener et al., 2018), rather than using theory and measures developed in employed-work settings, or general concepts and measures informed by psychological theory from Western traditions. Using a

context-specific measure of well-being rather than a general measure enabled us to better capture the complexity and nuances of entrepreneurs' own well-being (Wiklund et al., 2019).

Our new measure—and the four dimensions we inductively developed and tested across our three studies, namely, sense of self, doing good for others, freedom to participate in social settings, and control over the environment—shares features with an existing, general measure, such as Ryff (1989); however, beyond being contextualized for entrepreneurs, it is also different in other important ways. For instance, our "sense of self" overlaps with "personal growth" but is contextualized for the entrepreneurship setting. Similarly, our subdimensions of "control" and "participation" focus on work and household environments, and are also context-specific and relevant to the entrepreneurial process. However, Ryff's (1989) "purpose in life" and "self-acceptation" may be more salient in Western settings (Weber, 2013). Autonomy—Ryff's (1989) sixth dimension—is arguably important in entrepreneurial contexts, and perhaps manifests itself through other dimensions rather than being a separate dimension for entrepreneurs. Moreover, Ryff (2019) recently advanced that entrepreneurs may hold a "stance towards others," which may be either virtuous or vicious. We found evidence of a more agentic dimension—doing good for others—that constitutes the opportunity and ability to positively influence the lives of others, which entrepreneurs understand as a key dimension of their own well-being. More generally, we believe our research on women entrepreneurs in Africa (Nigeria) provides important insights into which dimensions of entrepreneurial eudaimonic well-being may be context-specific (e.g., Western vs. other major cultures), and which may be more general or 'universal.' We strongly encourage more research into this domain.

Moreover, we present new theory and evidence (extending Stephan, 2018; Wiklund et al., 2019) on how entrepreneurs, by forming strong social ties, contribute to their eudaimonic well-being. More specifically, we show that by engaging in strong social ties, and in

entrepreneurial proactive goal regulation, namely, envisioning and planning changes, entrepreneurs enacting enterprise learning not only improve firm performance, *but also their eudaimonic well-being*: that is, their key capabilities (Sen, 1992), the opportunities to improve themselves, to control their work environment, to relate to others at work, and to do good for others. We found similar results for household learning; it enabled entrepreneurs to improve their opportunities to control and to relate to others in the household context.

Finally, our research has interesting implications for poverty contexts. A robust finding in this literature is that women entrepreneurs, unlike male entrepreneurs, often do not benefit from (financial or marketing) training, in terms of higher profits for their enterprises, despite learning from the program (Berge, Bjorvatn, Pires & Tungodden, 2015). Berge and colleagues (2015) wondered whether domestic obligations may play a role for women entrepreneurs. Our research indeed shows that the way households are organized (from an OL perspective) does matter for the entrepreneurs' own eudaimonic well-being, and we provide new theory on how women entrepreneurs may be able to manage this issue: by building strong social ties with other entrepreneurs. More specifically, helping these women entrepreneurs build strong social ties with other entrepreneurs and increase their engagement in proactive goal regulation, not only to improve enterprise learning and, relatedly, firm profits and eudaimonic well-being, but also to uniquely enhance some aspects of their eudaimonic well-being by enabling household learning, seems key. Clearly, our research concerned opportunity entrepreneurs, not necessity entrepreneurs, so we have to be careful in generalizing; more research is needed to solve this important theoretical puzzle. Nevertheless, the insights from our research would seem to extend well beyond opportunity entrepreneurs.

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Study 1 - Interview Protocol (Round 2 of data collection)

	Key interview questions
1	Could you tell me about yourself?
2	What has been your past experience with entrepreneurship? *Follow up: How has it shaped your current experience as an entrepreneur?*
3	Could you briefly describe what a typical day in your life as an entrepreneur looks like?
4	*What was the state of your enterprise when you decided to take part in the training?*
5	*Where did you find out about this training?*
6	*Can you think of a task that you do differently as a result of what you have learnt?*
7	*Did you learn anything new during the training?*
8	Has learning with other women entrepreneurs influenced the way you run your enterprise? *Follow up: How did you feel being part a cohort? How did you feel being part of a group? What did you learn from your group activities? What did you learn from other women entrepreneurs in your group?*
9	Are you currently thinking about actively trying to make changes in your personal or professional life? *Follow up: What motivated you to take this initiative? Did you think of taking this initiative before, during or after the training? How do you feel about your ability to make these changes?*
10	Since you started your business, how have you influenced your household?
11	How would you describe the term 'entrepreneur' and what does it mean to *you*?

Organizational Learning and Eudaimonic Well-being Measures

Enterprise-Learning Measure

Changes in enterprise-related routines
1. I have introduced new products and services.
2. I have improved the way I manage my clients.
3. I now talk to more people about my business.
4. I negotiate more effectively with vendors and suppliers.
5. I now use social media more to create visibility for the business.
6. I have recruited new members of staff. a
7. I have made changes to staff roles in my business. a
8. I now delegate work more effectively to others. a
9. I now lead teams more towards a vision. a

Changes in enterprise-related beliefs
10. I now know more about bookkeeping and accounts.
11. I now know more about how to grow my business.
12. I now have a better understanding of how to plan and strategize business activities.
13. I have gained knowledge about how to better manage and analyze financials.
14. I now understand better how to work with financial institutions.
15. I now have a better understanding of business successes and failures.
16. I have learnt how to manage my employees better. a
17. I now have a better understanding about networking for business. a
18. I have learnt how to separate personal and business bank accounts. a
19. I have learnt how to better ask staff for new ideas on how to run the business. a
20. I have improved on my marketing skills. a
21. I now understand better how to work in a team. a
22. I have learned more about potential clients, business partners, and competitors. a
23. I now actively share new knowledge within our enterprise. a
24. Our employees now actively share their knowledge in the enterprise. a
25. Our employees have gained more knowledge since I participated in the training. a

Household-Learning Measure

Changes in household-related routines
1. I now listen more to my family members (including, if present, partner and/or kids) for advice and ideas about the business.
2. I have gained support from my family members (including, if present, partner and/or kids) for business activities.
3. I now have more help to support me in my household tasks.
4. I get more business advice from my family members (including, if present, partner and/or kids) on how to run the business.
5. I now manage my family life (including, if present, partner and/or kids) in a way that provides a better balance with my work life. a
6. I now separate my personal money more from my business money. a
7. I am now better at negotiating the roles I take in my family (including, if present, partner and/or kids). a
8. I now better manage my time spent in the household. a
9. Within my family (including, if present, partner and/or kids) we regularly share ideas about how to organize things better in our household. a

Changes in household-related beliefs
10. I have learnt how to better manage household financials.
11. I have a better understanding of how to organize household tasks.
12. I know more about how to balance work life and family life (including, if present, partner and/or kids).
13. I know more about how to keep my family life (including, if present, partner and/or kids) separate from my work space.
14. I have learnt better how to discuss difficult issues at home.
15. I now better understand what works well in my own household and those of others.
16. I now actively share what I learn within our family (including, if present, partner and/or kids). a
17. My family members (including, if present, partner and/or kids) have gained more knowledge since I participated in the training. a

"I have the opportunity to: …"

Sense of self

1. … work towards my own vision.
2. ...follow my ambition for my business activity.
3. ... explore my own talent.
4. ... convert my personal passion into a business venture.
5. ... recognize my self-worth. a
6. …enjoy work. a
7. …do something new in my business on a regular basis. a
8. …be appreciated by family members (including, if present, partner and/or kids). a
9. ... evaluate my own strengths and weaknesses. a

Freedom to participate in work settings

1. ... develop personal relationships with other entrepreneurs.
2. ... collaborate with other entrepreneurs.
3. ... do business with other entrepreneurs.
4. ... pool financial resources with other entrepreneurs in my network.
5. …compare my own business activities with other entrepreneurs. a
6. ... interact with individuals who are knowledgeable of the industry and business. a
7. …discuss personal issues with selected entrepreneurs. a
8. …participate in virtual group chats with other entrepreneurs. a

Freedom to participate in family settings

1. ... jointly make decisions with my family (including, if present, partner and/or kids) about the household.
2. ... share my learning with members of my family (including, if present, partner and/or kids).
3. … interact with members of my family (including, if present, partner and/or kids) in a way that makes me feel respected.
4. …negotiate my personal relationships with family (including, if present, partner and/or kids) and friends

Doing good for others

1. ... add value to my community.
2. ... make a positive change in society.
3. ... provide livelihood to members of my community.
4. ... create jobs for others in my community.
5. ... become a change agent in society.
6. …make a positive change for my family (including, if present, partner and/or kids). a
7. … financially support my family members (including, if present, partner and/or kids) a
8. ... mentor other entrepreneurs. a
9. …inspire members of my family (including, if present, partner and/or kids). a

Control over enterprise environment

1. ... lead teams in my enterprise.
2. ... increase the scale of our operations.
3. ... separate my business money from household money.
4. ... take responsibility for business activities.
5. ... be the face of my business. a
6. …allocate time based on my own discretion in the enterprise. a
7. …decide how to spend resources in my enterprise. a

Control over household environment

1. ... make my own decisions for my family (including, if present, partner and/or kids).
2. ... increase financial resources that are dedicated for my personal use.
3. ... use my personal assets to advance my business activities.
4. ... decide on my own time in the household.
5. ... involve family members (including, if present, partner and/or kids) in my business activities. a
6. …protect my family life (including, if present, partner and/or kids) from any negative influences at work. a

Notes. a Items that formed initial measure development but were discarded for final measure. Introductory statement for all well-being items: "I have the opportunity to: …".

Chapter 3

Paper II

SHOCKS AND SHAKE-UPS: INTRAORGANIZATIONAL LEARNING PROCESSES IN NASCENT VENTURES

Tanveer. L

Introduction

Despite being a global phenomenon, entrepreneurial ecosystems offer a precarious environment for venture creation. Operating under uncertainty, most ventures find themselves constrained by resources and institutional environments. Yet, a disproportionately high number of articles have been published which focus on high growth firms in developed economies where the ground is fertile for the proverbial unicorns and gazelles to graze on (Aldrich & Ruef, 2018; Schulz & Jobe, 2001). The myopic focus on success stories and failures, instead of nascent ventures that struggle to survive in their shadows, for management scholars, has been a missed opportunity.

Nascent ventures offer a unique point of access to primordial processes of organization emergence. Shifting our gaze allows us to explore fundamental questions about entrepreneurship and the founding experience such as how do founders create organizations under uncertainty? What are the initial organizing and learning processes that influence organization making? How do founders protect their ventures from environmental shocks? Investigating such questions is a step in the direction towards rendering new ecosystems comprehensible (Davis, 2010) and in doing so, shifting the focus from studying outcomes to studying the organizing processes that culminate in new social entities (Aldrich & Yang, 2013).

In this study I build upon the foundation of prior work on organizational learning, but expand its focus to consider a theoretically and practically important question: *How do founders of nascent ventures learn under uncertainty?* I investigated this question through a longitudinal study of seven ventures in two cities. In each case, these ventures operated under uncertain conditions, led by founders who experienced some form of shock which disrupted business activities. Because this study began when founders were still developing organizational routines, I had the unique opportunity to identify cases when founders

experienced some kind of negative shock by organizational members which evoked an emotional response resulting in changes in ostensive and performative routines – giving me a window into the first few iterations of organizational learning processes.

I study how founders ensure survival, after experiencing threats, by exploring learning processes in the context of nascent ventures operating under extremely uncertain conditions. From an organizational learning perspective, organizations can learn to identify problems and resolve them through an iterative process. Organizational defensive routines - policies or actions that prevent organizational players from experiencing embarrassment or threat – are activated when an organization detects a problem (Argyris, 1999). However extant theory on organizational response to threats has mostly been studied in the context of large organizations with established routines (Shulz & Jobe, 2001; Szulanksi, 1996). It posits that defensive routines are inherently anti-learning and designed to cover errors instead of identifying the sources of errors. So how do nascent ventures learn while experiencing threats to their survival? The findings of this study address this question by surfacing *organizational protective routines*, which in contrast to defensive routines, are pro-learning and take into account the affective dimension of recovery.

Extant literature on recovery from failure consists of three learning components; initial hiatus, reflection and reflective action in terms of seeking other opportunities for new venture creation (Cope, 2005; Politis, 2008; Shepherd, 2009). The literature does not examine enactment processes carried within ventures that have been disrupted by shocks, which cannot be attributed to macro-level institutional environments (Cope, 2005; Meyer, 1982). Granted this gap exists and has been overlooked, why is it important? The answer is twofold. Venture creation in emerging markets is significantly higher than other parts of the developed world. Nigeria, the research setting for this study, boasts 35% total early stage entrepreneurial activity, indicating that 35 per cent of the population between 18-64 years of age is either a

nascent entrepreneur or owner-manager of a new business, compared to the global average at 12.6% (Global Entrepreneurship Monitor, 2018). Yet, majority of these nascent ventures, close to 80% in Nigeria, will fail within five years (Adebisi & Gbegi, 2013). This is in stark contrast to enterprise mortality rates in high-income, developed economies[9] such as Norway (3.7%), Netherlands (5.7%), United Kingdom (10.5%), Denmark (10.7%), Germany (7.7%), which makes the story of venture survival in emerging markets critical to the discourse on entrepreneurship. Which is why this study aims to deepen the understanding of behaviours by which nascent ventures ensure their survival in volatile ecosystems.

I contribute to the growing literature on organizational learning in two main ways. First, the literature on entrepreneurship has been focused on high growth ventures in relatively stable ecosystems. I contribute by exploring organizational learning in unstable ecosystems where newly found organizations are constantly under threat. I build on McGrath & Argote's (2001) framework of members, tasks and tools to develop a process model of *organizational protective routines* - how founders respond to threat and/or embarrassment by purposefully reconfiguring subnetworks between tasks, tools and members.

Additionally, the broader literature on entrepreneurship has been criticized for inadequate exploration of emotions in entrepreneurial processes (Cope & Watts, 2000; Delgado, Garcia, Puente & Mazagatos, 2015), given the nature of entrepreneurial work, characterized by overreliance on close ties, threat of malfeasance, high risk, uncertainty and precariousness (Granoventter, 1985). I investigate how negative emotions such as despair, depression and sadness serve as a mechanism for knowledge transfer by influencing the stock and flow of learning within organizational learning systems in nascent ventures. This

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[9] *Death rate: number of enterprise deaths in the reference period (t) divided by the number of enterprises active in t:* sourced from OECD's Entrepreneurship Indicators Project, where the OECD and Eurostat collaborate to develop a framework for the regular and harmonised measurement of entrepreneurial activity and the factors that enhance or impede it. The data in this database is presented in International Standard of Industrial Classification (ISIC Revision 4). https://stats.oecd.org

contributes to the literature on emotions in entrepreneurship which has previously been studied in the context of failures (Shepherd, Wiklund & Haynie, 2009; Cope, 2005) by expanding its focus to emotions in the context of survival.

Moreover, I explore how emotions facilitate recovery in ventures after they experience intramural shocks. Intramural shocks refer to disruptions in the organization which result from actions by organizational members are harmful and/or threatening to the survival of the business. The term is conceptually similar to the concept of environmental jolts (Meyer, 1982), except that it focus on the internal organizational elements, characterized by members, tasks and tools (McGrath & Argote, 2001), which can create volatility for nascent ventures.

Theoretical background

Venturing in volatile ecosystems is no easy task. Nascent ventures in volatile ecosystems are often exposed to unforeseen challenges; disruptive technologies, poor institutional support and information asymmetries, which present additional obstacles to growth and survival (Santos & Eisenhardt, 2009; Adner & Kapoor, 2016; Williams, Gruber & Sutcliffe, 2017). Meyer (1982), evoked the metaphor of organizational tremors, jolts and their aftermath to represent turbulence as an environmental feature of volatile institutional environments in which organizations continuously adjust to maintain alignments with their institutional environments. The study (Meyer, 1982) reported on hospital's response to environmental jolts - sudden and unprecedented events defined as, "transient perturbations whose occurrences are difficult to foresee and whose impact on organizations are disruptive and potentially inimical," (Meyer 1982: 515). More recently, Garud, Dunbar and Bartel, studied how organizations make sense of, "situations that bear little or no resemblance to the types of

experiences that have occurred in the past," (2011 p.578) i.e. unusual experiences that require reflection and novel action.

Research offers several perspectives on how nascent ventures navigate uncertainty. One strand draws on theories grounded in cultural entrepreneurship from a resource perspective (Baker & Nelson, 2005; Linna 2013), to examine how ventures overcome liabilities of newness (Thornhill & Amit, 2003), through culturally resonant stories (Santos & Eisenhardt, 2009) or reliance on founder credentials (Zott & Huy, 2007) to attract resources. In such resource-scarce environments, new ventures often recruit organizational members from close networks (Anderson, Jack & Drakopoulou Dodd, 2005), through kinship ties (Dubini & Aldrich, 2001), or referral from close ties resulting in relationships characterized by high trust (Rousseau, Sitkin & Burt, 1998), interdependence and mutual risk - antecedents for malfeasance and opportunistic betrayal (Granovetter, 1958) - all of which contribute to the uncertainty under which nascent ventures come into being.

Another stream explores the role of routines within ventures in the face of adversity. Organizational routines are regarded as the primary mechanism by which organizations give structure to work (Feldman & Pentland, 2003). Seen as sequential patterns of interaction critical to the integration and recombination of knowledge (Grant, 1996), routines have been studied as both, sources of stability and inertia (Hannan & Freeman, 1983), as standard operating procedures (Cyert & March, 1992), and as organizational rules (March, Schulz & Zhou, 2000) that change over time as a result of organizational learning. Feldman and Pentland (2003) reimagined routines as sources of flexibility in organizations by bifurcating the current understanding of routines into two categories; ostensive and performative. The ostensive aspect is the schematic form – the abstract idea of the routine that exists as a common stock of knowledge amongst members of the organization. The performative aspect

is the enactment of the routine in the form of specific tasks, performed by specific members of the organization.

To continue Meyer's metaphor, seismic activity creates constant volatility - political turnover, underdeveloped business networks and resource flux - which ventures are able to navigate due to flexible and adaptive structures (Pentland, 2002). Argyris defined organizational defensive routines as "any policies or actions that prevent the organization from experiencing pain or threat." However, he also argues that defensive routines are anti-learning and inhibit management development, training and organizational diagnosis (Argyris, 1986). Much like large organizations, nascent ventures in volatile environments frequently experience threats and engage in actions that defend the organization from shocks, disruption and failure. However, research on organization defensive routines has been done in the context of large organizations (Lok & Rond, 2013; Meyers, 1982) while the process through which nascent ventures defend themselves from shocks and threats remains largely unexamined.

Currently, there is a gap in the literature from a learning lens, about how nascent ventures learn under uncertainty. Several meaningful insights can be generated by exploring how shocks influence stocks and flows of learning within organizational learning systems of nascent ventures. However, contemporary debates in organizational learning theory indicate a fragmented field with several conceptions and sources of learning. One of the main divisions has been between interorganizational learning (Child & McGrath, 2001; Ingram & Simons, 2002) and intraorganizational learning (Argote & Ophir, 2017; Schulz, 2002) with recent calls to cross-fertilize the two bodies of research (Holmqvist, 2003). Knowledge-centric conceptions of organizational learning have explored knowledge creation (Lant, Milliken & Batra; Paulus & Yang, 2000; 1992; Kane, Argote & Levine, 2005), knowledge retention (Argote, Beckman & Epple, 1990; Carley, 1992; Cohen & Bacdayan, 1994), and knowledge

transfer (Argote et al., 1990; Baum & Berta, 1999; Gruenfeld, Martorana & Fan, 2000; Szulanski, 1996) as subprocesses of organizational learning. More recently, structure-centric approaches have understood learning as recording and codification of knowledge into organizational structures such as rules, processes and routines (Salvato & Rerup, 2017; Schulz & Jobe, 2001), as repositories of experiential lessons (March, Schulz & Zhou, 2000), which facilitate organizations to adapt and improve over time.

Interest in sources of organizational learning has led to a growing body of work on the types of experiences that stimulate learning. Increasingly, failure is seen as a precursor to learning in entrepreneurial contexts. Baumard and Starbuck (2005) found that small failures lead to incremental learning while large failures supported less learning due to external attribution. Failures can create opportunities for reflection (Politis, 2008) and facilitate learning related to personal management and adapting to change (Stokes & Blackburn, 2002). Cope (2011) explored learning outcomes from venture failure proposing that failure facilitates learning about venture management and facilitates preparedness for future enterprising activities.

More recently, research on emotions has explored their role as a mechanism for knowledge transfer (Hakonsson, Eskildsen, Argote, Monster Burton and Obel, 2015; Sine, Shane & Di Gregorio, 2003). In a laboratory study, Hakonsson et al. (2015) investigated how emotions affect knowledge transfer and found a positive effect of positive emotions on team decisions to explore new routines. Research on learning processes associated with recovery has also explored emotions during and in the aftermath of failure (Cope, 2011; Shepherd, 2009) which has created a window of opportunity to further explore the role of emotions during periods of turbulence, which has not been examined previously in the context of survival. The rapid and deepening interest in failure has occupied one end of the entrepreneurial learning spectrum while the other is firmly grounded in growth and

performance outcomes (Shepherd, Wennberg, Suddaby & Wiklund, 2019). The middle - ground, where new organizations, defined as, goal-directed boundary-maintaining activity systems (Aldrich & Ruef, 2006) learn to survive, remains relatively unexplored. Unlike previous work on learning from failure, this study explores ventures that survive in turbulence whereby processes of recovery and re-emergence take place in the same venture immediately following a shock.

Learning from unusual experiences serves as a critical part of organizing (Dunbar & Starbuck, 2006) since it triggers reflection and strategic action through enactment processes (Brown & Duguid, 1991; Weick, 1995), which can provide insights into the processes by which nascent ventures survive shocks. To protect nascent ventures, founders play a critical role as architects of organizational routines. Organizing processes by which founders create routines are dynamic (Rerup & Feldman, 2011) and rely on explicit and tacit knowledge from multiple sources including networks (Granovettor, 1885) and prior experience (Argote, McEvily & Reagans, 2003; Fiol & Lyles, 1985), which allows them to make changes to organizational processes. Previous research has looked at how managers make consequential organizational choices in response to external stimuli from the environment (Miller, Johnson & Grau, 1994) and to keep organizations adaptive while navigating through volatile environments (Meyers, 1982; Pentland, 1999). Similarly recent dynamic approaches to routine regulation have expanded the concept of routines from, "routine as a stable truce to the truce as process, highlighting the role of actions performed by individuals throughout the organizational hierarchy," (Salvato & Rerup, 2018). However, the interaction between human and non-human elements of nascent ventures i.e. routines and the actors who enact them, remained relatively unexplored.

Organizational learning in member-task-tool networks

This study uses the framework of knowledge repositories developed by McGrath and Argote (2001). According to the "members-tools-tasks" framework, knowledge is embedded in three fundamental elements of organizations – members, tasks and tools and the networks formed by crossing them (Argote & Fahrenkopf, 2016). The framework distinguishes between members (human component), tasks (purposive component) and tools (technological component) within organizations as essential elements which recombine to form subnetworks through which intraorganizational learning takes place (Argote & Ophir, 2017). The member-task-tool framework is conceptually rich since it blends human perspectives (Senge, 1990; Weick, 1979) and non-human perspectives (Huber, 1991; Walsh & Ungson, 1991) of organizational learning. In this case, organizational learning involves embedding new founder knowledge into the subnetworks between members, tasks and tools of the organization i.e. the stock of learning (Bontis, 1996; Bontis, Crossnan & Hulland; 2002; Edvinsson & Malone, 1997).

Although organizations embed multiple levels of social systems within them compared to groups (Argote & Ophir, 2017), nascent ventures share features with groups and organizations due to their small size, membership structure and short chains of command (Carley, 1992). Reconfigurations in networks between members, tasks and tools represent new flows of knowledge across organizational levels; individual, group and organization to create feed-forward and feed-back (Crossnan & Hullard; 2002). For the purpose of conceptual simplicity, I use knowledge flows to represent intraorganizational learning (Argote and Skeptor (2011), which encompasses both, feed-forward and feed-back, across organizational levels.

This study conceptualizes subnetwork reconfiguration as founder led enactment processes that recombine the subnetworks between members, tasks and tools (Bontis;

Crossnan & Hullard, 2002; Huber, 1991). The member-member network serves as the organizations social network within the organization, enshrining its culture and norms. The member-task network represents the division of labour; the assignment of tasks to specific members. The member-tool network maps members to the tools they use while the task-tool network traces which tools perform which tasks. The tool-tool network often manifests as technology transfers between or across or organizational units (Argote & Fahrenkopf, 2016). Finally, the task-task network represents the structure of routines within which organizational knowledge is embedded. These reconfigurations, in line with dynamic approaches, combine human and non-elements of the organization.

While these multiple streams of research are insightful, they only partially explore the experience of nascent ventures and their founders, under uncertainty. For example, empirical research on intraorganizational learning using this framework posits that performance increases as the internal compatibility of member-task-tool networks improves (McGrath & Argote, 2011). For example, organizational members of nascent ventures often wear 'multiple hats' until their tasks are specified over time. Improvements in internal compatibility over time increases competitive advantage in terms of the organization's capacity to learn (Adler & Clark, 1991; Edmondson, 2002; Argote & Ophir, 2017;). However, it still remains unclear whether intraorganizational learning suspends in the aftermath of shocks, as suggested by previous work on organizational defensive routines (Argyris, 1986), where large organizations have been studied to defend themselves through organizational defensive routines that are inherently anti-learning. Similarly while there is a consensuses that nascent ventures are exposed to shocks, the focus has largely been on external events, exogenous shocks (Shepherd, Douglas & Shanley, 2000), wicked problems (Rittel & Webber 1973) and unknown unknowns (Wideman, 1992). Less clear, are the

shocks that result from actions taken by organizational members, which disrupt, threaten or harm the venture.

In sum, existing research, although valuable, leaves several aspects of venture survival under uncertainty unexplored. How do nascent ventures manage the processes of recovery in the aftermath of unforeseen shocks? How do emotions influence founder behaviour in the aftermath of shocks? How do nascent ventures learn under uncertainty? These are the questioned addressed by this study.

METHODS

Since prior theory did not address these questions, I selected an inductive research design (Eisenhardt, 1989; Yin, 2013). Inductive methods are appropriate for studying process questions, especially in areas where theory is underdeveloped and are useful for tracing processes as they unfold over time (Small, 2009). Hence, I conducted an extended field study of seven nascent ventures that underwent episodes which threatened to, or disrupted operations but did not result in venture closure. I used Gioia methodology (Gioia, 2013) to thematically analyse data collected over a 22-month period in two rounds of data collection.

Research context

I gained access to ventures through a U.K based foundation that was involved in conducting enterprise development trainings for founders of nascent ventures in Nigeria. I treated founders as owner-managers since it gave them discretionary power to play a pivotal role in organizing processes of the venture. Both, design and serendipity shaped the theoretical sampling (Strauss & Corbin, 1997) criteria for this study. The sampling criteria included (a) founders of nascent ventures operating for at least two years (b) ventures that had participated in a training programme and shared enough in common for cross-case

comparison, (c) the ventures had been operating in Lagos and Abuja, which were both volatile contexts for entrepreneurial activity and (d) the ventures had experienced a shock during the time of the field study which gave me access to early conversations with founders regarding their responses to those shocks. During the 22-month period of this study, all the founders I spoke to were experiencing similar fluctuations in the ecosystem such as rapidly increasing inflation, devaluation of the Naira which admittedly, affected some ventures more than others based on varying levels of dependence on imported raw materials. Pervasive challenges included random power outages which disrupted working hours as well as the culture of the organization since employees would often go on extended breaks during outages. While these disruptions contributed to the volatility of doing business in this context, my focus was to identify ventures that experienced internal shocks. This meant spending time with founders in multiple settings, at work, at home, with family and staff during fieldwork, and remaining in touch via Skype and WhatsApp afterwards, to maintain rapport but more importantly, to be aware of the nature of shocks to these ventures. This provided me with rich opportunities to delve into the experience of how founders felt and processed shocks as well as the strategies they adopted to respond to them.

The sample initially included 21 women entrepreneurs who were founders of nascent ventures operating in Lagos and Abuja and were selected based on the following criteria; they were owner/managers of their enterprise, had been operational for two years and employed between 2-10 employees. Shortly after the training, these founders were in the process of planning and implementing changes in their business. Over the course of 22 months, my correspondence with the founders helped me identify ten ventures that had experienced some kind of unforeseen shock which disrupted business activities. One founder could not be reached for a follow-up interview after the sudden and premature death of her husband. The local training organization reported that she had rescinded from her business

soon after. Similarly, another entrepreneur who had revealed plans to scale up soon after I interviewed her in Lagos, had been divorced by her husband over issues of consent for expansion. She too had to stop business activity and start over. While these cases expanded my understanding of the nature of uncertainty in this context to include domestic volatility, for the purpose of this study, I only focused on ventures that (1) continued to operate after the shock and (2) the locus of shock was internal i.e. within the member-task-tool subnetworks. The remaining eight ventures were comparable in their organizing processes and allowed me to observe patterns across cases which I theorize in the process model.

Data collection

I collected data using two approaches; semi-structured interviews and non-participant observation in two rounds of data collection over a 22-month period, illustrated in figure 2 below.
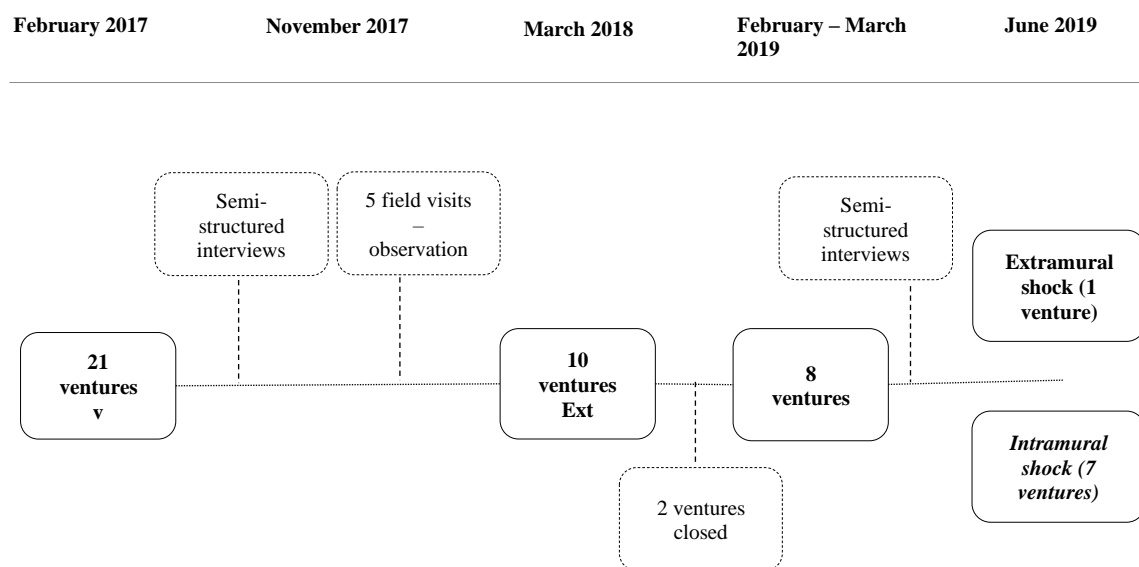

| February 2017 | November 2017 | March 2018 | February – March 2019 | June 2019 |

Figure 2: Timeline of data collection for longitudinal study

In the first round of data collection, I liaised with the local training organization to connect with founders In Lagos and Abuja. I was given an office as a researcher at the training centre and granted access to interview founders as they came and went for various modules of the training. This gave me a chance to formally introduce myself and the scope of research but also make a sketch of the nature of entrepreneurial activity. I interviewed 21 founders for 25-60 minutes and took brief notes during the interview regarding the openness of the conversation and the richness of insights I was able to generate in conversation. Cognizant of validity threats to this research, I designed the study to triangulate data through multiple rounds of interviews and observations in various settings.

To assure the validity of the data, I used nondirective questioning focused on facts and events rather than speculation (Huber & Power, 1985). I began asking about how they started their business which prompted them to think of either their earliest memories of being entrepreneurial such as selling bread to neighbours before school or led to accounts of dissatisfaction with employed work. I was interested in the network configurations between members, tasks and tools in their ventures and asked them about what a typical day in their entrepreneurial lives looks like. Their somewhat candid responses gave me a sense of the key players and their roles in executing the day-to-day activities of the business. Finally, the interview focused on whether or not they were planning to make changes in their business following the training which yielded a range of replies but almost always involved the intention to do so in the future.

To complement the interview data, I requested founders who were particularly forthcoming, if I could visit them at their workplace to continue our conversation and collect observational data. These visits took place at various locations such as a construction site, at a commercial office, a school as well as businesses that operated from home such as a creche and a school uniform stitching workshop. These visits lasted 2-4 hours and allowed me to

shadow the daily activities of founders and staff members but also briefly embed myself in the context where these ventures operated. During these visits I observed interactions with staff members over work attitudes, work dynamics between male staff responding to a female boss as well as multiple midday power cuts which disrupted work flow. All these observations sensitized me to the context and allowed me to develop relationships in which founders were able to take me into their confidence (Glaser & Strauss, 1967; van Maanen, 1983). Establishing trust was extremely important for this study in order to maintain a long-distance relationship in the coming months which I did so over WhatsApp and email. To improve theoretical validity, I studied patterns of relationships over time, to ensure the fit the between the phenomenon and the theoretical explanations posited by the findings of the study (Maxwell, 1992).

During this time some ventures did not survive due to unforeseen events while others grew rapidly. I focused on re-interviewing my final sample of eight after 22 months to get a sense of what had happened since we last spoke. Although my interviews were semi-structured, I deliberately kept the questions to a minimum and the tone conversational to leverage the rapport I had built earlier. During these interviews I asked them about how the business what doing since the last time we spoke and surprisingly, founders openly talked about moments that were disruptive for the business but also challenging for them personally. They were also able to look back at the venture and their actions over the period of time between the two interviews which provided deep insight into how things had unfolded for them. These interviews lasted between 45-65 minutes and allowed me to identify disruptive events and flesh out various responses undertook by founders to mitigate them. In addition, to maintain privacy, all respondent names have been anonymized.

Data analysis

Overall, I transcribed 29 interviews over two rounds of data collection. These interviews were uploaded to NVivo 11 – a data management software that allows segmented coding of data as well as data visualizations. I matched the 8 ventures from the second wave to corresponding interviews in the first wave to develop individual cases that covered entrepreneurial activity over a 22-month period. Additionally, to triangulate data, I uploaded observational memos which covered 20 hours of observation in various settings Lagos and Abuja.
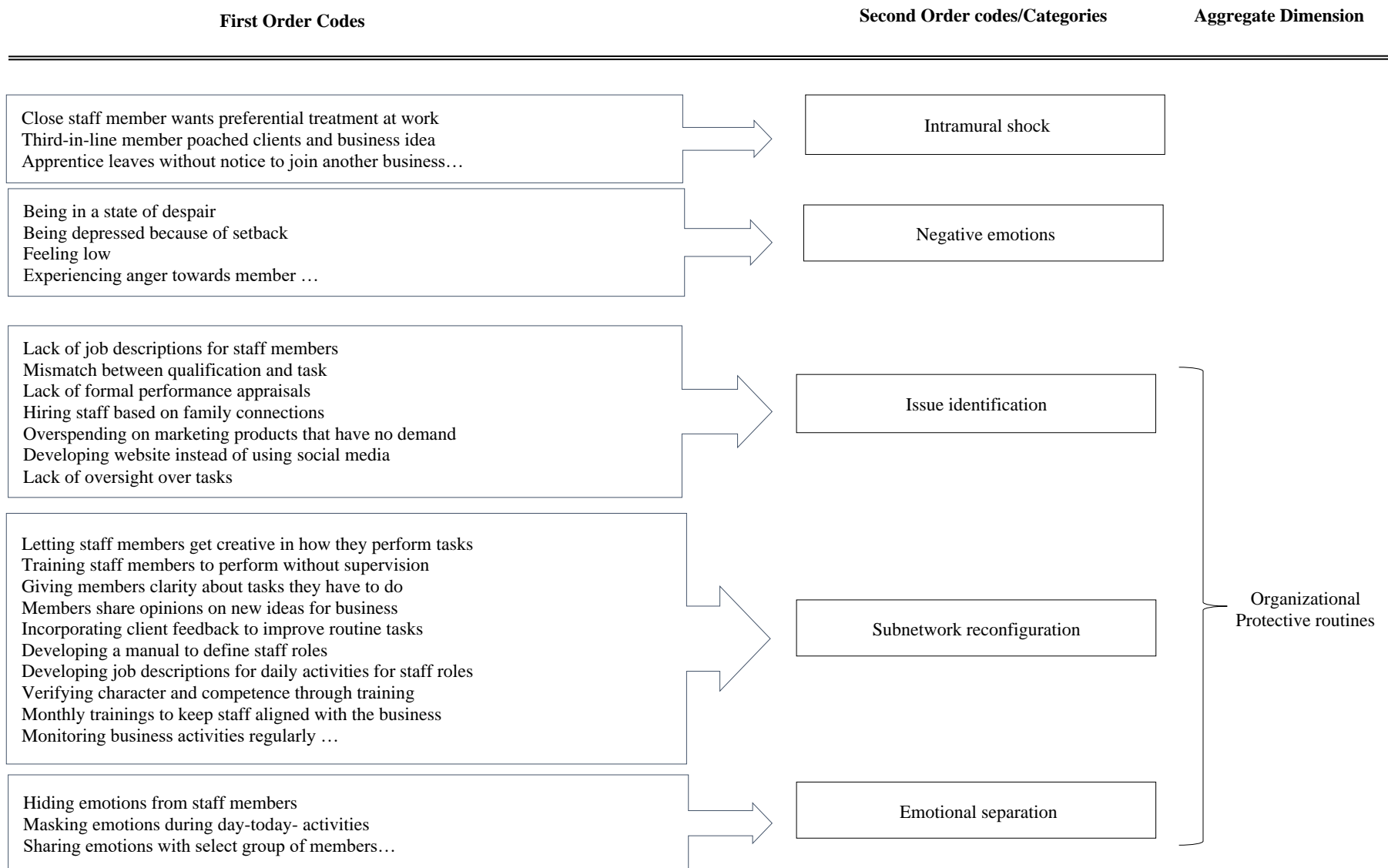
I began cross-case analysis to cover common themes and variation in the kind of shocks experienced by founders (Eisenhardt, 1989) followed by the first sorting of cases into extramural shocks and intramural shocks. Out of the 8 ventures, one fell in the category of *extramural shock* since the locus of shock was outside the boundary of member-task-tool networks of the venture, for example, the founder reported suffering heavy financial losses due to relying on a third-party actor who was unable to export perishable items on time. Such episodes, while disruptive to the venture, did not originate due to the activities of the members of the organization or the tasks and tools assigned to them. Nor did it result in issue identification or changes in member-task-tool networks since the founder attributed the disruption to an external party. Hence, this served as an example of extramural shock, which was important for the internal validity of the remaining seven cases that experienced intramural shocks (Campbell, 1979). The remaining 7 cases all had various forms of *intramural shocks* – when members of the organization had behaved or acted in ways that were disruptive and/or threatening to the survival of the business.

Next, I began open-coding interviews in NVivo while closely adhering to informant terms (Corbin & Strauss, 1990; Gioia, 2013) to capture dozens of actions, changes, thoughts and emotions in the words of founders, to generate a compendium of 50 first-order codes. This phase of coding was characterized by the emergence of several expected and unexpected

themes which suggested the need to adopt a constant comparative method (Glaser & Strauss, 1967) to go back and forth between the emerging codes and the literature. I then began axial coding to collapse first-order codes into categories and noticed how often founders used emotionally un-detached language (Brown, 2003), to describe how they felt during and after their business experienced a shock. For example, I noted during interviews how founders often paused to collect their thoughts and emotions when retelling accounts of shocks to the business. These pauses signalled to me the importance of emotions during and after these shocks, which helped explore the extant literature on affect and emotions in entrepreneurial settings (Cope, 2003; Shepherd 2002). I first adopted a general affect lens to develop a second-order category to capture language that signalled emotions in the data. After a few iterations, I labelled this category as *negative emotions* due to the vivid language used by founders to describe emotions that were mostly negative, such as despair and depression, both during and after the shock.

I used NVivo for visual mapping of subnetwork changes – members, tasks and tools - in the data by mapping links between open codes and axial codes in the data for each subnetwork such as member-member, member-task, member-tool etc. I categorized changes in these networks as subnetwork configuration which is reflected in the overall data structure.

Figure 1. Data structure representing first order codes, second order categories and aggregate dimensions

First Order Codes	Second Order codes/Categories	Aggregate Dimension

Close staff member wants preferential treatment at work
Third-in-line member poached clients and business idea
Apprentice leaves without notice to join another business…

→ Intramural shock

Being in a state of despair
Being depressed because of setback
Feeling low
Experiencing anger towards member …

→ Negative emotions

Lack of job descriptions for staff members
Mismatch between qualification and task
Lack of formal performance appraisals
Hiring staff based on family connections
Overspending on marketing products that have no demand
Developing website instead of using social media
Lack of oversight over tasks

→ Issue identification

Letting staff members get creative in how they perform tasks
Training staff members to perform without supervision
Giving members clarity about tasks they have to do
Members share opinions on new ideas for business
Incorporating client feedback to improve routine tasks
Developing a manual to define staff roles
Developing job descriptions for daily activities for staff roles
Verifying character and competence through training
Monthly trainings to keep staff aligned with the business
Monitoring business activities regularly …

→ Subnetwork reconfiguration

Hiding emotions from staff members
Masking emotions during day-today- activities
Sharing emotions with select group of members…

→ Emotional separation

Organizational Protective routines

FINDINGS

Figure 2 diagrams the process model. At the highest level, the theory developed in this study explains the process of recovery and enactment of organizational protective routines. The starting point of the process is the intramural shock that proves to be disruptive to the organization, in this case nascent ventures operating in volatile entrepreneurial ecosystems, which triggers negative emotions in founders. Founder's enactment of protective routines to recover from shock and course correct shape the networks between members, tasks and tools, and the results of these strategic reconfigurations influence the stock and flows of learning within nascent ventures. This overall process influences how founders adapt to volatility and learn under uncertainty. The interactions underlying these processes are characterized as issue identification, emotional separation and subnetwork reconfiguration. The next sections theorize and illustrate each step of the process model with reference to both, the high-level aggregate dimensions and the underlying processes.

Intramural shocks

In early stages of data analysis, I was able to identify emotionally un-detached language used to describe instances of intramural shocks where members of the organization had done something to disrupt or threaten the business. These instances varied across ventures for example, in one case, the third-in-line staff member began to poach clients to set up his own side-practice. In another instance, a close staff member wanted to receive preferential treatment to the point where it disrupted team dynamics within the venture. One of the most common intramural shock was the unexpected departure of a staff member in whom the founder had invested time and resources. I identified negative emotions such as *despair*, *depression* and *sadness* often followed such shocks to the business. For example, Annafi

(pseudonym) described what she felt when her closest staff member betrayed her trust by poaching clients and syphoning them to his own side-practice:

> "I was in a fit of despair because this is someone, I had a relationship with. This is someone that I know, apart from the job. And he's very diligent, actually. He's someone I can rely on… It put me in a state of despair like, "Can I really every get this structured? Can I really ever get people that will be there for me and will not try to betray me?" Because if someone I knew for so long ended up becoming someone that was going to be a betrayer, then how much more someone that I don't even know? It just made heartbroken and having a feeling of despair as to how to get my structure, my team structure firm."

Similarly, Ngozi described how she felt when she almost lost her business due to the trust, she has placed in a staff member. She recalled how the experience came as a shock after which she felt, "I never thought I could come back from that because I got into a bit of depression." Later she emphasized how the experience made her feel, "really, really, really bad." Such instances and others that were described as "very difficult" and "very painful" signalled that disruptions to the business which stem from actions of members in organizational subnetworks are particularly painful for founders and evoke strong negative emotions. However, unlike previous research on emotions which focuses on the emotional costs of venture failure and explores grief recovery after venture closure (Cope, 2005), the findings of this study show recovery from shocks to the current venture, rather than trying to learn from previously failed ventures (Shepherd, 2009). Recovery in this context entails founder led enactment processes that are influenced by negative emotion; despair, sadness, depression and ultimately result in ostensive and performative changes in routines and behaviours of the current organization. Figure 2, diagrams the process model which reflects how negative emotions, following an intramural shock influence three types of founder responses; emotional separation, issue identification and subnetwork reconfiguration.

Figure 2. Process model of organizational protective routines in the aftermath of unforeseen shocks

Shock   **Shake up**

| Intramural shock | → | Negative affect | | Emotional separation | | Issue identification | | Subnetwork reconfiguration |

Disruption: Venture activities are disrupted due to unforeseen issue
- Internal locus of issue within member-task-tool networks
- Founders experience negative emotions; "how could this happen?"

Organizational protective routine I

Emotional separation: Founders exhibit emotional separation through two behaviours:
Masking: inhibit expression of negative emotions associated with shock from members
Selective confiding: founders express negative emotions in front of staff members related to the root cause of the issue

Organizational protective routine II

Issue identification Potential source of disruption is located within member task tool networks
- Founders engage in finding holes in the ship
- Evaluation of how work is structured – gaps in routines

Organizational protective routine III

Subnetwork reconfiguration: changes made in networks between members, tasks and tools

- New flows of knowledge

- Shock experience embedded in routines through new configurations

Organizational Protective Routines (OPR)

Organizational protective routines: Emotional separation

A consistent response to intramural shocks was the separation of emotions from the business, characterized by masking and selective confiding. Founders described their efforts to separate their emotions related to the shock from business activities and did so by; (1) masking their emotions from members of the organization or (2) selectively confiding in key members of the organization. *Masking* emotions entailed actively ensuring that members of the organization remain unaware of negative emotions such as despair and depression, experienced by the founder as a result of the shock. As one founder said, "I tried to separate my emotions from it and the business. So, the business

kept running without people knowing what we had been through." Masking had both ostensive and performative components since founders either suppressed feelings or hid them from others. In one example, the founder described what she experienced and what she expressed as a space that has an "inside and outside." She described how staff members were unaware of her emotional state; "they were even shocked, oh, everything seemed fine from the outside. So, I said, yes, I tried as much as possible not to rub us on how our business procedures run daily." Hence, her emotional experience remained hidden and undetected by members of the organization until she made ostensive and performative changes in business routines at a later stage. Founders also engaged in *selective confiding*, by sharing their emotions with selected members who they either trusted or who were directly responsible for mitigating the situation. Selective confiding, as a response focused strategy, was often done by talking to "one or two people about the challenge," as a way of coping with the shock and to provide continuity to day-to-day business activities. In one instance, selective confiding entailed closed-door meetings with trusted members to express negative emotion and discuss potential changes in the business which could prevent similar shocks in the future.

Organizational protective routines: Issue identification

While suppression does not change emotional experience, it does increase physiological activation as a result of inhibiting emotion-expression behavior (Gross, 2001). Cock, Denoo & Clarysse (2019) also found that expressive suppression combined with low performance, in this case, disruptive shocks, is linked to higher venture survival. This was consistent with my findings as founders reported identifying previously undetected issues in the business after experiencing and suppressing negative emotions. As one founder said, "We are having issues with HR, getting the right people to work with you

and carry out the dream that you have for the business. We have the issue of financing; we have the issue of managerial cash flow…managing all sorts of things." Similarly, in another instance, one of the founders identified issues with hiring practices. According to the founder, incongruency and bad fit between staff and their jobs had resulted in the shock to their business activity when key members of the business exited:

> "In this part of the world, labour is a bit cheap so I capitalize on that and do most things that are labour intensive. It has more value to the overall economy because you're getting people employed, so what we did in the past was like, we had more staff doing different things but now there is a need to change things, the way we were doing because you can't just have, anybody fit into the roles. In the past, anybody could come and just fit into the roles."

Heightened awareness of issues in the business encouraged change-oriented thinking in founders in order to protect the business from experiencing future shocks. Experiencing shocks due to betrayal by trusted members of the organization made one founder identify issues related to vetting staff and monitoring tasks. After describing her despair over being betrayed by someone close to her in the business, she said, "So, I actually believe I need reliable people. I don't even mind if I have to pay the kind of salaries that will accept this kind of talent. If they're able to do the job, they will definitely be able to pay their wages with their work. So, basically that's it."

Relationship between emotional separation and issue identification

The findings of this study contribute to the growing literature at the intersection of emotions, strategy and learning by offering a close-up view of enactment processes and behaviours that result in organizational learning. Research on founder emotions (Teece, 2007; Baron, 2008; Helfat & Peteraf, 2015; Huy & Zott, 2019) has explored the role of emotions during and in the aftermath of venture failure (Cope, 2010; 2003), in career

decision making (Murtagh, Lopes & Lyons, 2011) and emotional regulation behaviours adaptive to strategic change (Huy and Zott, 2019).

Cognitive reappraisal and expressive suppression are the most commonly used emotional regulation mechanisms in people's daily lives and the most relevant to entrepreneurial settings (Gross, 2001; Gross 2013). As a response-focused strategy, "suppression occurs later and requires active inhibition of the emotive-expressive behavior that is generated as the emotion unfolds," (Gross, 2011 p.216). Instances of expressive suppression are coupled with inhibition of expression of negative and/or positive emotions, characterized by controlling emotions or keeping them to oneself (English & Gross, 2013). However, the findings of this study exhibit instances of selective confiding as a behavioral response, in addition to previously explored actions of controlling and hiding emotions from others. During selective confiding, emotions are suppressed in front of some and expressed in front of others in the organization. In many instances, partial expression through selective confiding facilitated problem identification through discussions with trusted organizational members in an effort to protect the organization from disruptive shocks in the future. These discussions with a small group of trusted members allowed the exchange of information about organizational issues, which included explicit knowledge about what went wrong and previously tacit knowledge about potential issues which were made explicit during discussions (George & Zhou, 2007).

Gloria described how her business experienced a setback when they decided to use an IT platform for marketing which used resources and didn't deliver any results. She chose to engage with her marketing team instead of communicating the setback across all members of the organization, "I just called in my marketing guy and the assistant to discuss what went wrong. It was really painful because we had spent a lot of

money and time on this, but we didn't realize the market here, it's not ready for the things we're selling. But I didn't want the others to know." Such instances of selective confiding often helped in issue identification in consultation with relevant members of the organization which led to enactment processes within the same organization.

Previous work on issue identification identified affective pathways which demonstrate that negative affect signals that things are not running in an optimal way and need improvement, which supports issue identification but not necessarily implementation or proactive action (Sonnentag & Starzyk, 2015; Bindl, 2019). However, previous work has explored this is the context of employees, whereas the findings of this study focus on founders, who may be better positioned to implement action such as reconfiguring subnetworks within their ventures, which is discussed below.

Organizational protective routines: Subnetwork reconfiguration

Emotional separation and issue identification facilitated the decision to enact strategic changes in the aftermath of shocks. Disruptive experiences not only contributed to the organization's stock of knowledge, but also encouraged founders to reconfigure the routines within which knowledge had been embedded. Reconfiguring subnetworks between members, tasks and tools lead to improved fit within the organization but also new kinds of alignments between what tasks were to be done, by whom and how. These reconfigurations in member-task-tool subnetworks reflected new internal flows of knowledge which contributed to organizational learning. Overall, there were 21 instances of subnetwork reconfiguration as performative changes in routines which were visualized using NVivo by linking open codes to axial codes for each subnetwork (Figure 3).

Figure 3: illustration of 21 subnetwork reconfiguration within member-task-tool networks across 7 nascent ventures

	Member (M)	Task (Tk)	Tool (Tl)
Member (M)	M-M (3)	M-Tk (10)	M-Tl (-)
Task (Tk)	-	Tk-Tk (3)	Tk-Tl (4)
Tool (Tl)	-	-	Tl-Tl (1)

Subnetwork reconfiguration: Task-Tool subnetwork

The task-tool network specifies which tools perform which tasks (Argote & Ophir, 2017). There were four instances of changes in task-tool networks in which founders either introduced new tools to perform existing tasks or changed the way tasks were carried out. Toy, a founder of a growing catering company employs a small team of part-time workers and a full-time assistant. She introduced a system of incorporating client feedback in her daily task management and delivery. In her case, she used daily client feedback as a tool to improve the tasks she and her staff members performed, stating, "before I get to work, my staff is already here, she [my assistant] is already sorting things out. We plan the previous day what we are going to do the next day. She already knows what to do. There is a system, there is an order to how things are supposed to be done – what we cook first, what we cook next, based on customer's demand. We had to change so many things that we started with, based on what [customers] ask for." Even though members of the organization remained the same, her

system of using client feedback as knowledge input for revising how tasks were planned and performed every day changed the task-tool network since tasks were incrementally improved based on client feedback.

Founders often used trainings as an organizational tool to improve task clarity and performance. One founder said, "the people that work for me in the past few months, I've been able to train them such that I can go out and do other things. I can strategize, I can plan, I can think of how to make things better. I'm not just sweating it out in the kitchen." Training staff members to take on more roles and responsibilities allowed founders to prioritize other tasks for which they were better suited. Another founder who managed an urban landscape firm mentioned how she regularly conducted trainings to keep her staff aligned with her strategic vision for the venture; "I changed, I just made sure that all my documentation, everything is in place and I always have trainings with my staff, like a monthly training to keep them aligned with what I'm also doing and to keep them in the loop."

Subnetwork reconfiguration: Member-Task subnetwork

There were ten changes in the member-task network such as retraining staff members to work without supervision, monthly trainings to align staff members with goals of the business and regular meetings with staff members to clarify tasks. These changes reflected new ways of doing things by either changing the tasks or by changing the way members performed those tasks. One founder introduced job descriptions to ensure that members were aware of their roles and the tasks assigned to those roles. Job descriptions served as tools for the organization so that tasks could be performed, and work deliverables monitored, as specified in the job description at the time of hiring. Introducing job descriptions ex post facto forced founders to critically think of every

member's role in the organization in terms of task deliverables which could be monitored on a regular basis. One founder, Fed, described this as:

> "What I do, I [now] have a job description for each of the staff. So, each staff knows what they need to do on a daily basis. So, the job description put them on that path and I always advise them, also there is daily tasks like maybe, sometimes, I allocate it to my staff, this on their job descriptions, what if they coordinated, what we all do together so, this and that, they know exactly what needed to be done."

Such changes in the member-task networks improved the fit between what tasks were done and which member was best suited to do them. This was critical to create congruency between what a member was doing and what needed to be done in the organization.

Subnetwork reconfiguration: Member-Member subnetwork

Finally, there were 3 instances of changes in member-member networks which were closely related to the culture of the organization. Changes in member-member networks involved hiring new employees, introducing new routines that were more inclusive and allowed members to participate in decision-making. Founders reported to be overwhelmed by the tasks they had assigned themselves and shared intentions to bring more people into the organization; "Changes, yes. I actually am overwhelmed by how my business is running right now. So definitely the restructuring it has to come very soon. So we are thinking of hiring now, we are going to hire in June, because we really need to put that structure in place." One founder reported how she identified employee retention as a problem and worked to motivate her employees by allowing them to feel that they were part of the growth of the

organization. This meant that if the business did well, they too would benefit from it; "when your staff are motivated, when they feel fulfilled with the job they are doing, when they feel they are not just working to make you reach up but their lives are getting better while they are working for you. That's when they will so anything to make sure that you are successful and it was one turning point for me." Similarly, by reconfiguring member-member subnetworks, founders were able to change how ideas and knowledge were communicated within the organization. Anu, described how she now allows employees to give their feedback on the viability of new ideas; "what I do is that I write up this fresh idea, bring it to the table, I let my other colleagues, my workers know about it and have their opinion, what they think about this idea about how we should move forward with it. So, whatever they bring to the table, we all look at it, then if it is actually a good idea, we implement it." Such changes in the member-member subnetworks created new knowledge flows within the organization, allowing members to communicate more openly about tasks.

Subnetwork reconfiguration: Tool-Tool subnetwork

There was one change in the tool-tool network related to a software upgrade for accounting. One founder reported upgrading her accounting software to make it user friendly for her staff; "like the once, I used to, for the accounting before, I was using a different accounting software that just carry out some setting functions, but now I've upgraded to a different one that I am using that is more flexible like the person that is inputting the data is also being able to analyze data, make it fast and easier and that's how I change in that direction." Such changes were few since most start-ups did not require data or performance management software which would need regular upgradation. Hence, tool-tool networks remained relatively untouched by founders who relied on their personal connections with members to reconfigure subnetworks.

Organizational learning through subnetwork reconfiguration

Subnetwork reconfiguration as changes in the member-task-tool networks represented key organizational learning processes. Disruptions in the business encouraged founders to access organizational knowledge in two salient ways; (1) by accessing their own experiential knowledge to make changes and (2), creating new knowledge flows amongst members to transfer and store knowledge in new routines.

Founders are often the first members of a nascent venture and as repositories of knowledge (Argote, 2011), have the deepest insight into the history of the organization. Disruptions in the business often trigger questions such as, "what am I doing wrong?" and "how did I let this happen?" which encourage founders to access their personal stockpile of organizational knowledge. In several instances, these introspective moments encouraged founders to limit the number of hats they wore towards delegating tasks to other members of the organization. This was often followed by bringing key members together to share knowledge that was previously stored in individuals but not transferred amongst them. Weekly discussions with members created new knowledge flows which utilized organizational knowledge stored in individual members and contributed to a common stockpile of organizational knowledge.

Sub-network reconfiguration, in twenty-one instances, was enacted as a result of changes in the personal stock of knowledge of founders. In terms of routines (Feldman & Pentland, 2003), new experiential knowledge changed ostensive routines i.e. how founders felt about the shock, while subnetwork reconfiguration represented changes in performative routines. Taken together, changes in member-task-tool networks represented the flow of knowledge across organizational levels, from individual to group and eventually, the organization.

TABLE 1 Illustrative quotes from qualitative data

Process step	Second order category	illustrative Data
Intramural shock		The founder of Alpha, Annafi, described how a staff member tried to poach clients using work from her portfolio: "The person almost stole my business. He was third in line. So, he was in charge of execution, basically supervising the temporary workers to educate the jobs and he was a middleman to many things, but I never took him for executive meetings or things like that. But, what I discovered was that, on one of those days, I just stumbled on something on his laptop where I saw him writing something. So, I was like, "Ah, what is this?" And I now went to the design folder, and I realized that they were my jobs but he would put his name on the adverts. He was overseeing 24/7, so he was able to interact with people He's the first one to contact. So, maybe a couple of people had come and said, "Oh, this work is nice," and he had collected their contracts, and I don't know what he was thinking."
		The founder of Beta, Bet, also described how a staff member wanted to be treated like the CEO which disrupted the team: "She was my assistant then and I considered her the most efficient staff, she came in very handy. She knew how to be proactive and just do her job, but she wasn't getting along with the rest of the team. She felt she was indispensable, she felt she was there first before the team. She felt they should accord her some kind of respect that they accord to me and her character wasn't…it was going to upset the rest of the people. She thought she could behave the way she was behaving with the rest of the team or should be treated the way they treated me. So, I didn't want her character to affect the rest of the team."
		Bet also described how she nearly lost her business when she diversified from retail to export, trusting someone (not staff member) to help her with the shipment: "The opportunity came and so we took up some and then diversified, hoping that we'd put it back in, but that didn't work out. He consolidated the shipment. It was supposed to be a lone shipment, but he charged us for a lone shipment and then went ahead to consolidate it. So, by consolidating the shipment, it gets mixed up with other goods. So, we had that as a setback, the things are still at O. R. Tambo Airport they haven't been seized, but they're still being checked and that's been many months now, so we're not sure. We've counted our losses and we've moved on."
Negative affect		*Despair*: Annafi described what she felt when her closest staff member betrayed her trust: "I was in a fit of despair because this is someone, I had a relationship with. This is someone that I know, apart from the job. And he's very diligent, actually. He's someone I can rely on… It put me in a state of despair like, "Can I really every get this structured? Can I really ever get people that will be there for me and will not try to betray me?" Because if someone I knew for so long ended up becoming someone that was going to be a betrayer, then how much more someone that I don't even know? I just scout them via advertisement or stuff like that. How am I sure that they're going to be okay? …It just made heartbroken and having a feeling of despair as to how to get my structure, my team structure firm."
		Depression: Bet described how she felt after almost losing her business: "I never thought I could come back from that, because I got into a bit of depression and I was trying to cover it up from the rest of my team, but I was seriously affected. Just not affected to the point where I will throw in the towel no, but I felt really, really, really bad because here we are looking for support and then the little that we have is being tied down somewhere and we might never get it back, so that affected me a lot, but I tried as much as possible so that it doesn't affect the business. I tried to separate my emotions from it and the business."

Issue identification		"Well, before the training, we had just, well, in this part of the world, labour is a bit cheap so I, I capitalize on that and do most things that are labour intensive. It has more value to the overall economy because you're getting people employed, so what we did in the past was like, we had more staff doing different things but now with the training there is a need to change things, the way we were doing because you can't just have, anybody fit into the roles. In the past, anybody could come and just fit into the roles." "We are having issues with HR, getting the right people to work with you and carry out the dream that you have for the business. We have the issue of financing; we have the issue of managerial cash flow, managing your family, managing the kids, managing extended family, managing all sorts of things." "So, I actually believe I need reliable people. I don't even mind if I have to pay the kind of salaries that will accept this kind of talent. If they're able to do the job, they will definitely be able to pay their wages with their work. So, basically that's it."
Subnetwork reconfiguration	Member-Task subnetwork	"Before I get to work my stuff is already here, she is already sorting things out. We would have planned the previous day what we were going to do the next day. She already knows what to do. There's a system of, there's an order of how things are supposed to be done, okay what do we cook first, what do we cook next to what comes after that based on the customers' demands." "Sometimes, you train people, but you get to also focus on your own business and also do the right thing. The training in Road to Growth was actually like, "Okay, it also involved business processes, how to manage your business, how to plan." They took us through business planning and they took us through business planning and how to source for funds if you want to source for fund and the necessary documents to have to source for fund and naturally, everything I was trained out there is actually things that I'm also giving out to other people too. It is aligned to my kind of field already; the training went into Road to Growth. It wasn't new to me, but I just added to what already I have. So, that is what I'm also giving to people. [overlapping] [indiscernible] [0:12:00]."
	Member-Member subnetwork	"Changes, yes. I actually am overwhelmed by how my business is running right now. Because I am only doing two projects and it's so overwhelming. I'm imagining when I have 10 projects at the same time. So definitely the restructuring it has to come very soon. So we are thinking of hiring now, we are going to hire in June, because we really need to put that structure in place." "What I do is that I write up this fresh idea, bring it to the table, I let my other colleagues my workers know about it and have their opinion, what do they think about this idea about how we should move forward with it. So, whatever they bring to the table, we all look at it, then if it is actually a good idea, we implement it."
	Member-Tool subnetwork	"Number one, my book keeping. I have been very, very, religious about book keeping. Yes, that's number one. I've been very religious about my book keeping because I intend to use my book keeping to develop my financial, you know, my financials at the end of this current project I'm doing. I have two projects I am currently working on so I intend to use my book keeping to you know, come up with my financial statement for this current job. That's the number one thing."
	Task Tool subnetwork	"What I do, I have a job description for each of the staff. So, each staff knows what they need to do on a daily basis. So, the job description put them on that path and I always advise them, also there is daily tasks like maybe, sometimes, I allocate it to my staff, this on their job descriptions, what if they coordinated, what we all do together so, this and that, they know exactly what needed to be done."
	Tool-Tool subnetwork	"Like the once, I used to, for the accounting before, I was using a different accounting software that just carry out some setting functions, but now I've upgraded to a different one that I am using that is more flexible like the person that is inputting the data is also being able to analyze data, make it fast and easier and that's how I change in that direction."

DISCUSSION

This study explored how founders of nascent ventures learn from internal shocks. The main findings suggest that negative emotions serve as a mechanism for organizational learning during recovery from shocks in nascent ventures. These negative emotions are triggered by intramural shocks and lead to enactment processes by founders to recover the venture from shock and protect it from future disruptions. In effect, "how did this happen?" was prompted by the experience of negative emotions such as despair, sadness and depression and was followed by "what did we do wrong?" and "what needs to change?" The process of recovery is a change-process enacted and made apparent by emotional separation, issue identification and subnetwork reconfiguration. These processes shape the interactions between the three fundamental elements of organizations; members, tasks and tools, which also serve as repositories of knowledge, to protect the organization from future disruptions. By enacting recovery processes, founders embed their experience in these repositories thereby contributing to the stock of organizational knowledge, while new patterns of interaction between members-task-tool networks create new flows of knowledge across organizational levels i.e. organizational learning. The primary contributions of this study are to intraorganizational learning and recovery.

A key finding from the study was that in response to internal threats, nascent ventures led by founders, rapidly learn about their own organization through organizational protective routines. This is in contrast to previous work on organizational defensive routines - policies or actions that prevent organizational players from experiencing embarrassment or threat – and are activated when an organization detects a problem (Argyris, 1999). The primary difference is that organizational defensive routines are often about external threats and are inherently anti-learning since they (1) are designed to cover errors instead of identifying

sources of the error and (2) prevent new knowledge from contributing to the stockpile of organizational knowledge. It follows that defensive routines inhibit flow of knowledge across levels of the organization.

The findings of this study contribute to the current literature on routines and intraorganizational learning in two salient ways. Primarily, founders embed their experience into organizational processes by the reconfiguration of member-task-tool networks. This not only contributes to the organizational stock of knowledge but also creates new flows across levels of the organization as changes are made and enacted at the individual, group and organizational level. This suggests that new patterns of interaction i.e. routines, in the aftermath of shocks are enacted to protect the venture and are inherently pro-learning.

Secondly, in addition to subnetwork reconfiguration, the data in this study shows how founders actively try to identify sources of errors in an effort to course-correct. Unlike defensive routines, protective routines allow the organization to learn from its own experience by embedding new patterns of interaction within member-task-tool networks. This divergence from extant theory on organizational defensive routines may be attributed to the size of the organization being studied. Previously, defensive routines have been studied in the context of large organizations with high levels of codification, which potentially inhibit the flow of learning across levels (Argyris, 1999). Nascent ventures, on the other hand, are relatively unstructured and can rapidly respond to shocks by identifying issues and reconfiguring subnetworks accordingly. This not only embeds experience in processes but also creates new flows of learning within the organizational learning system of the venture.

These findings provide the opportunity to join insights from organizational learning and routine literatures, to explore the primordial organizing processes of new ventures operating under uncertainty. Qualitative inquiry into founder experiences has generated new insights into purposeful enactment processes through which protective routines come into

being which are central to the underexamined story of venture survival. Additional research can contribute to this study by the development of survey tools to understand the differentiating characteristics between defensive and protective routines at multiple organizational levels (Argote and Ophir, 2017; Argote, 2011).

Another contribution of this study is to the literature on emotions in entrepreneurship, which in this model serves as a mechanism for intraorganizational learning. Emotions are increasingly attracting interest both theoretically and practically due to their influence on entrepreneurial behaviour and performance (Cope, 2010; Shepherd, 2005). Narrative approaches to emotions in entrepreneurship (Garud et al., 2011) have explored how entrepreneurs make sense of unusual experiences without paying much attention to the process by which, (1) founders enact changes and (2) embed emotional experiences in organizational repositories. As architects of organizations, founders are continuously in the processes of organizational making and do so by embedding their experiences in organizational structures. Although this research was focused on extreme cases from volatile ecosystems where founders and nascent ventures are constantly exposed to shocks and threats, the findings of this study have deeper and broader implications for intraorganizational learning and venture survival. In particular, how founders are able to create new flows of knowledge by converting their individual experiences, triggered by emotions, into knowledge embedded in member-task-tool networks (group level), which then result in organizational level changes.

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Chapter 4

INTRAORGANIZATIONAL KNOWLEDGE TRANSFER: AN EXPLORATION OF COGNITIVE AND AFFECTIVE PATHWAYS IN NASCENT VENTURES.

Tanveer. L

INTRODUCTION

"Can you hear me?" On the second floor of a commercial building in Lahore, sitting in a five foot by eight foot studio, Sairah waves at the camera on top of her monitor. It is 11 a.m. and her physics lesson has just started. 400 kilometers south of her studio, in Alipur – one of the most underdeveloped regions in Pakistan - her students are watching her on a screen in their classroom. Next door, three other studios are now live. English at 11:30 a.m. – can you hear me? Chemistry at 12:30 p.m. – can you hear me? Mathematics at 1 p.m. – can you hear me? Together, in the span of three hours, Medakas teachers have delivered lectures to 120 students in four subjects across three remote locations.

Medakas' well-oiled routines are the result of a circuitous innovation path, marked by multiple pivots in response to market research, consumer feedback and unforeseen shocks (Reiss, 2011; Blank, 2013; McDonald & Gao, 2019). Nascent ventures often begin in unpredictable markets in which they balance liabilities of newness (Stinchcombe, 1965; Bruderl & Schussler, 1990) with the exploration of value-creating opportunities for growth (Bingham, Eisenhardt & Furr, 2007; Rindova & Kotha, 2011). De Geus (1998) suggests that the only way organizations can maintain their competitive advantage is to learn faster than their competitors. Hence, founders often pay close attention to the environmental context characterized by, (1) environmental signals; shifts in competition, consumer feedback and technologies (Baker & Nelson, 2005; Beckman 2006; Gruber, MacMillan & Thompson, 2010), and (2), environmental players such as similar organizations from whom they can 'borrow' experience (McDonald & Eisenhardt, 2019) to compensate for their 'newness' while making strategic adjustments to their own organizational routines, processes and the underlying knowledge structures (Argote 2003; Argote & Miron-Spektor, 2011). Despite

their seeming disadvantage, nascent ventures pivot rapidly and frequently while overcoming cognitive and emotional barriers to knowledge transfer.

Unlike mature organizations where knowledge transfers result in incremental refinement of knowledge resources based on known responses to prior experience (Garud, Dunbar & Bartel, 2011), knowledge transfer during strategic reorientations in nascent ventures can lead to radical changes in the organization (Gatignon, Tushman, Smith & Anderson, 2002). Similarly, virtuous characteristics of inter-organizational knowledge transfers in large organizations can create impediments for intraorganizational knowledge transfer within nascent ventures. For example, information asymmetries between competing organizations can inhibit imitability and be a source of competitive advantage (Lippman & Rumelt, 1982; Spender & Grant, 1996; Simonin, 1999). However, informational asymmetries between founders and employees in nascent firms can be a cognitive impediment to knowledge transfer, due to causal ambiguity; the lack of understanding of the causal pathway between an action and its performance outcomes (Szulanski, 1996), which can lead to suboptimal decisions (McEvily, Das, & McCabe, 2000; King & Zeithaml, 2001; Cording, Christmann & King, 2008), create uncertainty among employees and managers (Barney, 1991; Coff, 1997) and eventually prevent the organization from learning (Huber, 1991; March & Olsen, 1975).

However, strategic reorientations are not merely cognitive experiences for organizational members. A new stream of innovation research on emotions (Giorgi, 2017; Massa et al., 2016; Voronov & Weber, 2016) offers perspectives on how new organizational practices can be perceived as threats by organizational members (Giorgi, 2017) such as engagement in tasks beyond normative requirements (Clawson & Haskins, 2000) and how top management teams can increase the likelihood of innovation adoption by coupling flexible cognitive frames with emotionally resonant narratives (Raffaeli, Glynn and

Tushman, 2019) to garner support for new products (Massa et al., 2016) and neutralize negative emotions associated with perceived threats (Giorgi, 2017).

The purpose of this study is to explore cognitive and emotional experiences of intraorganizational knowledge transfer across three organizational groups - founders, managers and employees. I build upon the foundation of prior work on knowledge transfer in the context of organizational learning, but deepen its focus to consider a theoretically and practically important question: *How do nascent ventures overcome cognitive and affective barriers to knowledge transfer?* To answer this question, I adopted an interpretive perspective in order to generate insights that emanated from the knower, were personal and context specific. This led to the use of qualitative methods and, in particular, thematic analysis in order to surface taken-for-granted phenomenon (Ambrosini and Bowman, 2001) and develop in-depth understanding of experiences in real settings (Eden et al., 1981). I conducted an inductive longitudinal study of a single enterprise over the course of eleven months to observe the sequence of events as they unfolded over time (Pettigrew, 1990). The venture, Medakas, operates as a mission-driven business in the education technology sector, led by a team of founders who design and execute its hybrid strategy for performance and social impact. Between December 2018 and September 2019, Medakas pivoted four times which created a rich organizational setting to explore how intraorganizational knowledge transfers were experienced by three different groups of organizational members.

The emergent process model contributes to the literature on knowledge transfer in two main ways. First, it expands the domain from top management teams to multiple organizational groups. I identify how intraorganizational knowledge transfer is experienced across multiple groups and its implementation engages founders, managers and employees in complex strategy work to overcome barriers; causal ambiguity and negative emotions experienced during periods of strategic reorientation. Second, I extend the domain of

knowledge transfer by surfacing emotional experiences and pathways. I theorize how negative emotions can become emotional impediments to intraorganizational knowledge transfer in nascent ventures and how organizational groups use emotional appeals (Lau-Gesk & Meyers-Levy, 2009) to neutralize negative emotions and garner support for strategic reorientations.

THEORETICAL BACKGROUND

Strategic reorientations are common during early stages of venture creation to achieve optimal distinctiveness (Navis & Glynn, 2010), create and capture value (Amit & Zott, 2012), rapidly test hypotheses about initial business models (McDonald & Eisenhardt, 2019; Massa, Tucci & Afuah, 2017) and ultimately reduce uncertainty in nascent markets (Brown & Eisenhardt, 1997; Santos & Eisenhardt, 2009; Hiatt & Carlos, 2018). Drawing from child development literature (Parten, 1932), McDonald and Eisenhardt (2019) have developed the theoretical framework of parallel play - a dynamic process for learning about a novel environment akin to how "pre-schoolers learn about a new world," (p.29). The framework posits that nascent ventures rapidly prototype their minimally viable products by learning from peers, resulting in refined products with legitimate features borrowed from established firms. However, being a part of a rapidly pivoting organization can be disorienting since nascent ventures in uncertain environment have the double burden of managing knowledge transfer challenges such as stickiness (Szulanski, 1996) and liabilities of newness such as lack of legitimacy (Stinchcombe, 1965). Hence, despite their virtuous tendencies towards value creation and learning, strategic reorientations can present internal implementation challenges for the nascent venture.

Research on organizational learning has paid particular attention to the three subprocesses of knowledge creation (Lang et al., 1992; Paulus & Yang, 2000), knowledge transfer (Argote et. al.,1990; Szulanski, 1996; Larson, 1996) and knowledge retention (Carley, 1992; Argote et. al., 1990). When experience interacts with the environmental context, it produces knowledge. This knowledge is then transferred to the active context of members, tasks and tools of the organization (Argote & Miron-Spektor, 2011). Knowledge characteristics determine the extent and ease with which knowledge can be transferred in four stages of initiation, implementation, ramp up and integration (Szulanski, 1996). Challenges in managing knowledge transfer manifest during implementation when new knowledge resources begin to flow between recipients and sources which may be perceived as threatening (Rogers & Rice, 1980) or low in demonstrability (Kane, 2010).

More specifically, knowledge demonstrability determines how knowledge is transferred based on the extent to which merits of the knowledge are recognizable (Kane, 2010). High demonstrable knowledge with known merits requires less consideration and hence, is likely to be adopted. Knowledge with concealed merits is likely to be hindered by organizational members and result in negative consequences for the organization. Similarly, work on stickiness (Szulanski, 1996, 2000; Szulanski & Cappetta, 2003) indicates that eventfulness and causal ambiguity are important determinants of intraorganizational learning. Other things being equal, transfers that involve non-routine problems will be perceived as the most eventful and the most problematic by recipients of the new knowledge. Implicit in the notion of eventfulness is the ad hoc nature of knowledge transfer which is likely to result in costs being exceeded and member expectation not being met (Szulanski, 1996). How organizational members perceive the implementation of knowledge transfer during strategic reorientations is determined by some of these knowledge characteristics.

Research at the intersection of organizational change and entrepreneurship has offered several perspectives on how this "messy" phenomenon unfolds (Brown, 1998; Creed, Scully, & Austin, 2002; Dawson, 2005). While failing fast and often is a mantra for new ventures (Reis, 2011), rapid changes can also signal lack of organizational structure (Bruderl & Schussler, 1990), threaten legitimacy and reduce access to resources from external constituencies (Smets, Morris & Greenwood, 2012). Hence, nascent ventures convey knowledge gained during change (Fletcher, 2003; Gartner, 2001; Goss, 2005), to external audiences such as media, investors and customers (Fisher, Kuratko, Bloodgood & Hornsby, 2017; Pahnke, Katila & Eisenhardt, 2015) through social process and interactions which involve persuasion by establishing personal credibility and passion (*Rao, 1994*; Simpson et al., 2013; Zott & Huy, 2007).

Emotions can play a powerful role in gaining endorsements from skeptical audiences (Boje & Smith, 2010; Giorgi, 2017). Emotions such as passion have been previously studied as situated performances that relate to a valued goal and unfold in specific contexts (Simpson, Irvine, Bata & Dickson, 2015). In order to manage relations with stakeholders during strategic reorientations, entrepreneurs engage in emotion work through performances that channel passion and authenticity (Simpson et. al., 2013; Holmquist, 2003) or narratives that provide stability and/or change in the organization (Vaara et al., 2016). From a social constructionist perspective, emotions are "interactionally generated" experiences through which entrepreneurs (a) persuade audiences of the legitimacy of the organization or a consumer product (Andrade and Cohen 2007; Boje & Smith, 2010) or (b) conform to expectations to attract support and resources (Carter & Jones-Evans, 2006).

Prior research on the emotional dimension of entrepreneurial behaviour (Fineman, 2008; Lau-Gesk & Meyers-Levy, 2009), has explored the use of emotional appeals, a form of communication which evokes emotional reactions in audiences and influences their attitude

and behaviour (Lau-Gesk & Meyers-Levy, 2009). For example, Han and Ling (2016) found that emotional appeals conveyed powerful messaging about organizational images which attracted applicants who perceived a fit with the organization. Emotional appeals can convey mixed valence – both negative and positive emotions – or remain pure as either positive or negative, which influences the degree to which audiences respond to the appeal (Lau-Gesk & Meyers-Levy, 2009). While existing research on emotional appeals has largely been in consumer behaviour and advertisement, it has relevance in its application to the context of nascent ventures that need to influence the attitudes and behaviours of internal audiences.

Moreover, little attention has been paid to internal audiences (Pontikes, 2009) i.e. organizational members who are influenced by and influence the process of organizational learning as it unfolds during pivoting. Extant research has largely focused on top management teams in large organizations (Edelman, 1990; Raffaelli, Glynn & Tushman, 2019), the implementation of top-down change initiatives (Kellogg, 2009), or sense-making roles within top-management (Dobbin, 2009; Gioia & Chittipeddi, 1991), "as a process whereby the CEO makes sense of an altered vision of the organization and engages in cycles of negotiated social construction activities to influence stakeholders and constituents to accept that vision" (p.434). More recently, there have been efforts to integrate theorizing of organizational processes at multiple levels such as the role of middle managers in strategy work (Balogun and Johnson 2004; Smets, Morris & Greenwood, 2012; Giorgi, 2017) and frontline employees in change implementation (Sonenshein & Dholakia, 2012). Hence this study explores how organizational learning processes unfold across multiple levels of nascent ventures during strategic reorientations.

Jointly, these diverse streams of research have yielded important insights into the processes that underpin learning and reorientation. However, they remain incomplete. If nascent ventures rapidly pivot, they also risk incurring penalties from audiences invested in

their growth due to their liabilities of newness (Aldrich & Fiol, 1994). However, it remains unclear how nascent ventures with limited resources rapidly and frequently implement and overcome challenges associated with knowledge transfers. In sum, extant research leaves several questions unexplored. How do organizational learning processes unfold in nascent ventures? How do ventures manage reorientation penalties from organizational members? How do emotions influence organizational members' experiences of reorientations? These are the questions this study addresses.

METHODS

To develop an understanding of experiences in the process of organizational learning during strategic reorientations, I used an inductive research design (Eisenhardt, 1989; Yin, 2013). Inductive methods are appropriate for exploring theoretical questions that have previously been overlooked. More specifically, they allow the development of mid-range theory – low in generalizability but high in specificity - while maintaining the richness of the cases (Battilana & Dorado, 2010). The research design complemented the interpretivist approach to data collection and analysis that involved an iterative process of alternating between data collection, data analysis, and theorizing (Strauss and Corbin, 1998). However, given the back and forth between data and theory, the overall design was more abductive in its logic (Mantere & Vaara, 2008). The qualitative data collected in the field was useful for elaborating theory on complex processes (Lee et al., 1999).

Research context

The study took place at Medakas, a social enterprise based in Pakistan in the educational technology sector. It began operations in 2017, with a mission to leapfrog traditional constraints of geography and affordability to make education accessible by streaming their

content through social media platforms and community-based connected classrooms. Primarily, Medakas distributes content through two distribution channels, (1) an ad supported YouTube library of on-demand learning videos, and (2) Facebook Live Classrooms, which provides higher levels of interaction and support. Medakas' Edupreneur model allows independent education entrepreneurs, referred to as 'Edupreneurs,' within the organization, to own and operate connected classrooms that screen Medakas' learning streams using smart projectors. These Edupreneurs then provide access to students in the community> for a low monthly fee. Currently, there are thirty-four centres across Pakistan that operate under the Edupreneur model.

In the last two years, Medakas attracted investment from multiple stakeholders including donors in the development sector who identified with its social mission. It also underwent multiple strategic reorientations as a function of its experience and in response to market research, consumer demand and donor feedback (Diagram 1).

Diagram 1. Timeline of pivots

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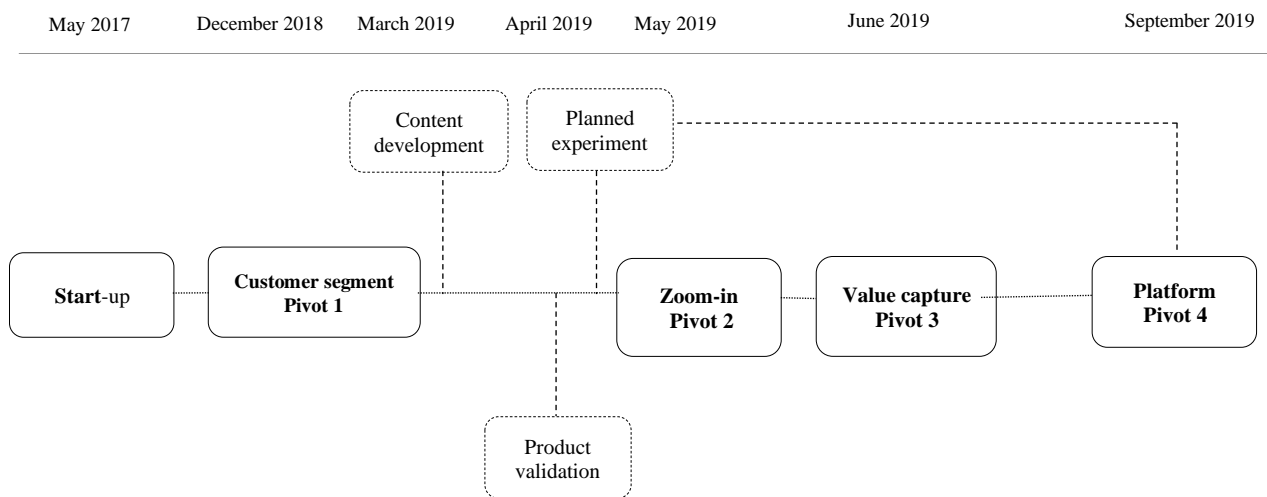
Through observations and interviews, I learned that experiences of strategic reorientation varied across different groups in the organization. Specifically, founder experiences of reorientations were different from those of managers and employees, as were the emotions experienced during those periods. For example, the first major pivot was initiated in December 2018 by founders after conducting market research on the scope of online-education platforms in Pakistan. Insights suggested a shift in strategy based on market demand and consequently, the founders decided to shift from teaching students in 12th grade to those in 10th grade. This required changes in the member-task-tool networks (McGrath & Argote, 2001) of the organization i.e. organizational learning, since employees had to develop content for a new segment and in many cases work extra hours to meet internal deadlines. While founders expressed positive emotions such as excitement and passion regarding the change, employees recalled feeling frustrated in the immediate aftermath. Managers often served as bridges between the two groups, communicating the rationale for the shift. Over the course of eleven months, Medakas underwent four such pivots, two of which are explored in detail in this study.

Against this background, the organizational context of a pivoting organization was rich and interesting to explore the role of emotions, the penalties incurred and the strategy work that took place across organizational levels as organizational learning processes unfolded (Argote, 2017). Theoretical sampling (Strauss & Corbin, 1998) for this study included members at all levels of the organization. Hence two co-founders, two managerial employees ("managers"), two technical staff members and five frontline employees, which in this case were teachers (referred to as "employees"), participated. Participant ages ranged from 21 to 35 years, of which 60 % were female and 40% were male. These figures were representative of the organization at the time of the investigation.

Data collection

The empirical material used for this study included twenty-three face-to-face interviews with twelve informants in two rounds of data collection five months apart, for depth and to better understand the longitudinal character of how processes unfolded over time (Table 1). All members of the organization were invited to take part in interviews and were assured confidentiality to the extent that findings from the interview would be presented to the organization without disclosing their identity. Typically interviews lasted 45 minutes and were conducted bilingually in English and Urdu. All interviews were recorded and transcribed. Translations were done by the researcher to retain the richness of the data.

Table 1. Interviews across organizational levels

	Organizational group			
	Founders	Managers	Technical	Teachers
Interviewees (N)	4	4	5	10
Round 1	2	2	3	5
Round 2	2	2	2	5
				Total 23

Interviews followed a semi-structured protocol (Seidman, 1991). Some event-specific questions were predetermined but the interviewer was able to follow up to probe more deeply into informants' experiences (Bindl, 2018). The main idea was to allow the informant to freely describe his/her views on strategic reorientation while gathering specific information using nondirective questions focused on events (Huber and Power, 1985). The questions in the outline focused on; (1) the informant's role in the organization and his/her daily routines (e.g. What does a typical day at work look like? What responsibilities do you have on a day to day basis?), (2) the informant's perception of strategic reorientation and its impact on the organization (e.g. Do you think Medakas has changed since the time you joined? If so, how

has it impacted your work?) and (3), the informant's experience during strategic reorientations (e.g. How did you find out about the new direction set for the organization? How did you feel when you found out?). These questions were adapted to specific categories of informants i.e. co-founders, managers and employees.

I conducted seventy-two hours of overt, non-participant observations (Whyte, 1979). This included sitting in an open-floor plan and interacting with co-founders, managers and employees as they carried out their routine work, which helped me familiarize myself with the culture of the organization. I also observed meetings with partner organizations and investors which were led by co-founders and sensitized me to the venture's strategy processes. Most importantly, I observed an internal bi-monthly meeting during which co-founders discussed customer feedback with employees and shared organizational targets and outputs. These observations were also helpful for clarifying interview data and to understand the work lives of informants. In addition, several informal meetings took place with co-founders, managers and employees during which confidential material was shared regarding the venture's business model and implementation strategy. These multiple sources of empirical material were useful for data triangulation (Denzin, 1970).

Several steps were taken to ensure data validity. First, both retrospective data and real-time data were collected on strategic reorientations that took place in the organization (McDonald & Eisenhardt, 2019). The second round of data collection took place as the venture was going through a period of strategic reorientation, unlike the first round when the strategic reorientation had already taken place, hence this data minimized retrospective sense-making (Huber & Power, 1985). To improve accuracy, the interview protocol avoided leading questions such as "Did you react negatively/positively to the change?" or speculative questions such as, "Why did another organizational member react differently?" Third, interviews covered a wide range of informants, including founders, managers - creative as

well as administrative - and teachers responsible for delivering content. This approach was used to produce a more complete and accurate organizational picture than what could be produced by interviewing a single category of organizational members (Kumar, Stern & Anderson 1993). Overall, I transcribed 23 interviews over two rounds of data collection. These interviews were uploaded to NVivo 11 – a data management software that allows segmented coding of data as well as data visualizations. Additionally, to triangulate data, I uploaded observational memos which covered 72 hours of observation.

Data Analysis

I analyzed the data in three stages. In stage 1, I consolidated interview transcripts, memos and observational notes into NVivo. I began with a general reading of the interviews from round 1 of data collection to sensitize myself to the data before starting to code. This was useful since it (1) allowed me to take note of the similarities and difference in accounts of experiences among different groups of organizational members and (2) do additional translation work to fill in the gaps in the transcripts and accurately capture meaning. Next, I began open-coding interviews in NVivo while closely adhering to informant terms (Strauss & Corbin, 1998; Gioia, 2013) to capture dozens of actions, changes, thoughts and emotions in the words of informants, to generate a compendium of first-order codes. During this stage, several themes emerged which resonated with existing literature on emotions and learning, hence I adopted a constant comparative method (Glaser & Strauss, 1967) and went back and forth between the emerging codes and literature.
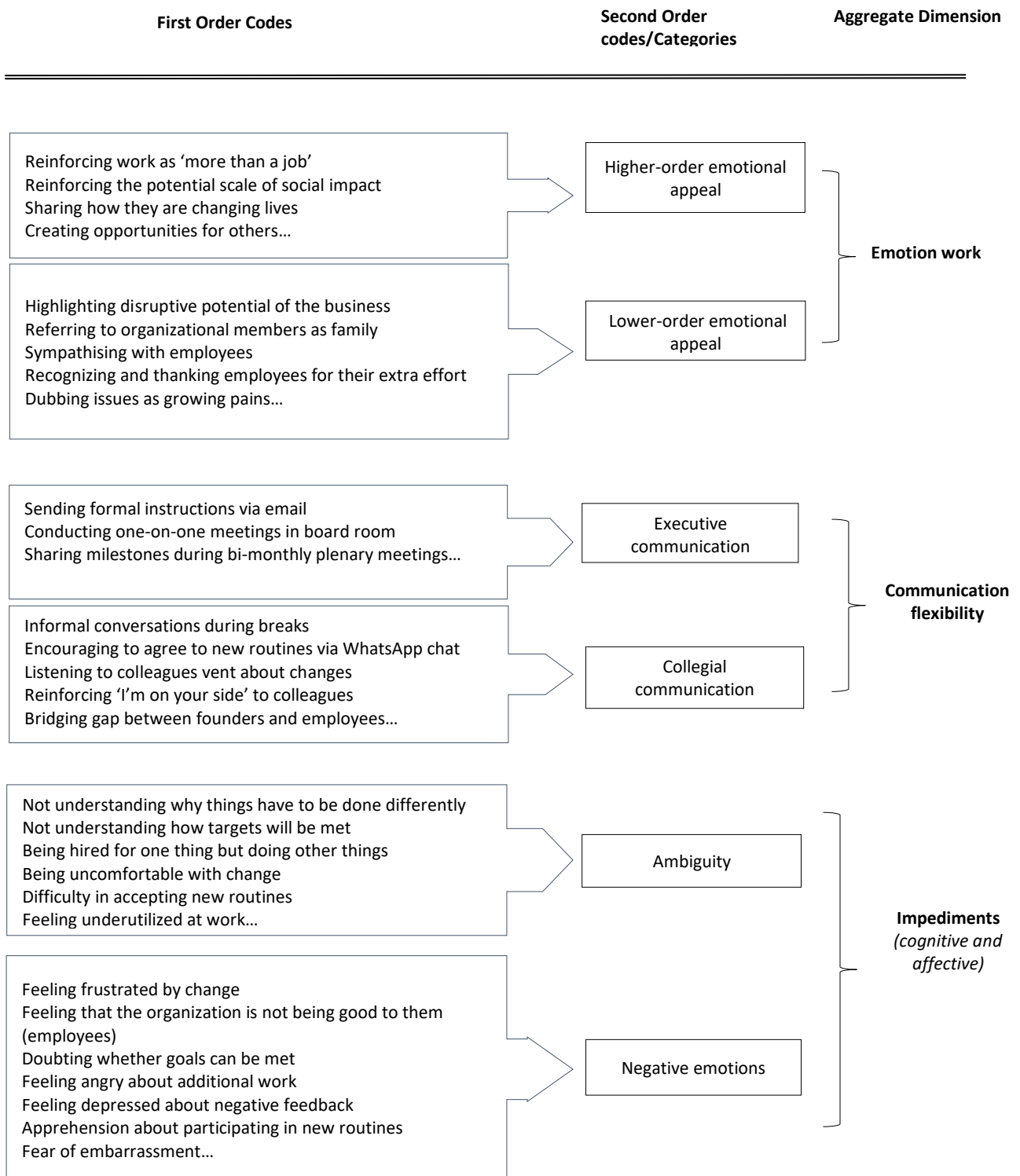
In stage 2, I began axial coding to collapse sixty-two first-order codes into categories that emerged from the data or were based on theoretical constructs in previous literature (Eisenhardt, 1989). For example, from informants' accounts of knowledge transfer experiences, I uncovered two organizational learning process steps which previous models of

organizational learning have established. *Ambiguity* captured the cognitive barrier at the beginning of the implementation process of knowledge transfer when informants received information about new work processes. These codes, together, were theoretically close to the concept of "stickiness" (Szulanski, 1996). In addition, I identified *negative affect* as an emotional barrier which emerged as a second-order code consisting of instances when organizational members described negative emotions associated with periods of strategic reorientation. These second-order codes collectively formed the aggregate dimension of *impediments* since they captured barriers to implementation of potentially value-creating changes in the organization.

In stage 3, I analyzed the data to identify patterns within and between reorientation experiences reported by informants at different steps of the process. I analyzed accounts by individuals at different organizational levels; founders, managers and employees, separately, and then analyzed the similarities and differences between the groups. At this stage substantial differences emerged in the patterns of experiences across the process of strategic reorientation. For example, positive affect was reported by founders before the pivot and by employees after the resolution of ambiguity and resistance. This made me go back to the data to identify process steps for how and when reorientation penalties were offset. These process steps included the following: *higher-order emotional appeals, lower-order emotional appeals, executive communication and collegial communication.* For example, higher order emotional appeals describe the process step *between* groups when founders and managers developed emotionally resonant messaging to gain endorsement from employees. Higher order appeals captured messages which were about contributing to society, creating opportunities for others or reinforced the social impact the organization was making. Similarly, lower order emotional appeals captured messages about employee contribution to the organization's growth, referring to the venture as a family and 'being in this together'

Next, I collapsed remaining codes into second-order codes and eventually aggregate dimensions capturing reorientation penalties, communication flexibility and emotion work, to articulate process steps, which are reflected in the data structure (Figure 2).

Figure 2. Data structure representing first order codes, second order categories and aggregate dimensions

First Order Codes	Second Order codes/Categories	Aggregate Dimension
Reinforcing work as 'more than a job' Reinforcing the potential scale of social impact Sharing how they are changing lives Creating opportunities for others…	Higher-order emotional appeal	Emotion work
Highlighting disruptive potential of the business Referring to organizational members as family Sympathising with employees Recognizing and thanking employees for their extra effort Dubbing issues as growing pains…	Lower-order emotional appeal	
Sending formal instructions via email Conducting one-on-one meetings in board room Sharing milestones during bi-monthly plenary meetings…	Executive communication	Communication flexibility
Informal conversations during breaks Encouraging to agree to new routines via WhatsApp chat Listening to colleagues vent about changes Reinforcing 'I'm on your side' to colleagues Bridging gap between founders and employees…	Collegial communication	
Not understanding why things have to be done differently Not understanding how targets will be met Being hired for one thing but doing other things Being uncomfortable with change Difficulty in accepting new routines Feeling underutilized at work…	Ambiguity	Impediments *(cognitive and affective)*
Feeling frustrated by change Feeling that the organization is not being good to them (employees) Doubting whether goals can be met Feeling angry about additional work Feeling depressed about negative feedback Apprehension about participating in new routines Fear of embarrassment…	Negative emotions	

FINDINGS

Figure 3 diagrams the process model. At the highest level, the theory developed in this study explains the process of how impediments – cognitive and affective - to intraorganizational knowledge transfer are overcome through flexible communication channels and emotional appeals. The starting point of the process is a pivot during which new knowledge is transferred across organizational groups. The overall process model diagrams how intraorganizational knowledge transfers unfold over time in nascent ventures which includes overcoming cognitive and affective barriers through communication flexibility characterized as executive communication and collegial communication, and emotional work, which constitutes higher-order and lower order emotional appeals. The next sections theorize and illustrate each step of the process model with reference to both, the high-level aggregate dimensions and the underlying processes.

Impediments to intraorganizational knowledge transfer

Cognitive barrier - ambiguity

Pivots tend to transfer new knowledge which transforms how tasks are performed by members of the organization (Argote, 2003). Changes in organizational processes as a function of knowledge transfer can also lead to "imperfectly understood features of the new context in which the knowledge is put to use," resulting in causal ambiguity (Szulanski, 1995; Winter, 1995). This can prove to be an implementation challenge for nascent ventures and was the case during pivot 1 (see Table 1) when the venture did a customer-segment pivot. This meant that employees had to redesign content to cater to the new market segment resulting in changes in existing routines. In the immediate aftermath of the decision to pivot, informants described a lack of understanding of why things had to be done differently,

stating, "initially I didn't understand why they were asking us to do this. I thought maybe they don't know what they are doing here. I used to think, is it really going to work?" Similarly, another employee recalled feeling confused after being told about the new direction the venture was moving in, "we had questions about how this will be done? How will we do this? The thing is that here we have to make slides, it's a bit difficult because content has to be converted to slides so a task that should take a day or two ends up taking a week." This contributed to the perceived difficulty of new ways of doing things as employees considered their new targets and work schedules "unrealistic." One employee described how they felt when they received news about the change in direction, "it wasn't easy because this isn't like normal teaching. So now we had to make so much more content and in the same amount of time and the same salary. We all [employees] thought it was not possible."

During pivot 2, the venture introduced benchmark testing to track 'education quality,' as a standard operating procedure, based on donor feedback. This resulted in the introduction of new routines for managers and employees, who had to log student test scores in a new database. Additionally, as part of this zoom-in pivot, teachers and managers were asked to conduct field visits to schools on a regular basis to meet students in person. Informants reported feeling uncertain about the decision, as one of them described, "when they said we now had to travel as well, I had so many questions in my mind. I didn't know what they were expecting because these places are so far away and it wasn't possible for everyone. So how were we supposed to do it?" While ambiguity was present after pivot 1 and pivot 2, informants described experiences related to pivot 4 in strikingly contrasting terms. During pivot 4, the venture was introducing a new technology platform and revenue model to receive direct payments from a different segment of students. However, three months prior to the roll-out, the venture had carried out a four-week planned experiment to introduce new tasks and processes with little risk. Consequently, it reduced uncertainty and exposed

organizational members to features of the new context. One informant stated, "I am looking forward to this roll-out. When we tested it in April, I was wondering if it would work but it was just a test so I wasn't worried but it worked so well and I really enjoyed it. So now I know what I have to do to do a really good job when we roll-out. I'm already planning in my head". While the concept of causal ambiguity during knowledge transfer has been extensively researched in the context of large organizations (Szulanski, 1996; Simonin 1999; King, 2007; Kumar & Ganesh, 2009; Argote & Miron-Skeptor, 2011), its exploration in the context of entrepreneurship and across different organizational groups, so far, has been limited.

Affective barrier – negative emotions

Informants described experiences during pivots in emotionally un-detached language (Brown, 2003) across the entire process. Emotional experiences reflected both, negative and positive valance ranging from passion and excitement to frustration, embarrassment and apprehension. However, negative emotions served as an impediment to the implementation process and were often descriptors of how individuals penalized the organization during the pivot by associating negative emotions with changes. Specifically, negative emotions were related to managerial and employee experiences while founder experiences were mostly described in connection with positive emotions. One of the managers described the aftermath of pivot 1 as, *"the target was set for a specific number of videos and the teachers were not happy with that, they were like how can they do this to us? They are not being good to us. It was not an easy time and to be honest, I really had sympathy for the teachers. So the decision had to be found at a mid-point where they wouldn't feel that way."* Some of the employees felt they were being underutilized due to the reorientation which made them feel less excited to come to work, "I basically do very basic work. I'm technically trained and that's what I

was hired for, but now I do very basic work, just a lot of it. I mean it's pretty basic. It's okay." Another employee expressed frustration about new targets following the pivot, "I don't know how they are managing it. They have 200 videos in the back end but they are not publishing it. When they will publish it, they will do 200 videos per day. Nobody is going to watch them because viewers want 5 to 10 videos per day, and we need viewers." Strategic reorientations created a sense of uneasiness which was expressed as "I was not sure," or questioned the goodwill between founders and employees: "Some of us were more vocal but I'm a quiet person so I would attend meetings to show that I agreed with others. We didn't think it was very fair." Although research on emotions has been gaining ground in the entrepreneurship literature, (Cope, 2005; Foo; 2007; Baron, 2008; Simpson, Irvine, Balta & Dickson, 2015; Shepherd, 2016), studies that deepen our understanding of how emotions add complexity to organizational processes such as learning, in the context of entrepreneurship, have not been done – a contribution this study makes.

Communication flexibility

Communication channels, executive and collegial, played a vital role in offsetting reorientation penalties. In this case, the venture had two forms of communication; executive which was how founders conveyed vital information and collegial, which was how managers and employees conveyed information to each other and across levels. Together, both communication channels afforded the venture flexibility to convey vital information that could offset reorientation penalties or impediments to knowledge transfer. Previous studies have examined how verbal communications can lead to more favourable interpretations of an organization's strategic decisions by 'key audiences' which include, investors, media and customers (Westphal & Graebner, 2010; Navis & Glynn, 2011; Fisher et al., 2016). So far, in the context of entrepreneurship, the focus has been on external audiences. Hence, the findings

of this study shed light on internal audiences who need to be convinced of strategic decisions. The next sections describe two forms of communication targeted towards internal audiences; executive communication and collegial communication.

Executive communication

C*o*-founders communicated with each other to ensure "being on the same page." When deciding to implement strategic change, co-founders exchanged vital information regarding the direction of the venture; "so first thing is to basically try to make that a shared experience amongst the co-founders. So we don't leave the core team behind. Since we're not employees, we're equity holders, it's important that the three of us are on the same page." This was echoed by another co-founder who said, "we take decisions very deliberately and we take them unanimously. There has not been a decision where two of us are on one page and the third one is not. So sometimes it takes time to onboard but then we really meticulously sift through each problem." Decisions made by co-founders regarding strategic reorientations were then conveyed to other organizational members – managers and employees - through executive communication channels which entailed formal emails, plenary meetings and one-on-one boardroom meetings. Formal emails were used to communicate changes or to reinforce decisions about changes which were not received well or were ignored by employees. In one instance, a manager said, "how we tell them what to do, the cofounders and I, we have to demonstrate sometimes and other times they get a formal communication that this is what we have to do." Formal communication was also used when employees refused to comply and resisted changes. In one instance, managers described how employees were not meeting targets, "if something is not happening on time, the teachers are not delivering based on new targets, then one of the founders will step in and send a formal email communicating to them that they need to meet the targets." Founders also described the

nature of information they convey to employees through these channels, as one of the co-founders said, "some of those things we feel are valuable to our employees, so we expose them to it at the stage we feel that that's appropriate, as well as relevant for their role. There's no point in bombarding them with information that is not relevant. So yes, it's really important that we make sure of that." Sometimes tools were used to help convey new targets and goals which meant displaying progress on a whiteboard in the centre of the office. Meetings were mostly formal but also signalled the size of the decision or change to employees, one of whom said, "depends on the size of the decision. If it's important they decide a time with everyone, when everyone is available and then the meeting is scheduled. If it's small, then we just do the meeting now."

Collegial communication

Communication between and amongst employees and managers was often done through informal channels of communication such as WhatsApp messages, lunch-break conversations or quick chats in between tasks. Collegial communication consisted of actions that reduced ambiguity related to strategic reorientations, such as clarifying new targets for employees that had been set by founders. One of the managers said, "I was the bridge. I was getting instructions from the cofounders that we need to do this. I would go to the teachers and then tell them that these are the targets. So we avoided formal instructions through emails or WhatsApp. I was just communicating with them verbally." Among managers, there was a shared understanding that informal communication got the job done when formal communication could not. Another manager shared his experience, "If I tell you honestly, if you tell them formally, they are not going to work. If you tell them informally, they understand more and are more motivated to do things differently. Being frank is easy, it has its own importance." In the aftermath of strategic reorientations such as pivot 1, when

employees had been conveyed new information about changes to the organization and their subsequent roles, formal communication in the form of one-on-one meetings did not prove sufficient to reduce ambiguity or decrease resistance to change. Collegial communication was especially useful because managers knew each employee personally and were aware of which communication strategy would be most effective; "we have a teacher who will always follow instructions informally and a teacher who always follows instructions formally so you have to check who you are talking to." This flexible communication strategy was applied by managers in identifying employees who were particularly upset and taking them out for lunch or dinner and allowing them to "vent" while encouraging them to agree to changes without causing disruption. One manager said, "In the office, informally we'll catch them and just chat about changing things like, hey this isn't working, let's change it from tomorrow." In sum, collegial communication allowed managers to open new channels of communication with employees, which allowed employees to reveal their negative emotions without fear of reprimand or consequences.

Emotion work

In both forms of communication - executive and collegial - co-founders and managers influenced attitudes and behaviours by the use of emotional appeals (Lau-Gesk & Meyers-Levy, 2009), which emotionally resonated with members of the organization. This messaging about the positive outcomes of the new strategic reorientation was conveyed through formal and informal channels especially during pivots to gain widespread acceptance and endorsement.

Higher-order emotional appeals: messaging through executive communication channels was designed around the vision statement of the venture, its potential to scale social impact and the contribution members were making to the organization and its social mission. These

themes were powerful in their effect and emotionally resonated with teachers who felt they were in a position to create opportunities for others. During pivot 1, founders conveyed messages about how the pivot was serving a higher purpose, as one of them said, "So we reinforced that, that here we are on ground, we can make an impact to so many girls who are dropouts now but with Medakas services, they can come back to school. So we're impacting lives and this is also a civic responsibility, so it might take a toll on the team but it's for the greater good." Emotional appeals often reinforced how work at Medakas was more than a job, which resonated with employees. One employee who had been frustrated with the new workload described how she came to accept working longer hours to meet new targets due to the pivot, "I give live lectures to those students who don't have any facilities. So I think they need us and they want to be the number one in those areas. They want to get some knowledge but they don't have teachers. So I think this is the motivation part for me on a daily basis, so I couldn't miss my lecture." During plenary meetings, co-founders made passionate speeches to reinforce the idea that working harder meant creating more social impact. Such emotional appeals were internalized by members who reported during interviews how, "they want every person in a better way. They want to educate them. Those girls even don't have any facility. They don't have mobiles; they don't have internet. So Medakas is providing them the internet facility and projector so they can watch from [here], that somebody from [here] is teaching them. So that is very good thing."

Lower-order emotional appeals: while higher-order emotional appeals were mostly focused on the impact on the community and society, lower order-emotional appeals focused on employee contribution to the business such as highlighting its disruptive potential, sharing positive feedback and dubbing issues as growing pains. They served as mechanisms for overcoming impediments to intraorganizational knowledge transfer and collegial and

executive communication across organizational levels. For example, founders often referred to organizational members as 'family', which was perceived positively by employees who were made to feel like they were part of the growth of the organization. Recognition for work was another way founders and managers emotionally appealed to employees. Employees who had received positive feedback formally or through the number of views on their respective videos, were recognized and praised during meetings. Hence, over time, employees began to see how having more students to teach improved their number of views and brought them recognition. As one of the employees said, "we were having a meeting and they [founders] told us that we are getting more centres. We [employees] will now get students and more recognition so in that sense it was good." In another case, founders were able to appeal to organization members' sympathy for a growing organization undergoing growing pains; "we said that we understand this is more effort for you guys. We're a growing organization, once we get to this scale, we'll be able to give you better pay, increase your salaries, because a bunch of them have been working with us for a while and they were done with their probation period and there was an expectation that something like that would happen." In sum, lower-order emotional appeals were important for neutralizing negative emotions and influencing employee attitudes towards changes in the organization.

Figure 3 process model intraorganizational knowledge transfer
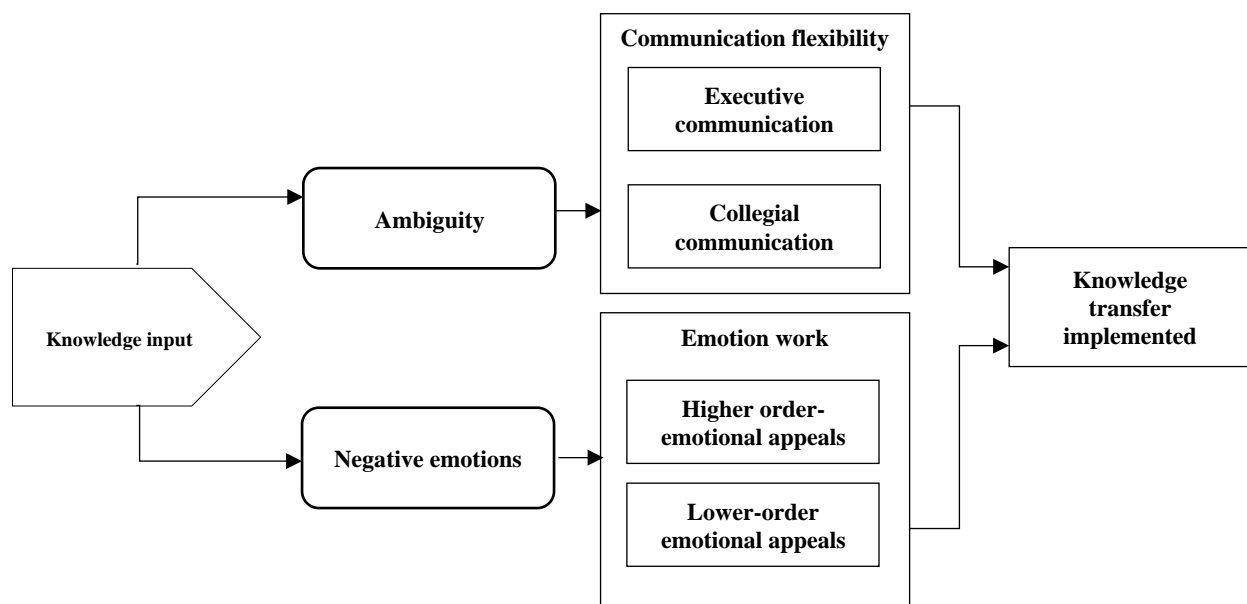
DISCUSSION

Previous research has shown how knowledge transfer, that is, the process through which one social unit learns from or is affected by the experience of another unit, is an important mechanism for improving the performance of recipient units (Epple et al., 1996; Argote & Fahrenkopf, 2016). However, studies on intraorganizational knowledge transfer, the process by which knowledge is transferred within the same firm, reveal that attempts to transfer knowledge internally often fail or are terminated (Galbraith, 1990), due to causal ambiguity, described as uncertainty among employees, managers, and competitors regarding the factors that contribute to performance (Coff, 1997; McEvily, Das & McCabe, 2000; Winter & Szulanski, 2001). Less clear from this research is how different organizational groups feel about their actual engagement in knowledge transfers, that is, what their emotions are in the process and what role these emotions, especially negative emotions, play in intraorganizational knowledge transfers.

I conducted a qualitative study at a social enterprise undergoing rapid changes in its routines and underlying knowledge structures (Levitt & March, 1988) due to strategic reorientations. The data revealed different experiences of knowledge transfer across three different organizational groups; founders, managers and employees. Importantly, informants belonging to each group described distinct cognitive and emotional experiences across the process of knowledge transfer and yielded implications for how intraorganizational knowledge transfers were implemented during strategic reorientations in the start-up. I identified two pathways:

First, knowledge transfers created causal ambiguity (Szulanski, 1996; Simonin, 1999; King, 2007), which manifested as a lack of understanding by employees and managers of the logical links between actions taken by founders and intended outcomes for the organization and its members. As a cognitive barrier to knowledge transfer, causal ambiguity was

addressed by founders and managers, through communication flexibility. This entailed

executive communication through formal communication structures and collegial

communication which was done informally. This was done with the aim of reducing

ambiguity for employees who were seen as an internal audience that needed to be convinced

of the founder's decisions regarding strategic reorientations. Hence, communication

flexibility, as both formal and informal, conveyed by both, founders and managers was

intended to influence more favourable interpretations by employees of strategic decisions

(Westphal & Graebner, 2010; Navis & Glynn, 2011; Fisher et al., 2016). This cognitive

pathway was important for intraorganizational knowledge transfer and engaged

organizational groups who were part of decision making (founders) as well as those who

were only involved in executing it (managers).

Second, intraorganizational knowledge transfers led to changes in the networks

between members, tasks and tools (McGrath & Argote, 2001), i.e. *how things were done,*

using what and *by whom*, which resulted in the experience of negative emotions by

employees (Bindl, 2018) and were coupled with perceptions of uncertainty, unfairness and

apprehension about change. These negative emotions served as an impediment for

intraorganizational knowledge transfer and were by addressed by founders and managers who

conveyed emotionally resonant messages to employees (McDonald & Eisenhardt, 2019)

regarding their contribution to the organization and to society. These emotional appeals (Lau-

Gesk & Meyers-Levy, 2009) were used to neutralize negative emotions and to influence

employee attitudes and behaviours towards changes in the organization.

The identification of these two cognitive and affective pathways contribute to theory

at the intersection of organizational learning and entrepreneurship in several important ways.

First, they help clarify the role of negative affect in intraorganizational knowledge transfer.

This has been a gap in the literature, since studies have disproportionately investigated

cognitive dimensions of intraorganizational knowledge transfer (Darr, Argote & Epple, 1995; Szulanski, 1996; King, 2007; Cording et al., 2008). This study not only surfaces emotional experiences across organizational groups but also advances the understanding of how negative emotions can impede organizational processes and organizational learning.

Secondly, intraorganizational knowledge transfer in the context of entrepreneurship between founders, managers and employees has not been studied before, which is surprising since nascent ventures offer a rich organizational setting to explore cognitive and affective pathways for organizational learning processes. Hence, this study also expands the domain of organizational learning by exploring intraorganizational knowledge transfer in the context of entrepreneurship between these three important groups in nascent ventures, indicating the complexity of these processes and the resource demands they impose on organizations. This also has implications for practice, since nascent ventures often view strategic reorientations as a virtuous exercise without fully taking into account the resource demands they impose on resource-limited organizations.

In sum, the process model emerging from this study meaningfully complements previous research on intraorganizational knowledge transfer, suggesting that knowledge transfers can fail due to causal ambiguity as a cognitive barrier experienced by employees who fail to understand the logical link between founder decisions and potential organizational outcomes (Szulanski, 1996; King, 2007). While previous research focused on cognitive barriers, this study by contrast focused on emotions, that is feelings that occurred in the immediate context of, or with reference to intraorganizational knowledge transfers. The findings and insights emerging from this study add to the overall research on knowledge transfers, indicating that in addition to cognitive barriers, affective barriers manifested as negative emotions, can also impede the process of intraorganizational knowledge transfer, as conceptualized in this study.

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Chapter 5 : Conclusion

My research journey began with an unexpected conversation. I was introduced to a young woman, who had been trained in one of the entrepreneurship development training programmes I had helped design. My previous experience had calibrated my expectations regarding 'success stories,' somewhere between being realistic and cautiously optimistic. There were always a few entrepreneurs who would set up a business after the training, the rest would wait for the next training, forever caught in a cycle of *learning* but never *doing*. Which is why, when I met Gul, a young entrepreneur who had employed fifty women from her village to stitch clothes and sell them across the border in Afghanistan, I was surprised. But it was how she described her entrepreneurial success that stayed with me, "all my life, people would call me someone's daughter, someone's sister, someone's niece. But now, everyone knows who I am and what I do. When my father walks into a room, they say, Gul's father is here." Her words were powerful. They captured her lived experience as an entrepreneur in a village fifteen kilometres from the nearest urban centre, an experience that would never have been counted or accounted for in existing measures of entrepreneurial performance. Within management, research on entrepreneurship is predominantly focused on the generation and application of theory in industrialized, western contexts. One of the aims of this study was to extend the theory of entrepreneurship to new contexts and offer inductive insights into the nature and dynamics of entrepreneurship in such settings (Barkema et al, 2015; Khanna et al., 2015)

Overall significance and implications of findings

- **Eudaimonic entrepreneurial wellbeing and household learning**

  Organizational learning emerged inductively from the data and became the lens through which I began to explore organizational processes in the context of entrepreneurship. The first paper, a joint study with Prof. Harry Barkema and Dr. Uta Bindl, presents new theory and evidence on how entrepreneurs, by forming strong social ties, contribute to their eudaimonic well-being. The four dimensions of the entrepreneurial well-being scale; *sense of self, freedom to participate in work and family settings, control over household and enterprise, doing good for others*, not only contribute to the current understanding of entrepreneurial well-being but also have policy implications for the design and delivery of interventions for entrepreneurship development and economic empowerment. Another contribution to organizational learning research is the development of a new concept of *household learning*. As a previously unexplored domain of organizational learning, household learning is a promising new frontier for research.

- **New venture survival and practical implications**

  The second paper contributes to the literature on new venture survival (Shepherd, Douglas & Shanley, 2000). Qualitative inquiry into founder experiences generated new insights into purposeful enactment processes through which protective routines come into being which are central to the underexamined story of venture survival. Organizational protective routines emerged as a concept, through which nascent ventures are able to continue learning in the aftermath of shocks. This contributes to our overall understanding of how some nascent ventures are able to survive

disruptions while others most ventures fail in their first two years. The findings of this study have implications for sponsor organizations, such as incubators and accelerators who rely on founder narratives (McDonald & Gua, 2019) to assess survival potential of start-ups. Further research into organizational protective routines i.e. how nascent ventures recover from shocks, can deepen our understanding of the organizational architectural (members, tasks and tools) needed by nascent ventures to ensure survival. However, this was an exploratory study and should be followed and complemented by other analysis.

- **The role of emotions in entrepreneurship and practical implications**

  The third paper explores organizational learning across three groups, founders, managers and employees during intraorganizational knowledge transfers. Findings reveal the process by different groups within the organization take part in strategy work. In particular, how causal ambiguity is overcome through executive and collegial communication, while negative emotions are neutralized through higher-order and lower -order emotional appeals. The affective dimension of organizational learning in entrepreneurial contexts emerged as a salient theme. During interviews, entrepreneurs described their learning experience in emotionally un-detached language (Brown 2003). In particular, gaining new knowledge that was previously unknown to entrepreneur evoked both positive and negative emotions; some described it as *intimidating* while others recalled it as an *exciting* experience. Both, negative and positive emotions were associated with intraorganizational learning and intraorganizational knowledge transfer. However, negative emotions experienced by employees were impediments to the implementation of organizational learning processes and resources had to be utilized to overcome affective barriers. This has practical implications for founders of nascent start-ups who tend to view strategic

reorientations as virtuous exercises (Reiss, 2011), without recognizing the strategy work and emotion work carried out by organizational groups to neutralize negative emotions associated with strategic reorientations.

Research approach and limitations

The three papers in this thesis, articulate entrepreneurial experiences and surface intraorganizational learning processes, in resource scarce, volatile ecosystems, often associated with emerging markets. As a researcher, the kind of questions I was interested in and the kind of data I wanted to generate; thick descriptions, rich detail with enough granularity to sift through, was best suited for qualitive methods. I wanted to explore how women entrepreneurs perceived their own entrepreneurial experiences in terms of relationality (lived human relation with the world), spatiality (lived space), temporality (lived time), and corporeality (lived body) (Merleau-Ponty, 1962). I adopted an exploratory approach towards my data and attempted to continuously structure the data structure to form a grounded understanding of the phenomenon of interest. I applied Gioia methodology (2013), to create my data structures in all three papers, since it allowed for constant iteration between data and theory, without compromising on qualitative rigour. This fit the aims of the research, to produce mid-range theories which are high in accuracy and specificity but lower in generality (Langley, 1999).

However, this research has several limitations that may provide meaningful avenues for future research. Our scale on eudaimonic entrepreneurial wellbeing is based on the experiences of Nigerian entrepreneurs. For future research, it could be valuable to validate the scale in other contexts to explore possible similarities or differences in how organizational learning influences entrepreneurial wellbeing in a given context. The other two papers are based on qualitative studies, which although provide rich, granular data, can benefit from quantitative investigations.