

[Page de garde]

HEC MONTRÉAL

**What do Entrepreneurs Need? Toward a Comprehensive Typology of
Entrepreneurial Needs**

**Par
Taylor Mackay**

**Science de la gestion
(Spécialisation en Développement Organisationnel)**

*Mémoire présenté en vue de l'obtention
du grade de maîtrise ès en gestion
(M.Sc.)*

Avril 2024
© Taylor Mackay, 2024

Abstract

The reality of being an entrepreneur has evolved significantly over the past decades. Entrepreneurship has been shaped by technological advancements, global connectivity, sustainability consideration, and constantly evolving environmental dynamics, among others. These developments brought forth a wealth of new opportunities and challenges. Considering that entrepreneurial activity drives both economic and societal growth, action facilitating the success of entrepreneurial endeavors has garnered attention in recent years from political, economic, social, and academic actors alike. Inherent to action promoting entrepreneurial activity is an in-depth understanding of what entrepreneurs needs. Accordingly, this study employs a mixed-methods approach, combining qualitative thematic analysis and quantitative data analysis. The thematic analysis revealed eight overarching patterns which were subsequently organized into a typology of entrepreneurial needs. The quantitative data analysis revealed an interrater reliability of 0.759, indicating a substantial agreement between raters. Overall, this study builds upon theoretical knowledge within the field by advancing a guiding framework conducive to hypothesis testing. It also serves as an invaluable tool to those working on developing initiatives in support of entrepreneurs and their endeavors.

Key Words – Entrepreneurial needs, Typology, Social Needs, Cognitive Needs, Emotional Needs

Résumé

La réalité de l'entrepreneur a évolué au cours des dernières décennies. L'entrepreneuriat a été façonné par les avancées technologiques, la connectivité mondiale, les considérations de durabilité et les dynamiques environnementales en constante évolution, entre autres. Ces évolutions ont engendré une multitude de nouvelles opportunités et de nouveaux défis. Étant donné que l'activité entrepreneuriale est un moteur important de la croissance économique et sociale, les actions visant à faciliter la réussite des entreprises ont attiré l'attention des acteurs politiques, économiques, sociaux et académiques. Une compréhension approfondie des besoins des entrepreneurs est inhérente à toute action visant à promouvoir l'activité entrepreneuriale. En conséquence, cette étude utilise une approche mixte, combinant une analyse thématique qualitative et une analyse de données quantitatives. L'analyse thématique a révélé huit tendances qui ont ensuite été organisées en une typologie des besoins entrepreneuriaux. L'analyse des données quantitatives a révélé une fiabilité inter-juge de 0.759, indiquant un accord substantiel entre les juges. Dans l'ensemble, cette étude s'appuie sur les connaissances théoriques dans le domaine en proposant un cadre conceptuel propice à la vérification des hypothèses. Elle constitue également un outil pour ceux qui travaillent à l'élaboration d'initiatives visant à soutenir les entrepreneurs et leurs activités.

Mots clés - Besoins entrepreneuriaux, Typologie, Besoins sociaux, Besoins cognitifs, Besoins émotionnels

Table of Contents

Abstract	<i>ii</i>
Résumé	<i>iii</i>
List of Tables and Figures	<i>v</i>
Acknowledgements	<i>vi</i>
CHAPTER 1: INTRODUCTION	1
1.1. Important Definitions	1
1.2. Significance of Study	2
CHAPTER 2: THESIS ARTICLE	5
2.1. Introduction	5
2.2. Literature Review on Entrepreneurial Needs	8
<i>2.2.1. Conducting the literature review</i>	8
2.3. Typology of Entrepreneurial Needs	20
<i>2.3.1. Methodology</i>	20
<i>2.3.2. Proposed typology</i>	21
<i>2.3.2.1. Cognitive Needs</i>	21
<i>2.3.2.2. Social Needs</i>	27
<i>2.3.2.3. Emotional Needs</i>	33
2.4. Discussion	38
<i>2.4.1. Theoretical contributions</i>	38
<i>2.4.2. Practical implications</i>	40
<i>2.4.3. Limitations and future research</i>	42
CHAPTER 3: CONCLUSION	45
3.1 The Entrepreneur, the Venture, and the Environment	45
<i>3.1.1. The Entrepreneur</i>	45
<i>3.1.2. The Venture</i>	47
<i>3.1.3. The Environment</i>	48
3.2. An Entrepreneurial Needs Hierarchy	49
References	544

List of Tables and Figures

List of Tables

Table 1. <i>Scope of Review</i>	9
Table 2. <i>Articles Selected for Review</i>	10
Table 3. <i>Overview of Articles Selected for Review</i>	11
Table 4. <i>Hierarchy of Entrepreneurial Needs</i>	52

List of Figures

Figure 1. <i>Typology of Entrepreneurial Needs</i>	21
--	----

Acknowledgements

I would like to express my sincere gratitude and appreciation to everyone who has contributed to the completion of this memoire. Without their support, guidance, and contributions this work would not have been possible.

First and foremost, I am thankful to my supervisor, Jean-François Harvey, for his invaluable guidance, time, patience, and expertise over the past couple of years. His input and feedback have been key in shaping the direction and quality of this paper.

I would also like to extend my thanks to my Desjardins colleagues, Claudine Robert, and Benoit Trudel, for their openness, encouragement, and insight into the reality of entrepreneurs throughout this endeavor.

A special thanks to Audrey Bélanger, a fellow student, for providing encouragement, assistance, and reassurance whenever needed, and Augustine Hermans, also a fellow student, for her contribution at various steps of the process.

My heartfelt thanks to my husband, Louis-André, my family and my friends for their unwavering support, patience, and understanding. I am grateful for their love and encouragement, without which, the completion of this memoire would not have been possible.

CHAPTER 1: INTRODUCTION

Entrepreneurs possess the exceptional ability of turning possibilities into realities. They leverage their skills, knowledge, experience, and hard work to bring possibilities to life, moving us beyond the status quo (Baron, 2023). Whether it be creating innovative products or refining services, entrepreneurs are catalysts for change. Their entrepreneurial activities can redefine entire industries, improve standards of living, drive economic growth, and foster social transformation (Baron, 2023; Bosma et al., 2018; Carree & Thurik, 2008; Gomes et al., 2023; Low & MacMillan, 1988; Praag & Versloot, 2007). As entrepreneurs actively seek to address the needs of individuals, groups, organizations, industries, and societies, we are promoted to consider what they need for. This question gains significance when we consider the challenges associated with the entrepreneurial process and the high risk of failure commonly associated with entrepreneurial endeavors (Pinho & Sampaio de Sa, 2014). Accordingly, in the following paper, we seek to provide an initial answer to this question.

The following paper is made up of three chapters. The first chapter is an extended introduction that serves to position the topic of entrepreneurial needs as noteworthy. The second chapter is formatted as an article. Finally, the third chapter is an extended conclusion, which builds on the elements discussed in the final section of the article.

1.1. Important Definitions

To the best of our knowledge, there exists no operational definition of an entrepreneurial need. We thus offer our own definition for our purposes. To do so, we begin by defining ‘entrepreneurial’ and ‘need’. The Oxford English Dictionary (n.d.) defines ‘entrepreneurial’ as an adjective describing the qualities typical of an entrepreneur. Accordingly, to better understand the definition of ‘entrepreneurial’, we must consider the definition of ‘entrepreneur’. Scholars

have yet to agree on the definition of ‘entrepreneur’. Indeed, ‘entrepreneur’ is commonly used by academics and practitioners alike but varies in meaning, depending on the speaker and the context in which the word is being used. That said, a widely accepted modern approach to defining ‘entrepreneur’ focuses on “how an entrepreneur thinks or acts” (Lidow, 2022, p. 469).

There also exists multiple definitions of ‘need’. The multiplication of definitions can likely be accredited to the subjective nature of needs. Needs are influenced by individual preferences, social expectations, and the availability of resources (Asadi-Lari et al., 2003). However, it appears that most definitions of ‘need’ center on the idea of necessity as opposed to desire (Asadi-Lari et al., 2003; Watkins & Kavale, 2014). For example, the Oxford English Dictionary (n.d.) defines ‘need’ as the action of “requiring something essential or very important rather than merely desirable” or as a “necessity for a particular action or course of action arising from the facts or circumstances of a situation”.

Ergo, for the purpose of this paper, we define an entrepreneurial need as a requirement essential to the success of endeavours or activities within entrepreneurship.

1.2. Significance of Study

The reality of being an entrepreneur has evolved significantly over the past decades. Entrepreneurship has been shaped by technological advancements, global connectivity, sustainability considerations, and constantly evolving environmental dynamics, to name a few (Tan & Li, 2022; Ahmad et al., 2022; Zahra et al., 2023; McKinsey & Company, 2023; Lynn & Rosati, 2021). These developments brought forth a wealth of new opportunities and challenges. This has required, among other things, resilience, and adaptability on the part of entrepreneurs.

Namely, the democratization of information enabled by technological advancements has promoted information exchange among different parties, facilitating access to more accurate

data. This has made it easier for entrepreneurs to identify and capitalize on opportunities, as well as navigate challenges (as cited by Tan & Li, 2022). Moreover, the proliferation of digital technologies has served to transform entrepreneurship, from entire industries at a macro level to business models at a micro level. Tech-centered companies have capitalized on the digital era by developing and bringing novel products to market, while more traditional, or non-tech companies, have adopted digital technology to improve operational efficiency, among other things (Chang et al., 2013; Elia et al, 2020). Digitalization has also contributed to the development of an entrepreneurial ecosystem which serves to foster collaboration and innovation among entrepreneurs (Elia et al., 2020)

Additionally, our increasingly global market has facilitated access to resources through open trade and allowed entrepreneurs to reach both customers and business partners around the world, increasing market penetration. Naturally, globalization brings with it its share of challenges, including heightened competition, market interdependency, and security concerns, to name a few (Ahmad et al., 2022).

Furthermore, entrepreneurs are required to integrate environmental, social, and governance (ESG) principles to their business models. Though ESG performance has been proven to contribute to financial performance, it requires an initial investment of resources, which can prove difficult for some entrepreneurs, generating its fair share of obstacles (McKinsey & Company, 2023).

Fortunately, all the evolutions briefly described above, have generated alternative funding options allowing entrepreneurs to gain access to capital. It can be especially challenging to secure funding in the early stages of venture development when a performance history is inexistant. Not only have these alternatives served to facilitate access to capital, but they've also

served to encourage innovation in financial strategies and investment models (Lynn & Rosati, 2021). Some of these alternatives include crowdfunding platforms angel investors, and peer to peer lending. (Lynn & Rosati, 2021).

It is evident that entrepreneurship has been shaped by multiple developments, but the most interesting, or perhaps challenging, is the interconnected nature of these developments, resulting in a constantly changing environment, to which entrepreneurs must continuously adapt.

It is no secret that entrepreneurial endeavors promote economic growth by encouraging innovation, generating employment opportunities, and increasing productivity. As new ventures flourish and existing ones expand, they contribute to overall growth (Bosma et al. 2018; Carree & Thurik, 2008; Gomes et al., 2023; Low & MacMillan, 1988; Praag & Versloot, 2007).

Accordingly, the need for action facilitating entrepreneurial activity is of importance to policy makers, financial partners, and academics alike. Inherent to action facilitating entrepreneurial endeavours is an in-depth understanding of entrepreneurial needs, as unaddressed these needs contribute to entrepreneurial failure (Low & MacMillan, 1998; Sanchez & Ortega, 2023).

Accordingly, the objective of our study is to generate a holistic understanding of entrepreneurial needs, by synthesizing and integrating current knowledge.

CHAPTER 2: THESIS ARTICLE

WHAT DO ENTREPRENEURS NEED? TOWARD A COMPREHENSIVE TYPOLOGY OF ENTREPRENEURIAL NEEDS

2.1. Introduction

Many studies have shown that economic growth is supported by entrepreneurship, namely the creation of new entrepreneurial ventures (Bosma et al., 2018; Carree & Thurik, 2008; Gomes et al., 2023; Low & MacMillan, 1988). Indeed, entrepreneurial activity contributes to economic growth by fostering innovation, creating employment opportunities, and enhancing productivity. As new ventures thrive and existing ones expand, they contribute to overall individual, economic, and societal growth (Praag & Versloot, 2007). Yet, there remains a high risk of failure associated with these ventures which has spurred the study of determinants of entrepreneurial success (Pinho & Sampaio de Sa, 2014).

Personal characteristics have long been recognized as a key determinant of entrepreneurial success given their direct impact on how entrepreneurs think and act (Grégoire et al., 2011). Research suggests that entrepreneurs possess certain characteristics that contribute to their inclination to create new ventures and significantly impact their performance (Veciana et al., 2005; Kennedy et al., 2003). While many characteristics are linked to entrepreneurial needs, these needs are often unique to individual cases, resulting in an expansive list of needs which challenges the identification of overarching patterns and, consequently, the construction of a theory that articulates the mechanisms by which personal characteristics influence entrepreneurial needs, and by which entrepreneurial needs influence entrepreneurial performance across domains. Unaddressed, these needs contribute to venture failure and limit individual, economic, and societal growth, making it imperative to articulate the relationship between

personal characteristics, entrepreneurial needs, and venture performance (Low & MacMillan, 1998; Sanchez & Ortega, 2023).

Ergo, we reviewed a decade's worth of academic research, spanning from 2012 to 2022, in three prominent journals in the field of entrepreneurship, with the aim of developing a typology of entrepreneurial needs that integrates current knowledge.

Our review of current literature uncovered a rich diversity of knowledge stemming from studies across different disciplines, each contributing its own perspective (Low & MacMillan, 1988; Quintero et al., 2019). However, it can be characterized as lacking in comprehensiveness, consensus on findings, and integration. All of which contributes to an incomplete understanding of the topic at hand. Precisely, we found that the literature on entrepreneurial needs is not neatly organized nor is it easily comparable, leading to a complexity in understanding and synthesizing information. Its multifaceted nature results in a fragmented understanding that challenges the synthesis of coherent patterns and principles.

Indeed, relevant literature is made up of studies conducted in isolation without sufficient integration of findings across multiple studies making it challenging to discern overarching patterns. For instance, research that highlights the importance of prospective needs rarely cites each other, despite their clear interconnection (e.g. Estrin et al., 2022; Haynie et al., 2012; Mueller & Shepherd, 2016). Additionally, certain needs have been extensively researched, while others are greatly underexplored, resulting in an unbalanced understanding of the entrepreneurial phenomenon. For example, while the need for establishing, maintaining and leveraging a business network has been at the heart of several entrepreneurship studies (e.g. Arshed et al., 2022, Ge et al., 2022, and Kuhn & Galloway, 2015), the need for standardized rules, procedures, roles, and processes within the entrepreneurial firm is rarely addressed (see Greene & Hopp,

2017 and Hughes et al., 2014 for an exception), despite its importance to performance (Larson, 1991; Mitchelmore & Rowley, 2010). Finally, the literature is characterized by conflicting findings leading to a lack of consensus and additional questions. For instance, multiple studies reveal the need for emotion-focused coping strategies (e.g. Branzei & Fathallah, 2021, Miller & Sardais, and Patzel & Shepherd, 2011), while others reveal the need for problem-focused coping strategies, which are diametrically opposite (e.g. Nikolaev et al., 2022, Patel et al., 2019, and Stephan et al., 2022).

Accordingly, the literature on entrepreneurial needs now requires theoretical models aimed at integrating the knowledge generated across disciplines. Therefore, a necessary first step towards this goal is gaining a holistic understanding of entrepreneurial needs, which requires the synthetization and integration of current knowledge. The insights generated from the development of a guiding framework will also allow for the development and implementation of policies and incentives that promote and support entrepreneurship (Gilbert et al., 2002; Pinho & Sampaio de Sa, 2014). To the best of our knowledge, ours is the first study to begin integrating entrepreneurial needs into a guiding framework, which serves as a solid theoretical foundation for future research into the relationship between personal characteristics, entrepreneurial needs, and venture performance.

The following article is organized in four sections. We first begin by presenting the state of the literature on entrepreneurial needs before outlining our approach to developing the proposed typology. We then proceed by detailing what we consider a first step toward a comprehensive typology of entrepreneurial needs, and we conclude by discussing the theoretical and practical implications of our work, and its limitations as well as avenues for future research.

2.2. Literature Review on Entrepreneurial Needs

The following section provides an overview and analysis of existing knowledge on entrepreneurial needs.

2.2.1. Conducting the literature review

As previously mentioned, we began by reviewing a decade's worth of academic research, spanning from 2012 to 2022, in three renowned journals in the field of entrepreneurship, (1) Entrepreneurship Theory and Practice, (2) Journal of Business Venturing, and (3) Strategic Entrepreneurship Journal. We used the search term "entrepreneur" coupled with 28 terms associated with entrepreneurial needs, such as "advice" and "needs". Our criteria for determining the relevance of articles were lenient given the limited amount of research conducted on the topic. Accordingly, we considered articles relevant if they addressed entrepreneurial needs directly or indirectly.

Our initial search uncovered 142 articles in total and after reviewing the articles to determine whether they were relevant, only 36 articles were extracted. Given the limited literature identified in our initial search we dropped "entrepreneur" from the search terms and proceeded with a second search. This second search uncovered 410 articles, and after reviewing the articles to determine their relevance, an additional 114 articles were extracted. After thoroughly reading the 150 articles extracted from the three journals, a total of 45 were included in our review. Table 1 presents the scope of our review, table 2 presents articles selected for our review per journal, and table 3 presents an overview of the articles selected for our review.

Table 1. *Scope of Review and Inclusion Criteria*

Database	Sage Journals / Science Direct / Wiley Online Library
Journals	Entrepreneurship Theory and Practice; Journal of Business Venturing; Strategic Entrepreneurship Journal
Years	2010-present
Type of Research	Empirical studies
Groups of Words	<p>“entrepreneur*” AND “advice”</p> <p>“entrepreneur*” AND “adviser”</p> <p>“entrepreneur*” AND “advisor”</p> <p>“entrepreneur*” AND “advising”</p> <p>“entrepreneur*” AND “counsel”</p> <p>“entrepreneur*” AND “counselor”</p> <p>“entrepreneur*” AND “counseling”</p> <p>“entrepreneur*” AND “consultant”</p> <p>“entrepreneur*” AND “consulting”</p> <p>“entrepreneur*” AND “mentor”</p> <p>“entrepreneur*” AND “mentoring”</p> <p>“entrepreneur*” AND “coach”</p> <p>“entrepreneur*” AND “coaching”</p> <p>“entrepreneur*” AND “guide”</p> <p>“entrepreneur*” AND “guidance”</p> <p>“entrepreneur*” AND “guiding”</p> <p>“entrepreneur*” AND “support”</p> <p>“entrepreneur*” AND “supporting”</p> <p>“entrepreneur*” AND “help”</p> <p>“entrepreneur*” AND “helping”</p> <p>“entrepreneur*” AND “guidance”</p> <p>“entrepreneur*” AND “guiding”</p> <p>“entrepreneur*” AND “coping”</p> <p>“entrepreneur*” AND “learning”</p> <p>“entrepreneur*” AND “training”</p> <p>“entrepreneur*” AND “education”</p> <p>“entrepreneur*” AND “needs”</p>

“entrepreneur*” AND “requirements” “entrepreneur*” AND “demands” “entrepreneur*” AND “wants”
--

Table 2. *Articles Selected for Review*

Journals	Articles extracted grouped keywords (ex. “entrepreneur” AND “advice”)	Articles extracted with simple keyword (ex. “advice”)	Number of articles considered for review	Number of articles included in review
Entrepreneurship Theory and Practice	5	242	56	19
Journal of Business Venturing	134	0	36	10
Strategic Entrepreneurship Journal	2	168	58	16
Total	141	544	150	45

Table 3. *Overview of Articles Selected for Review*

Author(s)	Sample/Method	Key Findings
<i>Entrepreneurship Theory and Practice</i>		
Arshed et al. (2022)	Conducted 24 focus groups with female entrepreneurs and conducted 30 interviews with organizations that support entrepreneurs and their endeavors in Scotland.	Gender-specific support programs, like women's business centers and networking groups, designed to support women achieve their entrepreneurial ambitions, were experienced as empowering by inexperienced female entrepreneurs, but disempowering by females seeking to affirm their identify as entrepreneurs.
Bertschi-Michel et al. (2019)	Analyzed data collected over four years through interviews, observations, meeting minutes, and archival data from five family firm succession cases in Switzerland.	Alleviating emotions facilitated role adjustments and served to advance the succession, especially when the current owner was struggling with the process. Emotion mediation and role adjustment were found to contributed to individual-level satisfaction with the succession process.
Branzei & Fathallah (2021)	Conducted two ethnographic studies in Lebanon spanning seven years, involving the analysis of data collected during interviews with 15 entrepreneurs and the analysis of archival data.	Entrepreneurial resilience was enacted through a process aimed at coping with vulnerability. First, entrepreneurs encountered adversity, engaged in self-monitoring, reassessed personal boundaries and then aligned these insights with their coping strategies.
Chirico & Salvato (2016)	Analyzed data survey collected from 199 Swiss family firms	Social dynamics were found to indirectly influence product development through the internalization of knowledge among family members, while affective commitment was found to directly and indirectly affected product development.
Ciuchta et al. (2018)	Collected data via interviews with 48 participants, comprising investors, advisors, mentors. Participants were primarily based in the United States and were interviewed after watching two pitch videos.	Entrepreneurial coachability was found to function as an important indicator during a pitch, but the effect was subject to the investor's experience with coaching. Perceived coachability was found to be essential to

		raising capital. Agreeableness and openness to experience were positively correlated with coachability.
Eddleston & Powell (2012)	Analyzed data collect via mail survey from 258 entrepreneurs, 60% of which were female and 40% were male in the United States.	Male entrepreneurs experienced higher satisfaction when they received familial support for their ventures, while females experienced higher satisfaction when integrating their work and family roles.
Engel et al. (2021)	Ran a between-subject experiment involving a sample of 87 European entrepreneurs.	Entrepreneurs who participated in a loving-kindness meditation demonstrated higher self-compassion, which was associated with reduced fear response when facing challenges.
Estrin et al. (2022)	Analyzed archival data collected by the Global Entrepreneur Monitor survey completed between 2001 and 2015 from 74 countries.	Engaging in production, process innovation, and internalization strategies heightened the positive effect of sectoral knowledge intensity on growth aspirations.
Haynie et al. (2012)	Analyzed the preference in decision-making of 217 undergraduate business students and 73 experienced entrepreneurs in the United States during an opportunity evaluation task.	Metacognitive processes enabled individuals to utilize feedback, resulting in improved decision accuracy, particularly in dynamic decision-making contexts.
Hmieleski & Cole (2022)	Analyzed survey data collected from 183 CEOs across 97 industries, representing 42 states in the United States.	Positive relationship between perceived environmental volatility and performance among new venture teams that exhibited high levels of humor. The positive effect of humor on the relationship between environmental volatility and performance was also increased in teams with a high level of entrepreneurial self-efficacy.
Hopp & Lukas (2014)	Analyzed a dataset comprising 2 373 venture capital transactions in Germany.	The informativeness of investment experience as a signal depends on the presence and frequency of prior joint deals with lead venture capitalists. This signal is stronger when previous collaboration invitations were mutual, indicating an openness to involving others and showcasing the ability to reciprocal engagement through one's investment portfolio. These signals were found to diminish in strength over time.

Kuhn & Galloway (2015)	Collected survey data from 343 artisan entrepreneurs based in multiple geographical locations.	Motivational differences determine the types of advice and support individuals value and are likely to offer to others. Those motivated by personal utility associated with their art production prioritized emotional support, friendship, and advice related to production techniques, while those motivated by professional prioritized joint promotional activities. Both types of motivations to perceived value of constructive criticism. Artisan entrepreneurs belonging to more peer communities tended to demonstrate superior performance.
Miller & Sardais (2015)	Analyzed diary entries spanning six months, written by an entrepreneur, their business partner, and their advisor, about their failing venture in Canada.	Entrepreneur demonstrated resilience by staying optimistic about the future whilst addressing current challenges. The ability to balance an optimistic and practical approach was found to be essential to performance.
Mueller & Shepherd (2016)	Analyzed data collected from 114 new entrepreneurs in the Mid-West engaging in opportunity identification exercises based on three hypothetical scenarios.	Expert opportunity prototypes and an intuitive cognitive style facilitated learning from failure. Prior professional experience was found to negatively moderate this relationship.
Nikolaev et al. (2022)	Analyzed data collected in the United States by the National (longitudinal) Study of Midlife Development.	Positive relationship between self-employment and well-being was attributed to the adoption of problem-focused coping strategies. Entrepreneurs prioritized problem-focused coping strategies, which involve proactive and productive behaviors, over emotion-focused coping strategies, which involve actions aimed at alleviating immediate emotional distress.
Stephan et al. (2022)	Collected data during the COVID-19 pandemic through an online survey conducted with 3 162 entrepreneurs across 20 countries.	Entrepreneurs experienced adversity to varying degrees based on the intensity of lockdowns. Those who experienced more intense lockdowns experienced lower wellbeing and more distress. Entrepreneurs who integrated opportunity and planning agility experienced

		increased wellbeing, while those who engaged solely in planning agility experienced lower wellbeing.
Sullivan & Ford (2014)	Analyzed data collected via a mailing survey from 174 new ventures in the United States.	Entrepreneurs refine the size and the diversity of knowledge of their business network in early venture development to gain access to a wide range of resources. They identify strategic connections for later stages of venture development to ensure access to specific resources.
Zhao et al. (2011)	Analyzed survey data collected from 607 firms across China.	Entrepreneurial orientation was positively correlated with experimental learning, while entrepreneurial orientation had a curvilinear relationship (U-shaped) with acquisitive learning.
Zhu & Newman (2022)	Analyzed data collected from 96 entrepreneurs of new ventures in China engaging in a decisions-making process.	High relative pay strengthens the positive relationship between job autonomy and employees' intention to stay and magnifies the effects of team support and growth opportunities, but this effect is observed primarily among employees with managerial experience.
Strategic Entrepreneurship Journal		
Andries et al. (2013)	Conducted a longitudinal study analyzing data from six ventures representing various industries, each confronting uncertainty and employing different business models.	Two effective business model development methods, simultaneous experimentation, and focused commitment. Simultaneous experimentation had a negative effect on growth but facilitated survival. Focused commitment had a positive effect on initial growth, but not on survival.
Bao et al. (2020)	Analyzed survey data collected from 238 firms in China.	Experimental market learning aids in the development of tacit knowledge, enhancing understanding the source of client needs, while vicarious market learning broadens the scope of interpretation of those needs.
Bischoff et al. (2019)	Analyzed data collected from 197 students over two longitudinal field experiments in developing countries.	Entrepreneurial training moderated the relationship between financial resource constraints and venture creation, while developed cognitive frameworks buffered the impact financial resource limitations and

		facilitated venture creation in the midst of limited capital.
Brinckmann et al. (2019)	Analyzed data collected via an online questionnaire from 375 entrepreneurs of new ventures in Germany and Austria.	Entrepreneurial capabilities had a positive effect on strategic flexibility, while entrepreneurial experience had no effect, and the educational background had a negative effect. Leveraging financial resources was effective in increasing strategic flexibility.
Denoo et al. (2022)	Analyzed data from 187 ventures in the United States collected over the first decade of an emerging industry.	The quantity and diversity of customers drove business model revision, particularly in the early and uncertain phases of an industry's development.
Greene & Hopp (2017)	Analyzed data gathered from 1 088 United-States-based new venture founders as part of the Panel Study of Entrepreneurial Dynamics.	Entrepreneurs are inclined to engage in planning activities if they are seeking capital, possess higher levels of education, demonstrate innovation, and exhibit a growth-oriented mindset. Those entrepreneurs who participated in planning activities, were more likely to achieve venture viability.
Hashai & Zahra (2022)	Analyzed data collected from secondary sources on 153 Israeli technology ventures.	Entrepreneurs' prior same-firm and industry experience had a positive effect on growth in the initial stages of venture development, but a negative effect on growth in later stages. Entrepreneurs' prior different-firm and same-industry had a similar effect but had a weaker positive and negative effect. Entrepreneurs' prior same-firm and different industry experience had a weaker effect on growth than prior same-firm and same-industry experience, but decreased overtime. Entrepreneurs' prior different-firm and different-industry experience had no effect on growth.
Hughes et al. (2014)	Analyzed data collected from a sample of 1 000 technology ventures, sourced from the United Kingdom Business Incubation Directory and the United Kingdom Science Park Association.	Network-based learning had no direct effect on performance. Absorptive capacity played a positive moderating role between network-based learning and performance, showing a direct positive relationship with performance.

Katila et al. (2012)	Conducted 32 simulations with students from an American University, complemented by in-depth participant interviews involving 60 firms.	Entrepreneurs who maintained a low profile in mature markets, but rapidly explored new market segments outperformed larger firms.
Kuechle et al. (2016)	Conducted two experiments with 2 409 Americans. The first experiment was conducted within an information-free context and a second experiment within an information context.	Individuals employing control-based strategies to manage uncertainty were more inclined to place a bet following a positive result in comparison with those employing prediction based-strategies. These results were inverted in the presence of unfavorable outcomes.
Mathias et al. (2021)	Performed a meta-analysis using data from 42 studies.	Agglomeration is associated with increased innovation, but it does not always increase financial performance.
Mauer et al. (2018)	Ran an agent-based simulation to analyze interactions with environment.	Using available information to predict outcomes (prediction-based strategy) led to better adaptation in moderately uncertain environments, while using external information to create a favorable context (control-based strategy) was more successful in highly uncertain environments.
Patel & Terjesen (2011)	Analyzed data from 452 transnational entrepreneurs from Colombia, Dominican Republic, El Salvador, and the United States.	Business network connection strength enhanced venture performance, while network range did not. Together, business network connection strength and range enhanced venture performance.
Ross et al. (2018)	Analyzed a dataset comprising 530 business divisions and 1 537 observations collected from 1994 to 2008, accessed through the German Economics & Business Data Center.	Positive relationship between uncertainty and investment. Human capital and innovation activities related to core products strengthened the positive impact of uncertainty on resource allocation towards R&D.
Smith & Shah (2013)	Analyzed a dataset from corporate venture capitalists in the American medical device industry.	User knowledge significantly increased product development and patenting compared to other sources.
Wang (2020)	Analyzed data from a survey comprising 3 840 professionals who had previously worked in the United States before returning to their home countries across 98 different nations.	Cross-border connections increased likelihood of returnees founding ventures in their home countries. The beneficial impact of cross-border connections weakened overtime as the institutional differences

		between the United States and home countries increased.
Journal of Business Venturing		
Colombo & Grilli (2010)	Analyzed data from the Research on Entrepreneurship in Advanced Technology database, focusing on a sample of 439 technology-based ventures in Italy.	Ventures led by individuals possessing specific human capital attributes (education, experience, etc.) experienced more growth. This relationship was directly influenced by venture capital investments, given their ability to provide coaching and access to valuable resources.
Ge et al. (2022)	Analyzed three rounds of survey data collected from Chinese firms by national organizations.	Entrepreneurs from lower social classes experienced higher returns on time invested in networking and learning activities as it allowed them to offset initial resource limitations. These same entrepreneurs experienced lower returns on time invested in management activities compared to entrepreneurs from higher social classes.
Kollmann et al. (2019)	Analyzed survey data collected from 122 entrepreneurs leading innovative and growth-oriented ventures in Germany.	Entrepreneurial stressors indirectly impacted the wellbeing of nascent entrepreneurs by intensifying work-home interference, contributing to insomnia. Entrepreneurial stressors both directly impacted insomnia and indirectly impacted insomnia through work-home interference. Role identity was found to protect experienced entrepreneurs from excessive work-home interference.
Marvel et al. (2020)	Analyzed survey data collected from 401 new venture coaches and 686 founders in the United-States.	Positive relationship between human capital and product innovativeness. Prior knowledge acted as a constraint and coachability contributed to enhancing product innovativeness.

Milanov & Fernhaber (2014)	Analyzed archival data from multiple sources, comprising information from 194 ventures operating in the computer equipment and communication industries in the United States.	Domestic partners served as important network resources, especially when their international experience was considered alongside learning opportunities.
Nagel et al. (2019)	Analyzed survey data, audit data, and registration data collected as part of a three-year experiment conducted by the Netherlands' Tax and Customs Administration.	Tax compliance training positively impacted tax compliant behaviour. Entrepreneurs who participated in tax training reported higher profits compared to the control group. No relationship was found between tax training and firm survival.
Nuscheler et al. (2019)	Analyzed a multi-source dataset compiled from CrunchBase, comprising information from 374 American technology ventures and covering 2005 to 2014.	Product introductions contributed to the growth of ventures, particularly when the top management team possessed start-up experience and lacked functional diversity. Additional introduction of new products was found to limit the growth of ventures in the absence of these traits.
Patel et al. (2019)	<p>Study 1. Analyzed data collected by the Nurse Health Assessment survey conducted annual from 2010 to 2012, focusing on adults in the United Kingdom, including 194 self-employed individuals and 1 511 employed individuals.</p> <p>Study 2. Analyzed data from the NHANES II dataset from 1998 to 1994, comprising 776 self-employed and 8 003 employed individuals.</p> <p>Study 4. Analyzed data collect during the Midlife longitudinal study of wellbeing of adults between 35 and 86 years old in the United States.</p>	<p>Study 1. Marginal association between self-employment and stress. Stress moderately mediated the relationship between self-employment and physical health.</p> <p>Study 2. Individuals with longer periods of self-employment experienced a higher allostatic load.</p> <p>Study 3. Individuals who utilized problem-focused coping mechanisms experienced lower allostatic loads.</p>
Patzel & Shepherd (2011)	Analyzed data collected from 2 700 Americans via the 1996 General Social Survey by the Inter-	Self-employed individuals reported experiencing fewer negative emotions compared to those who were

	University Consortium for Political and Social Research.	employed, and this relationship was stronger for those who used emotion-focused coping strategies than for those who did not.
Uy et al. (2013)	Analyzed survey data collected from 156 entrepreneurs in the Philippines.	Avoidance coping behaviours positively predicted immediate psychological wellbeing for experienced entrepreneurs. Avoidance coping behaviours negatively predicted wellbeing for inexperienced entrepreneurs. However, entrepreneurs have improved psychological wellbeing over time when engaging both avoidance and active coping behaviours.

2.3. Typology of Entrepreneurial Needs

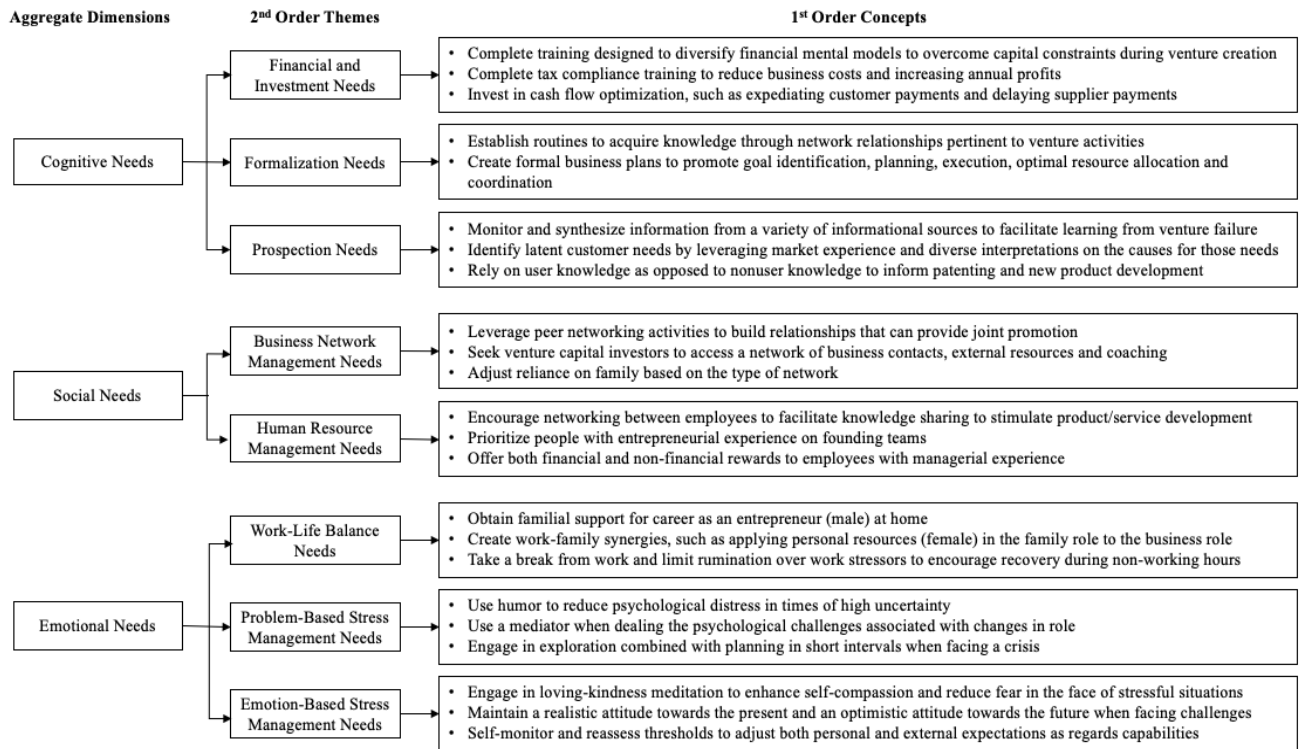
2.3.1. Methodology

The knowledge collected during our literature review on entrepreneurial needs served as the foundation for the development of our typology. To begin, we synthesized the findings from the 45 articles included in our literature review, resulting in 46 entrepreneurial needs. We then conducted an initial round of categorization, using content analysis to identify reoccurring themes within the 46 needs, resulting in 12 second order needs and four first-order needs. Our initial categorization was refined over 10 additional rounds, resulting in our final categorization, composed of eight second order needs and three first-order needs.

To enhance the rigor of our typology development, we asked four participants to independently classify the 46 first order concepts into the eight second order themes. To assess the consistency among our participants' independent classifications, we calculated interrater reliability scores using Fleiss Kappa. The calculated Fleiss Kappa was 0.759, suggesting substantial agreement among the judges regarding the categorization of the entrepreneurial needs. In general, Kappa values between 0.61 and 0.80 are interpreted as indicating a good level of agreement between judges, beyond what would be expected by chance (Landis & Koch, 1977).

Our final typology consists of 46 first order concepts, which we refer to henceforth as needs, eight second-order themes, which we refer to as need sub-categories, and three aggregate dimensions, which refer to as need categories. See Figure 1 for an overview of our proposed typology and examples of first order-needs.

Figure 1. *Typology of Entrepreneurial Needs*



2.3.2. *Proposed typology*

Our analysis of the literature on entrepreneurial needs provides a framework for three categories of entrepreneurial needs, (1) cognitive, (2) social, and (3) emotional.

2.3.2.1. *Cognitive Needs*

This category refers to the need for entrepreneurs to seek, identify, process, evaluate, and integrate information from relevant and multiple sources to generate knowledge. This entails recognising the necessity for new information and identifying relevant sources, gathering, and assessing it to ensure its credible and integrating it through synthesis, pattern recognition and drawing connections amongst various pieces to create new knowledge and inform decision-making for the benefit of their entrepreneurial endeavours.

Three subcategories of needs make up the category of cognitive needs, including (1) financial and investment needs, (2) formalization needs, and (3) prospection needs.

2.1.2.1.1. Financial and investment needs.

This subcategory refers to the need to effectively manage finances, optimize and allocate resources to support business growth and increase profitability (Chandler & Jansen, 1992; Mitchelmore & Rowley, 2010). Five articles emphasized the importance of financial and investment needs to entrepreneurial success.

Three of the five articles highlighted the importance of financial literacy, training, and strategic financial management to navigating challenges and achieving entrepreneurial success. For instance, Bischoff et al. (2019) explored the impact of entrepreneurial training amidst capital constraints. Two longitudinal field studies conducted among university students in Uganda revealed that that entrepreneurship training mitigates the adverse effects of financial constraints during firm creation by enhancing financial acumen. Nagel et al. (2019) examined the enduring effects of a tax training program on tax conformity and firm performance among nascent entrepreneurs. They merged survey data, audit records, and registration information from 818 entrepreneurs collected over three years by the Netherlands' Tax and Customs Administration. Their findings revealed that entrepreneurs who underwent tax compliance training exhibited reduced costs and higher annual profits compared to those without such training. Finally, Brinckmann et al. (2019) explored strategies for enhancing the strategic adaptability of firms. Survey data collected from 376 nascent entrepreneurs in Germany and Austria revealed the importance of investing in cash flow optimization to improve responsiveness to market opportunities and threats.

The remaining two articles addressed the importance of strategic investment and prioritization to enhancing entrepreneurial decision-making and firm performance. Zhao et al. (2011) investigated the interplay between entrepreneurial orientation, learning and firm performance. Based on data collected from 607 firms in China, they found internal learning mechanisms, in the form of experimentation, to be essential to the successful integration of knowledge generated through external learning mechanisms, highlighting the importance of investing in internal learning mechanisms. Finally, Ross et al. (2018) investigated the impact of uncertainty on research and development (R&D) investment decisions. Data collected from 551 teams within manufacturing firms revealed that sequential investment in R&D and commercialization allowed entrepreneurs to maximize insights from research activities when making commercial-related decisions, which would otherwise be unavailable if said investment occurred simultaneously.

Collectively, these studies highlight the criticality of effectively managing finances, optimizing resource allocation, and fostering business growth to enhance profitability.

2.1.2.1.2. Formalization needs

This subcategory refers to the need to structure, organize, and professionalize business operations by implementing systematic and structured processes and procedures to increase stability, reduce ambiguity, and improve overall efficiency (Mitchelmore & Rowley, 2010). Two articles addressed the importance of formalization needs to entrepreneurial success.

Greene and Hopp (2017) investigated the impact of formal written business plans on the success of new ventures. Data collected from 1 088 entrepreneurs in United States revealed that entrepreneurs with higher levels of education, growth aspirations, and financial constraints were more inclined to create formal business plans, and that these plans contributed to entrepreneurial

success. Similarly, Hughes et al. (2014) examined the relationship between network-based learning and venture performance, and the influence of the firm's absorptive capacity on this relationship. Through survey data collected from 211 CEOs of young technology firms, they found that competitive advantage was enhanced by established routines that support the absorption of knowledge acquired through network-based relationships (Hughes et al., 2014).

Together, these studies underscore the importance of implementing systematic processes and procedures to enhance firm stability and efficiency.

2.1.2.1.3. Prospection needs

This subcategory refers to the need to anticipate and prepare for future business opportunities and challenges. These require proactivity and serve to moderate risk, gain competitive advantage, and ensure growth as well as profitability (Chandler & Jansen, 1992; Mitchelmore & Rowley, 2010). Eleven articles highlighted the importance of prospection needs to entrepreneurial success.

Three of the 11 articles explored the role of human capital in the ability to anticipate and prepare for business opportunities. Haynie et al. (2012) explored how entrepreneurs, lacking prior entrepreneurial experience, can adeptly adjust decision-making strategies based on feedback. They tasked 217 business undergraduates and 73 experienced entrepreneurs in the United States with an opportunity evaluation exercise and found that decision accuracy was enhanced by metacognitive processes that generate knowledge, especially for entrepreneurs lacking prior entrepreneurial experience. Mueller and Shepherd (2016) examined the conditions under which transformational learning from venture failure occurs, and the nature of the knowledge it generates. They tasked 114 entrepreneurs with opportunity identification exercises and found that entrepreneurs with an intuitive cognitive style and opportunity prototypes were

better able to make sense of their experience, facilitating learning from venture failure. However, these cognitive abilities had less of an impact on the ability to learn from failure when entrepreneurs had prior entrepreneurial experience. Marvel et al., (2020) examined the connection between entrepreneurial human capital, coachability, and product innovation in ventures. Their analysis of data collected from 401 start-up coaches and 686 entrepreneurs revealed a positive correlation between human capital and the innovativeness of products. They also found that previous knowledge limited the scope of an entrepreneurs' opportunities, as their options were confined to what they already knew. Furthermore, their analysis revealed that coaching had a positive influence on product innovation by supplying the essential resources, serving as a learning mechanism for acquiring and incorporating new knowledge.

Four of the 11 articles explored the importance of knowledge acquisition to opportunity recognition and thus, environmental adaptation. Bao et al. (2020) investigated the factors influencing the recognition of entrepreneurial opportunities in the form of latent customer needs. Based on survey data collected from 238 business in China, they found that in stable environments, vicarious market learning, and in uncertain environments, experiential market learning played significant roles in identifying needs. Estrin et al. (2022) investigated whether entrepreneurs who participated in strategic activities, such as knowledge creation and acquisition, had ambitious growth objectives. Based on archival survey data, collected between 2001 and 2015 from 74 countries, they found that knowledge-intensive environments foster innovation-oriented ventures, making them more receptive to growth opportunities, thereby enhancing entrepreneurs' growth objectives. Mauer et al. (2018) explored how entrepreneurs adjust their information gathering strategies to effectively align with their environment using an agent-based simulation. Their findings revealed that entrepreneurs who use available information

to formulate predictions about potential outcomes when environmental uncertainty was moderate were more successful in adapting to their environment. Conversely, in environments characterized by high levels of uncertainty, entrepreneurs who used external information to construct a more favorable context were more successful in adapting to their environment. Lastly, Smith and Shah (2013) examined the extent to which knowledge gained from users enhanced the creation of commercial products, compared to other knowledge sources. They compiled data from corporate venture capital relationships within the medical device industry. Their findings revealed that user knowledge yields significant benefits in both the development and patenting of new products in comparison to knowledge gained from other sources.

Two of the 11 articles explored strategies aimed at modifying business models to effectively navigate dynamic environments. Andries et al. (2013) conducted a longitudinal study involving six ventures across diverse industries to investigate how entrepreneurs adjust their business models while operating under uncertainty. They found two effective strategies, focused commitment, and simultaneous experimentation. The former, while propelling initial growth, posed a risk to long-term survival. The latter, on the other hand, although resulting in slower initial growth, fostered long-term survival by encouraging diversity in resource efficiency. Denoo et al. (2022) examined the factors influencing the decision of ventures to modify their business models. Based on their study of 187 new American ventures in the mobile health industry, they found that the approach to customer acquisition and business development should evolve as a venture grows. Precisely, customer acquisition should focus on attracting a wide range of customers in the early stages of venture development to gain knowledge, while focusing on connecting with particular types of customers in later stages of venture development, requiring the modification of business models.

The remaining two articles explored entrepreneurial strategies aimed at gaining advantage in competitive environments. Kuechle et al. (2016) examined the factors prompting entrepreneurs to undertake risks in uncertain environments based on prediction and control-oriented strategies using two experiments. They found that entrepreneurs employing control strategies undertook risks more readily after positive outcomes, compared to those employing predictive strategies. Katila et al. (2012) explored competitive strategies employed by ventures to improve performance. Through 32 multi-round experiential simulations and interviews conducted in a graduate strategy class at an American university, they found that entrepreneurs who maintained a low profile in mature markets, while rapidly exploring segment opportunities in new markets, set the standard for competition ahead of large firms, allowing them to attain superior performance.

Conjointly, these studies underscore the importance of anticipating and preparing for future business opportunities and challenges.

2.3.2.2. Social Needs

This category refers to the need for entrepreneurs to actively pursue, identify, initiate, cultivate and harness relationships with others. The process of pursuing and identifying relationships entails proactively seeking opportunities to establish connections with people and discerning which parties have the potential to make positive contributions to the entrepreneurs' endeavors. These parties may include fellow entrepreneurs, investment partners, clients and customers, or employees. The initiation and the cultivation of these relationships demand a substantive investment of time and effort on the part of the entrepreneur. Strong affiliations with different parties serve to increase access to essential resources, such as capital, expertise, advice, etc., which contribute to the success of entrepreneurial endeavours.

Two subcategories of needs make up the category of social needs, including (1) business network management, and (2) human resources management.

2.3.2.2.1. Business network management

This subcategory refers to the need to effectively establish, manage, and leverage relationships with other entrepreneurs or businesses to ensure business growth and profitability (Larson, 1991). Eleven articles underscore the importance of business network management needs to entrepreneurial success.

Three of the 11 articles address the significance of strategically managing business network relationship to access various types of resources to enhance venture performance. Ge et al. (2022) explored the impact of efficient time management on performance among ventures led by entrepreneurs with a lower socioeconomic status. Based survey data collected by national organizations, they found that entrepreneurs with lower socioeconomic status gained a high return on time invested in networking and learning activities, offsetting initial resource deficiencies. Additionally, time spent on management activities was found to have a lower return in comparison to entrepreneurs with higher socioeconomic status. Furthermore, Kuhn and Galloway (2015) examined the exchange of peer assistance within formal and informal networks through survey data collected from 343 artisan entrepreneurs, unveiling the different types of support that can be found among business network relationships. Their findings revealed that motivational differences determined the type of support entrepreneurs were more likely to accept and offer to others during peer networking activities. Specifically, sellers' who were purpose-oriented valued emotional support, friendship, and advice, while those who were business-oriented valued joint promotion opportunities. Arshed et al. (2022) examined how female entrepreneurs construct their identities while navigating challenges to their credibility within

entrepreneurship. Based on data from 24 focus groups composed of female entrepreneurs and 30 interviews with support organizations, they found that gender-specific support initiatives, such as woman business centers, and gendered network groups, designed to support woman achieve their entrepreneurial ambitions, were experienced as empowering by women whose ventures were in the beginning stages and who lacked prior entrepreneurial experience. However, these same initiatives were experienced as restrictive by female entrepreneurs whose ventures were in the growth stage. Sullivan and Ford (2014) explored how entrepreneurs leverage their business networks to adapt to evolving resource needs during the initial stages of venture development. Drawing on data collected from 174 new ventures, their research revealed that the primary aim of an entrepreneur's initial network should be to enable access to resources that would prove vital in the initial stages of development. However, as the venture matures, entrepreneurs should revisit and adjust the number and diversity of network connections to safeguard their ability to obtain necessary resources.

Three of the 11 articles emphasized the importance of business network management to securing financial resources. Colombo and Grilli (2010) examined how a venture's growth trajectory was influenced by the human capital possessed by its founder and their access to venture capital financing. Their study, involving 439 Italian technology-based ventures, revealed that partnering with venture capitalists facilitated access to strategy, finance, and governance coaching as well as to external resources and capabilities, which contributed to growth. Hopp and Lukas (2014) examined the aspects influencing partnership decisions within venture capital groups. Based on data collected from 2,373 venture capitalist transactions in Germany, they found that the significance attributed to prior investment experience was influenced by the frequency of past collaborations with lead venture capitalists. This value was heightened when

previous invitations to collaborate were reciprocated by both parties, suggesting a mutual willingness to engage in deals and demonstrating an ability to establish reciprocal relationships through one's individual investment history. Ciuchta et al. (2018) examined whether entrepreneurial coachability influenced potential investors' decision to invest in entrepreneurial ventures. Their study, involving 48 individuals with prior experience in entrepreneurial coaching, revealed that coachability was essential to raising capital as an important indicator during a pitch. However, this effect was subject to the investor having prior experience with coaching.

One of the 11 articles emphasized the importance of geographic location to business network relationship and access to different resources. Specifically, Mathias et al. (2021) investigated the relationship between agglomeration, referring to a cluster of firms in a particular geographic area, and firm performance. In their meta-analysis of 42 studies, they found that entrepreneurs fostered innovation by situating themselves near similar firms, thereby enhancing venture performance. However, the impact on financial performance varied depending on factors such as the stage of venture development and the industry context.

The remaining three articles revealed the importance of business network management to successful internationalization. Milanov and Fernhaber (2014) examined the influence of domestic partnerships on new ventures' international success. Drawing from archival data collected from 194 American ventures within the computer and communication industry, they found that new ventures who collaborate with complementary business partners, both domestic and foreign, with international experience access resources essential to the successful internationalization of their ventures. Wang (2020) explored the influence of global social networks on entrepreneurial intention. He surveyed 3840 professionals from 98 countries with prior work experience in the United States. His findings indicate that stronger international

relationships enhanced the likelihood of pursuing a venture. However, as the differences between institutional realities widened between the United States and other countries, this likelihood diminished as the knowledge provided by international connections becomes irrelevant and inapplicable. Patel and Terjesen (2011) investigated how the range of network and the strength of relationships within those networks interact to influence the performance of ventures, particularly in the context of transnational entrepreneurship. Their study of 453 transnational entrepreneurs revealed that a broad network range enabled access to knowledge and other resources, but that these resources only enhanced entrepreneurial performance in the presence of strong network connections.

Collectively, these studies highlight the significance of strategically establishing, managing, and leveraging relationships with other entrepreneurs or businesses to entrepreneurial success.

2.3.2.2.2. Human resource management needs.

This subcategory refers to the need to attract, integrate, develop, leverage, motivate, and retain employees, as the effective management of the workforce contributes to business growth and profitability (Chandler & Jansen, 1992; Mitchelmore & Rowley, 2010; Zainon et al., 2020). Four articles address the importance of human resource management needs to entrepreneurial success.

Two of the four articles revealed the significance of management teams' experience and skills in driving the growth and success of new ventures. Nuscheler et al. (2019) investigated whether the skills of top management team members, resulting from their academic or professional experience, facilitated the market introduction and profitability of new products. The analysis of data spanning from 2005 to 2014, involving 374 technology-based start-ups, unveiled that the successful market introduction and profitability of new products were enabled

when the top management team was composed of individuals with professional experience but who lacked functional diversity. Additionally, Hashai and Zahra (2022) explored the influence of entrepreneurial experience on the growth of new technology ventures. They collected data from 153 Israel-based technology ventures from secondary sources. Their analysis revealed that reliance on the founding team's prior management experience within the same industry promoted growth in the early stages of venture development, while reliance on the experiential knowledge accumulated managing the new venture promoted growth in the later stages of venture development.

One of the four articles emphasized the importance of knowledge sharing practices. Chirico and Salvato (2016) explored the factors promoting and impeding product development within family businesses. Their study of 199 Swiss family businesses revealed that social dynamics and affective commitment indirectly influenced product development through the internalization of family members' knowledge, which was then transformed into tangible products.

The remaining article addressed importance of employee retention strategies. Zhu and Newman (2022) investigated the combined impact of financial incentives and non-financial incentives on employee retention within new firms. They collected data from 96 individuals working in newly established ventures. Their findings revealed that the impact of non-monetary incentives, such as high team support and growth opportunities, on employee retention was enhanced by high relative pay.

Together, these studies highlight the importance of effective human capital management, including attracting, integrating, developing, leveraging, motivating, and retaining, to business growth and profitability.

2.3.2.3. Emotional Needs

This category refers to the need for entrepreneurs to recognize, understand, and effectively navigate their emotions to confront business challenges and maintain overall wellbeing. The key to effectively managing emotions lies in the initial recognition and, acknowledgement of the emotions experienced, along with the identification of the underlying causes. This category also encompasses the need to regulate emotional reactions and adopt healthy coping mechanisms to maintain emotional equilibrium and resilience.

Three subcategories of needs make up the category of emotional needs, including (1) work-life balance, (2) problem-based stress management, and (3) emotion-based stress management.

2.3.2.3.1. Work-life balance needs.

This subcategory refers to the need to effectively manage professional and personal responsibilities, ensuring that neither takes over the other. Attaining such an equilibrium is essential to overall entrepreneurial wellbeing and therefore, business growth and profitability (Drnovsek et al. 2023). Two articles emphasized the importance of work-life balance needs to entrepreneurial success.

One of the two articles highlighted the importance of being able to disengage from work during non-working hours. Specifically, Kollmann et al. (2019) investigated the impact of entrepreneurial stressors on the ability to disengage from work during non-working hours and sleep quality. Based on data collected from 122 entrepreneurs managing start-ups, they found that entrepreneurial stressors had an indirect effect on nascent entrepreneurs such that they hindered the ability to disengage from work during non-working hours, which eventually impeded sleep quality. In the case of experienced entrepreneurs, they found that stressors had a

direct negative effect on sleep quality and an indirect negative effect on sleep quality via a reduced ability to disengage from work. Kollmann et al. (2019) found that while coping mechanisms facilitated work disengagement during non-working hours, they did not mitigate insomnia.

The remaining article advanced the importance of family support strategies. Eddleston and Powell (2012) investigated how favorable aspects of family experiences contributed to entrepreneurial satisfaction with work-life balance. They collected data from 258 entrepreneurs, 60% of which were female and 40% male. Their findings revealed that male entrepreneurs experienced higher life satisfaction and performance by securing support from their families regarding their entrepreneurial endeavours, while female entrepreneurs experienced higher life satisfaction and performance by creating synergies between their work and familial roles.

Conjointly, these studies underscore the importance of a tailored approach to addressing work-life balance needs that account for individual circumstances to overall well-being and entrepreneurial performance.

2.3.2.3.2. Problem-based stress management needs

This subcategory refers to the need to acknowledge and manage the underlying source of a stressor directly as a means of reducing overall stress. In other words, facing entrepreneurial problems head on to solve them (Dijkhuizen et al., 2017). Five articles highlighted the importance of problem-based coping strategies to entrepreneurial success.

Two of the five articles revealed the importance of coping mechanisms in alleviating the stress associated with entrepreneurial activities. Patel et al. (2019) conducted three studies exploring the relationship between entrepreneurship and well-being. In their first study, which analyzed data from the United Kingdom's Nurse Health Assessment survey (2010-2012),

involving 194 entrepreneurs and 1511 employed professionals, they discovered that the stress inherent to entrepreneurship contributes to overall allostatic load, thereby impacting physical health. Their second study, utilizing data from the United States' Second National Health and Nutrition Examination Survey (1988-1994), including 776 entrepreneurs and 8003 employed professionals, revealed that prolonged engagement in entrepreneurial activities was linked to higher allostatic load. Lastly, their third study, based on longitudinal data from the Midlife study in the US (individuals aged 35 to 86), demonstrated the lasting effects of self-employment on allostatic load over an eight-year period. Through their multiple studies, Patel et al. (2019) found that problem-focused coping mechanisms alleviated the stress associated with entrepreneurship. Nikolaev et al. (2022) investigated why entrepreneurs consider their lives to be more satisfying despite navigating complex demands that subject them to additional stressors. Based on data collected by the National Study of Midlife in Development in the United States, they found that entrepreneurs demonstrated an inclination towards problem-focused coping, which safeguarded their overall wellbeing.

Three of the five articles explored different types of problem-focused coping strategies and their respective impact on entrepreneurial well-being. Bertschi-Michel et al. (2019) explored the impact of advisors' engagement in managing emotions during business succession on the satisfaction levels of those involved. Their study, spanning four years and involving five family business succession cases, underscored the significance of employing a mediator to navigate the psychological challenges inherent in business successions. Stephan et al. (2022) explored whether opportunity agility and planning agility protected entrepreneurial wellbeing in reaction to adversity. They collected survey data from 3162 entrepreneurs across 20 countries. Their findings revealed that those entrepreneurs who demonstrated opportunity and planning agility

experienced heightened wellbeing, while those only demonstrating planning agility experienced lowered wellbeing. Uy et al. (2013) examined how entrepreneurs' active and avoidance coping behaviours influenced wellbeing, and how prior venture experience moderated this relationship. Based on data collected from 156 entrepreneurs, they found that avoidance coping behaviours immediately improved entrepreneurial wellbeing of those entrepreneurs with venture experience but hindered the wellbeing of those entrepreneurs with no prior venture experience. They also found that avoidance coping behaviours extended wellbeing when demonstrated in combination with active coping behaviours.

Conjointly, these studies emphasize the importance of proactive problem-solving approaches, including recognizing and directly addressing the underlying source of stressors, to entrepreneurial well-being and success.

2.3.2.3.3. Emotion-based stress management needs.

This subcategory refers to the need to recognize, understand, and regulate emotions as a means of coping with stress (Dijkhuizen et al., 2017; White & Gupta, 2020). In other words, identifying and managing the emotion as opposed to underlying source of the stressor. This is essential to entrepreneurial well-being, but also business success and sustainability (Hessels et al., 2018; White & Gupta, 2020). Five articles underscored the importance of emotion-based coping strategies to entrepreneurial success.

One of the five articles emphasized the importance of emotion-focus coping strategies overall. Patzel and Shepherd (2011) examined whether entrepreneurs were more prone to experiencing negative emotions compared to employed individuals. These negative emotions included fear, stress, and loneliness, to name a few. Based on data collected by the 1996 General Social Survey of the Inter-University Consortium for Political and Social research, involving

over 2700 American citizens, they found that entrepreneurs experienced fewer negative emotions than employed individuals, especially entrepreneurs who engaged in emotion-focused coping practices.

The remaining four articles explored the different emotion-based coping strategies that contribute to entrepreneurial well-being. Miller and Sardais (2015) investigated the paradoxical depiction of entrepreneurs in the literature as both optimistic and realistic in nature. They analyzed diary entries of an entrepreneur, their partner and advisor over the final six-month of an unsuccessful venture. They found that the quality of an entrepreneur lies in their ability to maintain a realistic attitude towards the present, while adopting an optimistic attitude towards the future. This promoted confidence in the face of challenges and the ability to adapt. Branzei and Fathallah (2021) explored entrepreneurial resiliency through two longitudinal, ethnographic studies, which included the interviews of 15 entrepreneurs. They found that entrepreneurial resiliency lied in the entrepreneur's ability to self-monitor and reassess thresholds as well as adjust both personal and external expectations as regards their capabilities to better deal with work-related adversity. Engel et al. (2021) explored practices that entrepreneurs adopted to reduce feelings of fear in the face of stress-inducing situations. They conducted an experiment with a sample of 87 entrepreneurs during which participants were randomly assigned to either a guided meditation or a Ted Talk about meditation. Their findings revealed that those entrepreneurs who received a guided loving-kindness meditation exhibited greater levels of self-compassion, and reduced fear reactivity. Hmieleski and Cole (2022) explored the factors contributing to the capacity of certain entrepreneurs to navigate the challenges posed by environmental uncertainty, while others struggled to do so. They collected survey data from 183 CEOs from 42 states across the United States and 97 industries. Their findings revealed that

shared coping humor reduced psychological distress among members of management teams in the face of environmental uncertainty, indirectly influencing performance.

Collectively, these studies highlight the importance of emotion-based stress management strategies, including recognition, understanding, and regulation of emotions, in fostering resilience and promoting wellbeing, ultimately contributing to entrepreneurial success.

2.4. Discussion

The significance of entrepreneurship in driving economic growth cannot be overstated.

Numerous studies have confirmed the connection between new venture creation and economic growth (Bosma et al. 2018; Carree & Thurik, 2008; Gomes et al., 2023; Low & MacMillan, 1988). Thus, the imperative for action facilitating entrepreneurship has gained recognition in recent years. Inherent to action facilitating entrepreneurial pursuits is an in-depth understanding of entrepreneurial needs. The state of the literature on entrepreneurial needs established the necessity of integrating existing knowledge (Ahmed et al., 2020; Low & MacMillan, 1988; Quintero et al., 2019). Ergo, we offer an in-depth examination of entrepreneurial needs and develop a typology and begin the process of integrating entrepreneurial need types into a guiding framework.

2.4.1. Theoretical contributions

Our study offers two unique theoretical contributions. Firstly, to our knowledge, this is the first study to develop a comprehensive typology, prioritizing broad categorization over specific details. The proposed typology serves to identify commonalities among diverse cases, facilitating the recognition of general patterns, principles, and trends applicable across various contexts. By abstracting from individual specifics, our typology facilitates theory development by providing a framework to generalize findings. Specifically, we advance a typology that differentiates

between entrepreneurial needs, synthesizing and integrating current knowledge into a guiding framework. Notably, our typology encompasses three overarching need categories and eight entrepreneurial need subcategories. Our study thus contributes to a growing body of research that has gained recognition in recent years. Through its application, researchers can transcend singular cases and establish theoretical frameworks conducive to hypothesis testing and validation. Ultimately, our typology fosters a deeper understanding of complex phenomena, thereby advancing theoretical knowledge within the field.

Secondly, building upon Quintero et al. (2019) call for an integrative, as opposed to a monodisciplinary, approach, our study transcends narrowly scoped perspectives offered by individual disciplines. Indeed, our proposed typology is a culmination of a review of studies that span multiple disciplines, such as psychology, sociology, and economics, and multiple levels of analysis, including the individual, group, organization, industry, and societal levels (Low & MacMillan, 1998). The integration of knowledge stemming from multiple disciplines serves to acknowledge the multifaceted nature of the entrepreneurial process and to provide a holistic understanding of entrepreneurial needs. Additionally, the integration of knowledge across multiple levels of analysis, each with its own context, serves to acknowledge the complex interplay of factors influencing entrepreneurial needs, while transcending them to identify general patterns, principles, and trends.

Our proposed typology is also aligned with one of the only studies conducted on entrepreneurial needs that we have come across. Drawing from the data from the US Panel Study of Entrepreneurial Dynamics, Yusuf (2010) found that entrepreneurial assistance programs effectively addressed the support needs of entrepreneurs only 26 percent of the time. However, entrepreneurs continued to express substantial value for this support, regardless of its actual

effectiveness. The support needs included learning how to create and manage a new venture (21.2%), learning more about product, production, or market (18.1%), network or referral assistance (16.7%), general training or information (16.7%), help with legal, political, or administrative issues (4.5%), and other support needs (22.7%). Not only do Yusuf's (2010) findings lend credit to our proposed typology, but they also highlight the importance of identifying the full range of entrepreneurial needs. Moreover, our typology adds a new dimension to entrepreneurial needs by including emotional needs. While Yusuf (2010) identified needs akin to our cognitive and social need categories, the emotional needs were not made explicit. Our typology places the entrepreneur and their needs at the centre of the entrepreneurial process, recognizing the importance of emotional well-being in entrepreneurial endeavors.

2.4.2. Practical implications

Our study also has practical implications. Notably, interest in identifying determinants of venture success has increased in recent years due to the high risk of failure associated with entrepreneurial ventures. Governments seeking to develop and implement effective policies and incentives that promote, and support entrepreneurship can benefit from insights into the needs of entrepreneurs and the factors influencing the success of entrepreneurial pursuits (Pinho & Sampaio de Sa, 2014). The policy-setting process comprises four steps, including issue prioritization, policy creation, execution, and evaluation. During agenda setting and policy formulation the focus is defining the needs the policy aims to address (Raafaldini et al., 2018). Our proposed typology can support this process by offering a starting point for exploring entrepreneurial needs and ensuring that the full spectrum of needs is taken into consideration. Especially, given that according to Gilbert et al. (2004), policies that promote and support entrepreneurship are essential to driving economic growth.

Additionally, educational institutions can enhance their entrepreneurial education programs by tailoring them to address practical challenges faced by aspiring entrepreneurs. The insight provided by our proposed typology can inform curriculum development, ensuring that aspiring entrepreneurs receive comprehensive training tailored to their needs. Traditional entrepreneurship education programs have faced criticism for their perceived irrelevance to the dynamic entrepreneurial landscape of today (Solomon & Matthews, 2014). Specifically, they often neglect the cross-functional nature of contemporary business challenges. Most of the entrepreneurship education focuses on cultivating skills in opportunity recognition, evaluation, and execution (Eesley & Lee, 2020). While entrepreneurship education has been shown to positively impact entrepreneurial intention and success (Eesley & Lee, 2020; Solomon & Matthews, 2014), such programs could benefit from considering the emotional and social aspects crucial to the entrepreneurial process as these practices are foundational and would likely further prepare entrepreneurs to navigate entrepreneurial challenges. Beyond educational programs intended for students with entrepreneurial aspirations, universities can also develop continuous education programs aimed at supporting entrepreneurs throughout their venture's lifecycle.

Moreover, both aspiring and seasoned entrepreneurs can benefit from insight into their needs to better navigate the challenges of starting, growing and maintaining a business.

Finally, a comprehensive grasp of entrepreneurs' needs empowers entrepreneurial advisors, including those in financial institutions, to transition from merely selling financial products and services to assuming an advisory role. This evolution entails offering personalized advice and solutions tailored to each entrepreneur's unique circumstances. To deliver such a service effectively, advisors must cultivate a holistic understanding of entrepreneurial needs. By establishing themselves as trusted advisors, financial professionals can cultivate enduring

relationships with entrepreneurs, nurturing loyalty and becoming indispensable allies in their pursuit of entrepreneurial success.

2.4.3. Limitations and future research

The study has two notable limitations. Firstly, our literature review was narrow in scope, given that it was circumscribed to three journals. This likely limited the completeness of the proposed typology. Moreover, typologies have been criticized for oversimplifying complex phenomena by creating rigid categories that do not adequately capture the dynamic nature of that which is under study, being both static over time, and prone to bias (Collier et al. 2012; Fiss, 2011). Though the proposed typology is the result of a systemic and rigorous development process, confirmed by our interrater reliability score (0.759) and is more than a simple classification of entrepreneurial needs, we encourage future research to expand upon and test the proposed typology. Particularly, future research should expand the scope of the review to include additional journals, both academic and professional in nature, and seek additional entrepreneurial need subcategories, while also testing their effectiveness at predicting entrepreneurial behaviour and performance.

Secondly, it must be noted that we do not have direct measures of cognitive, social, and emotional needs, rather these are higher level constructs that we developed based on our review of the literature and integration of entrepreneurial needs to a guiding framework. However, our proposed typology serves as a solid foundation for future research. Our hope is that the entrepreneurial need categories and subcategories that emerged from our review become explicitly defined constructs that can be quantified, allowing future research to articulate the relationship between personal characteristics, entrepreneurial needs, and performance. Eventually, the predictions associated with entrepreneurial needs and venture performance should be testable and subject to disconfirmation.

Though predicting entrepreneurial needs based on the characteristics of entrepreneurs, their ventures, and the environment in which they operate, was beyond the scope of the present study, it remains a topic worth exploring.

Entrepreneurs, ventures, and environments each have distinct sets of characteristics, with the combination of characteristics in each set being unique to either the entrepreneur, the venture, or the environment. These combinations are likely to generate specific entrepreneurial needs, which in turn influence entrepreneurial performance. The entrepreneur's set of characteristics include a combination of age (ex. Becker, 1962; Gielnik et al., 2012; Zhao et al., 2021), gender, experience (ex. Pinho & Sampaio de Sa, 2014), motivation, personality traits, behavioural attributes (Ahmed et al., 2020; Gorman, 1997; Sanchez & Ortega, 2023; Weng et al., 2022), cognitive, social, and emotional abilities (ex. Bal et al., 2008; Charles et al., 2001; Galvão et al., 2019; Gümüşay & Bohné, 2018; Scott & Venkataraman, 2000; Shepherd et al., 2009), among others. The venture's set of characteristics include a combination of age, size, industry (Handoyo et al., 2023). Finally, the environment's set of characteristics include a combination of customers, competitors, suppliers, and shareholders. All these characteristics have been found to either directly or indirectly influence entrepreneurial performance, and likely entrepreneurial needs (Moss et al., 2014; Nkundabanyanga et al., 2020; Handoyo et al. 2023). The entrepreneur, venture, and the immediate environment also evolve in a broader context marked by economic, socio-cultural, political, technological, legal, and environmental climates, which vary from one geographic location to another (Handoyo et al., 2023). The interplay between the entrepreneur, their venture, and their environment is complex, dynamic, and uncertain. It is multifaceted, meaning that a change in one aspect can trigger a chain reaction, affecting multiple facets. These interactions are difficult to interpret and anticipate given the nature of the interplay. Accordingly,

future research should consider how the entrepreneurial needs advanced by our typology vary from one entrepreneur to the next, depending on the characteristics of the entrepreneur, their venture, and the environment in which they operate. Are they similar or different from one entrepreneur to the next? Does their importance fluctuate or not?

Moreover, we strongly encourage future research to explore the possibility of organizing the entrepreneurial needs outlined in our typology into a hierarchical structure. This exploration could offer a deeper understanding of how entrepreneurs prioritize and pursue different objectives within their entrepreneurial process. For example, Maslow's Hierarchy of Needs, a widely recognized framework delineating five distinct levels of human needs, from basic physiological needs to higher-level psychological ones, presents a potential comparative framework to explore key questions (Maslow, 1943; Taormina & Gao, 2013). These questions include whether certain entrepreneurial needs take precedence over others and whether the fulfillment of certain needs is prerequisite for others, like the hierarchical nature observed in Maslow's hierarchy (Maslow, 1943; Taormina & Gao, 2013). Other key questions include whether the gratification of basic entrepreneurial needs cultivates resilience required to overcome obstacles inherent to meeting higher-level needs and whether this partially explains the resilience that characterizes entrepreneurs. Additionally, future research should consider whether the hierarchy is universal, or whether it varies from one entrepreneur to another based on their characteristics, the characteristics of their venture and the characteristics of the environment in which they evolve. Insight into these questions can inform the development of more effective strategies and interventions to support entrepreneurial success.

CHAPTER 3: CONCLUSION

3.1 The Entrepreneur, the Venture, and the Environment

The following chapter expands upon the suggestions for future research presented in the previous chapter.

3.1.1. The Entrepreneur

As previously mentioned, entrepreneurs, their ventures, and the environments in which they operate each have distinct sets of characteristics, with the combination of characteristics in each set being unique to either the entrepreneur, the venture, or the environment. Specifically, the entrepreneur's set of characteristics include a combination of age, gender, experience, motivation, personality traits, behavioural attributes, cognitive, social, and emotional abilities, among others. These characteristics have been found to influence entrepreneurial performance independently and simultaneously, and likely entrepreneurial needs (Becker, 1962; Gielnik et al., 2012; Zhao et al., 2021; Kaish & Gilad, 2009; Pinho & Sampaio de Sa, 2014; Ahmed et al., 2020; Gorman, 1997; Sanchez & Ortega, 2023; Weng et al., 2022; Bal et al., 2008; Charles et al., 2001; Galvão et al., 2019; Gümüşay & Bohné, 2018; Scott & Venkataraman, 2000; Shepherd et al., 2009),

Age has long been considered as a potential factor influencing entrepreneurial performance (Zhao et al., 2021). However, age is commonly treated as a control variable and its theoretical significance is seldomly explored, resulting in inconsistencies across the literature (Gielnik et al., 2012; Zhao et al., 2021). Nevertheless, age is a convenient measure for a broad spectrum of age-related factors, including financial, social, and human capital, as well as familial obligation. Entrepreneurs accumulate human capital, including knowledge, skills, and experience

as they age, which contributes to the success of their entrepreneurial endeavours (Becker, 1962). This may also influence their entrepreneurial needs.

For instance, a young entrepreneur may place greater importance on business network management practices compared to an older entrepreneur, who already possesses an extensive network. In the same vein, older entrepreneurs are likely to benefit from greater access to information, resources, and advice because of their extended network and ties (Zhao et al., 2021).

Older entrepreneurs, also tend to have accumulated a more substantial amount of financial capital throughout the years, compared to their younger counterparts. Greater access to financial capital can serve to secure greater investments, pursue financially intensive strategies, and safeguard against unforeseen challenges. Accordingly, a younger entrepreneur may place greater importance on financial and investment practices to secure financial capital than their older counterparts (Zhao et al., 2021).

Moreover, negative emotions tend to decrease with age, while positive emotions increase. Older entrepreneurs display more nuanced emotional responses in comparison to their younger counterparts and tend to develop emotional regulation abilities, equipping them to better deal with stressors (Bal et al., 2008; Charles et al., 2001; Shepherd et al., 2009). Accordingly, younger entrepreneurs may place greater importance on emotion-based stress management practices due to their relative lack of experience in this area, while an older entrepreneur may also prioritize these practices because they have recognized the significant impact of stressors on their overall well-being.

Finally, familial obligations tend to be correlated with age as well as gender. Experience is a characteristic of the entrepreneur that has been proven to influence performance. In fact,

prior entrepreneurial experience is associated with the ability to effectively process information and identify opportunities, develop strategies, and cultivate rich business networks and to learn (Kaish & Gilad, 1991). Additionally, prior industry-specific experience is associated with increase profitability. However, excessive reliance on prior experience may stifle innovation (Pinho & Sampaio de Sa, 2014).

Notably, behavioural attributes, such as initiative, risk propensity, independence, commitment, persistence (Gorman, 1997), leadership and resilience have been linked to entrepreneurial performance (Ahmad et al., 2022, Sanchez & Ortega, 2023; Shahab et al., 2019; Weng et al. 2022). Similarly, cognitive, social, and emotional abilities, such as creativity, communication, and coping respectively (Galvão et al., 2019), have been linked to the skills required to start and maintain a firm, to identify and effectively utilize various resources to achieve objectives (Gümüsay & Bohné, 2018), to recognize and seize opportunities, as well as identify threats and overcome obstacles (Scott & Venkataraman, 2000). These characteristics, both traits and abilities, are required to deal with needs related to finance, marketing, product development, foresight, HR, team management, etc. (Galvão et al., 2019; Pinho & Sampaio de Sa, 2014). Similarly, these characteristics are likely to influence entrepreneurial needs and warrant further consideration.

3.1.2. The Venture

The venture's set of characteristics include, but are not limited to, a combination of age, size, industry, just to name a few (Handoyo et al., 2023). These characteristics differentiate from one venture to another (Nkundabanyanga et al., 2020). Like the entrepreneur's age, over the span of its existence, ventures accumulate knowledge and experience (Hannan et al., 1998). The accumulation of knowledge and experience contributes to the development of capabilities,

including adaptability, reliability, and credibility (Shinkle & Kriauciunas, 2010). Accordingly, older firms have a higher probability of survival compared to their younger counterparts (Yasuda, 2005).

Furthermore, the size of the venture and the industry it operates in influences its strategic orientations (Handoyo et al., 2023). In fact, larger companies often favor strategies that focus on capitalizing on opportunities, enhancing competitiveness, and fostering growth, all of which typically requires substantial resources (Ke et al., 2008). Conversely, smaller ventures, facing resources constraints, tend to adopt strategies that focus on safeguarding their market position, mitigating risks, and conserving resources (Bishop & Megicks, 2002). However, these broad patterns may not universally apply, promoting further investigation into the factors influencing shifts in strategies and the resulting entrepreneurial needs, and vice versa. As for industry, each industry has its own unique environment, that is either relatively stable or in flux, and therefore are likely to require different strategic orientation and therefore generate different entrepreneurial needs (Moss et al., 2014).

3.1.3. The Environment

The environment's set of characteristics include a combination of customers, competitors, suppliers, and shareholders. The broader context in which the entrepreneur, the venture and the environment evolve is influenced by an economic, socio-cultural, political, technological, legal, and environmental climate, which varies from one geographic location to another (Handoyo et al., 2023). Venture performance is influenced by strategic orientation, which needs to be appropriate to forces in both the immediate environment and the broader context. In a volatile environment, ventures must balance adaptation and stability, which may require flexible structures (Handoyo et al., 2023). In the face of market competitiveness, for example, a venture may be required to reduce

costs, and streamline operations. However, in a less competitive environment, cost management is less important. This likely has an effect of entrepreneurial needs.

The interaction among entrepreneurs, their ventures, and their environment is intricate, with changes in one aspect often leading to cascading effects across multiple facets. Understanding and predicting these interactions is challenging given their complexity. Accordingly, future research should explore how the entrepreneurial needs outline in our typology differ among entrepreneurs, depending on their characteristics, their venture and operating environment.

3.2. An Entrepreneurial Needs Hierarchy

Building on the questions raised in the previous section, we decided to take our typology of entrepreneurial needs one step further by examining whether a natural ranking emerged. To do so, we matched our typology of entrepreneurial needs to Maslow's Hierarchy of Needs.

In 1943, Abraham Maslow proposed a hierarchy of needs, which has since become a widely recognized framework that makes sense of human motivation, behaviour, and the pursuit of wellbeing (Maslow, 1943; Taormina & Gao, 2013). The hierarchy organizes human needs into five distinct levels. At the foundation of the hierarchy are physiological needs, encompassing basic survival requirements such as oxygen, water, and food. Moving up the hierarchy, safety needs follow, which involve seeking security through employment, health, and a stable environment. The next level comprises social needs, emphasizing the importance of interpersonal relationships, love, and achievement. Esteem needs form the fourth level, which includes the desire for self-respect, recognition from others, and achievement. Finally, the fifth and highest level is self-actualization, where individuals aim for personal growth and the fulfillment of their potential (Maslow, 1943; Taormina & Gao, 2013).

Maslow's Hierarchy of Needs has proven to have practical applications across various fields. In education, for instance, the hierarchy is considered when designing learning environments and creating curriculums to ensure that students' academic, social, and emotional needs are met in the interest of facilitating learning (ex. Ansorger, 2021). Businesses apply it in workplace management to understand and motivate employees, tailoring strategies to fulfill different needs, from providing competitive salaries to encouraging teamwork (ex. Upadhyaya, 2014). In marketing, the model is used to identify and appeal to consumer needs at different levels, understanding consumer behaviour and ensuring advertisements address specific needs, from necessities to self-actualization (ex. Cui et al., 2021; Smith & Sweet, 2021). Healthcare providers consider the hierarchy when developing intervention strategies to ensure holistic healing, emphasising both emotional and social needs, which are often overlooked (ex. Bucchio et al., 2021; Crandall et al., 2020; Harper et al., 2003; Lonn & Dantzler, 2017; Woods et al., 2017; Yang, et al., 2023). Accordingly, Maslow's Hierarchy of Needs serves as a versatile framework, guiding approaches in diverse contexts to enhance overall well-being.

Furthermore, Maslow posited that individuals strive to fulfill lower-level needs before advancing to higher-level ones, creating a progressive journey towards self-fulfillment and personal growth. Interestingly, Taormina and Gao (2013) observed that the fulfillment of physiological needs predicted one's ability to satisfy the higher-level needs. Maslow (1943) also recognised that an individual doesn't have to achieve 100% satisfaction in a particular need before their attention shifts to the next level. Instead, the framework acknowledges that these needs exist on a continuum, and individuals can experience a mix of fulfilled and unfulfilled needs simultaneously (Maslow, 1943). Moreover, the hierarchy suggests a dynamic interplay between various needs, allowing for a more nuanced understanding of human motivation and

behaviour. Additionally, it implies that progress towards self-actualization is a continuous and evolving process, with individuals navigating multiple needs at different levels concurrently (Maslow, 1943). Maslow (1943) also recognises that within the sphere of motivational determinants, any behaviour tends to be determined by several or all basic needs. Furthermore, behaviour may be determined partially or completely by external stimuli, which highlights the complexity and dynamic interplay.

Though Maslow's theory has been influential and widely adopted, it has also faced some criticisms. Among the most common, we find the argument that it is culturally biased, being largely based on observations of Western individuals, and thus not universally applicable; that it is overly rigid and linear in nature; and that it lacks strong empirical evidence given that studies have failed to consistently validate the distinct five-tier structure (Taormina & Gao, 2013; Wahba & Bridwell, 1976). Nonetheless, we matched our typology of entrepreneurial needs with Maslow's Hierarchy of Needs. To ensure that our hierarchy closely mirrored Maslow's original structure, we listed Maslow's five need levels in a column. This allows for a comparison between the two models. In the first column, we provide the levels of the original hierarchy. In the second column of the table, we provide a brief description of each need level based on Maslow's hierarchy. In the third column, we list the corresponding need category for our hierarchy of entrepreneurial needs. In the fourth column, we provide descriptions for each need category of our hierarchy. The fifth column lists the need subcategories for our hierarchy, while the sixth column offers descriptions for each need subcategory. We encourage future research to consider the questions raised in the previous chapter as insight into these questions can inform the development of more effective strategies and interventions to support entrepreneurial success. Table 3 presents our hierarchy of entrepreneurial needs.

Table 4. *Hierarchy of Entrepreneurial Needs*

Maslow's Hierarchy		Hierarchy of Entrepreneurial Needs			
Need Level Name	Need Level Description	Need Category Name	Need Category Description	Need Subcategory	Need Subcategory Description
Physiological Needs	Basic requirements for human survival (oxygen, water, food, etc.)	Cognitive Needs	Gather, assess, synthesize information from various sources to create new knowledge and inform decision-making	Financial & Investment Needs	Effectively manage finances, optimize resources, resource allocation to increase business growth and profitability
Safety Needs	Pursuit of security (employment, health, stable environment)			Formalization Needs	Structure, organize, and professionalize business operations by implementing systematic and structured processes and procedures to increase stability, reduce ambiguity, and improve overall efficiency
				Prospection Needs	Anticipate and prepare for future business opportunities and challenges. These require proactivity and serve to moderate risk, gain competitive advantage, and ensure growth as well as profitability
Social Needs	Desire for interpersonal relationships, love, a sense of belonging	Social Needs	Cultivate, harness relationships by proactively seeking connections with individuals who can contribute positively to entrepreneurial endeavors	Business Network Management Needs	Effectively establish, manage, and leverage relationships with other entrepreneurs or businesses to ensure business growth and profitability
				Human Resource Management Needs	Attract, integrate, develop, motivate, and retain employees, as the effective management of the workforce contributes to business growth and profitability
				Work-Life Balance Needs	Effectively manage professional and personal responsibilities, ensuring that neither takes over the other. Attaining such an equilibrium is

					essential to overall entrepreneurial wellbeing and therefore, business growth and profitability
Esteem Needs	Desire for self-respect, recognition from others, and accomplishment	Emotional Needs	Recognize, understand, manage emotions to tackle business challenges and maintain wellbeing	Emotion-Based Stress Management Needs	Effectively manage emotions to cope with stress, which is crucial for both their well-being and business success
				Problem-Based Stress Management Needs	Effectively face problems directly by acknowledging and managing the underlying source to reduce stress for both well-being and business success
Self-Actualization Needs	Desire for personal growth, creativity, and the realization of full potential	Self-Actualization Needs	Desire for personal and professional growth, and realization of full potential	Organizational Performance	Achieve business objectives, goals, and desired outcomes

References

- Ahmad, S., Arshed, N., Salem, S., Khan, Y. A., Hameed, K., & Kam, S. (2022). Role of globalization defining the incidence of entrepreneurship. *PloS one*, *17*(3), 1-22. <https://doi.org/10.1371/journal.pone.0265757>
- Ahmed, T., Chandran, V. G. R., Klobas, J. E., Liñán, F., & Kokkalis, P. (2020). Entrepreneurship educations programmes: How learning, inspiration and resources affect intentions for new venture creation in a developing economy. *The International Journal of Management Education*, *18*(1), 1-13. <https://doi.org/10.1016/j.ijme.2019.100327>.
- Andries, P., Debackere, K., & van Looy, B. (2013). Simultaneous experimentation as a learning strategy: Business model development under uncertainty. *Strategic Entrepreneurship Journal*, *7*(4), 288-310. <https://doi-org.proxy2.hec.ca/10.1002/sej.1170>
- Ansorger, J. (2021). An analysis of education reforms and assessment in the core subjects using an adapted Maslow's hierarchy: Pre and post COVID-19. *Education Sciences*, *11*(8), 1-16. <https://doi.org/10.3390/educsci11080376>
- Arshed, N., Martin, G., & Knox, S. (2022). Ties that bind or blind? The role of identity and place in understanding women entrepreneurs' support needs. *Entrepreneurship Theory and Practice*, *0*(0), 1-28. <https://doi.org/10.1177/10422587221134786>
- Asadi-Lari, M., Packham, C., & Gray, D. (2003). Need for redefining needs. *Health and quality of life outcomes*, *1*(34), 1-5. <https://doi.org/10.1186/1477-7525-1-34>
- Bal, M. P., De Lange, A. H., Jansen, P. G. W., & Van Der Velde, M. E. G. (2008). Psychological contract breach and job attitudes: A meta-analysis of age as a moderator. *Journal of Vocational Behavior*, *72*(1), 143-158. <https://doi.org/10.1016/j.jvb.2007.10.005>
- Bao, Y., Wei, Z., & Di Benedetto, A. (2020). Identifying the tacit entrepreneurial opportunity of latent customer needs in an emerging economy: The effects of experimental market learning versus vicarious market learning. *Strategic Entrepreneurship Journal*, *14*(3), 444-469. <https://doi.org/10.1002/sej.1350>
- Baron, R. A. (2023). How entrepreneurs turn the possible into the real—and sometimes change the world. *Possibility Studies & Society*, *1*(1-2), 9–14. <https://doi.org/10.1177/27538699221145584>
- Becker, G. S. (1996). Investment in human capital: A theoretical analysis. *Journal of Political Economy*, *70*(5), 9-49. <http://www.jstor.org/stable/1829103>

- Bertschi-Michel, A., Kammerlander, N., & Strike, V. M. (2019). Unearthing and alleviating emotions in family business successions. *Entrepreneurship Theory and Practice*, 44(1), 81-108. <https://doi.org/10.1177/1042258719834016>
- Bischoff, K. M., Gielnik, M. M., & Frese, M. (2019). When capital does not matter: How entrepreneurship training buffers the negative effect of capital constraints on business creation. *Strategic entrepreneurship journal*, 14(3), 369-395. <https://doi.org/10.1002/sej.1364>
- Bishop, P., & Megicks, P. (2002). Competitive strategy and firm size in the estate agency industry. *Journal of Small Business and Enterprise Development*, 9(2), 150-161. <https://doi.org/10.1108/14626000210427393>
- Bosma, N., Content, J., Sanders, M., & Stam, E. (2018). Institutions, entrepreneurship, and economic growth in Europe. *Small Business Economics*, 51(2), 483-499. <https://doi.org/10.1007/s11187-018-0012-x>
- Branzei, O., & Fathallah, R. (2021). The end of resilience? Managing vulnerability through temporal resourcing and resisting. *Entrepreneurship Theory and Practice*, 47(3), 831-863. <https://doi.org/10.1177/10422587211053809>
- Brinckmann, J., Villanueva, J., Grichnik, D., & Singh, L. (2019) Sources of strategic flexibility in new ventures: An analysis of the role of resource leveraging practices. *Strategic Entrepreneurship Journal*, 13(2), 154-178. <https://doi-org.proxy2.hec.ca/10.1002/sej.1313>
- Bucchio, J., Jones, N. V., & Dopwell, D. M. (2021). Applying Maslow's hierarchy of needs to LGBT foster youth: Practice implications for child welfare professionals and those working in rural settings. *Journal of Social Work Practice*, 35(3), 287-299. <https://doi.org/10.1080/02650533.2020.1834372>
- Carree, M. A., & Thurik, A. R. (2008). The lag structure of the impact of business ownership on economic performance in OECD countries. *Small Business Economics*, 30(1), 101-110. <https://www.jstor.org/stable/40650897>
- Chandler, G. N., & Jansen, E. (1992). The founder's self-assessed competence and venture performance. *Journal of Business Venturing*, 7(3), 223-236. [https://doi.org/10.1016/0883-9026\(92\)90028-P](https://doi.org/10.1016/0883-9026(92)90028-P)
- Chang, R. S., Gao, J., Gruhn, V., He, J., Roussos, G., & Tsai, W. T. (2013). Mobile cloud computing research - Issues, challenges, and needs. In *Proceedings - 2013 IEEE 7th International Symposium on Service-Oriented System Engineering, SOSE 2013* (pp. 442-453). Article 6525561 (Proceedings - 2013 IEEE 7th International Symposium on Service-Oriented System Engineering, SOSE 2013). <https://doi.org/10.1109/SOSE.2013.96>

- Charles, S. T., Reynolds, C. A., & Gatz, M. (2001). Age-related differences and change in positive and negative affect over 23 years. *Journal of Personality and Social Psychology*, 80(1), 136–151. <https://doi.org/10.1037/0022-3514.80.1.136>
- Chirico, F., & Salvato, C. (2016). Knowledge internalization and product development in family firms: When relational and affective factors matter. *Entrepreneurship Theory and Practice*, 40(1), 201–229. <https://doi.org/10.1111/etap.12114>
- Ciuchta, M. P., Letwin, C., Stevenson, R., McMahon, S., & Huvaj, M. N. (2018). Betting on the coachable entrepreneur: Signaling and social exchange in entrepreneurial pitches. *Entrepreneurship Theory and Practice*, 42(6), 860-885. <https://doi.org/10.1177/1042258717725520>
- Collier, D., LaPorte, J., & Seawright, J. (2012). Putting typologies to work: Concept formation, measurement, and analytic rigor. *Political Research Quarterly*, 65(1), 217–232. <https://doi.org/10.1177/1065912912437162>
- Colombo, M. G., & Grilli, L. (2010). On growth drivers of high-tech start-ups: Exploring the role of founders' human capital and venture capital. *Journal of Business Venturing*, 25(6), 610-626. <https://doi.org/10.1016/j.jbusvent.2009.01.005>
- Crandall, A., Powell, E. A., Bradford, G. C., Magnusson, B. M., Hanson, C. L., Barnes, D., Novilla, M. L. B., & Bean, R. A. (2020). Maslow's hierarchy of needs as a framework for understanding adolescent depressive symptoms over time. *Journal of Child and Family Studies*, 29(0), 273–281. <https://doi.org/10.1007/s10826-019-01577-4>
- Cui, L., Wang, Y., Chen, W., Wen, W., & Su Han, M. (2021). Predicting determinants of consumers' purchase motivation for electric vehicles: An application of Maslow's hierarchy of needs model. *Energy Policy*, 151(0), 1-8. <https://doi.org/10.1016/j.enpol.2021.112167>
- Denoo, L., Yli-Renko, H., & Clarysse, B. (2022). The impact of customer ties and industry segment maturity on business model adaptation in an emerging industry. *Strategic Entrepreneurship Journal*, 16(3), 602-632. <https://doi-org.proxy2.hec.ca/10.1002/sej.1400>
- Dijkhuizen, J., Gorgievski, M., Veldhoven, M., & Schalk, R. (2017). Well-being, personal success and business performance among entrepreneurs: A two-wave study. *Journal of Happiness Studies*, 19(1). DOI:10.1007/s10902-017-9914-6
- Drnovšek, M., Slavec, A., & Aleksić, D. (2023). “I want it all”: Exploring the relationship between entrepreneurs' satisfaction with work–life balance, well-being, flow, and firm growth. *Review of Managerial Science*, 1–28. <https://doi.org/10.1007/s11846-023-00623-2>

- Eddleston, K. A., & Powell, G. N. (2012). Nurturing Entrepreneurs' Work–Family Balance: A Gendered Perspective. *Entrepreneurship Theory and Practice*, 36(3), 513–541. <https://doi.org/10.1111/j.1540-6520.2012.00506.x>
- Easley, C. E., & Lee, Y. S. (2021). Do university entrepreneurship programs promote entrepreneurship? *Strategic Management Journal*, 42(4), 833–861. <https://doi-org.proxy2.hec.ca/10.1002/smj.3246>
- Elia, G., Margherita, A., & Passiante, G. (2020). Digital entrepreneurship ecosystem: how digital technologies and collective intelligence are reshaping the entrepreneurial process. *Technological Forecasting & Social Change*, 150(0), 1-12. <https://doi.org/10.1016/j.techfore.2019.119791>
- Engel, Y., Noordijk, S., Spoelder, A., & van Gelderen, M. (2021). Self-compassion when coping with venture obstacles: Loving-kindness meditation and entrepreneurial fear of failure. *Entrepreneurship Theory and Practice*, 45(2), 263–290. <https://doi.org/10.1177/1042258719890991>
- Estrin, S., Korosteleva, J., & Mickiewicz, T. (2022). Schumpeterian entry: Innovation, exporting, and growth aspirations of entrepreneurs. *Entrepreneurship Theory and Practice*, 46(2), 269-296. <https://doi.org/10.1177/1042258720909771>
- Fiss, P. C. (2011). Building better causal theories: A fuzzy set approach to typologies in organization research. *Academy of Management Journal*, 54(2), 393-420. <https://www.jstor.org/stable/23045087>
- Galvão, A., Marques, C. S., & Ferreira, J. (2019). Evaluation of an entrepreneurship training programme: A proposal for new guidelines. *Education + Training*, 61(2), 136-152. <https://doi.org/10.1108/ET-11-2018-0228>
- Ge, J., Li, Mingxuan, J. M., Zhao, E. Y., & Yang, F. (2022). Rags to riches? Entrepreneurs' social classes, resourceful time allocation, and venture performance. *Journal of Business Venturing*, 37(5), 1-20. <https://doi.org/10.1016/j.jbusvent.2022.106248>
- Gielnik, M. M., Zacher, H., & Frese, M. (2012) Focus on opportunities as a mediator of the relationship between business owners' age and venture growth. *Journal of Business Venturing*, 27(1), 127-142. <https://doi.org/10.1016/j.jbusvent.2010.05.002>
- Gilbert, B. A., Audretsch, D. B., & McDougall, P. P. (2004). The emergence of entrepreneurship policy. *Small Business Economics*, 22(3-4), 313-323. [10.1023/B:SBEJ.0000022235.10739.a8](https://doi.org/10.1023/B:SBEJ.0000022235.10739.a8)
- Gomes, S., Ferreira, J. J., & Lopes, J. M. (2023). Entrepreneurial conditions and economic growth in entrepreneurial ecosystems: Evidence from OECD countries. *International Journal of Entrepreneurship and Innovation*, 0(0), 1-19. <https://doi.org/10.1177/14657503231156340>

- Gorman, G., Hanlon, D., & King, W. (1997). Some research perspectives on entrepreneurship education, enterprise education and education for small business management: a ten-year literature review. *International Small Business Journal*, 15(3), 56–77. <https://doi.org/10.1177/0266242697153004>
- Greene, F. J., & Hopp, C. (2017). Are formal planners more likely to achieve new venture viability? A counterfactual model and analysis. *Strategic Entrepreneurship Journal*, 11(1), 36-60. <https://doi-org.proxy2.hec.ca/10.1002/sej.1245>
- Grégoire, D. A., Corbett, A. C., & McMullen, J. S. (2011). The cognitive perspective in entrepreneurship: An agenda for future research. *Journal of Management Studies*, 48(6), 1443-1477. <https://doi.org/10.1111/j.1467-6486.2010.00922.x>
- Gümüşay, A. A., & Bohné, T. M. (2018). Individual and organizational inhibitors to the development of entrepreneurial competencies in universities. *Research Policy*, 47(2), 363-378. <https://doi.org/10.1016/j.respol.2017.11.008>
- Handoyo, S., Mulyani, S., Ghani, E. K., & Soedarsono, S. (2023). Firm characteristics, business environment, strategic orientation, and performance. *Administrative Sciences*, 13(3), 1-23. <https://doi.org/10.3390/admsci13030074>
- Hannan, M. T., Carroll, G. R., Dobrev, S. D., Han, J., & Torres, J. C. (1998). Organizational mortality in European and American automobile industries part II: Coupled clocks. *European Sociological Review*, 14(3). 303-313. <https://doi.org/10.1093/oxfordjournals.esr.a018241>
- Harper, F. D., Harper, J. A., & Stills, A. B. (2003). Counseling children in crisis based on Maslow's hierarchy of basic needs. *International Journal for the Advancement of Counselling*, 25(1), 11-25. <https://doi.org/10.1023/A:1024972027124>
- Hashai, N., & Zahra, S. (2022). Founder team prior work experience: An asset or a liability for startup growth? *Strategic Entrepreneurship Journal*, 16(1), 155-184. <https://doi-org.proxy2.hec.ca/10.1002/sej.1406>
- Haynie, J. M., Shepherd, D. A., & Patzelt, H. (2012). Cognitive adaptability and an entrepreneurial task: The role of metacognitive ability and feedback. *Entrepreneurship Theory and Practice*, 36(2), 237-265. <https://doi.org/10.1111/j.1540-6520.2010.00410.x>
- Hessels, J., Rietveld, N., Thurik, R., & Zwan, P.V. (2018). Depression and entrepreneurial exit. *Academy of Management Perspectives*, 32(3), 323-339. <https://doi.org/10.5465/amp.2016.0183>
- Hmieleski, K. M., & Cole, M. S. (2022). Laughing all the way to the bank: The joint roles of shared coping humor and entrepreneurial team-efficacy in new venture performance.

- Entrepreneurship Theory and Practice*, 46(6), 1782–1811.
<https://doi.org/10.1177/10422587211046543>
- Hopp, C., & Lukas, C. (2014). A signaling perspective on partner selection in venture capital syndicates. *Entrepreneurship Theory and Practice*, 38(3), 635-670.
<https://doi.org/10.1111/etap.12023>
- Hughes, M., Morgan, R. E., Ireland, R. D., & Hughes, P. (2014), Social Capital, Learning Advantages, and Absorptive Capacity. *Strategic Entrepreneurship Journal*, 8(3), 214-233.
<https://doi-org.proxy2.hec.ca/10.1002/sej.1162>
- Kaish, S., & Gilad, B. (1991). Characteristics of opportunities search of entrepreneurs versus executives: Sources, interests, General Alertness. *Journal of Business Venturing*, 6(1). 45-61. [https://doi.org/10.1016/0883-9026\(91\)90005-X](https://doi.org/10.1016/0883-9026(91)90005-X)
- Katila, R., Chen, E. L., & Piezunka, H. (2012). All the right moves: How entrepreneurial firms compete effectively. *Strategic Entrepreneurship Journal*, 6(2): 116-132. <https://doi-org.proxy2.hec.ca/10.1002/sej.1130>
- Ke, Q., David, I., & Dalton, P. 2008. The determinants of business performance of estate agency in England and Wales. *Property Management*, 26(4). 255–72.
<https://doi.org/10.1108/02637470810894894>
- Kennedy, J., Drennan, J., Renfrow, P., & Watson, B. (2003). Situational factors and entrepreneurial intentions. *Proceeds of the 16th Annual Conference of the Small Enterprise Association of Australia and New Zealand Ballarat, Ballarat, 28 September-1 October*.
https://www.researchgate.net/publication/43464881_Situational_Factors_and_Entrepreneurial_Intentions
- Kollmann, T., Stockmann, C., & Kensbock, J. M. (2019). I can't get no slee- The differential impact of entrepreneurial stressors on work-home interference and insomnia among experienced versus novice entrepreneurs. *Journal of Business Venturing*, 34(4), 692-708.
<https://doi.org/10.1016/j.jbusvent.2018.08.001>
- Kuechle, G., Boulu-Reshef, B., & Carr, S. D. (2016). Prediction- and control-based strategies in entrepreneurship: The role of information. *Strategic Entrepreneurship Journal* 10(1), 43-64. <https://onlinelibrary.wiley.com/doi/abs/10.1002/sej.1211>
- Kuhn, K. M., & Galloway, T. L. (2015). With a little help from my competitors: Peer networking among artisan entrepreneurs. *Entrepreneurship Theory and Practice*, 39(3), 571-600.
<https://doi.org/10.1111/etap.12053>
- Landis, J. R., & Koch, G. G. (1977). The measurement of observer agreement for categorical data. *Biometrics*, 33, 159-174. <https://www.jstor.org/stable/2529310>

- Larson, A. (1991). Partner networks: Leveraging external ties to improve entrepreneurial performance. *Journal of Business Venturing*, 6(3), 173-188. [https://doi.org/10.1016/0883-9026\(91\)90008-2](https://doi.org/10.1016/0883-9026(91)90008-2)
- Lidow, D.B. (2022). The prehistoric entrepreneur: rethinking the definition, *Journal of Management History*, 28(4), 458-475. <https://doi.org/10.1108/JMH-11-2021-0058>
- Lonn, M., & Dantzer, J. (2017). A practical approach to counseling refugees: Applying Maslow's hierarchy of needs. *Journal of Counselor Practice*, 8(2), 61-82. [10.22229/olr789150](https://doi.org/10.22229/olr789150)
- Low, M. B., & MacMillan, I. C. (1988). Entrepreneurship: Past research and future challenges. *Journal of Management*, 14(2), 139-161. <https://doi.org/10.1177/014920638801400202>
- Lynn, T., Rosati, P. (2021). New Sources of Entrepreneurial Finance. In M. Soltanifar, M. Hughes, L. Göcke (eds), *Digital Entrepreneurship. Future of Business and Finance* (pp 209-231). Springer, Cham. https://doi.org/10.1007/978-3-030-53914-6_11
- Marvel, M. R., Wolfe, M. T., & Kuratko, D. F. (2020). Escaping the knowledge corridor: How founder human capital and founder coachability impacts product innovation in new ventures. *Journal of Business Venturing*, 35(6), 2-16. <https://doi.org/10.1016/j.jbusvent.2020.106060>
- Maslow, A. H. (1943). A theory of human motivation. *Psychological Review*, 50(4), 370–396. <https://doi.org/10.1037/h0054346>
- Mathias, B. D., McCann, B. T., & Whitman, D. S. (2021). A meta-analysis of agglomeration and venture performance: Firm-level evidence. *Strategic Entrepreneurship Journal*, 15(3).430-453. <https://doi-org.proxy2.hec.ca/10.1002/sej.1390>
- Mauer, R., Wuebker, R., Schlüter, J., & Brettel, M. (2018). Prediction and control: An agent-based simulation of search processes in the entrepreneurial problem space. *Strategic Entrepreneurship Journal*, 12(2), 237-260. <https://doi-org.proxy2.hec.ca/10.1002/sej.1271>
- McKinsey & Company. (2023, September 28). How do ESG goals impact a company's growth performance?. <https://www.mckinsey.com/capabilities/growth-marketing-and-sales/our-insights/next-in-growth/how-do-esg-goals-impact-a-companys-growth-performance>
- Milanov, H., & Fernhaber, S. A. (2014). When do domestic alliances help ventures abroad? Direct and moderate effects from a learning perspective. *Journal of Business Venturing*, 29(3), 377-391. <https://doi.org/10.1016/j.jbusvent.2013.05.004>
- Miller, D., & Sardais, C. (2015). Bifurcating time: How entrepreneurs reconcile the paradoxical demands of the job. *Entrepreneurship Theory and Practice*, 39(3), 489–512. <https://doi.org/10.1111/etap.12049>

- Mitchelmore, S., & Rowley, J. (2010). Entrepreneurial competencies: A literature review and development agenda. *International Journal of Entrepreneurial Behavior & Research*, 16(2), 92-111. <https://doi.org/10.1108/13552551011026995>
- Moss, T. W., Payne, G. T., & Moore, C. B. (2014). Strategic consistency of exploration and exploitation in family businesses. *Family Business Review*, 27(1), 51-71. <https://doi-org.proxy2.hec.ca/10.1177/0894486513504434>
- Mueller, B. A., & Shepherd, D. A. (2016). Making the Most of Failure Experiences: Exploring the Relationship between Business Failure and the Identification of Business Opportunities. *Entrepreneurship Theory and Practice*, 40(3), 457-487. <https://doi.org/10.1111/etap.12116>
- Nagel, H., Huber, L. R., Van Praag, M., & Goslinga, S. (2019). The effect of a tax training program on tax compliance and business outcomes of starting entrepreneurs: Evidence from a field experiment. *Journal of Business Venturing*, 34(2), 261-283. <https://doi.org/10.1016/j.jbusvent.2018.10.006>
- Nikolaev, B. N., Lerman, M. P., Boudreaux, C. J., & Mueller, B. A. (2022). Self-employment and eudaimonic well-being: The mediating role of problem- and emotion-focused coping. *Entrepreneurship Theory and Practice*, 0(0). <https://doi.org/10.1177/10422587221126486>
- Nkundabanyanga, S. K., Mugumya, E., Nalukenge, I., Muhwezi, M., & Najjemba, G. M. (2020). Firm characteristics, innovation, financial resilience and survival of financial institutions. *Journal of Accounting in Emergine Economies*, 10(1), 48-73. <https://doi.org/10.1108/JAEE-08-2018-0094>
- Nuscheler, D., Engelen, A., & Zahra, S. A. (2019). The role of top management teams in transforming technology-based ventures' product introductions into growth. *Journal of Business Venturing*, 34(1), 122-140. <https://doi.org/10.1016/j.jbusvent.2018.05.009>
- Oxford English Dictionary. (n.d.). Entrepreneurial. In *OED: Oxford English Dictionary*. Retrieved March 18, 2024, from <https://www.oed.com/search/dictionary/?scope=Entries&q=entrepreneurial>
- Oxford English Dictionary. (n.d.). Need. In *OED: Oxford English Dictionary*. Retrieved March 18, 2024, from <https://www.oed.com/search/dictionary/?scope=Entries&q=need>
- Patel, C. P., Wolfe, M. T., & Williams, T. A. (2019). Self-employment and allostatic load. *Journal of Business Venturing*, 34(4), 731-751. <https://doi.org/10.1016/j.jbusvent.2018.05.004>
- Patel, P.C., & Terjesen, S. (2011). Complementary effects of network range and tie strength in enhancing transnational venture performance. *Strategic Entrepreneurship Journal*, 5(1), 58-80. <https://doi-org.proxy2.hec.ca/10.1002/sej.107>

- Patzel, H., & Shepherd, D. A. (2011). Negative emotions of an entrepreneurial career: Self-employment and regulatory coping behaviours. *Journal of Business Venturing*, 26(2), 226-238. <https://doi.org/10.1016/j.jbusvent.2009.08.002>
- Pinho, C. J., & Sampaio de Sa, E. (2014). Personal characteristics, business relationships and entrepreneurial performance: Some empirical evidence. *Journal of Small Business and Enterprise Development*, 21(2), 284-300. <https://doi.org/10.1108/JSBED-10-2013-0150>
- Van Praag, C. M., & Versloot, P. H. (2007). What is the value of entrepreneurship? A review of recent research. *Small Bus Econ* 29(0), 351–382. <https://doi.org/10.1007/s11187-007-9074-x>
- Quintero, A., Andrade, J. M. & Ramírez, E. (2019). Entrepreneurship as an area of knowledge: Literature review. *European Research Studies Journal*, 12(2), 100-1124. <https://www.researchgate.net/publication/332970953>
- Raafaldini I. M., Simatupang, T. M, & Larso, D. (2018). Evaluation of emerging entrepreneurship policy. *International Journal of Economic Policy in Emerging Economies*, 11(1), 49-67. <https://www.researchgate.net/publication/324396957>
- Ross, J-M., Fisch, J.H., & Varga, E. (2018). Unlocking the value of real options: How firm-specific learning conditions affect R&D investments under uncertainty. *Strategic Entrepreneurship Journal*, 12(3), 335-353. <https://doi-org.proxy2.hec.ca/10.1002/sej.1275>
- Sanchez, M. I. F., & Ortega, M. S. (2023). Entrepreneurial competences and educational implications in European contexts: A comparative study from a professional perspective. *Spanish Journal of Comparative Education*, 43(0), 315-337. <https://doi.org/10.5944/reec.43.2023.34571>
- Scott, S., & Venkataraman, S. (2000). The promise of entrepreneurship as a field of research. *Academy of Management. the Academy of Management Review*, 25(1), 217–226. <https://doi.org/10.2307/259271>
- Shahab, Y, Chengag, Y., Arbizu, A. D., & Haider, M. J. (2019). Entrepreneurial self-efficacy and intention: do entrepreneurial creativity and education matter? *International Journal of Entrepreneurial Behavior & Research*, 25(2), 259-280. <https://doi.org/10.1108/IJEBR-12-2017-0522>
- Shepherd, D. A., Wiklund, J., & Haynie, J. M. (2009). Moving forward: Balancing the financial and emotional costs of business failure. *Journal of Business Venturing*, 24(2), 134-148. <https://doi.org/10.1016/j.jbusvent.2007.10.002>
- Shinkle, G. A., & Kriauciunas, A. P. (2010). Institutions, size and age in transition economies: Implications for export growth. *Journal of International Business Studies*, 41(2), 267–286. <https://www.jstor.org/stable/27752493>

- Smith, C. M., & Sweet, J. (2021). Analyzing the relationship between Maslow's hierarchy of needs and consumer spending patterns. *Journal of Financial Service Professionals*, 75(4), 68–79. <https://search-ebscohost-com.proxy2.hec.ca/login.aspxdirect=true&db=bth&AN=151147775&lang=fr&site=ehost-live>.
- Smith, S.W., & Shah, S.K. (2013). Do innovative users generate more useful insights? An analysis of corporate venture capital investments in the medical device industry. *Strategic Entrepreneurship Journal*, 7(2) 151-167. <https://doi-org.proxy2.hec.ca/10.1002/sej.1152>
- Solomon, G., & Matthews, C. (2014). Chapter 5: The curricular confusion between entrepreneurship education and small business management: a qualitative analysis. In Morris, M. H. (Ed.), *Annals of Entrepreneurship Education and Pedagogy – 2014* (pp. 91-115). Cheltenham, UK: Edward Elgar Publishing. <https://doi.org/10.4337/9781783471454.00012>
- Stephan, U., Zbierowski, P., Pérez-Luño, A., Wach, D., Wiklund, J., Alba Cabañas, M., Barki, E., Benzari, A., Bernhard-Oettel, C., Boekhorst, J. A., Dash, A., Efendic, A., Eib, C., Hanard, P.-J., Iakovleva, T., Kawakatsu, S., Khalid, S., Leatherbee, M., Li, J., ... Zahid, M. M. (2022). Act or wait-and-see? Adversity, agility, and entrepreneur wellbeing across countries during the COVID-19 pandemic. *Entrepreneurship Theory and Practice*, 0(0). <https://doi.org/10.1177/10422587221104820>
- Sullivan, D. M., & Ford, C. M. (2014). How Entrepreneurs use Networks to Address Changing Resource Requirements during Early Venture Development. *Entrepreneurship Theory and Practice*, 38(3), 551–574. <https://doi.org/10.1111/etap.12009>
- Taormina, R. J., & Gao, J. H. (2013). Maslow and the motivational hierarchy: Measuring satisfaction of needs. *American Journal of Psychology*, 126(2), 155-177. [10.5406/amerjpsyc.126.2.0155](https://doi.org/10.5406/amerjpsyc.126.2.0155)
- Tan, Y., & Li, X. (2022). The impact of internet on entrepreneurship. *International Review of Economics & Finance*, 77(0), 135-142. <https://doi.org/10.1016/j.iref.2021.09.016>
- Upadhyaya, C. (2014). Application of the Maslow's hierarchy of need theory; impacts and implications on organizational culture, human resource and employee's performance. *International Journal of Education and Management Studies*, 4(4), 353-356. <http://proxy2.hec.ca/login?url=https://www.proquest.com/scholarly-journals/application-maslows-hierarchy-need-theory-impacts/docview/1680503888/se-2>
- Uy, M. A., Foo, M-D., & Song, Z. (2013). Joint effects of prior start-up experience and coping strategies on entrepreneurs' psychological well-being. *Journal of Business Venturing*, 28(5), 583-597. <https://doi.org/10.1016/j.jbusvent.2012.04.003>

- Veciana, J. M., Aponte, M., & Urbano, D. (2005). University student's attitudes towards entrepreneurship: A two countries comparison. *International Entrepreneurship and Management Journal*, 1(2), 165-182. <https://doi-org.proxy2.hec.ca/10.1007/s11365-005-1127-5>
- Wahba, M. A., & Bridwell, L. G. (1976). Maslow reconsidered: A review of research on the need hierarchy theory, *Organizational Behaviour and Human Performance*, 15(2), 212-240. [https://doi.org/10.1016/0030-5073\(76\)90038-6](https://doi.org/10.1016/0030-5073(76)90038-6)
- Wang, D.J. (2020). When do return migrants become entrepreneurs? The role of global social networks and institutional distance. *Strategic Entrepreneurship Journal*, 14(2), 125– 148. <https://doi-org.proxy2.hec.ca/10.1002/sej.1352>
- Watkins, R., & Kavale, J. (2014). Needs: Defining what you are assessing. In J. W., Altschuld & R. Watkins (Eds.), *Needs assessment: Trends and a view toward the future. New Directions for Evaluation*, 144(0), 19-31. <https://doi.org/10.1002/ev.20100>
- Weng, X, Chiu, T. K. F., & Tsang, C. C. (2022). Promoting student creativity and entrepreneurship through real-world problem-based maker education. *Thinking Skills and Creativity*, 45(0), 1-16. <https://doi.org/10.1016/j.tsc.2022.101046>
- White, J. V., & Gupta, V. K. (2020). Stress and well-being in entrepreneurship: A critical review and future research agenda. *Entrepreneurial and Small Business Stressors, Experienced Stress, and Well-Being*, 18(0), 65-93. <https://doi.org/10.1108/S1479-355520200000018004>
- Woods, H., Bond, K., & Helen, D. (2017). An audit of service users' perception of choice in a 24-hour mental health setting. *Mental Health Practice*, 20(9), 30-36. <https://doi-org.proxy2.hec.ca/10.7748/mhp.2017.e1181>
- Yang, Y., Chen, X., Pan, X., Tang, X., Fan, J., & Li, Y. (2023). The unmet needs of patients in the early rehabilitation stage after lung cancer surgery: A qualitative study based on Maslow's hierarchy of needs theory. *Support Care Cancer* 31(12), 1-12. <https://doi.org/10.1007/s00520-023-08129-z>
- Yasuda, Takehiko. 2005. Firm growth, size, age and behavior in Japanese Manufacturing. *Small Business Economics*, 24(1). 1–15. <https://doi-org.proxy2.hec.ca/10.1007/s11187-005-7568-y>
- Yusuf, J. E. (2010). Meeting entrepreneurs' support needs: Are assistance programs effective? *Journal of Small Business and Enterprise Development*, 17(2), 294-307. <https://doi.org/10.1108/14626001011041283>
- Zahra, S. A., Liu, W., & Si, S. (2023). How digital technology promotes entrepreneurship in ecosystems. *Technovation*, 119(0), 1-12. <https://doi.org/10.1016/j.technovation.2022.102457>

- Zainon, S., Ismai, R. F., Raja Adzrin, R. A., Roslina, M. S., Misman, F. N., Nawi, S. M., & Mohamed, J. A. K. (2020). Factors of human resource management practices affecting organizational performance. *International Journal of Organizational Leadership*, 9(4), 184-197. <https://doi.org/10.33844/ijol.2020.60505>
- Zhao, H., O'Connor, G., Wu, J., & Lumpkin, G. T. (2021). Age and entrepreneurial career success: A review and meta-analysis. *Journal of Business Venturing*, 36(1), 1-20. <https://doi.org/10.1016/j.jbusvent.2020.106007>
- Zhao, Y., Li, Y., Lee, S. H., & Bo Chen, L. (2011). Entrepreneurial orientation, organizational learning, and performance: Evidence from China. *Entrepreneurship Theory and Practice*, 35(2), 293–317. <https://doi.org/10.1111/j.1540-6520.2009.00359.x>
- Zhu, F., & Newman, A. (2022). One Size Does Not Fit All: Organizational Rewards, Managerial Experience, and Employee Retention in Entrepreneurial New Ventures. *Entrepreneurship Theory and Practice*, 0(0). <https://doi.org/10.1177/10422587221111729>