

How Do Constraints Affect Early-stage Entrepreneurial Activity?

A Regulatory Focus Perspective

by

Zahid Rahman

A thesis submitted in partial fulfillment of the requirements for the degree of

Doctor of Philosophy

in

Strategic Management and Organization

Faculty of Business

University of Alberta

© Zahid Rahman, 2023

ABSTRACT

Academics and practitioners tend to accept that people found new ventures primarily for economic reasons only, but is that always true? Emerging work in the field suggests other non-economic key motives that may drive entrepreneurial decisions. My dissertation explores one such critical non-economic motive: namely, founders' feelings of constraint. A puzzle addressed in this research is whether constraints help or hinder entrepreneurial behaviors. The literature is unclear, with evidence supporting both positive and negative views. To solve this theoretical puzzle, this dissertation offers three separate empirical papers, each examining the role of constraints in different stages of a typical entrepreneurial process (i.e., idea generation, idea selection, and resource acquisition). In doing so, three theoretically meaningful original measures were developed and validated (i.e., chronic and acute constraints, and perceived constraint). Moreover, this research looked at and tested the moderating effects of one's regulatory focus on the relationship between constraints and the entrepreneurial process. Using Amazon Mechanical Turk (MTurk) panels, the three papers found support for the main hypotheses. As such, this dissertation makes several significant contributions to the study of entrepreneurship. While many previous studies limit their analyses to a single stage of the entrepreneurial journey, this work shows how a phenomenon (i.e., constraints) affects entrepreneurial decision-making in different stages of venture creation. Such a multi-stage perspective enhances our understanding of constraints and their roles in the entrepreneurial process. Second, this research helps us realize the conditions under which, even after facing diverse constraints, some entrepreneurs successfully meet various challenges associated with new venture creation. Third, to the best of my knowledge, this is the first empirical testing of the notion that a founder's ability to exhibit both promotion- and prevention-oriented behaviors are instrumental for entrepreneurial success.

PREFACE

This dissertation is an original research project conducted by Zahid Rahman. Each of the three studies of this research received ethics approval from the University of Alberta Research Ethics Board (No. Pro00106634, March 2, 2021; No. Pro00109009, March 24, 2021; and No. Pro00115884, November 23, 2021).

In 2020, Zahid Rahman was awarded the SSHRC Doctoral Fellowship for this research. Throughout this research project, he received ongoing feedback from his supervisor, Dr. Ian Gellatly, and supervisory committee members, Dr. Andrew Luchak and Dr. Angelique Slade Shantz. So far, none of the studies presented in this dissertation has been submitted to any journal.

DEDICATION

To my parents, who have provided me with only the best and helped me become the better version of myself:

Mohammad Lutfor Rahman (father)

Who died too early to celebrate most of my successes but had done an excellent job of making me confident, inquisitive, and passionate about learning.

and

Dr. Rafiqun Nahar (mother)

Who is always prepared to fight the whole world for me and convince GOD almighty to shift the universe in my favor.

ACKNOWLEDGEMENTS

First, I sincerely thank my supervisor Dr. Ian Gellatly for his patience, guidance, encouragement, and willingness to share beneficial knowledge with me. It has been his active support that has enabled this dissertation to materialize. In addition to my supervisor, I thank the members of my supervisory committee, Dr. Andrew Luchak and Dr. Angelique Slade Shantz, for their valuable insights and guidance in every step of this research project. Their comments and suggestions have broadened the horizon of my knowledge and helped me evaluate alternative theories and empirical analyses for the final version of this dissertation.

I would also like to express my sincere gratitude to Dr. Jennifer Jennings for her selfless support and encouragement that kept me optimistic even in the difficult phases of this research project. Although she had to step down from my supervisory role because of a medical condition, she has never stopped caring for my academic and personal development.

Finally, I thank my wife, Farhana Reza, and 10-year-old son, Mu'az Ibne Zahid, for their patience, support, and sacrifices. Although my academic commitments often prevented me from devoting adequate time to them, especially Mu'az has always energized me with his love and affection and helped broaden my knowledge by asking intelligent questions and conversing about diverse and interesting topics.

CONTENTS

| | |
|--|-----------|
| List of Tables | x |
| List of Figures..... | xi |
| CHAPTER 1. An Introduction | 1 |
| Introduction..... | 1 |
| Constraints and Entrepreneurial Behavior | 6 |
| Regulatory Focus Theory..... | 8 |
| Regulatory Focus Theory and Entrepreneurship | 9 |
| Regulatory Focus Theory and Constraints..... | 11 |
| Constraints, Regulatory Focus Theory, and Entrepreneurial Behavior | 12 |
| Overview of the Studies..... | 15 |
| CHAPTER 2. Study 1: When do Constraints Affect Business Idea Generation? The Moderating Role of Self-Regulatory Motives | 19 |
| Introduction..... | 19 |
| Theoretical Background..... | 21 |
| Study Hypotheses..... | 22 |
| Effects of Chronic and Acute Constraints | 22 |
| Chronic Constraints: Moderating Roles of Regulatory Focus | 26 |
| Acute Constraints: Moderating Roles of Regulatory Focus | 29 |
| Method | 32 |
| Participants and Inclusion Rules..... | 32 |
| Measures | 33 |
| Study Measures: Descriptive Statistics..... | 36 |
| Hypothesis Testing: Analytical Strategy | 37 |

| | |
|--|-----------|
| Results..... | 38 |
| Tests of Study Hypotheses..... | 38 |
| Robustness Checks and Inferences | 39 |
| Discussion..... | 40 |
| Contributions of the Findings | 41 |
| Limitations and Future Directions | 42 |
| Conclusion | 42 |
| CHAPTER 3. Study 2: The Role of Perceived Constraint in Entrepreneurial Ideation Process: | |
| Examining the Moderating Roles of Self-Regulatory Motives | 44 |
| Introduction..... | 44 |
| Relevant Literature Review | 47 |
| Study Hypotheses..... | 50 |
| Perceived Constraint, Idea Quantity, and Idea Quality..... | 50 |
| Moderated Mediation: The Roles of Promotion and Prevention Self-Regulatory Foci | 53 |
| Method | 57 |
| Participants and Inclusion Rules..... | 57 |
| Measures | 58 |
| Study Measures: Descriptive Statistics..... | 62 |
| Hypothesis Testing: Analytical Strategy | 63 |
| Results..... | 63 |
| Tests of Study Hypotheses..... | 63 |
| Robustness Checks and Inferences | 64 |
| Discussion..... | 65 |
| Contributions of the Findings | 66 |

| | |
|--|-----------|
| Limitations and Future Directions | 67 |
| Conclusion | 67 |
| Looking Ahead: Extending These Ideas to the Perceptions of External Stakeholders..... | 68 |
| CHAPTER 4. Study 3: The Role of Entrepreneurs' Emancipatory Motive in Resource Acquisition: | |
| How to Attract Backers in Reward-based Crowdfunding? | 69 |
| Introduction..... | 69 |
| Theoretical Background..... | 71 |
| Emancipatory Entrepreneurship..... | 71 |
| Entrepreneurial Stories and Resource Acquisition | 73 |
| Crowdfunding | 75 |
| Framing of the Message..... | 76 |
| The Role of Regulatory Focus in Message Framing | 78 |
| The Role of Regulatory Focus in Reward-based Crowdfunding..... | 80 |
| Study Hypotheses..... | 81 |
| Backers' Perceptions of the Entrepreneur: Personal Constraints and Regulatory Focus | 81 |
| Backers' Perceptions of the Entrepreneur: Social Constraints and Regulatory Focus | 84 |
| Method | 86 |
| Participants and Inclusion Rules..... | 88 |
| Procedure | 88 |
| Measures | 89 |
| Results..... | 90 |
| Manipulation Checks | 90 |
| Tests of Study Hypotheses..... | 91 |
| Discussion..... | 92 |

| | |
|---|------------|
| Contributions of the Findings | 93 |
| Limitations and Future Directions | 94 |
| Conclusion | 95 |
| CHAPTER 5. How and When Constraints Affect Early-stage Entrepreneurial Activity? | |
| Reflections and Future Directions | 96 |
| Introduction..... | 96 |
| Brief Discussion on the Studies | 97 |
| Theoretical Contributions of the Overall Findings | 99 |
| Implications and Future Research Directions | 101 |
| Practical Lessons..... | 104 |
| Epilogue | 107 |
| References..... | 120 |
| Appendices..... | 155 |
| Appendix A..... | 155 |
| Appendix B..... | 156 |
| Appendix C | 157 |

LIST OF TABLES

| | |
|--|------------|
| Tables | 108 |
| Table 1. Constructs and measurement items (Study 1)..... | 108 |
| Table 2. Descriptive statistics and correlations (Study 1)..... | 109 |
| Table 3. Regression results (Study 1; dependent variable: business idea quantity) | 110 |
| Table 4. Constructs and measurement items (Study 2)..... | 111 |
| Table 5. Descriptive statistics and correlations (Study 2)..... | 112 |
| Table 6. Regression results (Study 2; dependent variable: idea quantity and idea quality) | 113 |
| Table 7. Descriptive statistics and correlations (Study 3)..... | 114 |
| Table 8. Results of manipulation check (Study 3)..... | 115 |
| Table 9. Two-way ANCOVA (Study 3; dependent variable: Total pledge amount) | 116 |

LIST OF FIGURES

| | |
|--|------------|
| Figures..... | 117 |
| Figure 1. Overarching conceptual logic..... | 117 |
| Figure 2. Theoretical relationships among types of constraints, self-regulatory motives, and business idea generation | 118 |
| Figure 3. Theoretical relationships among perceived constraint, self-regulatory motives, and business idea generation and selection | 119 |

CHAPTER 1

How Do Constraints Affect Early-stage Entrepreneurial Activity?

A Regulatory Focus Perspective: An Introduction

The founder or founding team of any entrepreneurial venture needs to navigate through different stages (i.e., idea generation, idea selection, business model development, resource acquisition, and planning for growth) to launch and establish their new venture successfully. Each of these stages is full of different uncertainties that entrepreneurs meet on a regular basis. Sadly, failure is very common, and the mortality rate of these new establishments is very high. Why then would someone embark on such a risky path with such a high likelihood of failure? Questions like this have long been asked by organizational and entrepreneurship scholars. However, one of the problems has been that answers to this question have overemphasized economic drivers. Even ventures primarily aiming to bring about social changes (e.g., social ventures) need to have both profit and economic goals as the primary motivator. Such heavy emphasis on financial motives does not fare well when we observe that roughly two-thirds of new ventures die within a decade of their founding (“How Many Startups Fail and Why?,” n.d.). Despite such a high failure rate, 137,000 new ventures are born each day worldwide (Goel & Goel, 2015). To understand such a high founding activity in the face of disincentives, we need to think beyond economic motives. Accordingly, with limited insight into the motives that drive risky entrepreneurial actions—which may appear irrational (i.e., investing resources in activities that will most likely result in losses)—we must consider an alternative approach to understand the new venture creation process.

An overarching idea in my dissertation is that entrepreneurs are often motivated by a profoundly personal and emotional goal—*the desire to be free from constraints* (Rindova, Barry,

& Ketchen, 2009)! While the desire to be unencumbered likely is a universal truth, some entrepreneurs are particularly sensitive to constraints in their personal conditions (e.g., illness, poverty) and/or by inherent constraints within their social/cultural realities (e.g., gender expectations). For these individuals, entrepreneurial activity can represent a path to freedom (Ageev, Gratchev, & Hisrich, 1995). Moreover, for entrepreneurs seeking to overcome constraints, whether they found a business or social venture, making a profit is secondary to the goal of breaking free from their constraints (Gimeno, Folta, Cooper, & Woo, 1997)—so much so that these individuals will often continue to operate their firms “despite a consistent pattern of sub-standard financial returns (Baker & Pollock, 2007, p. 300).” Yet, how actual or perceived constraints might help or hinder entrepreneurial activity is a poorly understood phenomenon. Some scholars have suggested that constraints motivate people to start their entrepreneurial journey (e.g., Alkhaled & Berglund, 2018; Rindova et al., 2009), whereas others have noted that constraints likely harm motivation and creative endeavors (e.g., Medeiros, Partlow, & Mumford, 2014; Rosso, 2014).

There are several reasons why a narrow view of constraints offers the conflicting prescriptions indicated above and impedes theoretical development. First, the substantive effects of constraints are documented in organizational research as impacting the input, process, and output stages of typical process models (Acar, Tarakci, & van Knippenberg, 2019). On the other hand, entrepreneurship research has not followed such process model templates; instead, it has examined constraints as stand-alone factors affecting entrepreneurs’ decision-making. For instance, resource constraints has received significant (but disproportional) attention in entrepreneurship research (Clough, Fang, Vissa, & Wu, 2019). Second, both streams of research that support and oppose the positive roles of constraints have generally limited their analyses to a

particular stage of entrepreneurial endeavors (e.g., idea generation, opportunity identification, or evaluation). A lack of process-level analysis or study beyond a single stage provides an incomplete picture of the role of constraints in entrepreneurial endeavors. Moreover, limiting the classification of constraints to input, process, and output allowed inconclusive results of constraints to be reported, with the same constraint sometimes having to exert different effects across studies (Acar et al., 2019). Third, both camps of research imply that a) all constraints motivate or demotivate all individuals in the same way; and b) all individuals respond to the same constraint similarly.

As any entrepreneurial journey unfolds in several stages, we need to examine constraints in distinct stages to gain a complete understanding of constraints and their role in entrepreneurial action. During the early stages of venture creation, the role of founders' perceived constraints should be more critical than their role in the later stages. Because early stages of founding are full of uncertainties and chaos (Lounsbury & Glynn, 2001; Murnieks, Klotz, & Shepherd, 2020; Shane & Venkataraman, 2000), how entrepreneurs' experienced or perceived constraints affect decision-making at the juncture of these founding-related uncertainties should determine the future course of the new venture. Therefore, it is logical to expect the role of constraints in the business idea generation stage to be different from that in the business model development or growth stage. I expect early decision-making to be heavily influenced by founders' own perception of constraints, and later stages, when entrepreneurs need support from others (e.g., resource providers), to be influenced by how these constraints manifest into concrete ideas to relate to people. Thus, the constraints affecting early stage decision-making should be internal to the founder(s), whereas in the later stages it can be a tool to attract support from others.

Furthermore, we should also consider individual-level differences to explain people's reaction towards constraints. For example, it is expected that individuals with different characteristics are likely to perceive constraints differently and thus take different actions under constrained conditions. Similarly, the same individual is likely to act or not act depending on the constraints they are facing. As behaviors are informed by motivation, I argue that the differences in the motivation of the founders can better explain their entrepreneurial action in the face of constraints.

A motivation theory that has specific relevance for understanding entrepreneurial activities under constrained conditions is Regulatory Focus Theory (RFT; Higgins, 1997, 1998). According to RFT, there are two ways that people can achieve their goals: by acting on promotion or prevention motives. Promotion-focused people view pain as the absence of their goals, ideals, and aspirations, and joy as when those things are realized. In contrast, prevention-focused individuals view pain as the lack of safety and security, and joy as when those things are ensured. According to RFT, people either self-regulate their behaviors to achieve desired positive outcomes (promotion focus) or avoid unwanted negative consequences (prevention focus). RFT also highlights how people strategically plan to achieve those objectives (vigilant vs. eager strategies). Although RFT is not new to entrepreneurship literature, its findings mostly celebrate the beneficial role that promotion focus plays in entrepreneurial endeavors while highlighting the unfavorable effects or lack of effects of prevention focus on such actions (e.g., Johnson, Monsen, & MacKenzie, 2017; Kanze, Huang, Conley, & Higgins, 2018; Tumasjan & Braun, 2012); for a notable exception, see Baas, De Dreu, & Nijstad, 2011). Such a biased positive reporting of promotion focus is especially questionable when we consider removing constraints as the primary motive for people's entrepreneurial behavior. While these entrepreneurs need to follow

their aspirations to overcome constraints, they also must be vigilant about potential pitfalls along their constraint-removing actions so that constraints do not get stronger. Hence, both promotion and prevention focus should help them achieve their goals while avoiding risky mistakes (Brockner, Higgins, & Low, 2004). Yet, we do not have empirical studies clearly examining such a facilitating role of prevention focus in the extant entrepreneurship literature.

Rindova et al. (2009) argued that some entrepreneurs aim at overcoming “intellectual, psychological, economic, social, institutional, or cultural” constraints and, in turn, create a change in the environment (p. 479). These authors also stated that some of these constraints are oppressive in nature (e.g., poverty, oppressive regime). Moreover, these scholars explicitly distinguished these change-creating and constraint-overcoming entrepreneurs from their traditional opportunity-driven and wealth-creating counterparts whose main goal is to maximize financial returns for them or their stockholders. Hence, although some founders may choose entrepreneurship to overcome their economic constraints (e.g., poverty), they should not be considered as opportunity-driven entrepreneurs. While the goal of opportunity-driven entrepreneurs is to accumulate wealth without being constrained by oppressive forces, those who aim at overcoming economic constraints try to escape poverty and, hence, pursue a much-needed change. Because overcoming a constraint is the main objective here, not accumulating any wealth, the entrepreneurial behavior displayed by those trying to escape poverty is non-economic and driven by change-creating motivation. That said, having change-creation as the prime objective does not indicate that these entrepreneurs neglect economic incentives. Rindova et al. (2009) contended that it is not always practical for constraint-overcoming entrepreneurs to operate absent a financial goal; instead, they argue that wealth-creation is not the *prime* driver that makes these entrepreneurs found new ventures.

Re-thinking how constraints affect entrepreneurial behaviors is vital for advancing the field of entrepreneurship, given that there is a recent call to investigate founders' non-economic motives (Clough et al., 2019). However, absent empirical attempts to fill the above-noted gaps and reconcile seemingly conflicting findings, we are less likely to guide clear and coherent future research on constraints and their impact on people's entrepreneurial actions. My dissertation addresses some of the gaps mentioned above and offers important insights into different types of constraints, their role in the early stages of new venture creation and the beneficial effect of prevention focus on entrepreneurial behavior. With three distinct studies, each explaining the role of constraint in a different stage of a typical entrepreneurial process, my dissertation not only illustrates how constraints affect entrepreneurs but also highlights how they impact one of the key stakeholders: namely, resource providers.

The conceptual logic underlying this dissertation, as well as a sampling of the interesting concepts and primary questions addressed in this research, are depicted in an overarching, integrative framework (see Figure 1). With this integrative framework in mind, I will now work through each of the fundamental relationships depicted in Figure 1, bringing in, where appropriate, theoretical and empirical research. This is followed, in turn, by a brief overview of the three studies.

[Insert Figure 1 about here]

Constraints and Entrepreneurial Behavior

The Merriam-Webster dictionary defines constraint as “the state of being checked, restricted, or compelled to avoid or perform some action (“Merriam-Webster,” 2020).” Therefore, constraints are any kind of boundaries, limitations, or conditions that put restrictions on people's behaviors and actions. In general, constraints can be of various natures, such as

physical (e.g., illness, disability), mental (e.g., depression), financial (e.g., poverty), social and cultural (e.g., gender expectations), religious (e.g., food habit), and environmental (e.g., pollution). Constraints can significantly affect any work- and nonwork-related performance, whether the person experiencing constraints is an entrepreneur or employee, as they limit available choices to pursue any goal. Thus, understanding constraints and how they impact people's lives is important as constraints affect problem solving and decision-making.

Constraints are mostly treated as a destructive force for creative and entrepreneurial endeavors (e.g., Medeiros et al., 2014; Onarheim, 2012; Rosso, 2014). Although research has found that they have a mixed effect on creativity and innovation in employment settings (Acar et al., 2019), their impact on entrepreneurship is generally overlooked, especially in the domain of new venture creation (Rindova et al., 2009). Bringing scholars' attention to this area, Rindova et al. (2009) argued that some people (they suspected many) enter entrepreneurship to overcome their perceived constraints. Although these authors hinted that constraints could take many forms, as noted above, they did not illustrate which types of constraint encourage an individual to take entrepreneurial actions. Empirical studies that followed Rindova and colleagues investigated different constraints and established their positive connection with entrepreneurial pursuits. However, although these studies examined constraints as a general driver of the entrepreneurial quest, they did not distinguish at the individual level in their analyses (e.g., Al-Dajani, Carter, Shaw, & Marlow, 2015; Alkhaled & Berglund, 2018; Chandra, 2017; Haugh & Talwar, 2016). Thus, this line of research implied that all constraints should equally excite every founder to exhibit desired entrepreneurial behaviors.

Similarly, organizational scholars (e.g., Alcacer & Chung, 2014; Medeiros et al., 2014) did not distinguish constraints at the individual level and primarily categorized constraints based

on their effect on different stages of the production process, such as input constraints (i.e., unavailability of the resources that adversely affect creative and innovative tasks), process constraints (i.e., guidelines and procedures that must be followed through the task), and output constraints (i.e., constraints that specify the composition of the final product or service) (Acar et al., 2019). This stream of research also hints that the role of constraints typically has a uniform effect on people's motivation to engage in or withdraw from creative and innovative behaviors. Given the plethora of challenges in the world, extant research does not provide us with a clear understanding of whether constraints motivate, facilitate, or forestall entrepreneurial actions.

Regulatory Focus Theory

RFT (Higgins, 1997, 1998) is a motivational theory built on the core idea that all human behavior is essentially hedonistic (i.e., people are constantly striving to approach pleasure and avoid pain). Beyond pure hedonism, RFT offers an account of the different strategic ways in which people go about achieving these goals. Higgins (1997) argued that two behavior activation systems are always in play: one that is promotion-orientated, inasmuch as individuals self-regulate toward goals that represent desired end states (e.g., aspirations, accomplishments, achievements); and one that is prevention-orientated, whereby individuals self-regulate toward goals that represent the avoidance of undesired outcomes (e.g., incurring personal losses; feeling unsafe or insecure). In the end, these motives for resolve and behaviors reflect the relative strength of the dominant motive (cf. Higgins, 1997).

Although it has long been known that an individual's overall regulatory focus has a chronic, trait-like quality, it has also been observed that these self-regulatory motives can be induced, shaped, and altered by relevant social and informational cues within one's immediate environment, such as events and circumstances in a work setting (Brockner & Higgins, 2001).

To be sure, RFT has been successfully applied to explain a myriad of attitudes and behaviors within work settings, such as emotional states (Brockner & Higgins, 2001), decision-making (Ahmadi, Khanagha, Berchicci, & Jansen, 2017), job design/crafting (Lichtenthaler & Fischbach, 2019), stress (Parker, Laurie, Newton, & Jimmieson, 2014), perceptions of justice and well-being (Roczniewska, Retowski, & Higgins, 2018), and leadership (Henker, Sonnentag, & Unger, 2015; Xu & Wang, 2019). For comprehensive examples of the application of RFT in work settings, see a recent review by Higgins and Pinelli (2020). It is noteworthy that RFT has provided a useful theoretical lens to explain the motivational process underlying decision-making in organizational settings. For instance, Ahmadi et al. (2017) showed that one's regulatory focus affects how information is acquired and processed during complex decision-making—much like entrepreneurial activities.

Regulatory Focus Theory and Entrepreneurship

Studies of entrepreneurs, viewed through an RFT lens, have primarily attributed entrepreneurial behavior and success to promotion focus, yet have tended to overlook the possible positive roles of prevention-focused self-regulation (see Baas et al., 2011 for an exception). For instance, Tumasjan and Braun (2012) demonstrated that people with a promotion focus are better able to navigate the environment and recognize entrepreneurial opportunities than those with a prevention focus. They also found that a higher level of promotion focus offsets the lack of entrepreneurial self-efficacy (i.e., perception of own ability to take action related to entrepreneurship; Bandura, 1988). Similarly, Johnson et al. (2017) discovered that lead researchers with a chronic promotion focus in science, technology, engineering, and mathematics (STEM) research groups in universities have a higher desire to commercialize their ideas than the researchers with a prevention focus. Regarding resource acquisition, Kanze et al. (2018)

showed that when resource providers ask entrepreneurs promotion-oriented questions instead of prevention-oriented queries during entrepreneurial pitch delivery, entrepreneurs usually receive a higher amount of funding. The authors showed that because female entrepreneurs often receive prevention-oriented questions from resource providers, they typically raise less funding than their male counterparts, who usually get promotion-oriented questions. Burmeister-Lamp, Lévesque, & Schade (2012) investigated how hybrid entrepreneurs (i.e., those who run enterprises while holding any paid job) allocate their time between their enterprise and their paid job, based on risk propensity. These authors reported that when each additional hour allocated to the business returns increased risk, hybrid entrepreneurs with a stronger promotion focus invest more hours in the enterprise, but those with a stronger prevention focus invest fewer hours. They also found the opposite when each additional hour allocated to the business outputs less risk: hybrid entrepreneurs with a stronger promotion focus allocate fewer hours in the enterprise, but those with a stronger prevention focus allocate more hours.

In incumbent firms, leader- and group-level regulatory focus affects entrepreneurial initiatives. Both transformational and transactional leaders with a promotion focus have been found to help create change and drive innovation in existing firms. For instance, Henker et al. (2015) showed that transformational leadership positively affects followers' creative behaviors through a leader's promotion focus. Likewise, Xu and Wang (2019) demonstrated how a leader's promotion focus mediates the relationship between transformational leadership and the capabilities of employees to sense and seize opportunities (i.e., crucial for firms' dynamic capabilities). Also, Cooper et al. (2016) found that managers with a promotion focus can strengthen a firm's entrepreneurial culture–innovation efficacy relationship. Furthermore, Lee et al. (2019) studied group regulatory focus and reported that the relationship between group

identity and creativity is positive when the group has a promotion focus and negative when the group has a prevention focus. However, through a series of experiments, Baas et al. (2011) showed that a prevention-focused state leads to creativity if it activates fear or unfulfilled prevention goals; once these goals are achieved, prevention-focused individuals disengage themselves from creative problem solving.

Unfortunately, studies investigating the effects of regulatory focus on entrepreneurial behaviors have largely overlooked the effects of regulatory focus at different stages of the entrepreneurial journey. As each stage of entrepreneurship (i.e., idea generation, idea selection, business model development, resource acquisition, and planning for growth) is unique, each requires different skills, attitudes, and motivation from the founders (Brockner et al., 2004). Therefore, promotion focus should be more likely to facilitate entrepreneurs in some stages, whereas prevention focus should be more likely to facilitate entrepreneurial thinking in other stages.

Regulatory Focus Theory and Constraints

In a recent review, Scholer et al. (2019) argued that the nature of situations might evoke within individuals a sense of eagerness or vigilance as they self-regulate toward positive outcomes. When events or circumstances inherent in a situation are perceived as constraints, individuals with a strong promotion focus should direct attention and effort toward activities believed to improve upon their status quo. The same situational events or circumstances likely trigger within prevention-focused individuals a very different behavioral strategy, one that is oriented toward activities that prevent the status quo from getting worse (e.g., compliance with the expectations of others; fulfilling duties).

The most common constraint that has been studied through the RFT lens is time. Kröper et al. (2011), for instance, argued that time pressure encourages individuals to remain focused on the task progress and to be mindful of other potential barriers that may affect such progress. They found that in some phases of a design process, time pressure thus enhances prevention focus among the actors. Similarly, Rosenzweig and Miele (2016) studied the effect of time pressure on exam performance. These authors found that students with both foci performed similarly well when time pressure was loose (Studies 1 and 2). However, when the time constraint was stricter (Study 3), students with a higher level of prevention focus outperformed those with a higher level of promotion focus. Beyond time-pressure constraints, less is known about other types of constraints and how these affect entrepreneurial motives and activities.

A central theme of my dissertation work is that the prevention-focused motive is critical for understanding how entrepreneurs process and respond to constraints. Through three studies, I attempt to argue and show that attributing any entrepreneurial action and success to a single regulatory-focused motive (i.e., promotion-oriented) fails to provide a complete account of the entire motivational dynamics that underlie entrepreneurial endeavors (e.g., new venture creation). Also, through demonstrating the potency of non-economic motives (e.g., removing constraint) in venture creation, these studies should complement the existing literature that has championed the goal of increasing shareholder value and has paid inadequate attention to other non-economic motives that are associated with the success (or failure) of new ventures (Clough et al., 2019).

Constraints, Regulatory Focus Theory, and Entrepreneurial Behavior

RFT (Higgins, 1997, 1998) provides an interesting and relevant lens to observe entrepreneurial activity (e.g., Brockner et al., 2004; Burmeister-Lamp et al., 2012; Johnson et al.,

2017; Kanze et al., 2018; Tumasjan & Braun, 2012). RFT has unique relevance to the study of constraints and entrepreneurship. As noted earlier, according to RFT, people pursue goals by following either an eager or a vigilant strategy (Higgins, 1998). While promotion-focused people usually try to improve upon the present situation, prevention-focused people aim at maintaining the status quo (Brockner & Higgins, 2001). Under constrained conditions, some are likely to take entrepreneurial actions and some are expected to refrain from such engagement; RFT can explain these two groups and their underlying motivation and strategies for action and non-action.

In terms of the RFT, the status quo serves as a psychological referent “0” that represents a state of non-gain and non-loss; this state should be viewed as unfavorable for people with a strong promotion focus and positive for people with a strong prevention focus (Higgins & Pinelli, 2020). When promotion-focused people try to improve the present situation by gaining, they aim for an ideal state that is +1 relative to the status quo (i.e., their actual state). Conversely, when prevention-focused people try to improve their actual state by avoiding losses, they try to escape a state that is -1 relative to the present situation (Higgins & Pinelli, 2020). It would seem, then, that promotion-focused individuals should be more likely than their prevention-focused counterparts to engage in entrepreneurial activity (e.g., creativity, business idea generation) when faced with long-standing constraints, as this behavior will help them improve upon the status quo. Conversely, prevention-focused individuals should be more likely than their promotion-focused counterparts to exhibit entrepreneurial behaviors when faced with emerging disruptions or constraints that are perceived to threaten their status quo (i.e., actual state).

I argue that the mere presence of a constraint does not, in general, change the relative reference point of the current state. For instance, people who were born and brought up in a resource-constrained environment are familiar with the challenges that poverty throws at them.

For people with both promotion and prevention foci, such resource constraint conditions refer to state “0,” as mentioned earlier. Therefore, as they typically do, promotion-focused people will try to improve the present situation by escaping poverty. Alternatively, prevention-focused individuals will strive to maintain the current state and, thus, aim at not becoming any poorer.

Overlooked in all this is how entrepreneurs “make peace” with the constraint and how this affects their psychological reference. For example, for people who have never experienced resource constraint before in their life, the financial losses caused by external shocks (e.g., COVID-19) should put them all (people high on promotion and prevention foci alike) in a state that is worse than the status quo (base state of “0”). In such a situation, prevention-focused people are the ones who are likely to take steps to remove the constraints to get back to the previous state out of a sense of urgency to restore the status quo (Brockner & Higgins, 2001). For promotion-focused people, because they are not interested in addressing an immediate problem having undesirable consequences (Veazie & Qian, 2011), they are less likely to try to overcome the constraint.

I argue that the longevity of the constraints in an actor’s environment should have implications for how the focal actor reacts to the constraint. If an actor, regardless of his or her regulatory focus, is well aware of a constraint and learns to live with it, then the constraint becomes part of his or her environment; I term such constraints as *chronic* constraints. For instance, people living in poverty for a long period are facing a chronic constraint. Similarly, individuals suffering from a long-term illness that restricts them from performing desired actions are also facing chronic constraints. Likewise, when people under an oppressed regime learn to live with such oppression continuously, they experience chronic constraints.

On the other hand, when an actor notices a constraint in their environment for the first time, the constraint emerges as a shock, or if the actor has not learned yet to live with the constraint, it is outside his or her environment; I term such constraints as *acute* constraints. A recent example of acute constraint relevant to us all is the outbreak of the COVID-19 pandemic. It appeared as a shock, and we are still somehow struggling to live with it as there are conflicting prescriptions from health professionals. Likewise, Russia's waging war on Ukraine appeared as a shock to the world; hence, it is an acute constraint (primarily to Ukrainians). Although Iranian people have been under an oppressive regime for a long time (i.e., chronic constraint), the recent crack-down by the government on the protest against compulsory hijab is an acute constraint.

Overview of the Studies

In the first study, I attempt to provide an answer to the question: *Why are some people more effective than others in generating business ideas in the face of constraints?* To answer this question, I argue that two factors be considered: a) how long the focal constraint has been present in an entrepreneur's environment; and b) the strength of the entrepreneur's self-regulatory motives. I posit that, in general, while chronic constraints will have an adverse effect on entrepreneurial idea generation, acute constraints should have a positive effect. Moreover, I hypothesize an interaction between self-regulatory focus and types of constraints on entrepreneurial idea generation. I posit that promotion-focused individuals are more likely to generate a large number of business ideas when faced with chronic constraints, but less likely to create as many ideas when they are challenged by acute constraints. I further posit that people with a higher level of prevention focus are more likely to generate more business ideas when they face acute constraints and fewer business ideas when they face chronic constraints. I developed two original measures for this study (chronic and acute constraints) and empirically

tested these hypotheses with an online survey. Study hypotheses were tested using data from an online sample provided by Amazon Mechanical Turk (MTurk).

It is important to note that in the first study I focus on business idea generation because this is generally viewed as the very first stage of a typical entrepreneurial process and fundamental to realizing business opportunities (Dimov, 2007). Entrepreneurs' ability to generate a higher number of business ideas has been found to have significant impact on the subsequent stages, such as the selection of a high-quality idea (Dean, Hender, Rodgers, & Santanen, 2006; Kier & McMullen, 2018), and be positively related to even venture growth (Gielnik, Frese, Graf, & Kampschulte, 2012). That said, merely generating business ideas is not sufficient; good ideas need to be implemented with significant effort from entrepreneurs.

While I argue that looking at the longevity of the constraints is useful, it is actually founders' perception of the constraints that matters most (i.e., the felt intensity or severity of the constraint), especially at the later stage of ideation (i.e., generation of new products, services, or businesses; Flynn, Dooley, O'Sullivan, & Cormican, 2003). Therefore, in the second study, this notion of *perceived constraint* is featured, as well as its role in explaining entrepreneurial idea generation and selection. The concept of perceived constraint is vital to explain whether the entrepreneurs are likely to pursue any of the business ideas they generate. I argue that perceived constraint can be one of the useful criteria to distinguish between first-person (for the actor) and third-person (for someone) opportunities (McMullen & Shepherd, 2006).

In the second study, I attempt to provide an answer to the question: *What role does the perception of constraints play in the entrepreneurial idea generation and selection process?* In this study, my focus is not the type of constraints (chronic vs. acute) but how severe people think the constraints are as they face them. Therefore, I aim to probe the interplay between perceived

constraint and the regulatory focus motives at multiple stages in the business idea generation process. I argue that the weaker the perceived constraint, the higher the possibility of founders advancing their ideas and eventually acting on a high-quality one. In essence, my model depicts moderated mediation and is represented by the following set of hypotheses: (a) negative relations exist between the level of perceived constraint and both idea quantity and idea quality; (b) the negative relation between perceived constraint and idea quality is mediated by idea quantity (i.e., all else equal, as the level of perceived constraint increases rather than decreases, people should generate fewer ideas, which, in turn, should reduce the possibility of selecting a high-quality idea); (c) the negative relationship between perceived constraint and idea quantity is moderated by the strength of the promotion-oriented motive; and (d) the strength of the prevention-oriented motive moderates the negative relationship between idea quantity and idea quality. Study hypotheses were tested, and an original measure of perceived constraint was developed using data provided by an online MTurk panel.

In the third study, I seek to extend this thinking and investigate how other actors crucial for the success of new ventures are affected by entrepreneurs' experienced constraint. Hence, I extend my perspective to a later stage in the new venture creation process: resource acquisition. The aim here is to determine how entrepreneurs can communicate their constraint-overcoming motives to ensure support from resource providers. Focusing on a particular set of resource providers, reward-based crowdfunders, the key research question for this study is: *What communication strategies do constraints-overcoming entrepreneurs implement to convince crowdfunders to commit to their causes?* Crowdfunding is a suitable platform for entrepreneurs aiming at overcoming constraints because the backers make their funding decisions based on subjective evaluation of the campaign, as opposed to traditional resource providers (e.g., venture

capitalist, angel investors, banks) who extend support primarily based on objective criteria (Pollack, Rutherford, & Nagy, 2012). In Study 3, I argue that once constrained entrepreneurs pursue any opportunity, they can strategically use the respective constraint-overcoming motive to acquire resources from external members of the ecosystem. However, to ensure support, these founders need to identify the outcome of their entrepreneurial pursuits in a way to which resource providers can easily relate. Therefore, I used the classification proposed by Rindova et al. (2009): personal (i.e., affecting the individual) and social (i.e., affecting the community) level.

Furthermore, I propose that when entrepreneurs aim to overcome personal constraints, a prevention-focused rather than a promotion-focused pitch will raise more funding in a reward-based crowdfunding platform. However, when the goal is to remove social constraints, a promotion-focused instead of a prevention-focused pitch will attract more funding. I empirically tested these assumptions with a between-subject online controlled experiment whereby I assigned participants to one of two constraint conditions (personal vs. social constraints) and one of two motive states (promotion- vs. prevention-focused pitch). Participants in each of these conditions were presented with any of the four fictitious entrepreneurial pitches and asked to indicate their intended pledge amount as a level of support. Once again, the study hypotheses were tested using online panel data (MTurk participants).

In the next three chapters, I describe each study in turn, including a theoretical rationale for my hypotheses and a review of relevant literature. Within each chapter, I provide a detailed account of my methodology and results. In the final chapter, I consider the findings as a whole, and highlight the theoretical and practical implications of this research.

CHAPTER 2

Study 1: When do Constraints Affect Business Idea Generation?

The Moderating Role of Self-Regulatory Motives

Studies investigating entrepreneurial behavior under constrained conditions have revealed mixed findings. Some scholars, for instance, find that constraints limit the entrepreneurial ability to think freely and to recognize opportunities (e.g., Medeiros et al., 2014; Onarheim, 2012; Rosso, 2014). The reasons offered for this negative effect is that limitations posed by constraints adversely affect an individual's ability to process information (Mani, Mullainathan, Shafir, & Zhao, 2013), and that these constraints might lead to sub-optimal decisions and choices (Shah, Mullainathan, & Shafir, 2012). As such, because entrepreneurs cannot make careful decisions under constrained conditions, they are likely to fail to generate adequate business ideas. An implication of this logic is that ideation might work best when entrepreneurs are unconstrained with respect to their cognitive and affective engagement (Weinberger, Wach, Stephan, & Wegge, 2018). On the other hand, scholars studying this phenomenon have also found that the presence of constraints may actually facilitate entrepreneurial thinking. Several empirical studies have described the beneficial effect of constraints on entrepreneurial behaviors (e.g., Acar et al., 2019; An, Zhao, Cao, Zhang, & Liu, 2018; Baker & Nelson, 2005; Ohly & Fritz, 2010; Rutherford, Coombes, & Mazzei, 2012). For instance, Ohly & Fritz (2010) showed that time constraints increase creativity. Similarly, others have reported that founders operating under resource constraint conditions can use their existing resources more creatively (Jayawarna, Jones, & Macpherson, 2011) or find unique sources to compensate for the need of traditional resource providers (Baker & Nelson, 2005). This review suggests that more research is needed to

understand how constraints relate to entrepreneurial behavior. In short, we cannot clearly explain whether constraints help or frustrate ideation.

RFT (Higgins, 1997, 1998) offers a way to view and potentially resolve this theoretical puzzle: that is, when do constraints help or hinder business idea generation? Over the years, scholars have observed that promotion-focused and prevention-focused motives relate, respectively, positively and negatively to entrepreneurial behaviors (e.g., Baas et al., 2008; Crowe & Higgins, 1997; Lanaj et al., 2012; cf. Baas et al., 2011). They argue that because a promotion-focused motive makes an individual eager and encourages risk-taking (e.g., Baron, 2002; Rockner & Higgins, 2001; Tumasjan & Braun, 2012), he or she is more likely to take entrepreneurial actions without fearing much about the chances of failure (Henker et al., 2015). On the other hand, extant research has argued that as prevention-focused individuals try to maintain stability and the status quo, they usually resist any initiation for change (e.g., Higgins, 1997, 2000; Zou et al., 2014). Although empirical studies (e.g., Baas et al., 2008; Henker et al., 2015; Tumasjan & Braun, 2012; Wallace et al., 2016) demonstrated the positive and negative effects of promotion focus and prevention focus, respectively, on entrepreneurial activity, how these motives interact with entrepreneurs' constraint conditions is a question that remains unanswered.

In this research, I argue that whether an individual is likely to be effective in generating business ideas while facing constraints will depend on two factors: a) the longevity of the constraints in the individual's environment, and b) his or her dominant regulatory focus. Precisely, I argue that chronic constraints (i.e., those that have persisted long enough to become part of one's standard environment) adversely affect the individual's ability to generate business ideas. On the other hand, acute constraints (i.e., those that emerge as a shock and disrupt one's

otherwise typical environment) positively affect the number of business ideas the individual generates. I further argue that promotion-focused individuals are more (less) likely to find more business ideas under chronic (acute) constraint conditions, whereas people with a higher level of prevention focus are more (less) likely to recognize more business ideas while facing acute (chronic) constraint conditions. I test these hypotheses using an online survey based on 442 MTurk panel members.

This study offers several contributions to and implications for entrepreneurial ideation, constraints, and regulatory focus literature. Most fundamentally, it resolves the theoretical puzzle of whether and when constraints are helpful for business idea generation. Second, while prior studies that investigated the role of constraints on entrepreneurial behaviors primarily categorized constraints as they affect different elements of the process model (i.e., input, process, output), this study draws attention to the interplay of the constraints with the focal actor's motivation. Hence, this study contributes to the constraint literature by explaining why different individuals may have disparate responses to the same constraint. Finally, this study shows that both promotion and prevention foci are responsible for entrepreneurial action and inaction, depending on the longevity (i.e., chronic vs. acute) of the constraints in the actor's environment. Thus, it extends the application of the RFT in the domain of entrepreneurial idea generation.

THEORETICAL BACKGROUND

As noted earlier, researchers have historically reported mixed effects of constraints on entrepreneurial behavior (see Acar et al., 2019). It has long been assumed that actual or perceived constraints impede creative and entrepreneurial endeavors in work settings (Medeiros et al., 2014; Onarheim, 2012; Rosso, 2014). However, a few entrepreneurship studies have found that entrepreneurs were greatly motivated by constraints, such as family constraints (e.g.,

Jennings et al., 2016), social constraints (Chandra, 2017; Haugh & Talwar, 2016; Ruebottom & Toubiana, 2021), and institutional constraints (e.g., Al-Dajani et al., 2015; Alkhaled & Berglund, 2018). Moreover, research on bricolage helps us understand how entrepreneurs navigate the environment with scarce resources and find novel use of the existing resources to solve the problems at hand (Baker & Nelson, 2005; Garud & Karnøe, 2003). Although spotty, the extant literature suggests an essential role for constraints in understanding entrepreneurial behaviors.

What has been missing is a theoretical integration of a constraints concept within the entrepreneurship literature; in particular, how individuals respond to constraints and whether it matters from a motivational perspective if the constraints are emergent in nature or whether constraints represent a more permanent and chronic feature of one's environment. I contend that the longevity of the constraints in an individual's environment provides an important context for entrepreneurial activity. Acute constraints, especially unexpected events or setbacks that affect resource availability, should be associated with elevated emotionality (e.g., anxiety) and feelings of stress. In contrast, chronic constraints that characterize one's status quo are less likely to be accompanied by such strong negative emotionality.

STUDY HYPOTHESES

Effects of Chronic and Acute Constraints

In this section, my objective is to develop arguments that underlie the expected effects of both forms of constraints, starting with chronic constraints. When challenged with chronic constraints (e.g., prolonged disability, financial hardship), it would seem that people should experience many unforeseen adverse consequences (Hamilton, Mittal, Shah, Thompson, & Griskevicius, 2019). Moreover, chronic constraints often have a severe impact on multiple aspects (e.g., psychological, spiritual, physical) of an individual's life (Bishop, Frain, &

Tschopp, 2008; Nichols & Hunt, 2011). Because people encounter many psychosocial outcomes simultaneously under chronic constraint conditions (Whittemore & Dixon, 2008), they feel under-confident and overwhelmed, and often require help to gain self-confidence to face challenges (Coursey, Farrell, & Zahniser, 1991). Therefore, chronic constraints lead to the feeling of loss of perceived control, which is detrimental to generating business ideas.

The feeling of chronic constraints likely results in poor decision-making by kicking in a scarcity mindset—the perception of having too little of something (Mani et al., 2013). The effect of a scarcity mindset is so strong that entrepreneurial trainings (e.g., financial literacy, business plan writing, marketing), although found effective in later stages of venture creation (i.e., managing businesses), often fail to help generate unique business ideas (McKenzie & Woodruff, 2014). Moreover, empirical studies in various settings found that a scarcity mindset severely affects people’s fluid intelligence (Shah et al., 2012)—“the capacity to think logically and solve problems in novel situations, independent of acquired knowledge (Mani et al., 2013, p. 977).” Absent fluid intelligence, people will be less likely to evaluate logically different aspects of a problem and the relationships among these aspects required to propose new business ideas.

It might also be the case that the presence of chronic constraints might create feelings of depression among individuals experiencing such constraints. Through a longitudinal study, Turvey et al. (2009) showed that chronic constraints (e.g., illness) are related to depressive morbidity, especially in the older population. Similarly, McNeely et al. (2014) found that repeated and prolonged exposure to violence and chronic resource scarcity led to a sense of insecurity and depression among people living in occupied Palestinian territory. When faced with such prolonged and repeated constraints, many people experience “diminished self-esteem and lowered self-efficacy (Corrigan et al., 2009, p. 77).” Furthermore, such declining self-worth

only helps one experience further depression (Owens, 1994), which severely taxes entrepreneurial behaviors (Davis, 2009; Perry-Smith & Mannucci, 2015). As self-efficacy is an important determinant for creative behaviors (Dempsey & Jennings, 2014; Gielnik, Bledow, & Stark, 2020; H. Zhao, Seibert, & Hills, 2005), people's experience of low self-efficacy under chronic constraint conditions will likely affect their ability to generate new business ideas.

Finally, when people regularly experience shocking events, as under chronic constraint conditions, it has long been suspected that they fail to learn how to escape such situations, even when escape is possible (Hammack, Cooper, & Lezak, 2012; Maier, 1984). Note that submission to constraints is akin to the concept of learned helplessness (Maier & Seligman, 1976, 2016), where people feel powerless and thus behave helplessly. Therefore, people facing chronic constraints will feel inept and incompetent at coming up with business ideas. Based on what is known about chronic constraints, I hypothesize:

Hypothesis 1: There is a negative relationship between chronic constraint and business idea generation.

Moving next to acute constraints, I propose a stark contrast. As specified earlier, acute constraints refer to situations, events, or circumstances that have “just happened” or have recently presented themselves. Acute constraints will often appear as an unexpected shock that alters how people view their situation and the environment. As most people are unwilling to quit their established routines and habits (Oreg, 2003), it is often natural for them to resist such changes (Hon, Bloom, & Crant, 2014), which affords them time to formulate strategies to adapt to the new reality (Payne, Payne, Bettman, & Johnson, 1993). Acute constraints often encourage rejection of the new normal; therefore, people will likely feel energized and hopeful about change. Hope will allow them to visualize their improved situation once they overcome the

constraints (Snyder et al., 1991). Similarly, by being hopeful, they will also be able to find alternative ways to achieve their goals (Snyder et al., 1991). Hope should also offer more active coping and encourage active engagement with the stressful situation (Alloy, Abramson, & Chiara, 2000), which is required for suggesting new business ideas. Moreover, the presence of acute constraints should stimulate individuals to adapt (cope) to changing conditions and find more creative ways to utilize their resources (Hamilton et al., 2019) and, in turn, generate more business ideas.

It has also been proposed that due to the uncertainty associated with acute constraints, people will persevere and persist (i.e., expend effort over time) to achieve their goals (e.g., to neutralize the acute constraints; Sarasvathy, 2001). Such undeterred effort is rooted in the feeling of empowerment and the belief that they can succeed if they try. For these individuals, “empowerment is an especially relevant and important mechanism for change because it prescribes what ‘might be done’ to influence goals, rather than ‘what should not be done’ to achieve these goals (Corrigan et al., 2009, p. 78).” As a feeling of empowerment helps achieve entrepreneurial success (Al-Dajani & Marlow, 2013; Henao-Zapata & Peiró, 2018; Shingla & Singh, 2015), people facing acute constraints are likely to be effective in generating business ideas.

While actively engaged in the acute constraints condition, people are more likely to focus on the present situation and observe carefully the challenges posed by such constraints. Such a heightened awareness is called mindfulness—“being attentive to and aware of what is taking place in the present (Brown & Ryan, 2003, p. 822).” As mindful individuals feel joy, inspiration, and vitality (Levit Binnun, Kaplan Milgram, & Raz, 2012), they are more likely to examine the situation with an open mind and effectively manage any negative emotions (Dane, 2011). Such

mindfulness makes people ready to take change-creating initiatives by affecting suitable “cognitive, affective and behavioral factors (Gärtner, 2013, p. 53).” Moreover, research has found the positive effect of mindfulness on creative behaviors (e.g., Colzato, Szapora, & Hommel, 2012; Henriksen, Richardson, & Shack, 2020; Lebuda, Zabelina, & Karwowski, 2016), such as business idea generation. Therefore, pulling all of these ideas together, I hypothesize the following:

Hypothesis 2: There is a positive relationship between acute constraint and business idea generation.

Chronic Constraints: Moderating Roles of Regulatory Focus

Although chronic constraints, in general, are expected to have a negative effect on business idea generation, such adverse effects might vary depending on other individual-level states. To the extent that the etiology underlying all work behavior reflects a combination of situational and personal factors (Campbell, 1990), the same dynamic should be observed for entrepreneurial activities. Given the focus on stable, unchanging constraints, an individual factor that should generate variance in business idea generation is regulatory focus motives. When people are challenged with chronic constraints, their overall motivation to self-regulate their behavior should play a vital role in explaining their effectiveness in generating business ideas under such challenging conditions. As noted earlier, RFT provides us with a lens to examine this constraint-overcoming or status quo-defending motive of an individual facing any chronic constraint.

Drawing on RFT, I argue that the negative relationship between chronic constraints and the number of business ideas one generates will be weaker when promotion focus is high and stronger when promotion focus is low. Promotion-focused people are open-minded (Higgins,

1997) and do not shy away from taking risks (Brockner et al., 2004). Therefore, when facing chronic constraints, people with a higher level of promotion focus are expected to seek ways to improve upon the situation and be less overwhelmed and under-confident than those with a lower level of promotion focus. Promotion-oriented regulatory focus encourages individuals to look for alternatives to achieve goals (Crowe & Higgins, 1997). In turn, this should help these individuals feel more in control of their world; hence, they are more likely to find new information that is crucial for connecting the dots (Baron, 2006) to suggest a large number of business ideas. Secondly, a strong promotion focus should free up cognitive resources by broadening the attentional scope (Baas et al., 2008). As this approach encourages them to try new things with little fear of failure (Henker et al., 2015), people with a higher rather than lower level of promotion focus are expected to experience a lower level of scarcity mindset. Such an easy access to cognitive resources will likely help people with a higher level of promotion focus to act on their fluid intelligence under chronic constraint conditions. Moreover, because a higher level of promotion focus helps individuals to seek relevant information for problem-solving and allows the use of available cognitive resources (Baas et al., 2008), it will also help people feel less powerless when faced with chronic constraints. Finally, seeking pleasure and cognitive flexibility allows promotion-minded people to remain in a positive mood (Baas et al., 2008). Therefore, although chronic constraints will lead to depression, people who have a higher rather than lower level of promotion focus will be less likely to be affected by such feelings. Thus, their self-esteem and self-efficacy are less likely to be harmed by chronic constraints and, hence, they will be effective in generating business ideas. Therefore, I hypothesize,

Hypothesis 3: The negative relationship between chronic constraints and business idea generation will be weaker at higher rather than lower levels of promotion focus.

Similarly, I also hypothesize that the negative relationship between chronic constraints and business idea generation should be stronger for people who are prevention focused. As prevention focus encourages risk-aversion (Brockner & Higgins, 2001; Higgins, 1997), it follows that people with a higher rather than lower level of prevention focus will be more concerned about losses and, thus, more likely to disengage from any uncertain activities that could worsen a chronic constraint condition. Therefore, they are more likely to limit their effort (Brockner et al., 2004) to ensure that the chronic constraint condition does not get worse (Higgins, 1997). Such a lack of effort should adversely affect their level of confidence and make the chronic constraint condition feel more devastating. As a result, they are more likely to feel more helpless when faced with chronic constraints and, hence, are less likely to be effective in generating business ideas.

We know that prevention focus encourages people to orient themselves toward safety and responsibilities, not aspirations (Higgins, 1998; Rosenzweig & Miele, 2016). As such, people with higher rather than lower levels of prevention focus might limit their effort just enough to save face while attending to problem situations (Higgins, 2006). Such a limited attempt is likely to hinder their access to cognitive resources (Baas et al., 2008) and, in turn, is likely to heighten their feeling of scarcity mindset. Absent relevant cognitive resources to deal with chronic constraint conditions, the fluid intelligence of people with a higher level of prevention focus is expected to be severely affected. Also, because a higher level of prevention focus limits the ability to navigate through useful information due to the challenge posed on cognitive resources (Baas et al., 2008), it will highlight the aspect of powerlessness in people's minds. Finally, people with a higher rather than lower level of prevention focus have a general preference for maintaining the status quo, even when it is not ideal (e.g., chronic constraint condition), and are

thus expected to approach the constraints with extreme caution to avoid any further loss or failure (Crowe & Higgins, 1997). This cautious approach should prevent them from being open-minded and allow them to be anxious about the chronic constraints they are facing. Such nervous feelings are expected to cause depression. Therefore, with a lower level of self-esteem and self-efficacy caused by depression (Maciejewski, Prigerson, & Mazure, 2000; Maddux & Meier, 1995), they are less likely to be effective in generating business ideas. Therefore,

Hypothesis 4: The negative relationship between chronic constraints and business idea generation will be stronger at higher rather than lower levels of prevention focus.

Acute Constraints: Moderating Roles of Regulatory Focus

In sharp contrast to chronic constraints, acute (and perhaps unexpected) constraints present entrepreneurs with a different kind of reality. As people first notice the constraints, their interpretation of the constraints as well as their natural tendency to react to shocks should determine the strength of the positive relationship between acute constraints and business idea generation. Here again, RFT should help us explain which self-regulatory motives are helpful and harmful in generating business ideas under acute constraint conditions. Drawing on RFT, I argue that the positive relationship between acute constraints and business idea generation will be weaker for people with a higher level of promotion focus.

First, in the face of a crisis or shock, individuals with a strong promotion-focused orientation should experience “disruption” and a lack of hope (Baas et al., 2011). Therefore, people with a higher rather than lower level of promotion focus will experience negative affect and, thus, will be more likely to disengage from the stressful situation that the acute constraints present. With a lack of positive motivation, they are also likely to fail to use their cognitive resources efficiently. Therefore, they are expected to be less effective in generating business

ideas. Second, a higher level of promotion focus fails to leverage emotional and cognitive resources during times of “emergency” (Veazie & Qian, 2011). Thus, people with a stronger promotion focus will likely experience a dent in their entrepreneurial self-efficacy. Such a diminished self-belief is likely to heighten the feeling of uncertainty and result in experiencing powerlessness. As a result, people with a higher rather than lower promotion focus are less likely to navigate the environment for cues essential for generating business ideas (Veazie & Qian, 2011). Third, as alluded to earlier, overcoming or removing constraints usually requires heightened awareness and a deeper analysis of one’s situation—a strategy not well suited to promotion-oriented people (Higgins, 2006). So, when faced with an acute constraint situation, people with a higher level of promotion focus are likely to experience a lower level of mindfulness and thus pay less attention to the challenges that acute constraints offer. As a result, they will not feel the joy, inspiration, or vitality that people with a higher level of mindfulness experience, and will struggle to come up with business ideas. Therefore, I hypothesize,

Hypothesis 5: The positive relationship between acute constraints and business idea generation will be weaker at higher rather than lower levels of promotion focus.

On the other hand, the positive relationship between acute constraints and business idea generation should be stronger for prevention-focused entrepreneurs. Prevention focus allows people to exhibit more creative behaviors when they are in a state that is absent from regulatory closure (i.e., goals are not met; Baas et al., 2011). An acute constraint condition represents a continuous struggle to return to the status quo and an absence of regulatory closure until one removes the constraint. Therefore, people with a higher rather than lower level of prevention focus will likely feel empowered when they meet the uncertainty posed by acute constraints. Thus, they are expected to continue to find different business ideas until there is a regulatory

closure, i.e., removal of the constraints. Next, prevention focus facilitates careful evaluation and decision-making (Brockner et al., 2004). Hence, when faced with acute constraint conditions, people with a higher level of prevention focus should notice only important and feasible aspects of the problem that will help them utilize resources efficiently in the face of acute constraints. With narrowly focused attention on useful elements only, people with a stronger prevention focus will feel hopeful and be more likely to avoid frustration and wasting time (Rosenzweig & Miele, 2016). Therefore, they are more likely to use their time and energy to successfully generate business ideas. Finally, Higgins (2006) suggests that prevention-focused people might, in fact, be better equipped to cope with and resolve crisis situations. As noted earlier, a vigilant strategy implies a state of being alert, attentive, and watchful for opportunities and difficulties (Higgins & Pinelli, 2020). It is this natural orientation that should lead people with a higher level of prevention focus to experience enhanced mindfulness when faced with acute constraints. A vigilant strategy coupled with a higher level of mindfulness should help people with a strong prevention focus to come up with business ideas when they face acute constraints. Therefore, I hypothesize,

Hypothesis 6: The positive relationship between acute constraints and business idea generation will be stronger at higher rather than lower levels of prevention focus.

For a summary of the hypothesized relations among chronic and acute constraints, idea generation, and regulatory focus motives, please see Figure 2.

[Insert Figure 2 about here]

METHOD

Participants and Inclusion Rules

The data for this study came from an online panel of 550 adults who resided in the USA. I specified this location for the comparability with extant research on entrepreneurial ideation, much of which has been conducted in an American context. The respondents were recruited from the MTurk panel through CloudResearch, which has built a reputation for providing high-quality MTurk workers. Moreover, to enhance the response quality, I carefully filtered the participants to include only those with a minimum of a 98 percent successful human intelligence task (HIT) rate of completing no more than 5,000 studies. Each participant was expected to complete the study within 25 minutes and, as a remuneration, each was paid \$3.50 for completion. Following best practices (e.g., Moss, n.d.; Tabachnick & Fidell, 2013), I removed 108 participants who failed multiple attention check questions (N = 38), rushed through the study (N = 18; i.e., those who completed the survey less than the half of the median time), were outliers (N = 21; i.e., those flagged by SPSS in terms of idea quantity and time spent), or were non-respondent to the ideation task (N = 31). Therefore, the final sample consisted of 442 usable cases. Among these participants, approximately half were women (52.3%), approximately 29% were in the modal age category of “25–34 years”, approximately 59% possessed a four-year college/university degree, and approximately 19% were involved in, at the time of the survey, creating/operating their own business.

A pre-test of the study measures was undertaken with a small number of MTurk workers (N = 37) who later did not participate in the final study. I incorporated feedback from these pre-test participants to improve the survey in terms of the readability of the questions and the data quality. Throughout the data collection, I assured participants of complete confidentiality and

informed them that only the researchers of this project had access to their anonymous individual responses. Moreover, I encouraged participants to answer the questions as honestly as possible, repeatedly assured them that there were no right or wrong answers, and informed them that it was natural for individuals to provide varying scores on the survey questions. These efforts and reassurances should have minimized the possibility of social desirability or acquiescence biases (Spector, 2019).

Measures

In this study, four measures were key to testing the above-noted hypotheses. Absent any measure for constraints that fits the particular focus of this study, I created the measures of chronic and acute constraints. The measures of the two self-regulatory motives were based on prior measures reported in the literature. For all four measures, participants responded on a seven-point Likert scale, ranging from “completely disagree” (1) to “completely agree” (7). A description of all the measures now follows.

As the assessments of entrepreneurial ability should be domain-specific (Hayward, Forster, Sarasvathy, & Fredrickson, 2010), this study featured a business idea generation activity as the dependent variable. I presented the participants with a scenario in which they had a number of resources and asked them to generate as many ideas as possible for potential business ventures using only those resources. Following Jennings, Rahman, & Dempsey (2023), I checked every idea that was generated by the participants and removed the ideas that were unclear, duplicated, unrelated to the resources provided, or consisted of gibberish¹. A full scenario description and the task are presented in Appendix A. Because the distribution of this variable

¹ For instance, ideas like “opening a restaurant”, “opening a daycare centre”, “starting a computer selling store” were removed, whereas ideas like “Uber driving”, “food delivery”, “become a children book writer”, “personalized elderly care” were retained.

was left-skewed, following Templeton's (2011) 'Two Step Transformation', I transformed the variable to meet the requirement of normality for regression analysis.

To develop the measures of chronic and acute constraints, I followed the best practice recommendations (Diamantopoulos & Siguaaw, 2006; Hinkin, 1998; MacKenzie, Podsakoff, & Podsakoff, 2011) and first consulted existing literature on constraints (e.g., Acar et al., 2019; Amabile, Hadley, & Kramer, 2002; Medeiros et al., 2014; Onarheim, 2012; Shalley, Zhou, & Oldham, 2004), motivation (e.g., Locke, 2012; Mitchell, Thompson, & George-Falvy, 2000; Ryan & Deci, 2000), and change management (e.g., Arkowitz, 2002; Hon et al., 2014; Pardo del Val & Fuentes, 2003) to develop 12 items for each constraint. Then I sent the list of items to five subject-matter experts to ensure that the items adequately captured each type of constraint. Finally, I had five graduate students, who were not aware of the research questions or the construct, engage in a thinking-aloud exercise to provide feedback on the items in terms of clarity. The resulting 10-item measure for each type of constraint was then tested with a sample of 203 participants, drawing on the MTurk panel through CloudResearch: 52% percent of participants were women, approximately 34% were in the modal age category of "25–34 years", approximately 56% possessed a four-year college/university degree, and approximately 22% were involved in, at the time of the survey or previously, creating/operating their own business.

The data from this test sample was then subjected to a factor analysis and the item loadings were inspected (see Table 1). The final set of measures consisted of 10 items for the chronic constraints and nine for the acute constraints. Promotion- and prevention-focused motives were based on measures described by Sassenberg, Ellemers, & Scheepers (2012), and were comprised of 12 items to assess promotion focus and eight items to assess prevention focus. Two items from the promotion focus measure and three items from the prevention focus measure

were removed due to ambiguity in the loadings (e.g., loading less than .30 on the theoretical factor; high loadings on multiple factors).

[Insert Table 1 about here]

To verify the discriminant validity of the above-mentioned measurement model, a series of confirmatory factor analyses (CFAs) were then conducted using maximum likelihood estimation within Mplus (Muthén & Muthén, 1998-2023). Higher values of the comparative fit index (CFI), values of the root mean square error of approximation (RMSEA) of .06 or less, and values of the standardized root mean residual (SRMR) of .08 or less are generally indicators of a good fit (Hu & Bentler, 1999). Where appropriate, item parcels were used because they allow for a more parsimonious model, are associated with superior reliability and distributional properties, and maintain a more favorable sample size to parameter ratio (Williams, Vandenberg, & Edwards, 2009). As such, the 10 promotion focus items (see Table 1) were divided into five parcels, the five prevention focus items were divided into two parcels, the 10 chronic constraint items were divided into five parcels, and the nine emergent constraint items were divided into four parcels. In total, the fit of three nested measurement models was assessed and compared: a one-factor model where all 16 indicator variables (item parcels) were specified to load on a single latent factor ($\chi^2 = 2,236.515$, $df = 104$; CFI = .479; RMSEA = .215; SRMR = .168); a model where all of the indicator variables were specified to load on their respective latent factors and where all four factors were deemed to be orthogonal ($\chi^2 = 619.447$, $df = 105$; CFI = .874; RMSEA = .105; SRMR = .220); and, finally, a model where the indicator variables loaded on their respective latent factors and the four factors were allowed to correlate ($\chi^2 = 404.028$, $df = 99$; CFI = .925; RMSEA = .083; SRMR = .067). Of the three models tested, the proposed four correlated-factor measurement model provided the best fit for the data.

Study Measures: Descriptive Statistics

Means, standard deviations, scale reliability (where appropriate), and inter-correlations among the study measures are presented in Table 2. Relations among the five primary study were as follows. Promotion focus was positively correlated with prevention focus and negatively correlated with chronic and acute constraints, but not significantly correlated with idea quantity. Prevention focus had no significant correlation with chronic constraints, acute constraints, or idea quantity. Both constraints were highly correlated, but only chronic constraints had a significant negative relationship with idea quantity.

[Insert Table 2 about here]

In addition to the five primary measures, several demographic and personal factors were assessed as control variables. Following best practice recommendations by Bernerth & Aguinis (2016) and based on previous research on related entrepreneurial phenomena (e.g., Davidsson & Honig, 2003; Jennings et al., 2023; Kier & McMullen, 2018), I included a variety of auxiliary measures that might correlate with the entrepreneurial task—and would need to be controlled in a statistical analysis. Age was measured by six ordinal categories ranging from “18–24 years” to “65 or older.” Gender was coded as 1 if male, 2 if female, and 0 for those who selected other. Education level was measured by six ordinal categories ranging from “high school diploma” to “doctoral or professional degree.” Entrepreneurship experience was coded 1 for those who indicated that they were currently involved in founding or operating their own business (0 otherwise). The amount of time spent on idea generation was measured in seconds. As I administered this survey during a global pandemic, I also controlled for the impact of COVID-19. I asked participants how much the pandemic impacted them physically, psychologically, financially, and socially. For each category, the responses ranged from 1 (extremely negative) to

7 (extremely positive). A composite measure of COVID-19 impact was computed by averaging responses to these questions.

Among the control variables, age was positively correlated with prevention focus but negatively correlated with chronic constraints; a higher level of education was negatively correlated with chronic constraints but positively associated with promotion focus and idea quantity; entrepreneurial experience was positively associated with promotion focus; and a higher amount of time spent on idea generation was positively associated with idea quantity.

Hypothesis Testing: Analytical Strategy

The hypotheses were tested using hierarchical ordinary least squares regression² analysis using IBM SPSS. Following the recommendations of Aiken & West (1991) and Cohen & Cohen (1983), I entered the variables in distinct steps (Models 1 to 3) to estimate their main effects. Model 1 included the control variables only, Model 2 added chronic constraints and acute constraints to the control variables, and Model 3 added two moderators: promotion motive and prevention motive. Models 4 to 7 represent the interaction effects, for which I used PROCESS 4.0 macro (Hayes, 2017). PROCESS 4.0 reduces the steps involved in the testing of the moderating and mediation effects yet offers precise results. For instance, using this macro, I neither had to multiply the interaction effects and add them to the regression analysis, nor was I required to calculate the mean-entered variables and add them stepwise in the regression model. PROCESS 4.0 performs these tasks with a couple of checkboxes. Therefore, it offers ease in

² I acknowledge that the negative binomial regression can also be used in this case. However, the use of ordinary least squares is more popular and recently used in papers (with similar dependent variable) published in top-tier management and entrepreneurship journals (e.g., Jennings, Rahman, & Dempsey, 2023; Kier & McMullen, 2018). Moreover, testing interaction effects with binomial regression is more complicated absent suitable tools such as PROCESS macro.

finding those complex results on the one hand and reduces the risk of error in the addition of so many variables in the regression model on the other.

RESULTS

Tests of Study Hypotheses

Table 3 presents regression results pertinent to the hypotheses testing. The results of the control model (Model 1) indicate that participants generated more business ideas when they had a higher education level ($\beta = .230, p < .05$) and when they spent more time on the ideation task ($\beta = .007, p < .001$), but there were no significant effects of age, gender, entrepreneurial experience, or the impact of COVID-19 on idea generation. Furthermore, the results support Hypotheses 1 and 2, which postulate that chronic constraints should decrease ($\beta = -.492, p < .001$, Model 2) and acute constraints should enhance ($\beta = .441, p < .001$, Model 2) business idea generation. Although they fall outside the theoretical focus of this study, the results of Model 3 indicate no direct effects of promotion or prevention motive on business idea generation.

[Insert Table 3 about here]

The results of Model 4 support Hypothesis 3, which predicted a moderating effect of promotion motive ($\beta = .212, p < .05$) on the chronic constraints–idea generation relationship. Thus, the possibility that increasing levels of chronic constraints decrease the number of business ideas entrepreneurs generate is lower when they have a higher level of promotion focus. Hypothesis 4 predicted that higher levels of prevention motive would exacerbate the negative relationship between chronic constraints and the number of business ideas generated. This hypothesis was not supported ($\beta = .183, ns$, Model 5). The results of Model 6 do not support the attenuating effect of the promotion motive ($\beta = .134, ns$) on the acute constraints–idea generation relationship. Therefore, Hypothesis 5 was not supported. Finally, the results in Model 7 revealed

the helpful effect of higher levels of prevention focus ($\beta = .205, p < .05$) on the acute constraints–idea generation relationship. Therefore, Hypothesis 6 was supported. In summary, Hypotheses 1, 2, 3, and 6 were supported, but Hypotheses 4 and 5 were not.

Robustness Checks and Inferences

I conducted multiple checks to assess the robustness of the above-noted findings. First, as some scholars (e.g., Mishra et al., 2019) argue that the violation of the normality is not a crucial issue for samples having over 100 observations due to the law of centrality, I tested the hypotheses with the original distribution. The results remained unchanged except for Hypothesis 5, which predicted an attenuating effect of promotion focus on the positive relationship between acute constraints and business idea generation. This finding with the original distribution was counterintuitive and statistically significant ($\beta = .222, p < .05$). This result indicates that although acute constraints appear as disruptions to highly promotion-focused people (Baas et al., 2011), these individuals still remain hopeful and engage in unpleasant situations offered by the constraint. Also, although acute constraints limit an individual’s ability to easily access cognitive resources (Veazie & Qian, 2011), they likely do not severely affect the self-efficacy of people with a higher level of promotion focus. Perhaps their ability to navigate the resources and recognize key information for improvement (Tumasjan & Braun, 2012) helps them stay positive and confident when faced with acute constraints. Thus, these individuals were still able to generate a large number of business ideas.

As a second check, I tested the moderation hypotheses (H_3 to H_6) with added control variables. For instance, while testing the effect of promotion motive on the chronic (acute) constraints–idea generation relationship, I included prevention motive and acute (chronic) constraints in the model (Models 4 and 6). Similarly, in testing the effect of prevention focus on

the chronic (acute) constraints–idea generation relationship, I included promotion motive and acute (chronic) constraints in the model (Models 5 and 7). I found similar effects for all the hypotheses.

As the final check, I tested the hypotheses with a subsample of participants having no prior experience of entrepreneurship ($N = 356$). With this reduced sample, all but Hypothesis 3 were supported. Hypothesis 3 predicted that the negative relationship between chronic constraints and business idea generation will be weaker at a higher level of promotion focus. However, the strength of this moderating effect was found to be weak and non-significant ($\beta = .190, p < .10$) using the above-noted subsample. Such a finding is not surprising when the mean promotion motive for participants with entrepreneurial experience ($M = 5.459$) was higher than that of participants without such experience ($M = 5.219$). This result suggests that the general population has a lower level of promotion motive than entrepreneurs, and therefore they are not able to mitigate the challenges associated with chronic constraints in generating business ideas. However, this finding also validates the rationale for controlling entrepreneurial experience in the regression analysis.

DISCUSSION

In this study, I set out to answer the following question: *Why are some people more effective than others in generating business ideas in the face of constraints?* My findings reported here offer some insights on this question as most of the hypotheses were supported. Chronic constraints were found to be harmful for business idea generation, whereas acute constraints were helpful. Similarly, the positive role of promotion (prevention)-focused motive in entrepreneurial ideation was established under chronic (acute) constraint conditions. However,

the hypothesized negative role of prevention (promotion) focus in business idea generation was not proven under chronic (acute) conditions.

Contributions of the Findings

The findings of this paper make a number of contributions to existing theory and practice. First, while prior studies that investigated the role of constraints on entrepreneurial behaviors primarily categorized constraints as they impact different elements of the process model (i.e., input, process, output), the current study offers a novel classification of the constraints. By clearly demarking chronic from acute constraints, this paper allows constraints researchers to rethink their analysis and perhaps resolve existing discrepancies across empirical studies. Hence, this study contributes to the constraint literature by explaining why an individual may have a disparate response to different constraints. Second, not only does this paper offer a novel classification of constraints, but it also presents original validated measures for each of these constraints (i.e., chronic and acute). Third, this study helps resolve the theoretical puzzle of whether and when constraints are useful for entrepreneurial activities. The findings reveal that, in general, chronic constraints hindered and acute constraints helped entrepreneurial idea generation. Finally, it also extends the regulatory focus theory in the context of entrepreneurial behavior by demonstrating that prevention focus was essential for idea generation under acute constraint conditions. It also highlights that promotion focus was helpful for entrepreneurial ideation, especially when entrepreneurs face chronic constraints. Thus, while this study confirms the findings of previous research that promotion focus helps business idea generation, it also offers a boundary condition with respect to constraints.

Limitations and Future Directions

Although this study makes several important contributions to the existing literature, these contributions should be considered with caution. First, this study is based on cross-sectional data, which cannot definitively guarantee that the observed phenomena will hold true over time. Future research can study how the effects of chronic and acute constraints on entrepreneurial ideation persist for a longer period by utilizing longitudinal data. Second, this study only examined people's chronic regulatory focus motive in explaining business idea generation under constraint conditions. However, regulatory focus can also be induced by situational elements (Brockner & Higgins, 2001). It is also possible that, under certain situations, highly promotion-focused people will implement a vigilant strategy and people with a stronger prevention focus will exhibit eagerness (Higgins & Pinelli, 2020). Thus, future research can help us understand the effects of chronic vs. acute constraints on entrepreneurial behavior by using an experimental design. Third, while this study showed the promise of developing two novel measures for constraints, these measures will need further testing to establish their validity and usefulness. Finally, the findings of this study are based on an online survey. Although the sample is representative of the general population, there is no feasible way to further query the sample. There might be an over-representation of some groups that have inflated or deflated the findings. To remove such doubt, future research can replicate this study using respondents who vary across crucial domains, yet have at least one common unifying element, such as organizational membership.

Conclusion

The primary objective of this study was to understand when constraints are helpful or harmful for business idea generation. Theorizing about two novel classifications of constraints

and developing measures for them, this study shows that chronic constraints were negatively related to new business idea generation, whereas acute constraints were positively related. Drawing on the RFT, this study also proved the positive role of prevention focus in entrepreneurial idea generation under acute constraint conditions. It also validates the helpful role of promotion focus motive in idea generation under chronic constraint conditions. I hope this study will encourage further investigations into constraints and their roles in various stages of the entrepreneurial process.

To gain a more complete understanding of how constraints affect entrepreneurial behaviors, in the next study, I turn my attention to explore their role in idea selection, the very next step of idea generation. Following Brockner et al.'s (2004) proposed framework, I also plan to test the roles of regulatory focus in this stage.

CHAPTER 3

Study 2: The Role of Perceived Constraint in Entrepreneurial Ideation Process:

Examining the Moderating Roles of Self-Regulatory Motives

Entrepreneurship is the process of recognizing and exploiting opportunities to bring innovative products, services, or business models to market (Shane & Venkataraman, 2000). As such, entrepreneurship is recognized as a critical driver of economic growth and innovation (Schumpeter, 1942), and this topic has garnered significant attention in the literature. An essential element of entrepreneurial success is generating a sufficient quantity of viable business ideas (i.e., ideation) so the founders can pursue the one with the most potential (Kier & McMullen, 2018). Generating a large pool of business ideas and selecting high-quality ones, however, is not simple and many entrepreneurs struggle with ideation. To explain this, previous research has pointed to a lack of entrepreneurial alertness (e.g., Baron & Ensley, 2006; Kirzner, 1983; McMullen & Shepherd, 2006; Sharma, 2019), fear of failure (e.g., Foo, 2011; Helms, 2003; Kong, Zhao, & Tsai, 2020; Wood, McKelvie, & Haynie, 2014), risk aversion (e.g., Fairlie & Holleran, 2012; Herranz, Krasa, & Villamil, 2015; Sarasvathy, 2008), and a lack of relevant knowledge and experience (e.g., Baron & Ensley, 2006; Frederiks, Englis, Ehrenhard, & Groen, 2019; Mollick, 2016) as key individual-level factors that can compromise ideation tasks.

A question here is whether the presence of constraints affects the entrepreneurial process in general and the ideation process in particular. Rindova et al. (2009) were one of the first scholars to surmise a role for constraints in founding new ventures, but they did not consider the varying effects of constraints on different individuals. This is an important omission because individuals likely perceive, interpret, and respond to similar constraints differently. In this study, I propose that one's phenomenological experience of the intensity or severity of constraints (i.e.,

perceived constraint) will play a key role in affecting ideation and how this creative step manifests. Not only will this work need to look at situations where the saliency of such perceived constraint is stronger or weaker, but the underlying motives of the individuals should also play a role. Here, as in previous chapters, I argue that regulatory focus theory (RFT; Higgins, 1997, 1998) can help us better understand these situations. RFT is a psychological framework focusing on how people regulate their behavior and pursue their goals.

As noted in previous chapters, studies of entrepreneurial behaviors through an RFT lens have demonstrated positive effects of promotion focus and negative or no effects of prevention focus (e.g., Henker et al., 2015; Lanaj et al., 2012; Tumasjan & Braun, 2012; Wallace et al., 2016; Zou et al., 2014). However, by attributing one single regulatory orientation to entrepreneurial success, previous research overlooked a critical aspect of entrepreneurship: it is a creative process (Dimov, 2007) of discovering (Shane & Venkataraman, 2000) or creating (Alvarez & Barney, 2010; Sarasvathy, 2001; Vogel, 2017) suitable opportunities for the entrepreneurs and society. A typical entrepreneurial process usually adheres to the following sequence: idea generation (i.e., idea quantity), evaluation or screening of these ideas (i.e., idea quality), acquisition of resources to launch the venture, implementation or rolling out of the business model, and then growth (Bygrave, 2011). This multi-stage process raises the possibility that success at each step might be optimized by different motivational orientations, with some stages better supported by dreams and aspirations that are invoked by promotion focus, whereas other stages call for a more steadfast and cautious approach offered by prevention focus (Brockner et al., 2004). Therefore, no single regulatory orientation should be expected to guide the entrepreneur successfully through different stages of the entrepreneurial process. Hence, it is

vital that an individual have both regulatory orientations to emerge as a successful entrepreneur (Brockner et al., 2004).

Although Brockner et al. (2004) theorized about the importance of the distinct regulatory focus in different stages of the entrepreneurial process, to my knowledge, such a possibility has not been empirically tested. This is a significant oversight because understanding which regulatory focus is useful in which stage of entrepreneurship may not only help founders to craft their communication and planning but also help other stakeholders to have a better idea of what to expect from an entrepreneur in a given stage and how to evaluate the potential of such new ventures.

In this study, I aim to offer this insight by examining which regulatory focus is helpful in the ideation process (i.e., idea generation and evaluation) for entrepreneurs seeking to overcome or remove constraints. Although promotion-focused people are likely to be more entrepreneurial when faced with chronic constraints and prevention-focused individuals are expected to generate more business ideas when they face acute constraints (as shown in Study 1), the subsequent behavior of both groups can be explained by how deeply they are affected by constraints. Hence, their *perceived constraint* should be an essential trigger for continued entrepreneurial pursuit in the face of difficulty. Therefore, I argue that the more salient the perceived constraint, the lower the possibility of generating more business ideas and selecting one of high quality. I further suggest that while a promotion focus will help attenuate the negative effect of the perception of constraints on idea generation, a prevention focus will be more useful in selecting a high-quality idea from among the idea pool to pursue. I test these hypotheses using an online survey based on 590 MTurk panel members.

This study offers multiple contributions to the literature on entrepreneurial ideation, constraints, and regulatory focus. Most fundamentally, it offers a novel measure, *perceived constraint*, which indicates promise in resolving conflicting findings available in previous literature studying constraints and entrepreneurial behaviors. Second, while prior studies that investigated the role of constraints on entrepreneurial behaviors primarily focused on a single stage of the entrepreneurial journey, this study provides a more comprehensive picture of the role of constraints in the ideation process (idea generation and selection). Finally, while previous studies reported negative or no effects of prevention focus on entrepreneurial behaviors, this study shows the positive role of prevention focus (e.g., Higgins, 1997; Tumasjan & Braun, 2012) in the entrepreneurial ideation process. Thus, this study also extends the application of the RFT in the domain of entrepreneurial ideation.

RELEVANT LITERATURE REVIEW

Specific personal characteristics such as entrepreneurial alertness, fear of failure, risk aversion, and prior knowledge and experience are among the most commonly cited factors when generating and selecting business ideas. Arguably, entrepreneurial alertness is the most studied determinant of identifying (i.e., idea quantity) and exploiting (i.e., idea quality) business opportunities. Kirzner (1983) was among the first to identify the importance of alertness in entrepreneurship. However, the seminal work of Shane and Venkataraman (2000) diverted scholarly attention to the concept. Shane and Venkataraman argue that individuals who constantly scan their environment for new information are more likely to find new business opportunities. Baron & Ensley (2006) argue that alert individuals can make better use of existing information and find new business ideas that can satisfy customer needs. According to McMullen & Shepherd (2006), “entrepreneurial alertness ensures exploitation of [available]

opportunity and consequently perpetuates the market system (p. 144).” Tang et al. (2012) further developed the concept of alertness in the context of opportunity identification and exploitation. These authors proposed three dimensions of alertness: scanning and search, association and connection, and evaluation and judgment. They also showed that alertness helps identify opportunities with high potential. In addition to helping *de novo* ventures, entrepreneurial alertness also fosters corporate entrepreneurship. Drawing on a sample of 784 organizational members from different South African firms, Urban (2017) showed that entrepreneurial alertness enhances the innovativeness of entrepreneurial ideas implemented within incumbent firms. For a systematic review of entrepreneurial alertness, see Sharma (2019).

There appears to be research evidence that looks at the factors that impair ideation. For example, a fear of failure dictates how entrepreneurs perceive any business opportunity’s relative attractiveness (Wood et al., 2014). When people experience fear, they evaluate potentially better opportunities as more uncertain outcomes (Foo, 2011) because such a negative emotion can affect their cognitive processes (Grichnik, Smeja, & Welp, 2010). Furthermore, Kong et al. (2020) argue that overcoming or removing the fear of failure is crucial for identifying and selecting business opportunities. Empirical studies also provide support for this claim. For instance, Mitchell and Shepherd (2010) found that fear of failure decreases the likelihood of opportunity identification and exploitation. Similarly, Li (2011) reported that a higher degree of fear of failure hurts the identification of business opportunities and adversely affects the subjective evaluation of such opportunities. Recruiting a large sample of participants from 28 countries, Arenius and Minniti (2005) also showed that fear of failure affects entrepreneurs’ ability to assess the potential of opportunity (i.e., idea quality). Cacciotti and Hayton (2015) provide a detailed review of the impact of fear of failure on entrepreneurship in general.

Another individual characteristic closely related to fear of failure, risk aversion, can play a deciding role in determining business idea quality. Sarasvathy (2008) argues that entrepreneurs who have a higher degree of risk tolerance are more likely to pursue business ideas that are unconventional and risky. Individuals with higher levels of risk tolerance gain more benefits from entrepreneurial training (Fairlie & Holleran, 2012) and, hence, are more likely to select high-quality business ideas than people with low risk tolerance. Herranz et al. (2015) reported that more risk-averse entrepreneurs choose business ideas that do not scale up to their full potential. This finding suggests that risk aversion can limit entrepreneurs' willingness to pursue high-potential business ideas.

A lack of relevant knowledge and prior entrepreneurial experience can also discourage ideation. For instance, Frederiks et al. (2019) found that individuals with entrepreneurial experience or relevant knowledge are more likely to generate spontaneous and high-quality business ideas, and those without such knowledge and experience produce low-quality ideas. Similarly, Baron and Ensley (2006) reported that novice entrepreneurs tend to be more optimistic about the novelty of their ideas but often underestimate their feasibility. With a sample of 630 entrepreneurs from Great Britain, Ucbasaran et al. (2009) found that experienced entrepreneurs not only identified more business opportunities, but those opportunities had more profit potential. In contrast, novice entrepreneurs identified opportunities that were comparatively less novel. Likewise, sampling Hong Kong based entrepreneurs, Ko and Butler (2007) established a positive relationship between prior knowledge and the number of opportunities entrepreneurs identified (i.e., idea quantity). Using a quasi-experiment, Mollick (2016) reported that experienced entrepreneurs could easily move between inventor and businessman identity and, hence, were able to generate business ideas of higher quality.

As indicated earlier, the focus of this study is on idiosyncratic experience with respect to the intensity of constraint in one's situation. As such, people facing the same time or resource constraint are expected to perceive, interpret, and react to their circumstances differently based on individual characteristics. Facing an actual challenge, some individuals may feel defeated, whereas others may feel challenged. Therefore, understanding the conditions that make the effect of perceived constraint less (rather than more) salient is critical for understanding business idea generation and selection. I again argue that RFT can help us explain such conditions.

STUDY HYPOTHESES

Perceived Constraint, Idea Quantity, and Idea Quality

Entrepreneurs are more likely to achieve desired outcomes, such as realizing high-quality business opportunities (Kier & McMullen, 2018) and venture growth (Gielnik et al., 2012), when they initially generate a large pool of potential business ideas. However, a higher level of perceived constraint should adversely affect the number of ideas one generates. First, Sellier and Dahl (2011) showed that having slack resources fosters creative thinking, which is critical for developing business ideas. On the other hand, when resources are tight, people feel compressed against reality (Mani et al., 2013) and are less likely to find adequate ways to solve problems. Also, a higher level of perceived constraint is expected to weaken intrinsic motivation and, in turn, creativity (Amabile, 1996; Hennessey & Amabile, 2010)—the foundation for generating business ideas.

Second, the negative effect of perceived constraint on motivation is also supported by self-determination theory (Ryan & Deci, 2000), which argues that the presence of external constraints diminishes the perception of control over goals and intrinsic motivation, and, in turn, desired behavior. Moreover, such loss of control will also likely trigger a sense of diminished

self-efficacy. Thus, when individuals perceive their constraints as high, they are less likely to be effective in generating business ideas.

Finally, business idea generation is a cognitively challenging task (Weinberger et al., 2018). When entrepreneurs perceive their constraints as high, they are more likely to reduce the effort in idea generation to cope with other challenging demands associated with constraints (Pitesa & Thau, 2018). Such a stressful situation will likely encourage fear of failure (Roskes, 2015) and limit their access to cognitive resource reservoir. Therefore, under a higher level of perceived constraint, people are less likely to be effective in generating business ideas. Thus,

Hypothesis 1: There will be a negative relationship between the level of perceived constraint and the quantity of business ideas one generates.

Success of an entrepreneurial venture also depends on the business idea its founder(s) select to pursue. Such an idea, which results from thorough and careful screening, is more likely to attract attention and support from key stakeholders such as resource providers, employees, and regulatory bodies. However, when an individual feels a higher level of constraint, he or she is less likely to screen the ideas adequately and select the one of high quality to pursue. First, screening requires entrepreneurs to argue against the merit of their own ideas to find ways in which the ideas, if acted upon, might fail (Brockner et al., 2004). Acting as a devil's advocate is a highly demanding task that requires people to dive deep into their cognitive resources (Baron, 1998). Because a higher level of perceived constraint imposes a "bandwidth tax" on entrepreneurs' cognitive ability (Mullainathan & Shafir, 2013), they are less likely to make proper use of their cognitive resources and, hence, more likely to settle on a low-quality idea.

Second, when people experience positive feelings, as in constraint-free or limited-constraint conditions, they are more likely to be more alert to environmental cues (Baron, 2008)

necessary for making better decisions. Also, when people are in a good mood, they tend to recall more relevant information (Elsbach & Hargadon, 2006) that can be crucial in decision-making. In such a positive mood, people will be more open to assessing the potential of various available resources and finding ways to recombine them to solve problems at hand (Baron & Tang, 2011; Blomberg, Kallio, & Pohjanpää, 2017). Therefore, they are expected to identify better means–end relationships and select a high-quality idea that offers the most payoff. Conversely, when people are in a stressful situation, such as when they feel a higher level of constraints, they are less likely to engage in creative problem solving (Amabile, Barsade, Mueller, & Staw, 2005) and, hence, will likely choose a low-quality idea to go after.

Third, a higher level of perceived constraint should make entrepreneurs feel that they are trapped in a box (Mani et al., 2013). Such a feeling is likely to limit their attention span to a sustainable solution and encourage them to seek a quick remedy for fixing the current situation. Hence, it is highly likely that, for immediate relief, they will select an idea that would yield a smaller immediate payoff rather than one that would offer a larger future reward (Getz, 2013). Thus, the trade-off between immediate over future value may encourage entrepreneurs who feel a higher level of perceived constraint to select an idea that is not of high quality.

Finally, a higher level of perceived constraint is a psychological state that promotes risk aversion (Gerhardt, 2013); thus, entrepreneurs likely feel they do not have what it takes to improve upon the situation. A weakened self-efficacy is also likely to affect their self-esteem adversely. Feeling a lower level of self-efficacy and self-esteem inhibits one's problem-solving capability (Williams, 2002). With such diminished self-belief, people with a higher level of perceived constraint are less likely to find a high-quality business idea. Therefore, I hypothesize,

Hypothesis 2: There will be a negative relationship between the level of perceived constraint and the quality of the business idea that one selects to pursue.

Because idea quality results from a large number of idea generation (Dean et al., 2006), it is highly likely that the idea quantity will mediate the relationship between perceived constraint and idea quality. Surprisingly, empirical studies examining the role of idea quantity as the mediator are scant in entrepreneurship research. However, Kier and McMullen (2018) demonstrated that idea quantity fully mediates the positive relationship between creative imaginativeness and idea quality, and partially mediates the relationship between practical imaginativeness and idea quality; they did not find support for idea quantity's mediation role between social imaginativeness and idea quality. These authors described imaginativeness as the entrepreneurs' ability to think and predict relationships between key components of new venture creation, such as idea and success, products and customers, new venture, and critical stakeholders. Such imaginativeness should also result from the founders' perception of the constraints. If founders were not able to imagine a way out of constraints, they would not take any corrective action, let alone a highly challenging entrepreneurial action. Therefore, I posit a mediating role of idea quantity for the effect of perceived constraint on idea quality. More formally,

Hypothesis 3: The quantity of business ideas an entrepreneur generates will mediate the relationship between their level of perceived constraint and idea quality.

Moderated Mediation: The Roles of Promotion and Prevention Self-Regulatory Foci

Although a higher level of perceived constraint is expected to be negatively related to the number of ideas one generates, the strength of this relationship should vary on the regulatory motive of the individual facing the constraints. It is highly unlikely that the transition of

perceived constraint into entrepreneurial idea generation will be similar for people aiming to achieve positive results vs. those willing to avoid negative outcomes. Similarly, the strategy they plan to take in achieving these divergent objectives should also vary depending on their regulatory orientation.

Promotion focus makes people open-minded and encourages risk-taking (Brockner et al., 2004; Higgins, 2006). Therefore, people with a higher level of promotion focus are naturally more likely to seek ways to achieve their goals (Brockner & Higgins, 2001; Higgins, 1997). Such a drive for improvement will likely make them feel less overwhelmed by their perceived constraint and feel more energetic about overcoming them. Moreover, when people try to overcome their perceived constraint, they essentially envision a positive future state that is backed by ideals and aspirations. Therefore, people with a higher level of promotion focus are more likely to engage in idea generation even when they feel they are faced with severe constraints. On the other hand, those who are less promotion-focused are more likely to be easily discouraged by their perceived constraint. With a lack of intrinsic motivation, they are less likely to be effective in generating business ideas (Amabile et al., 2005).

A higher level of promotion focus broadens the attentional scope and frees up cognitive resources (Baas et al., 2008). These cognitive resources will likely encourage people with a higher level of promotion focus to take steps for improvement with little fear of failure (Henker et al., 2015). Therefore, even when they feel that they are faced with a severe constraint, they are more likely to cope with diverse stresses associated with the constraint and not worry about any potential negative outcomes. Hence, with a reservoir of efficiently-managed cognitive resources, they are more likely to generate many business ideas. On the contrary, when people are less promotion-focused yet experience a higher level of constraints, they are expected to be

overwhelmed by the challenges and will not take any risks. Such a cautious approach should limit their ability to generate business ideas.

A higher level of promotion focus also encourages pleasure-seeking, which allows people to be in a positive mood (Baas et al., 2008). Being in a positive mood, they are more likely to find relevant information in the environment and be able to organize and match these findings efficiently (Baron, 2006). With such new and relevant information in their hands, they are more likely to make use of available resources and feel empowered to improve the situation. Such a positive boost in their knowledge should also help increase their self-efficacy. Because a positive evaluation of one's self-efficacy and self-esteem is important for creativity (Williams, 2002), people with a higher level of promotion focus are more likely to find more business ideas. On the other hand, when people with a lower level of promotion focus experience a higher level of constraint, they are less likely to experience the good mood necessary to view problems with a clear mind and, in turn, are more likely to miss relevant environmental cues helpful for problem-solving. Hence, they are more likely to experience a lack of self-efficacy and are less likely to be effective in generating business ideas. Therefore,

Hypothesis 4: The negative relationship between the level of perceived constraint and idea quantity will be weaker at higher rather than lower levels of promotion focus.

It has been theorized for approximately six decades that the highest-quality ideas usually are the product of the development of a large quantity of ideas. Believing that “quantity breeds quality” (Osborn, 1963, p. 228), early creativity and idea generation scholars often used the quantity of ideas as the proxy of quality of ideas. These scholars argued that if a large number of ideas have been produced, then the pool will have high-quality ideas (Dean et al., 2006). Empirical work in a related area, such as brainstorming, also suggests that the quantity of ideas

generated through brainstorming is related to the idea quality (e.g., Gallupe et al., 1992). In a recent experimental study, Kier and McMullen (2018) also found a positive effect between idea quantity and idea quality.

However, once an individual develops a large number of business ideas, the next step is to select the best one to pursue. This stage involves screening the ideas (generated in the previous stage) based on their feasibility. A vigilant approach in this stage is expected to help select the best idea that offers freedom from constraint by being careful and accurate (Brockner et al., 2004). Therefore, people with a higher level of prevention focus are likely to act as devil's advocates while evaluating each idea and, thus, are more likely to settle on the high-quality one. In contrast, a low-level prevention focus may encourage people to carry on with some enthusiasm from the previous stage (i.e., idea generation) and choose, without thoroughly evaluating, the idea that just apparently looks promising. Empirical studies suggest that people who are high on prevention focus make fewer mistakes as they move close to task completion (e.g., Förster, Grant, Idson, & Higgins, 2001; Förster, Higgins, & Bianco, 2003), such as idea evaluation in the ideation process.

As noted above, people experiencing a higher level of perceived constraint are expected to be in a negative mood, adversely affecting their ability to recall relevant information (Elsbach & Hargadon, 2006) required for problem solving (e.g., selecting a business idea). Hence, they are more likely to fail to choose a high-quality business idea to pursue. However, such negative affect should have less impact on the ability of highly prevention-focused individuals to recall relevant information. Because people with a strong prevention focus engage in local information processing (Förster, 2009), they will find important information required to make decisions. Therefore, they are more likely to avoid frustration (Rosenzweig & Miele, 2016) and select a

high-quality idea. However, individuals with weaker prevention focus are likely to be severely affected by the bad mood that a higher level of perceived constraint offers and will be unable to select a high-quality business idea.

The tendency to care more about safety and security (Higgins, 1998; Rosenzweig & Miele, 2016) should also help people with a higher level of prevention focus to select a high-quality idea from their generated idea pool. This is because people with stronger prevention focus will evaluate each idea carefully and choose the one that will ensure greater safety and security. Because they feel that it is their duty to select the best idea to pursue (Brockner et al., 2004), they are less likely to fall into the trap of choosing between immediate and future returns. Instead, although they might feel trapped in a box (Mani et al., 2013) when experiencing a higher level of perceived constraint, they should be able to select a high-quality idea that offers long-term future security over ones that provide immediate short-term returns. Therefore,

Hypothesis 5: The positive relationship between idea quantity and idea quality will be stronger at higher rather than lower levels of prevention focus.

For a summary of the hypothesized relations among perceived constraint, idea quantity, idea quality, and regulatory focus motives, please see Figure 3.

[Insert Figure 3 about here]

METHOD

Participants and Inclusion Rules

I collected 647 participants via an online survey from the general adult population living in the USA. Again, I specified this location for the comparability with extant research on entrepreneurial ideation. As described earlier, the respondents for this study were also recruited from the MTurk panel through CloudResearch. Participant selection criteria followed the same

rigor as in Study 1. Each participant was expected to complete the study within 20 minutes, and, as a remuneration, each was paid \$3 to complete the study. Following best practices (e.g., Moss, n.d.; Tabachnick & Fidell, 2013), I removed 57 participants who failed multiple attention check questions (N = 28), rushed through the study (N = 16; i.e., those who completed the survey in less than the half of the median time), or were outliers (N = 13; i.e., those flagged by SPSS in terms of idea quantity and time spent). Therefore, the final sample comprised 590 usable cases. Among these participants, 58% were women, approximately 32% were in the modal age category of “25–34 years”, approximately 59% possessed a four-year college/university degree, and approximately 16% were involved in, at the time of the survey, creating/operating their own business.

As explained in Study 1, I also pretested a preliminary version of this survey with a small number of MTurk workers (N = 40) who later did not participate in the final study. I also took steps, as in Study 1, to minimize the possibility of social desirability or acquiescence biases (Spector, 2019).

Measures

Given the lack of suitable measures useful for the focus of this study, I decided to develop the main construct (i.e., perceived constraint). I took the other two previously validated focal variables (i.e., promotion focus and prevention focus) from the extant literature. Items were evaluated on a seven-point Likert scale, ranging from “completely disagree” (1) to “completely agree” (7). A description of all the measures now follows.

As the assessments of entrepreneurial ability should be domain-specific (Hayward et al., 2010), this study featured a business idea generation activity as the dependent variable. Following Kier & McMullen (2018), I presented the participants with a short description and

accompanying diagram of a technological innovation (facial recognition software) and asked them to generate as many ideas as possible for potential new business ventures that could use this technology, and then select an idea that they considered to be the ‘best’ in terms of novelty and feasibility. Again, following Jennings et al. (2023), I checked every idea that the participants listed and removed those that were unclear, duplicated, utterly unrelated to the technology, or comprised gibberish³. The resulting number of ideas was used as the first dependent variable: idea quantity. A complete scenario description and the task are presented in Appendix B.

A second dependent variable of this study was the demonstrated idea quality, which was a composite measure of the novelty and feasibility of the best idea selected by the participants. I followed a similar procedure implemented by Kier & McMullen (2018) and had two external raters evaluate each best idea in terms of its novelty and feasibility. Both raters were entrepreneurs and investors, unaware of the study’s purpose or theoretical arguments, and evaluated the ideas independently. They assessed novelty by the same four-point scale used by Kier and McMullen (2018), ranging from 1 = “a common, mundane, or boring business idea” to 4 = “an ingenious, imaginative, rare or surprising business idea.” To evaluate the feasibility, the raters used an extended version used by Kier & McMullen (2018) that ranged from 1 = “translating the idea into a commercial product will likely be very difficult” to 4 = “translating the idea into a commercial product will likely be very easy.” Moreover, following Jennings et al. (2023), I advised the raters to assign a “zero” to any idea with insufficient information to evaluate, or that seemed irrelevant to the focal technology. Ratings of novelty and feasibility for each idea were added together to form a composite idea quality measure for each rater. The mean

³ For example, ideas like “starting an online store”, “opening a pet daycare centre”, “starting a nail salon”, “food delivery” were removed, whereas ideas like “replacing credit card”, “ID for entrance into workplace”, “devices to use law enforcement authorities”, “displaying customized advertisement when entering a store” were retained.

of the idea quality ratings by both raters was then used for assigned idea quality for each participant. The 541 assessed cases (the ones with at least one valid idea) exhibited an acceptable level of inter-rater reliability for idea quality ($ICC = .78$). However, because the distribution of the assigned idea quality was right-skewed, following Templeton (2011), I transformed the variable to meet the requirement of normality for regression analysis.

To develop the measures of perceived constraint, I followed the best practice recommendations (Diamantopoulos & Sigauw, 2006; Hinkin, 1998; MacKenzie et al., 2011) and first consulted existing literature on constraints (e.g., Acar et al., 2019; Amabile et al., 2002; Medeiros et al., 2014; Onarheim, 2012; Shalley et al., 2004), motivation (e.g., Locke, 2012; Mitchell et al., 2000; Ryan & Deci, 2000), autonomy (e.g., Hackman & Oldham, 1980; Meyer et al., 2014; Weinstein, Przybylski, & Ryan, 2012), and organizational change (e.g., Hon et al., 2014; Pardo del Val & Fuentes, 2003) to develop ten items. Then I sent the list of items to five subject-matter experts to ensure that the items adequately captured the perception of constraint. Finally, I had three graduate students, who were unaware of the research questions or the construct, engage in a thinking aloud exercise to provide feedback on the items in terms of clarity. The resulting nine-item measure for perceived constraint was then tested with a sample of 178 participants drawing on the MTurk panel through CloudResearch. Approximately 54% of the participants were women, approximately 35% were in the modal age category of “25–34 years”, approximately 49% possessed a four-year college/university degree, and approximately 18% were involved in, at the time of the survey or previously, creating/operating their own business.

The data from this test sample was then subjected to a factor analysis and the item loadings were inspected (see Table 4). Two items were removed due to ambiguity in the loadings

(e.g., loading less than .30 on the theoretical factor; high loadings on multiple factors). The final set of measure for the perceived constraint consisted of seven items. The regulatory focus measure was adapted from the 18-item measure of Lockwood, Jordan, & Kunda (2002) with four items removed that were specific to academic achievements and were not suitable for a sample of working people. So, the 14-item measure was administered with seven items each to assess promotion and prevention focus. However, I removed two items, one from each motive, due to lower factor loading (i.e., less than .30). Thus, each of the promotion and prevention motives comprised six items.

[Insert Table 4 about here]

As was the case in Study 1, the discriminant validity of the above-mentioned measurement model was tested via a series of CFAs using maximum likelihood estimation within Mplus (Muthén & Muthén, 1998-2023). Item parcels were used as indicator variables (six promotion focus items formed three bundles; six prevention focus items formed three bundles; seven perceived constraints items formed three bundles) In total, the fit of three nested measurement models was assessed and compared: a one-factor model where all nine indicator variables were specified to load on a single latent factor ($\chi^2 = 1141.524$, $df = 27$; CFI = .544; RMSEA = .264; SRMR = .188); a model where all of the indicator variables were specified to load on their respective latent factors and where all three factors were deemed to be orthogonal ($\chi^2 = 231.594$, $df = 27$; CFI = .916; RMSEA = .113; SRMR = .156); and, finally, a model where the indicator variables loaded on their respective latent factors and the three factors were allowed to correlate ($\chi^2 = 138.298$, $df = 24$; CFI = .953; RMSEA = .090; SRMR = .058). Of the three models tested, the proposed three correlated-factor measurement model provided the best fit for the data.

Study Measures: Descriptive Statistics

Means, standard deviations, scale reliability (where appropriate), and inter-correlations among the study measures are presented in Table 5. Promotion focus was negatively correlated with prevention focus and perceived constraint but was not significantly correlated with either idea quantity or idea quality. Prevention focus, on the other hand, had positive (negative) correlation with perceived constraint (idea quantity), but had no significant correlation with idea quality. Finally, idea quantity and quality were positively correlated.

[Insert Table 5 about here]

Again, as with the previous study, several control variables were considered. Age was measured by six ordinal categories ranging from “18–24 years” to “65 or older”. Gender was coded as 1 for male, 2 for female, and 0 for those who selected other. Education level was measured by six ordinal categories ranging from “high school diploma” to “doctoral or professional degree”. Entrepreneurship experience was coded as 1 for those who indicated that they were currently involved or had previously been involved in founding or operating their own business (0 otherwise). The amount of time spent on idea generation was measured in seconds. I also controlled for participants’ familiarity with the facial recognition technology, which was measured with a seven-point slider ranging from “1 = not at all familiar” to “7 = completely familiar”. As in Study 1, I measured and calculated the impact of COVID-19.

Among the control variables, age was negatively correlated with promotion focus, prevention focus, and perceived constraint; a higher level of education was negatively correlated with prevention focus but positively correlated with idea quantity; entrepreneurial experience was positively associated with promotion focus; and a higher amount of time spent on idea generation was positively associated with both idea quantity and quality.

Hypothesis Testing: Analytical Strategy

I tested the hypotheses using hierarchical ordinary least squares regression⁴ analysis using IBM SPSS. Following the recommendations of Aiken & West (1991) and Cohen & Cohen (1983), I entered the variables in terms of their theoretical relevance. Models 1 and 5 included the control variables, Models 2 and 6 added main effects (perceived constraint for both idea quantity and idea quality), and Models 3 and 7 added the moderators (promotion for idea quantity and prevention for idea quality). Models 4 and 8 represented the interaction effects for which I used the PROCESS 4.0 macro (Hayes, 2017). I used the same macro for testing the mediating effect.

RESULTS

Tests of Study Hypotheses

Table 6 presents the results from the regression analysis. The results of the control model for idea quantity (Model 1) indicate that participants identified more business ideas when they had a higher education level ($\beta = .138, p < .01$) and when they spent more time on the ideation task ($\beta = .003, p < .001$), but there were no significant effects of age, gender, entrepreneurial experience, technology familiarity, or the impact of COVID-19 on the number of ideas a participant generated. Similarly, Model 5 (control model for idea quality) confirms that participants selected high-quality ideas only when they spent more time on the idea generation task ($\beta = .001, p < .001$). However, age, gender, education, entrepreneurial experience, technology familiarity, or the impact of COVID-19 were found to have no significant effect on idea quality.

[Insert Table 6 about here]

⁴ I preferred ordinary least squares regression for the same reasons explained in Study 1.

Hypotheses 1 and 2 postulate the adverse effect of perceived constraint on idea quantity and quality, respectively. The results of Model 2 provide evidence that higher levels of perceived constraint decreased the number of ideas participants generated ($\beta = -.090, p < .05$). A similar effect of perceived constraint was also found on idea quality ($\beta = -.128, p < .001$, Model 6). Therefore, Hypotheses 1 and 2 were supported. Hypothesis 3 predicted that idea quantity would mediate the perceived constraint–idea quality relationship. A mediation analysis did not find such an effect on idea quantity ($ab = -0.007$, 95% bootstrap CI = -0.019 to 0.005). Therefore, Hypothesis 3 was not supported.

Hypothesis 4 postulated that the negative relationship between perceived constraint and idea quantity would be weakened at a higher level of promotion focus. The results from Model 4 show such an attenuating effect of promotion focus ($\beta = .106, p < .01$) on the perceived constraint–idea quantity relationship. Thus, Hypothesis 4 was supported. Similarly, Hypothesis 5 was also supported, which predicted that the positive effect of idea quantity and idea quality would be stronger at higher levels of prevention focus. Results from Model 8 provide evidence for such a buffering effect of prevention focus ($\beta = .066, p < .05$) on the idea quantity–idea quality relationship.

Robustness Checks and Inferences

As in Study 1, I conducted multiple checks to assess the robustness of the above-noted findings. First, I tested the hypotheses related to idea quality (i.e., H₂, H₃, and H₅) with the original distribution. The results remained unchanged. As a second check, I tested the moderating effects of prevention and promotion foci on the perceived constraint–idea quantity and idea quantity–idea quality relationships, respectively. No significant moderating effect was found for prevention focus ($\beta = -.043, ns$) or promotion focus ($\beta = .028, ns$).

As a third check, I tested the moderation hypotheses (H₄ and H₅) with added control variables. For instance, while testing the effect of promotion motive on the perceived constraint–idea quantity relationship, I included prevention motive in the model (Model 4). Similarly, in testing the effect of prevention focus on the idea quantity–idea quality relationship, I included promotion motive in the model (Model 8). The effects of both moderation hypotheses remained unchanged.

As the final check, I tested the hypotheses with a subsample of participants having no prior experience of entrepreneurship (N = 495 for idea quantity and N = 454 for idea quality). Even with this reduced sample, all hypotheses and their respective strengths of relationships remained unchanged.

DISCUSSION

In this study, I provide an answer to the question: *What role does the perception of constraints play in the entrepreneurial idea generation and selection process?* Extending the theoretical argument and empirical findings of Study 1, in this study I probe the interplay between perceived constraint and regulatory focus motives at multiple stages in the new venture ideation process. I argue that it is the perception of the intensity of the constraints that forces founders to advance their ideas and eventually act on a high-quality one.

Although my theoretical model depicts moderated mediation, drawing on a sample of 590 MTurk workers, the following hypotheses received support: a) negative relations exist between the level of perceived constraint and both idea quantity and idea quality; b) the strength of the promotion-oriented motive moderates the relationship between perceived constraint and idea quantity; and c) the strength of the prevention-oriented motive moderates the relation between idea quantity and idea quality. However, the mediation hypothesis that argued that the negative

relation between perceived constraint and idea quality is mediated by idea quantity (i.e., all else equal, as the level of constraint increases rather than decreases, people should generate fewer ideas, which, in turn, should reduce the likelihood of having a high-quality idea) did not receive any support.

Contributions of the Findings

This study makes several contributions to existing theories. First, this study provides a new direction to the constraint literature. Whereas previous studies mostly examined objective constraints while paying little attention to people's subjective evaluation of the intensity of such constraints, this study developed and validated a new measure, "perceived constraint," that reflects how people sense these constraints. Constraints have been extensively studied in creativity and bricolage literature, but these suggest opposing effects on entrepreneurial behaviors. While the former mostly showed empirically that both strong and weak constraints are detrimental to entrepreneurial activity (Acar et al., 2019), the latter recorded the positive influence of constraints (Baker & Nelson, 2005; Garud & Karnøe, 2003). By drawing attention to a latent psychological construct, the perceived constraint, this study bridges the findings of these closely-related literatures. Second, this study further extends the application of the regulatory focus theory into the domain of entrepreneurship. Previous studies that have examined self-regulatory motives have emphasized the positive role of promotion focus while reporting negative or no effects of prevention focus on entrepreneurial behaviors (e.g., Tumasjan & Braun, 2012; Wallace et al., 2016). The findings of this study confirmed that, while promotion focus is useful in idea generation, prevention focus helps select the best idea to pursue. Hence, prevention focus has a positive role to play towards the advanced stages of the ideation process.

Limitations and Future Directions

This study has some limitations that open up avenues for further research. First, this study is based on cross-sectional data; hence, it cannot suggest that the results will hold true over time. By using longitudinal data, scholars can examine the results at a continuous temporality. Second, although this study offers and validates a novel measure of “perceived constraint,” the measure will need further testing to establish validity and usefulness. I welcome future scholarship to use and develop the measure further. Finally, the findings of this study are based on an online sample, which represents the general population, but might be prone to over-representation of some groups that have inflated or deflated the findings. To remove such doubt, respondents who vary across crucial domains yet have at least one common unifying element, such as organizational membership, can be used in the future.

Conclusion

The primary objective of this study was to examine the role of perceived constraint in entrepreneurial idea generation and selection process. Theorizing about the perception of constraints and developing a measure for it, this study shows the negative impact of a higher level of perceived constraint on both idea quantity and quality. Drawing on RFT, this study validates the beneficial role of promotion focus and offers new insight into the positive effect of prevention focus. While promotion focus was found to be helpful in attenuating the negative impact of perceived constraint on idea quantity, prevention focus was proven to strengthen the idea quantity–idea quality relationship. I hope this study will encourage further investigation into the subjective evaluation of constraints and the positive effects of prevention focus on entrepreneurial actions.

Looking Ahead: Extending These Ideas to the Perceptions of External Stakeholders

The first two studies of this dissertation provide helpful insight into how chronic, acute, and perceived constraints affect founders' actions in the early stages of entrepreneurial endeavors. However, the successful implementation of any entrepreneurial activities also needs support from external parties, such as resource providers, regulatory bodies, and local community. While an analysis of how perceived constraint helps founders kick-start their entrepreneurial journey is useful, it limits the role of constraints to the entrepreneurial ideation. As founders need to interact with other key actors in the ecosystem to establish their venture, whether or how these key actors are affected by entrepreneurs' constraint-overcoming motives and how they react in return is also crucial for the success of such entrepreneurs. In the third study, I focus on exploring how founders' perceived constraints affect one key stakeholder of the new venture: resource providers. Following Brockner et al.'s (2004) proposed framework, I also test the roles of regulatory focus in this resource acquisition stage.

CHAPTER 4

Study 3: The Role of Entrepreneurs' Emancipatory Motive in Resource Acquisition:

How to Attract Backers in Reward-based Crowdfunding?

Carefully crafted entrepreneurial pitches have consistently been proven to be useful in attracting financial capital from the target audience (e.g., Herzenstein, Sonenshein, & Dholakia, 2011; O'Connor, 2002; Roundy, 2014; Zott & Huy, 2007). In recent years, with the development of crowdfunding, the significance of well-designed pitches has become even more crucial. Previous research on reward-based crowdfunding (i.e., in which backers get a non-economic reward such as products or services in return for their support) has called attention to the roles played by various aspects of the pitch, such as product novelty (Davis, Hmieleski, Webb, & Coombs, 2017), the degree of innovation (e.g., Chan & Parhankangas, 2017), the language of the pitches (e.g., Parhankangas & Renko, 2017), and product quality and usefulness (e.g., Allison, Davis, Webb, & Short, 2017), in successful resource acquisition. Similarly, certain founder-specific features, such as gender (e.g., Greenberg & Mollick, 2017), locality (e.g., Mollick, 2014), education and previous experience (e.g., Allison et al., 2017), and homophily (e.g., Greenberg & Mollick, 2017), have also been shown to have a positive impact on crowdfunding success. Surprisingly, like in entrepreneurial finance in general (Clough et al., 2019), an entrepreneur's non-economic drivers for founding a new venture have largely been overlooked in reward-based crowdfunding research. Although scholars have acknowledged that numerous entrepreneurs found new ventures to overcome and remove constraints and create change (Rindova et al., 2009), the role of such an objective in the outcomes of reward-based crowdfunding is scant in previous research.

This lack of attention to the role of entrepreneurs' constraint-overcoming motives in obtaining necessary resources in entrepreneurial finance literature in general, and reward-based crowdfunding in particular, is surprising given that entrepreneurs typically embark upon this risky career in order to achieve their innermost goals, which should direct the paths they take and how they pursue or create any opportunity. Especially with *emancipatory entrepreneurs*—individuals who are driven primarily by the desire to overcome or remove constraints rather than maximize wealth (Rindova et al., 2009)—the overarching objective of the venture likely plays a significant role in acquiring financial resources. This is because absent a well-defined primary objective with respect to wealth-creation, emancipatory founders may struggle to attract traditional sources of venture capital (e.g., angel investors, banks, or venture capital firms). On the other hand, this similar objective can appeal to a mass audience and ensure their support. Therefore, crowdfunding, especially a reward-based platform, can be a viable alternative for emancipatory entrepreneurs to raise financial resources for their change-creating new ventures. However, we do not yet know whether or how entrepreneurs strategically communicate their emancipatory motives to attract backers or what reaction they get in return.

In this study, I address the above-noted gap by investigating how emancipatory entrepreneurs can strategically craft their stories with their constraint-overcoming motives and get support from backers on the most popular crowdfunding platforms (i.e., reward-based). In doing so, I draw upon Rindova et al.'s (2009) "entrepreneurship-as-emancipation" perspective and regulatory focus theory (RFT; Higgins, 1997, 1998). Following Rindova et al. (2009), I classify the constraints that emancipatory entrepreneurs wish to overcome into personal (i.e., entrepreneurial actions are self-directed, and the primary beneficiary of such efforts are the founders or their immediate family members) and social constraints (i.e., the entrepreneurial

activities are other-directed, and they benefit the community or society). In this study, I argue that when an emancipatory entrepreneur founds a new venture in order to overcome any personal constraints, an entrepreneurial pitch framed with the prevention focus motive will receive a higher pledge amount from a backer than if it highlights the promotion focus motive.

Alternatively, when a founder aims at overcoming social constraints, a backer will commit more funds if the pitch is framed in a way to evoke a promotion-oriented rather than a prevention-oriented motive.

An online controlled experiment administered by CloudResearch with 475 MTurk panel members supports these hypotheses. Answering to a recent call on discovering the role of entrepreneurs' non-economic motives (Clough et al., 2019), this study contributes to entrepreneurial stories, reward-based crowdfunding, and resource acquisition literature by delineating the strategic actions a previously overlooked group of founders (i.e., emancipatory entrepreneurs) take in crafting their stories to acquire financial resources.

THEORETICAL BACKGROUND

Emancipatory Entrepreneurship

Although wealth creation is the dominant cause for people's entrepreneurial activity, many individuals engage in such activities purely for non-economic reasons. For example, Google was founded just to solve the issues associated with then available internet search engines (Rindova et al., 2009). While seeking a vehicle, Ferdinand Porsche was dissatisfied with the available choices in the market and decided to build his own ("Porsche," 2023), thus creating an opportunity for himself. If the economic benefits are not always the prime reason for starting a new venture, then what else could drive individuals to take and continue on the rough road of

the entrepreneurial journey? Rindova et al. (2009) offered an alternative view of economic rationale by introducing the idea of ‘entrepreneuring-as-emancipation.’

Rindova and colleagues argued that “there is at least anecdotal evidence that individuals often engage in entrepreneuring for motives other than wealth (2009, p. 477).” According to these scholars, many people also start new ventures to overcome barriers they are facing or to create desired change in their environment. The authors argue that entrepreneurs sometimes risk their own resources (personal and emotional) to overcome their economic, social, or cultural constraints. These founders also sometimes incur personal, social, and economic costs in order to pursue their independence. It is also not uncommon for entrepreneurs to continue their ventures even when their bottom line is at stake and there is no chance to gain back (Gimeno et al., 1997). Despite the need for well-defined theoretical development of the concept, emancipatory perspective has received quite a bit of empirical attention to date (e.g., Al-Dajani et al., 2015; Datta & Gailey, 2012; Goss, Jones, Betta, & Latham, 2011; Jennings et al., 2016; Mair, Battilana, & Cardenas, 2012; Marti, Courpasson, & Barbosa, 2013; Pless & Appel, 2012; Ruebottom & Toubiana, 2021; Scott, Dolan, Johnstone-Louis, Sugden, & Wu, 2012; Verduijn & Essers, 2013).

Departing from the dominant form of entrepreneurship, which is to pursue purely economic motives, emancipatory entrepreneurs likely face a higher level of difficulty in getting support from stakeholders and, in turn, in establishing their ventures. As noted above, a lack of wealth-creation as the primary objective is likely to cause emancipatory entrepreneurs to face higher refusal rates than profit-driven entrepreneurs from traditional resource providers. Surprisingly, extant entrepreneurship research provides no insight into how these entrepreneurs get funding to drive their passion and what objective elements they draw on to convince resource

providers. I argue that emancipatory entrepreneurs convince resource providers by carefully building stories around their constraint-overcoming objectives and highlighting the importance of the changes they intend to create through their ventures. At the same time, they offset their lack of financial orientation by indicating their exceptional dedication for the cause.

Entrepreneurial Stories and Resource Acquisition

Entrepreneurs and resource providers are not equally exposed to entrepreneurial opportunities and the associated risks and returns (Shane & Venkataraman, 2000). Such information asymmetry requires resource providers to engage in subjective decision-making, inferring “certain unobservable features of the entrepreneurs and their ventures (Pollack et al., 2012, p. 917).” Therefore, entrepreneurs make careful efforts to make these subjective judgments favorable through proper communication, such as storytelling (Lounsbury & Glynn, 2001). Extant research suggests how entrepreneurs can achieve their goals through proper communication, termed as “information exchange” (Bird & Schjoedt, 2009, p. 342). Thus, entrepreneurial stories are one of the most critical elements, and sometimes the only element (as in crowdfunding), entrepreneurs use as a signaling strategy to attract resource providers (Aldrich, 1999; Elsbach, 2003).

Entrepreneurship scholars have long been studying the power and usefulness of entrepreneurial stories in securing necessary funds for new ventures. They argue that these stories have a significant role in minimizing not only the information asymmetry between the entrepreneurs and the resource providers but also the perceived risk the latter estimate for a new venture (Aldrich & Fiol, 1994; Lounsbury & Glynn, 2001). New ventures usually lack a success record, and due to information asymmetry, the opportunities such ventures pursue are often unclear to the audience. Therefore, entrepreneurs draw from familiar cultural elements and craft

their stories to convince resource providers that such opportunities are worth pursuing, as the entrepreneurs propose, and that the contribution of resource suppliers will be used wisely (Lounsbury & Glynn, 2001; Martens, Jennings, & Jennings, 2007). Although Lounsbury & Glynn (2001) theorized how entrepreneurial stories rich with suitable cultural elements could help entrepreneurs gain necessary resources, they did not shed light on people who start their ventures for reasons other than primarily creating economic benefits. Likewise, researchers who tested their theory (e.g., Martens et al., 2007; Zott & Huy, 2007) examined either traditional profit-seeking entrepreneurs or entrepreneurs having equally important dual objectives: change-creation and profit-generation, such as social entrepreneurs.

While scholars have studied entrepreneurial stories from different lenses and in different settings, one vast area remains under-explored: how entrepreneurs strategically signal their constraint-overcoming motives for founding new ventures and what effects such objectives have on resource providers' funding decisions. As a new venture's dominant objective, whether wealth-creation or change-creation (i.e., emancipatory motive), drives founder(s) to walk on the uncertain road of entrepreneurship, it should play a significant role in resource providers' decision-making. Yet, extant research on venture funding does not clearly inform us about how emancipatory entrepreneurs strategically incorporate their objective-related elements into their storytelling, or whether such a strategy successfully acquires the required resources. Such an insight is important as more and more entrepreneurs consider crowdfunding as a viable source of resource acquisition, and stories continue to play a significant role in ensuring backers' support (McKenny, Allison, Ketchen, Short, & Ireland, 2017; Tenner & Hörisch, 2021; Wallmeroth, Wirtz, & Groh, 2018).

Crowdfunding

Although crowdfunding is a relatively newer source of entrepreneurial funding compared to other traditional sources, the idea of crowdfunding is not new. The modality of crowdfunding is based on crowdsourcing, which is widely used in different social settings, such as supporting community projects, religious organizations, and so forth (Short, Ketchen, McKenny, Allison, & Ireland, 2017). At present, at least 2,000 crowdfunding platforms are available for entrepreneurs to pitch their ideas to potential resource providers (Drake, 2015). In fact, The World Bank estimated that by 2025, crowdfunding could generate an aggregated transaction value of over \$300B (Meyskens & Bird, 2015). There are primarily four types of crowdfunding platforms available to founders (Shneor & Mæhle, 2020): lending (in which backers provide funding with minimal or no interest), equity-based (in which backers invest in the business and own a portion of it), reward-based (in which backers pre-order to receive products or services at a discounted price), and donation (in which backers donate to founders with no expectations of reward). However, reward-based platforms are the most popular (Zhao & Ryu, 2020), primarily for three reasons. First, they offer founders the opportunity to co-create products and services with backers (Petruzzelli, Natalicchio, Panniello, & Roma, 2019), creating an offer more tailored to the needs of the target group. Second, they serve as a marketing tool (Brown, Boon, & Pitt, 2017) to create awareness even among non-backers. Third, backers in reward-based platforms are also motivated to support because by pre-ordering they receive innovative products below the market price and before others in the market (Short et al., 2017).

Most resource providers in reward-based crowdfunding are not professional investors, who usually make decisions based on the future success potential of the venture (Davis et al., 2017). Moreover, according to Kickstarter—one of the leading reward-based crowdfunding

platforms for entrepreneurs—over two-thirds of their total number of backers are first-time resource providers (Kickstarter, 2018). Such a lack of professional knowledge regarding venture funding likely leads backers to depend primarily on entrepreneurial stories to make funding decisions. Also, absent evidence of product quality and market potential, which are associated with the very nature of reward-based crowdfunding, a subjective impression of the entrepreneur (Maxwell, Jeffrey, & Lévesque, 2011; Maxwell & Lévesque, 2014) or “perception-based elements of the pitch (Davis et al., 2017, p. 91)” should profoundly influence these backers. Thus, a backer’s motivation for funding differs from that of traditional resource providers (McKenny et al., 2017).

While traditional resource providers are motivated by the potential gain and loss in evaluating an entrepreneurial pitch, backers are moved by the emotional appeals that seek support from the crowd (Davis et al., 2017). Therefore, entrepreneurs have the unique opportunity to use crowdfunding platforms wisely to ensure proper sense-making and to signal their objective claims by distinguishing them from the rest. Such an opportunity is inherently attractive to emancipatory entrepreneurs who like to capitalize on their change-creating images (Rindova et al., 2009) and ensure optimum support from the crowd. With the help of carefully framed messages, emancipatory entrepreneurs should find it easier to convince a mass audience than the experienced resource gatekeepers about the importance of the change they intend to create in the environment.

Framing of the Message

One of the critical techniques to encourage desired behavior is message framing. According to Cui, Fam, & Zhao (2019), “message framing refers to a linguistic expression strategy to improve the persuasiveness of language (p. 5).” Extant research (e.g., Bartels, Kelly,

& Rothman, 2010; Cox & Cox, 2001; Meyers-Levy & Maheswaran, 2004) has identified two key categories of persuasive message framing: gain framing and loss framing. Gain framing highlights the positive consequences or not facing negative outcomes by taking an action or displaying a behavior. In comparison, loss framing features negative consequences or not meeting positive outcomes for nonaction. In persuasive communication, outcomes are presented in a way to encourage behavior toward the desired direction. Usually, in framing studies, “a gain frame refers to outcomes with a positive valence, whereas a loss frame refers to outcomes with a negative valence (Dijkstra, Rothman, & Pietersma, 2011, p. 1,037).”

According to the framing theory, how an individual processes a piece of information is largely influenced by the presentation of the information in question. Several decades of research has confirmed the effect of framing in decision-making across the domain of interest (Peng et al., 2021). Cognitive psychologists showed that framing guides how individuals interpret information, and shapes their attitudes, behaviors, and actions (Zhang, Zhang, Gursoy, & Fu, 2018). The way a message is described can alter, or sometimes even reverse, the decision-making (Tversky & Kahneman, 1985). Cognitive psychologists include the framing effect as a type of cognitive bias because an individual’s response depends on how a particular choice is framed (gain vs. loss) (Plous, 1993).

Arguably, one of the most substantial applications of message framing is used by marketers to influence the perception of the target customers about their products or services. When done correctly, framing can guide customers to think about a product in a way desired by the advertiser (Pechmann & Catlin, 2016). Similarly, research on consumer behavior also showed the effect of framing on advertising effectiveness (Zhang et al., 2018). Likewise, empirical studies in health communication provide evidence that gain vs. loss framing helps to

influence “people’s preferences of whether or not to adopt a health behavior (Li, 2021, p. 2).” However, multiple meta-analyses (Gallagher & Updegraff, 2012; O’Keefe & Jensen, 2006; O’Keefe & Jensen, 2009) reveal that such differential effects of gain vs. loss framing on persuasion were not substantial. Therefore, to understand the actual effect of framing, framing researchers have advised that various moderators should be considered (Covey, 2014; Latimer et al., 2007; O’Keefe & Jensen, 2007). One critical moderator used in the previous research in this domain is regulatory focus (Yi & Baumgartner, 2009). Therefore, I turn my discussion to RFT and its relevance to this study.

The Role of Regulatory Focus in Message Framing

RFT (Higgins, 1997, 1998) has been quite useful in explaining the effects of framing. The key strategies used in message framing (i.e., evoking sensitivities to gains or losses) are well aligned with the human motivation for any behavior explained by RFT. Although prospect theory helps framing research to distinguish framings based on the overall valence (i.e., positive vs. negative), RFT extends the desired outcomes: “those that refer to the presence or absence of gains and those that refer to the presence or absence of losses (Dijkstra et al., 2011, p. 137)”.

Based on RFT, Higgins (2000) developed the concept of regulatory fit. According to Higgins (2000), people experience regulatory fit when they can maintain their dominant regulatory focus while pursuing a goal with desired outcomes. Regulatory fit occurs when a person with a strong promotion focus is exposed to a piece of gain-framing information. In contrast, when a person with a higher level of prevention focus is presented with loss-framing information, he or she experiences regulatory fit. For instance, if a promotion-focused consumer’s decision is encouraged by gain-framing, then a regulatory fit occurs. Similarly, regulatory fit takes place when a prevention-focused consumer makes a decision after being

exposed to loss-framing (Lee & Aaker, 2004). The congruence between the regulatory focus orientation toward a goal (i.e., promotion-focus or prevention-focus) and the approach to achieving that goal (e.g., influenced by a gain-frame or loss-frame) develops among individuals a sense of feeling good (Habitzreuter & Koenigstorfer, 2021) and feeling right (Tan, Liew, & Gan, 2020). Such healthy feelings result in stronger persuasiveness (Cesario, Grant, & Higgins, 2004) by enhancing people's engagement and enjoyment in goal pursuit (Freitas & Higgins, 2002).

RFT argues that although people's regulatory foci are dispositional elements, they can also be affected by situational factors (Brockner & Higgins, 2001). However, in both cases, a message becomes more persuasive when its content matches the dominant regulatory focus of an individual (Cesario, Corker, & Jelinek, 2013; Rothman, Desmarais, & Lenne, 2020), thereby allowing them to experience a regulatory fit. While people vary in their goals (gain vs. loss) and approaches to pursuing any goal (eager vs. vigilant), a message's persuasive appeal can be enhanced by targeting that specific goal or approach (Teeny, Siev, Briñol, & Petty, 2021). Wang & Lee (2006) identified that regulatory fit serves as an information filter whereby people focus only on desired outcomes (gain and non-gain vs. loss and non-loss). Accordingly, entrepreneurial pitches characterized by eagerness and gain-driven motive should be evaluated more positively by promotion-focused backers. Similarly, prevention-focused backers can be appealed strongly by vigilant and loss-preventing entrepreneurial pitches. Regulatory fit essentially enhances the subjective evaluation of an entrepreneurial pitch by allowing people to "transfer the value from regulatory fit" to that pitch (Cui et al., 2019, p. 5). Therefore, an entrepreneurial story should have the ability to raise the required financial resources if its framing a) reflects outcomes well-aligned with the strategy of achieving those outcomes and b) matches the dominant regulatory focus of the resource providers. Although the impact of regulatory fit is scant, previous research

on reward-based crowdfunding shed some light on the role of regulatory focus in crowdfunding outcomes.

The Role of Regulatory Focus in Reward-based Crowdfunding

Crowdfunding campaigns essentially aim to persuade backers to extend their support to founders (Patel, Wolfe, & Manikas, 2021). Hence, backers' motivation plays a crucial role in their decision-making. Previous research on reward-based crowdfunding appears to explore the direct effect of regulatory focus, to a large extent implicitly, on campaign successes (e.g., funding intention, level of funding raised). For example, Kuo, Lin, & Liu (2022) found that, contrary to their prediction, negative attribute framing enhanced the intention for backing more than positive attribute framing. Moreover, these scholars reported that negative goal framing (loss) had a higher impact than positive goal framing (gain) on backers' funding intention. They also reported that when campaigns used "cause-related marketing" (e.g., the intention of donating to charity a portion of the fund raised) with positive attribute framing, they raised more money than those without such marketing technique. However, they did not find a significant difference of cause-related marketing in negative attribute framing. Similarly, Moradi & Dass (2019) analyzed 644 technology-based crowdfunding campaigns and found that positive framing (i.e., positive wording) had no significant effect, but negative framing (i.e., negative wording) had a significant positive effect on the funding level raised by the campaigns. The results remained unchanged when these authors replicated the study in a controlled experiment. These findings seem to suggest that prevention-focused framing is more helpful in persuading backers.

When used as a moderator, the impact of regulatory focus appeared to be more apparent in determining crowdfunding outcomes. For instance, Zhao, Chen, Wang, & Chen (2017) recruited 204 experienced Taiwanese backers to investigate how backers' regulatory focus

motive interacts with their perceived risk of funding. Contrary to their prediction, they found that perceived risk was positively related to backers' funding intention. However, as predicted, this relationship was positively moderated by the backers' promotion focus and negatively moderated by their prevention focus. Likewise, across three studies (one with a student sample and the others with non-students), Ciuchta, Letwin, Stevenson, & McMahon (2016) tested how the relationships between venture quality and backers' funding intention, and social information (i.e., others' evaluation of the venture) and their funding intention were affected by their regulatory focus motives. Findings from the non-student samples revealed that promotion focus positively moderated the above-mentioned relationships. They also reported that these effects significantly differed from the moderating effects of prevention focus on both relationships. By validating the findings of the regulatory focus reported in previous research, these studies suggest that examining the impact of the regulatory focus as a moderator could be more beneficial for reward-based crowdfunding.

STUDY HYPOTHESES

Backers' Perceptions of the Entrepreneur: Personal Constraints and Regulatory Focus

Backers usually support campaigns anticipating how likely it is that their participation will matter, e.g., helping entrepreneurs improve their present situation (Allison, Davis, Short, & Webb, 2015; Kuppuswamy & Bayus, 2017). For emancipatory entrepreneurs who are driven by burning internal drives (Rindova et al., 2009), backers likely perceive them as potentially successful entrepreneurs who need little support from crowdfunders; in exchange, they are providing backers an opportunity to be a part of the winning team. As people help others to obtain self-satisfaction and feel good about themselves (Andreoni, 1990), backers should receive positive feelings by displaying pro-social behaviors to emancipatory entrepreneurs. Such positive

feelings also derive from an action that is in harmony with the focal actor's regulatory focus. Therefore, emancipatory ventures offer backers an opportunity to self-evaluate themselves positively and, hence, enjoy regulatory fit.

As for overcoming personal constraints, I argue that backers are likely to prefer those founders who demonstrate a more cautious approach (i.e., a prevention focus) in their entrepreneurial pitches. Over-ambitious campaigns rarely receive a positive response from backers in reward-based crowdfunding (Chan & Parhankangas, 2017). Therefore, while facing personal constraints, an entrepreneurial pitch that indicates the entrepreneur's aim to gain (i.e., promotion orientation) rather than to avoid loss (i.e., prevention orientation) might appear too ambitious to such backers and, hence, they may perceive the entrepreneur as failure prone. Thus, backers might fear that supporting such entrepreneurs will likely win them a seat in losing team and result in a regulatory mismatch. Therefore, a prevention-framing is likely to be more appealing than a promotion-framing when entrepreneurs are aiming at overcoming personal constraints.

Crowdfunding pitches signal entrepreneurs' personal strategies (Short et al., 2017). A vigilant strategy (native to prevention focus) reflected in the pitch would likely emphasize that the founders have carefully considered potential setbacks they are facing and are cautiously paving their way out of undesirable situations. Such a well-aligned outcome and strategy should give backers easy information processing (Lee & Aaker, 2004) and, in turn, encourage support. Alternatively, an eager strategy, which is common to promotion focus, may signal that the entrepreneurs failed to realize their present state adequately and are seeking an unrealistic leap with the help of the backers, thereby offering a mismatch between the outcome and the strategy. Moreover, as crowdfunders make decisions based on the perceived quality of the entrepreneurial

venture (Ciuchta et al., 2016), they may associate a match (vigilant strategy, in this case) with possible high-quality ventures and a mismatch (eager strategy, in this case) with potential low-quality ventures.

Consider that an ambitious pitch, such as one with a promotion-focused framing to overcome personal constraints, may also appear deceitful (Mohr & Dacin, 2018). Since most reward-based crowdfunding outlets provide negligible safeguards for the backers' contribution (Cumming, Hornuf, Karami, & Schweizer, 2023), backers may question the intention of the entrepreneurs who aim so high while in an unfavorable condition. Such a cautious approach primed by a promotion-focused pitch will likely create a regulatory unfit. Thus, the backers are less likely to support a promotion-framed pitch and more likely to back a prevention-framed campaign that appears more credible.

Entrepreneurs' level of risk aversion often motivates resource providers (Brockner et al., 2004). Therefore, crowdfunders are likely to prefer a prevention-focused framing over a promotion-focused one when overcoming personal constraints because of the risk-averse nature suggested in the former (Brockner & Higgins, 2001; Higgins, 1998). As prevention-focused entrepreneurs signal that they will be more careful about other challenges lying ahead as opposed to taking risks to pursue a dreamy future, as promotion-focused entrepreneurs would hint (Crowe & Higgins, 1997), backers are more likely to support the former's pitch by identifying a match between their goal and the approach of achieving it. Based on the above discussion, an entrepreneurial pitch with a prevention-focused framing when the founder aims to overcome personal constraints will likely encourage prevention motive among the buyers, and hence it will feel right for the backers to support such a campaign. Therefore, I hypothesize,

Hypothesis 1: When entrepreneurs aim to overcome personal constraints, an entrepreneurial pitch with a prevention-focused framing will receive more funding from a backer than the one with a promotion-focused framing.

Backers' Perceptions of the Entrepreneur: Social Constraints and Regulatory Focus

I postulate that when entrepreneurs seek funding in a reward-based crowdfunding platform to overcome a social constraint, a promotion-focused framing will be more effective than one with a prevention-focused framing. Any reward-based crowdfunding platform, by nature, promotes creative and innovative products (Davis et al., 2017). Thus, it is not surprising that one of the significant reasons why crowdfunders back campaigns, irrespective of the founders' objective, is to secure these innovative products for themselves (Gerber, Hui, & Kuo, 2012). While entrepreneurs trying to benefit themselves financially must develop innovative products to survive and grow, this may not necessarily be the case for entrepreneurs with a social goal in mind. To appeal to the backers, this latter group must offer something that would, if needed, compensate for the backers' desire to have cool products before these products hit the market. Hence, backers are more likely to support social constraint-removing entrepreneurs who portray a better future state (i.e., a promotion orientation) and offer backers an opportunity to be a part of it (Moss, Renko, Block, & Meyskens, 2018). However, backers are less likely to support campaigns from such entrepreneurs if they observe caution and security (i.e., a prevention orientation)—a strategy that will likely contradict the backers' goal of creating a better future state (i.e., a promotion focus); hence, this will result in an experience of regulatory unfit.

An opportunity to participate in a positive social change usually excites people and presents them with a feeling of happiness. Such positive moods are more suitable for promotion

focus than prevention focus. Moreover, as social changes entail experiential aspects, backers are more likely to seek hedonic benefits to make decisions (Wang & Wang, 2021). Since promotion-focused framing usually builds on such hedonic feelings, it will likely be a more suitable match for backers' desire for social change. Therefore, a promotion-focused rather than a prevention-focused pitch will be more persuasive to gain stronger support from the backers when entrepreneurs aim to overcome social constraints.

Promotion focus encourages the sense of ideal self and enhances the feeling of achievement (Higgins, 1998). Thus, when an entrepreneurial pitch aiming to overcome any social constraint is crafted with a promotion-focused framing, it offers backers an opportunity to be close to their ideal self and a sense of accomplishment. Therefore, helping such campaigns will likely result in a regulatory fit. Hence, a promotion-focused framing rather than a prevention-focused one will be more persuasive in getting backers' support when the entrepreneurs aim to overcome social constraints.

The persuasion of any message increases when the framing of the message matches with the intended outcome (Peng et al., 2021). A gain-frame rather than a loss-frame will likely result in a heightened awareness toward a positive outcome (achieving a social good, in this case; Lee & Aaker, 2004). Such increased awareness will help backers use heuristic strategies, which are more spontaneous than rational decision-making. Therefore, as backers feel good about their decisions as an outcome of a regulatory fit, they are more likely to pledge a higher amount in a promotion-focused framing than in a prevention-focused framing when entrepreneurs address social constraints.

Crowdfunders can also prefer a promotion-focused framing over a prevention-focused one when founders try to overcome social constraints purely for a utilitarian reason. The

utilitarian perspective explains that individuals root for parties based on rational calculation, with the decision leaning toward the party that offers the best emotional pay-off (Goldschmied, 2005).

An entrepreneurial pitch that targets achieving a better future state as opposed to avoiding a present undesirable state is expected to offer more satisfaction for the backers. When such a future positive end state is delivered with a promotion-focus framing, crowdfunders are more likely to evaluate the pitch positively, as it would facilitate cognitive elaboration and easy information processing (Lee & Aaker, 2004). Moreover, by determining the emotional pay-off they will gain once that positive future state is achieved, crowdfunders are more likely to back a promotion-focused rather than a prevention-focused pitch that aims to overcome social constraints. Based on the above discussion, an entrepreneurial pitch with a promotion framing when the founder aims to overcome social constraints will likely encourage promotion motive among the buyers, and hence it will feel right for the backers to support such a campaign.

Therefore, I hypothesize,

Hypothesis 2: When entrepreneurs aim to overcome social constraints, an entrepreneurial pitch with a promotion-focused framing will receive more funding from a backer than the one with a prevention-focused framing.

METHOD

This study used a 2 (constraints: personal versus social) by 2 (regulatory focus framing: promotion versus prevention) factorial between-subject experimental design. I developed four entrepreneurial stories, adopting from multiple real-life crowdfunding pitches. The product—a fictitious innovative toothbrush ‘OmniBrush’—was held constant in all the stories in order to control for any potential variance that a product diversity might cause. I selected the toothbrush as a product for several reasons. First, a product based on technology, which ranks third in the

overall category and second in the product category in terms of the number of launched campaigns on Kickstarter to date (“Kickstarter Stats — Kickstarter,” n.d.-b), was expected to generate adequate interest among participants to read the stories carefully. Second, the outcome of campaigns in the technology category, in general, is fascinating. According to Kickstarter (“Kickstarter Stats — Kickstarter,” n.d.-b), since the platform’s inception, the technology category accounts for US\$1.14B in cumulative funding—the third highest category. However, the rate of campaign success is the lowest in this category (i.e., 22.09%). Therefore, discovering the factors that help technology-related campaigns succeed might have practical utility. Third, a toothbrush is a product category having positive health outcomes that can readily be aimed at overcoming a social issue (widespread negligence of oral hygiene). Finally, I backed a similar product to the fictitious ‘OmniBrush’ myself a few months prior to data collection and thus had some knowledge about the product and its backers’ profile, which helped me create the fictitious stories. Therefore, it is safe to state that the stories used in this study closely resemble those in real-life crowdfunding campaigns.

Each story represented each of the four conditions. For example, personal constraint pitches included such phrases as ‘financial dilemma we recently experienced,’ ‘to re-establish a means of livelihood for ourselves,’ etc. Social constraint pitches emphasized phrases such as ‘to reduce the social and economic consequences,’ ‘increase access to affordable oral hygiene,’ etc. Promotion-framed pitches contained phrases such as ‘promote the oral health of users,’ ‘improve upon existing toothbrush designs,’ etc. Prevention-framed pitches included phrases such as ‘prevent oral health diseases among users,’ ‘fix existing toothbrush designs,’ etc. Excerpts from the four stories used in this study are presented in Appendix C.

Participants and Inclusion Rules

I recruited 498 respondents from the MTurk panel through CloudResearch. As in Study 1 and 2, I recruited them from the general adult population living in the USA for the comparability with extant research on crowdfunding, much of which has been conducted in this region.

Participant selection criteria followed the same rigor as in Study 1 and 2. Only the respondents who passed all six attention check questions were allowed to submit their responses. Others exited the study immediately after failing their first attention check question. Each participant was expected to complete the study within 15 minutes and, as a remuneration, each was paid \$2.50 for completion. Following best practices (e.g., Moss, n.d.; Tabachnick & Fidell, 2013), I removed 23 participants, including those who pledged more than their fictitious savings of \$1,000 (N = 4), rushed through the study (N = 10; i.e., those who completed the survey in less than the half of the median time), or were outliers (N = 9) with respect to pledge amount and time spent on the study. Therefore, the final sample comprised 475 usable cases. Of the participants, approximately 58% were women, approximately 34% were in the modal age category of “25–34 years”, approximately 56% possessed a four-year college/university degree, and approximately 21% were involved in, at the time of the survey or previously, creating/operating their own business. These demographics were comparable to typical crowdfunders (“Crowdfunding Statistics | Fundable,” n.d.; Heinig, n.d.; M. Shepherd, n.d.). While 45% of participants had supported a crowdfunding campaign in the past, only about 9% had launched one themselves.

Procedure

I created the entire study on Qualtrics.com, a web-based tool for building surveys. The study link was then distributed on the CloudResearch website to recruit participants from the

Mturk panel. Participants were randomly assigned to one of the four experimental conditions. After reading the assigned entrepreneurial pitch, participants were asked to pledge for the entrepreneurs' product (a new toothbrush, in this case) or to donate to the same cause out of their hypothetical savings of \$1,000. They were informed that they could select any of the four pledges (i.e., \$75 for a single pack, \$145 for a double pack, \$210 for a triple pack, and \$275 for a quadruple pack) and/or donate any amount out of their hypothetical savings. However, they were also cautioned that the total value of their pledge (if they selected any) and donation combinedly must not exceed their savings of \$1,000. The participants then answered questions to check the manipulations of constraints that entrepreneurs aimed to overcome and the regulatory focus framing of the respective entrepreneurial pitch. They finished the study by answering some motivation-related, background, and demographic questions. On the last page, participants were debriefed that the entrepreneurial pitch they reviewed was fictitious and was created for the purpose of this study; however, they were provided the links to the campaigns that I used to develop these fictional pitches.

Measures

The amount of funding raised was measured by aggregating the total amount a participant intended to give to the entrepreneurs in the form of a pledge (i.e., buying a future product at a discounted price) and/or donation (i.e., providing money without getting anything in return).

Based on previous research on entrepreneurial venture funding (e.g., Cardon et al., 2013; Chen et al., 2009), I collected some demographic and experience information from the participants to use as control variables to rule out alternative explanations. Age was measured by six ordinal categories ranging from "18–24 years" to "65 or older." Gender was coded as 1 if male, 2 if female, and 0 for those who selected other. Education level was measured by six

ordinal categories ranging from “high school diploma” to “doctoral or professional degree.” Entrepreneurship experience was coded 1 for those who indicated that they were currently or had previously been involved in founding or operating their own business (0 otherwise). In addition, I also collected the following information related to crowdfunding: campaign backing experience was coded 1 for the participants who had backed any campaign in any crowdfunding platform (0 otherwise), and campaign creating experience was coded 1 for the participants who had launched any campaign in any crowdfunding platform (0 otherwise). The amount of time spent in evaluating was measured in seconds. Finally, a three-item prosocial motive was adapted from Grant, Dutton, & Rosso (2008) and was measured on a seven-point Likert scale. Table 7 shows the variables’ bivariate correlations and descriptive statistics.

[Insert Table 7 about here]

RESULTS

Manipulation Checks

To ensure the effectiveness of the constraint manipulation, I conducted a chi-square test. The results showed that 90% of participants recognized that the entrepreneurs were trying to overcome a personal constraint in the personal constraint condition. Similarly, in the social constraint condition, 78% of participants identified the entrepreneurs’ constraint as a social constraint. These differences were statistically significant: $\chi^2(1, N = 475) = 217.869, p < .001$. Hence, the manipulation of the constraints was effective.

Similarly, to ensure the effectiveness of the regulatory focus framing manipulation, I conducted another chi-square test. The results showed that 76% of participants identified the message framing as promotion framing in the promotion framing condition. Similarly, in the prevention framing condition, 81% of participants recognized the framing as prevention framing.

These differences were also statistically significant: $\chi^2(1, N = 475) = 151.159, p < .001$.

Therefore, the manipulation of regulatory focus framing was also successful. Table 8 indicates the chi-square test results pertinent to the manipulation checking.

[Insert Table 8 about here]

Tests of Study Hypotheses

Table 9 reports the two-way ANCOVA results for regulatory focus framing, constraints entrepreneurs were aiming to overcome, and total amount of funding received. The Levene's test for equality of variances for total pledge ($p > .05$) revealed that there was homogeneity of variances. This non-significant finding suggests that the variances of two samples (personal and social constraints) for each framing (promotion- and prevention-focused) were assumed to be equal. Thus, the assumption of homogeneity for ANOVA was not violated and the results from such analyses can be interpreted for hypotheses testing.

The results indicate that, among the control variables, only work experience ($p < .05$) and prosocial motive ($p < .001$) had positive effects on the total amount pledged by backers. Neither the types of constraints nor the regulatory focus framing had any significant main effects on the total pledge amount. The study hypotheses pertain to the interaction effects of the constraints and framing. Hypothesis 1 postulated that when a founder aims at overcoming personal constraints, entrepreneurial pitches with a prevention-focused framing rather than a promotion-focused framing will receive a higher amount of funding from an individual backer. As hypothesized, on average, prevention-focused framing ($M = 165.702, SD = 187.112$) received a higher amount of funding than promotion-focused framing ($M = 137.083, SD = 162.287$) when entrepreneurs aimed to overcome personal constraints.

Hypothesis 2 posited that, in overcoming social constraints, entrepreneurial pitches with a promotion-focused framing would receive a higher amount of funding from an individual backer than pitches with a prevention-focused framing. As expected, on average, promotion-focused framing ($M = 166.404$, $SD = 195.962$) received a higher amount of funding than prevention-focused framing ($M = 131.667$, $SD = 133.042$) with respect to overcoming social constraints.

The results of the two-way ANCOVA reveal that the above-mentioned effects are statistically significant: $F(3, 461) = 3.127$, $p = 0.039$, partial $\eta^2 = .007$. Therefore, both Hypotheses 1 and 2 were supported.

[Insert Table 9 about here]

DISCUSSION

In this study, I attempted to extend the notion of constraints to a later but crucial stage of entrepreneurship, namely resource acquisition. While the previous two studies examined how perceived constraints help or hinder entrepreneurs' idea generation, this study aims to determine how these entrepreneurs can motivate resource providers to support their cause through communicating their emancipatory motive. Thus, this study uniquely takes into account the resource providers' perspective of entrepreneurs' perceived constraint in founding new ventures.

Categorizing constraints into personal (i.e., ones affecting the individual) and social level (i.e., ones that affect the community), according to the "entrepreneurship-as-emancipation" perspective (Rindova et al., 2009), I argue that when entrepreneurs aim to overcome personal constraints, a prevention-focused rather than a promotion-focused framing will raise a higher amount of funding in a reward-based crowdfunding platform. However, when the goal is to remove social constraints, a promotion-focused instead of a prevention-focused framing will attract a higher amount of funding. I empirically tested these assumptions by recruiting 475

members from the MTurk panel. I assigned participants to one of two constraint conditions (personal vs. social constraints) and one of two motive states (promotion- vs. prevention-focused pitch). Participants in each of these conditions were presented with any of the four entrepreneurial pitches and then asked to indicate their intended pledge amount as a level of support. The aggregated total amount a participant planned to pledge was used as the total amount raised by the pitch. Both hypotheses were supported using a factorial ANCOVA test.

Contributions of the Findings

This study makes several contributions to existing theories. First, this study contributes to the entrepreneurial resource acquisition research. To the best of my knowledge, this study is the first one to look at the impact of entrepreneurs' emancipatory motives on crowdfunding success. Although existing research distinguishes between business and social ventures, these categories have the economic motive as the primary motive, or as salient as the social motive. By drawing resource providers' attention to the entrepreneurs' emancipatory motives, this study helps understand a previously overlooked group (i.e., emancipatory entrepreneurs) and their strategy for successful resource acquisition in overcoming personal and/or social constraints. Second, this study also contributes to the crowdfunding literature. While both practice and research celebrate separate crowdfunding platforms for ventures with divergent missions (economic vs. social), this study attempts to show that emancipatory entrepreneurs can also successfully raise necessary funding in popular crowdfunding platforms (i.e., dedicated mainly for profit-seeking entrepreneurs and equipped with relatively more affluent and a larger number of crowds) by strategically using regulatory focus framing in their pitches. Therefore, the findings of this study suggest that entrepreneurs with non-economic primary objectives (i.e., emancipatory entrepreneurs) or with dual primary objectives (i.e., social entrepreneurs) do not need to limit

themselves to specialized crowdfunding platforms. Finally, this study extends the role of regulatory focus in entrepreneurial success. Previous research credited promotion focus motives mostly for entrepreneurial actions and obtaining more financial support (Kanze et al., 2018). This study confirms the positive role of promotion focus on the one hand and highlights the usefulness of prevention focus on the other.

Limitations and Future Directions

Although this study makes several important contributions to the existing literature, it is not free from limitations. First, this study did not use actual crowdfunding campaigns but manipulated pitches to test its hypotheses. Therefore, the campaigns might not be as lively or engaging as the actual campaigns used in the previous studies (e.g., Brooks, Huang, Kearney, & Murray, 2014; Gafni, Marom, Robb, & Sade, 2021; Zhu, Hsu, Burmeister-Lamp, & Fan, 2018). Hence, the response quality might have been affected because the participants were presented only with text and graphical images, unlike the actual campaigns, which also have videos of the products. Future research could code the actual campaigns regarding the strength of promotion vs. prevention foci and personal vs. social constraints and test these hypotheses. Future research could also show participants the manipulated excerpts from the pitches as opposed to presenting the whole story. Such a concise presentation will enhance the effectiveness of the manipulation by reducing noise and allowing the researchers to test multiple pitches simultaneously without making the participants fatigued. For example, conjoint analysis can be used to order the evaluations of the manipulation checks as opposed to having the participants rate them.

Second, this study tested its hypotheses using only the most popular form of crowdfunding, reward-based, and thus shed no light on whether the findings are generalizable to other forms of crowdfunding, such as equity-based. Future research could investigate, using

different modalities, which form of crowdfunding is more beneficial for emancipatory entrepreneurs.

Conclusion

The primary objective of this study was to understand how emancipatory entrepreneurs can strategically use their key motives in their pitches to gain support from resource providers. Using a 2 (personal vs. social constraints) by 2 (promotion vs. prevention focus) between-subject online controlled experiment, this study demonstrates that a prevention-focused framing rather than a promotion-focused one was more helpful in raising money in a reward-based crowdfunding setting when the objective of the emancipatory entrepreneurs was to overcome any personal constraint. In contrast, the findings of this study shows that when entrepreneurs tried to overcome any social constraints, a promotion-focused rather than a prevention-focused framing helped raise a higher amount of funding. I am positive this study will encourage further investigations into the role of entrepreneurs' primary motives—non-economic in general, and constraint-removing in particular—in financial resource acquisition.

CHAPTER 5

How and When Constraints Affect Early-stage Entrepreneurial Activity?

Reflections and Future Directions

Entrepreneurial ventures are considered the driving forces for economic development (Schumpeter, 1935). Therefore, it is not surprising that the foundation and conditions of success of these enterprises received significant scholarly attention. Although there is a recent call for a more in-depth investigation of non-economic motives (Clough et al., 2019), academics and practitioners tend to accept that people found new ventures primarily for economic reasons (Rindova et al., 2009). Such a biased view limits our understanding of the various motives that guide people's founding decisions. Economic motives are so highly praised that social ventures created to solve social issues need an equally crucial economic motive as the primary driver. However, considerable evidence in the real world suggests entrepreneurs found their ventures for primary reasons other than wealth creation.

My dissertation explores one of the critical non-economic motives of entrepreneurial endeavors. Following Rindova et al.'s (2009) framework, I investigated how founders' feelings of constraint affect their entrepreneurial behavior in the early stages of venture creation. My decision to focus on these early decision processes is rooted in the long-held belief that these nascent stages are critical for entrepreneurial success (Lounsbury & Glynn, 2001; Murnieks et al., 2020; Shane & Venkataraman, 2000). Challenges are often compounded in the early stages as entrepreneurs face a higher level of ambiguity, struggle to develop the appropriate products or services, and often lack necessary resources. It is logical that once a new venture gets past these early stages, its chances of failure reduce significantly. Second, founding a new venture is always challenging, and entrepreneurs regularly face various constraints (e.g., lack of financial

resources, human capital, and social capital). The courage to overcome constraints by facing different types of constraints should help us understand founders' strong motivation for change-creating actions, one of the critical characteristics of entrepreneurs. Finally, the early stages of entrepreneurship are ideal settings to reconcile the conflicting findings in extant literature about the role of constraints. As entrepreneurs' motives are more salient in the early stages and likely guide their decisions, we need analyses focused on the early stages of venture founding to understand these motives formed by constraints and how they interact with other individual-level factors (e.g., self-regulatory motives) to determine desired outcomes.

In Chapter 1, I offer an overarching theoretical logic (see Figure 1). Within this general framework, I have attempted to explain how one's situation or circumstances (i.e., perceived constraints) interacts with personal characteristics (e.g., founders' self-regulatory motives), and to determine how this interaction affects decision-making and outcomes in the early stages of a typical entrepreneurial process. The research questions and working models described in Chapters 2 through 4 are derived from the integrative logic depicted in Figure 1. In the following sections, I briefly reflect on the studies and their findings, and discuss the questions that are answered by this research. Moreover, I highlight the theoretical contributions and implications of this dissertation, offer some suggestions for future research, and identify the practical implications of this work.

Brief Discussion on the Studies

As noted above, I developed three papers to answer the questions mentioned in Figure 1. In the first study, my objective was to provide an answer to "*Why are some people more effective than others in generating business ideas in the face of constraints?*" Accordingly, I proposed a theoretically meaningful way of thinking about and measuring the kind of constraints

entrepreneurs might face: *chronic* (long-lasting) and *acute* (those that are emergent). The findings of this study showed that the promotion motive weakened the negative relationship between chronic constraints and business idea generation (supporting H₃) but did not attenuate the positive relationship between acute constraints and business idea generation (rejecting H₅). Similarly, contrary to the prediction, prevention focus did not exacerbate the negative relationship between chronic constraints and business idea generation (rejecting H₄). However, the results supported the prediction of the positive moderating effect of prevention focus on the positive relationship between acute constraints and business idea generation (H₆). As highlighted in Figure 1, this study demonstrated that the nature of the constraints (whether chronic or acute) entrepreneurs face matters in generating business ideas, and that the strength of their regulatory focus motives also plays a significant role in transforming constraints into business ideas.

In Study 2, I answer, “*What role does the perception of constraints play in the entrepreneurial idea generation and selection process?*” The results from this study showed that higher levels of perceived constraint were negatively related to both idea quantity and quality (supporting H₁ and H₂, respectively). Contrary to the expectations, however, the mediating role of idea quantity in the perceived constraint–idea quality relationship was not supported (H₃). However, Study 2 demonstrated that promotion focus weakened the negative relationship between perceived constraint and idea quantity (supporting H₄), and prevention focus strengthened the positive relationship between idea quantity and idea quality (supporting H₅). Once again, this study showed that founders’ subjective evaluation of the constraints is essential for understanding the ideation process (i.e., idea generation and selection). It also highlighted how different self-regulatory motives interplay uniquely with perceived constraint as entrepreneurs navigate through the ideation process (see Figure 1).

In Study 3, I address whether stakeholders care about founders' constraints and their effort to overcome and remove these constraints (see Figure 1). Accordingly, I turned my attention to exploring the reactions of one key stakeholder, such as resource providers. This study provides an answer to "*What communication strategies do constraints-overcoming entrepreneurs implement to convince crowdfunders to commit to their causes?*" I classified constraints as Rindova et al. (2009) suggested: personal vs. social. This distinction was essential, as some resource providers are motivated to help founders overcome personal constraints while others like to support efforts to remove constraints that affect a group of people or even a social class. Using a controlled experimental design, this study supported both hypotheses: entrepreneurial pitches with a promotion focus framing received more funding than those with a prevention focus framing when entrepreneurs aimed at overcoming social constraints; in contrast, entrepreneurial pitches with a prevention focus framing gained a higher amount than those with a promotion focus when the founders' goal was to overcome personal constraints. In short, this study highlights that key actors in the entrepreneurial ecosystem attend to differences in the entrepreneurs' constraints and motives. In doing so, this research offers strategies to ensure support from backers in reward-based crowdfunding.

Theoretical Contributions of the Overall Findings

My dissertation makes some valuable contributions to existing theories and practices. Although scholars have studied constraints for decades, my works guide a new direction for constraint literature. Three original measures (i.e., chronic constraints, acute constraints, and perceived constraint) that were developed and validated in this dissertation are theoretically meaningful and should enhance our understanding of constraints beyond entrepreneurship settings. For instance, these measures should help us understand constraints that employees face

and perceive, and better explain various desirable (e.g., creativity, innovation) and undesirable behaviors (e.g., turnover, burnout, performance). This novel classification and measure of constraints also helped solve the theoretical puzzle present in the existing literature about the role of constraints and offered evidence to reconcile conflicting empirical findings.

This dissertation also contributes to different areas of entrepreneurship literature. First, while many extant studies limit their analyses to a single stage of the entrepreneurial journey, this research focused on multiple stages. It showed how a phenomenon (i.e., constraints) affects entrepreneurial decision-making in different stages of venture foundation. Such multi-stage analyses should enhance our understanding of constraints and their roles in the entrepreneurial process. Second, its focus on the early stages of new venture creation informs us of the conditions when entrepreneurs are capable of meeting various challenges. This dissertation helps us understand when, even after facing constraints, some entrepreneurs are able to meet various venture foundation-related challenges. Third, to the best of my knowledge, this is the first empirical testing of Brockner et al.'s (2004) theory, which prescribes how founders' ability to exhibit both promotion- and prevention-oriented behaviors are instrumental for entrepreneurial success. The three studies in this dissertation provide support for their theory at three different stages of new venture creation.

My works also contribute to the regulatory focus theory. While previous research celebrated the role of promotion focus disproportionately in entrepreneurial behavior (Higgins & Pinelli, 2020), my dissertation validates such a positive role on the one hand and highlights a boundary condition on the other: promotion focus helps idea generation only under chronic constraint conditions. Moreover, my works provide evidence of the positive effect of prevention motives on entrepreneurial actions. Therefore, by providing empirical support to Brockner et al.'s

(2004) theory, this research also enhances the applicability of regulatory focus in the entrepreneurship literature. The findings with respect to the beneficial role of prevention focus should also be useful in organizational behavior research. For example, the findings of this research can explain when prevention-focused employees are more likely to engage in creative problem-solving (i.e., when such problems arise) and, thus, can help select the best among various solutions.

Implications and Future Research Directions

Besides testing hypotheses, the results of these three studies provide some interesting observations. First, the results of Study 1 about prevention focus are somewhat in alignment with previous findings. Study 1 found a weak negative relation ($p < .10$) between prevention focus and business idea generation. However, although promotion focus has been found to be positively related to entrepreneurial idea generation in previous research, neither Study 1 nor Study 2 found such a positive effect. One of the key reasons for such discrepancies could be the nature of the ideation task. Previous studies on opportunity identification (e.g., Shepherd & DeTienne, 2005; Tumasjan & Braun, 2012) often asked participants to generate business ideas by solving issues of a particular product. Hence, the participants were solving someone else's problem and most likely developed third-person ideas (McMullen & Shepherd, 2006). However, the ideation tasks in Study 1 and Study 2 were less restricted. Participants were given the autonomy to develop as many business ideas as possible using some specified available resources (in Study 1) and a newly-invented technology (in Study 2). The unstructured nature of these ideation tasks, which should encourage first-person opportunity identification (McMullen & Shepherd, 2006), may demand a higher level of promotion focus than the participants displayed. Second, it is logical to expect prevention focus to relate positively to idea quality, as

this motive encourages careful, conservative, and deliberate decision-making (Brockner et al., 2004). Yet, Study 2 did not find any such positive association. One possible explanation for this could be a relatively lower level of prevention orientation ($M = 4.280$) observed among the participants. Another interesting implication could be an indication that prevention focus probably does not provide a strong safeguard against low-quality business ideas in isolation. It is also likely that the level of promotion orientation ($M = 5.447$) masked the actual effect of prevention focus. A latent profile analysis can help test this idea.

Several other theoretical implications can be drawn from the studies of this dissertation work. By distinguishing between chronic and acute constraints, Study 1 implied that acute constraints could later turn into chronic constraints. How this transition happens is outside the scope of this dissertation. However, it is crucial to unpack the psychological and cognitive mechanisms that allow founders to avoid addressing acute constraints and let those constraints become part of their environment. Such investigation will inform us about specific characteristics of the acute constraints that, if not attended to, will probably help the constraints persist firmly over time. This line of inquiry should also discover the individual-level factors limiting founders' efforts to display agentic behavior in the face of acute constraints. For instance, some people facing acute constraints may feel underconfident and underpowered when they first encounter these constraints, thereby limiting their ability to take entrepreneurial actions. Alternatively, not addressing acute constraints can be a tactical choice for promotion-focused individuals (Higgins & Pinelli, 2020). As promotion motive helped attenuate the strength of the negative relationship between chronic constraints and idea generation (in Study 1), people high on promotion focus may choose to attend to constraints later once they develop self-efficacy to face them through education and training, or simply after acquiring a better

understanding of the constraints. Scholarly attention to this area should also reveal other conditions when chronic constraints may help generate new business ideas. For that to happen, in addition to increased self-efficacy and knowledge and training, entrepreneurs may need support from others in a similar condition to challenge their chronic constraints.

Three studies in this dissertation operationalized constraints differently: chronic and acute constraints (in Study 1), perceived constraint (in Study 2), and personal and social (in Study 3). It would be interesting to unpack the relationships among these various constraints. For instance, future research could discover whether the relationships of chronic and acute constraints with ideation change when entrepreneurs perceive these constraints more (or less) severely. Because the measures used in this dissertation were itemized and, to some extent, similarly worded, testing the interaction effects of perceived constraint with chronic and acute constraints on ideation could be problematic, as the similarly worded items could result in confusion and participant fatigue. In the future, scholars can use controlled experiments to manipulate chronic and acute constraints and test their interaction effects with perceived constraint. Furthermore, it will also be necessary to unpack what kind of framing (i.e., promotion vs. prevention) is more compelling in acquiring a higher amount of funding for chronic and acute constraints. It is also vital to understand that many people are likely to face different kinds of chronic and acute constraints simultaneously. Therefore, assessing the relative strength of each type and its effect on entrepreneurial behavior is crucial for understanding the role of constraints. In the future, scholars interested in this topic can assess this by conducting a profile analysis of the constraints.

The implications of Study 3 should also challenge our traditional thinking about entrepreneurial motives and crowdfunding. First, one of the hints found in Study 3 is that promotion-focused founders were more likely to start social ventures than their prevention-

focused counterparts, who were more likely to start businesses that provide benefits primarily to them. This is because the former raised more financial resources in this study when they addressed the social concern. In contrast, the latter acquired more financial resources when they aimed at overcoming personal concerns. Second, the findings of Study 3 implied that we probably do not need separate crowdfunding platforms for entrepreneurs whose key motive is not primarily wealth-creation (e.g., social entrepreneurs, emancipatory entrepreneurs). The results of Study 3 demonstrate that, when crafted carefully, emancipatory entrepreneurs can successfully raise the necessary financial resources in popular, traditional platforms. Future research can test the effectiveness of emancipatory and/or social campaigns by customizing them to meet the needs of special vs. conventional crowdfunding platforms. Such a test is important, especially when Study 3 reported that a social constraint-removing motive coupled with a promotion framing received the highest average funding from backers among the four conditions.

Practical Lessons

My dissertation also offers practical advice on at least three levels: individual, organizational, and social. On the individual level, my works highlight that, irrespective of the objective constraints, the feeling of the strength of the constraints essentially affects people's entrepreneurial behavior. Therefore, when faced with chronic constraints, people should carefully seek ways to enhance the strength of their promotion focus to propose business ideas. In contrast, under acute constraint conditions, individuals should take necessary actions to increase the strength of their prevention focus if they want to generate business ideas. Several actions can help founders improve their promotion motive, such as reflecting closely on past successes and positive feedback (Van Dijk & Kluger, 2011), concentrating on future positive

possibilities (Scholer, Ozaki, & Higgins, 2014), understanding the bigger picture over the small details (Semin, Higgins, De Montes, Estourget, & Valencia, 2005), and being open to accepting and creating change (Cornwell & Higgins, 2013). Similarly, one can achieve a higher level of prevention focus by focusing on past failures and negative feedbacks (Van Dijk & Kluger, 2011), concentrating on possible negative outcomes (Scholer et al., 2014), carefully evaluating small details in a given situation (Förster & Higgins, 2005), and being welcoming to accepting norms and the status quo (Zhang, Cornwell, & Higgins, 2014). However, if one is weak on the desired regulatory focus motive, an individual can seek a mentor who is high on that motive (Xu & Wang, 2019). Research suggests that mentoring is positively associated with entrepreneurial success (Sullivan, 2000) and helps develop the right attitude needed to emerge as a successful entrepreneur (St-Jean & Mathieu, 2015). Moreover, entrepreneurs can team up with other founders with a higher level of the complementary self-regulatory motive to compensate for their lack of that motive and be prepared to face both acute and chronic constraints (Brockner et al., 2004).

My dissertation also highlights the role of founders' feelings about the severity of their constraints in the ideation process. As a higher level of perceived constraint diminishes self-efficacy (Mathieu, Martineau, & Tannenbaum, 1993) and, in turn, the intrinsic motivation (Hennessey & Amabile, 2010) essential for exhibiting entrepreneurial behaviors, people wanting to generate business ideas and select a high-quality one should undergo training focused on improving self-efficacy (Newman, Obschonka, Schwarz, Cohen, & Nielsen, 2019).

At the organizational level, this work provides guidance for both *de novo* and incumbent firms. All three studies focus on the entrepreneurial decision-making and outcomes that are crucial for the success of any *de novo* venture. Its focus on founders' non-economic motives in

creating new ventures should facilitate decision-making for people living under constrained conditions. This research provides much-needed hope for them to overcome their constraints through entrepreneurial pursuits. Studies of this dissertation also highlight the necessary motivation required to be successful in each of the early stages of venture creation. In addition, Study 3 guides aspiring constraint-removing entrepreneurs on how to acquire resources. My work should inspire people to consider entrepreneurship a viable option to remove challenges, even if they did not consider it earlier. Second, as noted earlier, Studies 1 and 2 should guide managers in managing constraints in existing firms. Accordingly, to ensure creative problem-solving, managers should assign promotion-focused team members to chronic issues and prevention-focused members to acute issues. Managers should also note that it is better to address constraints when emerging, as this was when people were found to be more entrepreneurial (in Study 1).

Perhaps my work's most important practical implications are related to the societal level. All three studies urge important actors in the entrepreneurial ecosystem to re-think new venture creation. When they stop viewing new ventures only as a means for wealth-creation, they will appreciate the diverse motives for founding and be able to provide appropriate support for the survival of these new ventures. For instance, by recognizing the role of perceived constraints in venture founding, stakeholders will realize the merit of providing necessary training for emancipatory entrepreneurs to overcome their perceived constraints and enhance entrepreneurial self-efficacy. Similarly, entrepreneurial education providers should also make their curriculum diverse enough to address emancipatory entrepreneurs' special needs so these entrepreneurs can develop the knowledge and skills necessary for venture creation. Finally, when we appreciate the non-economic motives of venture founding, we will understand the need for non-traditional

resource providers for these ventures. Crowdfunding showed us promise on this front. Perhaps we do not need any specialized resource providers for emancipatory ventures if we realize that when any new venture succeeds, it will create wealth for society even as a by-product, as in emancipatory ventures.

Epilogue

By integrating individual (motives) and situational (constraints) factors in early-stage entrepreneurship (see Figure 1), I was able to introduce a new perspective for understanding constraints, advance theory, and offer new measurement tools to the field. Three separate studies in this dissertation not only show promise to reconcile the conflicting findings in the previous research in this area but also to open up new conversations about the role of constraints and regulatory focus motive (especially prevention focus) in entrepreneurial actions. By testing the usefulness of the constraints-overcoming motives of founders in entrepreneurial ideation and the appeal of such motives among critical stakeholders, such as resource gatekeepers, this dissertation portrays a broad picture of the impact of constraints in different stages of entrepreneurship on the one hand and among various parties involved in the entrepreneurial ecosystem on the other. I am optimistic that the ideas and evidence presented in this dissertation will encourage other scholars to rethink constraints and investigate their roles in various entrepreneurial settings.

TABLES

Table 1

Constructs and measurement items (Study 1)

| | Factor loading |
|--|-----------------------|
| Chronic constraint ($\alpha = .931$; CR = .934; AVE = .587) | |
| Events in my life have prevented me from making my own decisions. | 0.718 |
| I have often felt that my situation has constrained choices in my life. | 0.805 |
| I would have made much different life decisions if I had more options. | 0.844 |
| Circumstances have denied me a chance to use my personal initiative or judgment. | 0.833 |
| For as long as I can remember other people have limited my personal freedom. | 0.777 |
| Forces outside of my control have restricted my options. | 0.752 |
| I would have done things differently if had more choices and options in my life. | 0.842 |
| I have always felt constrained and limited in terms of my personal resources. | 0.832 |
| I have never had enough money or opportunity to pursue my dreams. | 0.596 |
| Over my lifetime, other people's expectations have restricted my freedom. | 0.615 |
| Acute constraint ($\alpha = .943$; CR = .942; AVE = .648) | |
| I have recently encountered changes in my life that limit my opportunities. | 0.749 |
| Recent circumstances have made it hard for me to make personal decisions. | 0.706 |
| I do not have as much personal freedom now as I used to have. | 0.894 |
| Acting on my desires is more difficult than it was in my recent past. | 0.875 |
| I am less free now than I was before. | 0.943 |
| Things have happened recently that have restricted my options. | 0.846 |
| My current situation makes is difficult to use my personal judgment. | 0.679 |
| Living up to the expectations of others has recently constrained what I can do. | 0.638 |
| I used to be able to do things my own way, but I can't now. | 0.859 |
| Promotion motive ($\alpha = .888$; CR = .902; AVE = .486) | |
| My motto is "Nothing ventured, nothing gained." | 0.651 |
| I want to achieve a great deal. | 0.806 |
| I am very productive. | 0.692 |
| If I really want to achieve a goal, I will find a way. | 0.649 |
| I am striving for success in life. | 0.800 |
| I am guided by my ideals. | 0.535 |
| At times I am fanatic about achieving my goals. | 0.681 |
| I like trying out new things. | 0.489 |
| I am striving for progress. | 0.760 |
| I wholeheartedly go for my goals. | 0.823 |
| Prevention motive ($\alpha = .705$; CR = .799; AVE = .448) | |
| I am literally always following rules and regulations. | 0.762 |
| Even when I can, I rarely violate rules and regulations to reach my goals. | 0.693 |
| I am a cautious person. | 0.739 |
| In case of important decision, security is a core criterion I care for. | 0.598 |
| On the job and in my studies, thoroughness is important to me. | 0.525 |

Table 2*Descriptive statistics and correlations (Study 1)*

| # | Variable | Mean | SD | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
|----|----------------|---------|---------|---------|----------|----------|--------|---------|----------|----------|---------|---------|---------|
| 1 | Age | 3.270 | 1.329 | | | | | | | | | | |
| 2 | Female | 1.514 | 0.518 | 0.116** | | | | | | | | | |
| 3 | Education | 4.440 | 1.391 | 0.094 | -0.141** | | | | | | | | |
| 4 | Ent experience | 0.195 | 0.396 | -0.062 | -0.052 | 0.005 | | | | | | | |
| 5 | Idea time | 244.299 | 204.632 | 0.181** | -0.003 | 0.025 | -0.025 | | | | | | |
| 6 | COVID impact | 3.419 | 0.837 | 0.020 | -0.087* | -0.0 | 0.049 | 0.028 | | | | | |
| 7 | Promotion | 5.265 | 0.897 | -0.065 | -0.033 | 0.157** | 0.113* | -0.006 | 0.016 | (0.888) | | | |
| 8 | Prevention | 5.320 | 0.852 | 0.106* | 0.153** | -0.025 | -0.034 | 0.105* | -0.029 | 0.277** | (0.705) | | |
| 9 | Chronic const. | 3.879 | 1.343 | -0.102* | 0.040 | -0.192** | 0.069 | -0.007 | -0.096* | -0.202** | -0.040 | (0.931) | |
| 10 | Acute const. | 3.396 | 1.482 | 0.017 | 0.000 | -0.063 | 0.003 | -0.020 | -0.182** | -0.230** | -0.055 | 0.635** | (0.943) |
| 11 | Idea quantity | 5.740 | 3.456 | 0.073 | 0.063 | 0.111** | 0.014 | 0.418** | 0.039 | 0.025 | -0.023 | -0.090* | 0.039 |

Note: Pearson correlations when both variables are continuous; Spearman correlations when one or both variables are categorical; **p < 0.01, *p < 0.05; construct reliability (where applicable) in the diagonal within parentheses.

Table 3*Regression results (Study 1; dependent variable: business idea quantity)*

| | Model 1 | Model 2 | Model 3 | Model 4 | Model 5 | Model 6 | Model 7 |
|----------------------------|----------------|--------------------|---------------------|--------------------|--------------------|--------------------|---------------------|
| Age | -0.055 | -0.118 | -0.096 | -0.090 | -0.055 | -0.068 | -0.044 |
| Female | 0.459 | 0.520 [†] | 0.603* | 0.496 [†] | 0.537 [†] | 0.471 | 0.509 [†] |
| Education | 0.230* | 0.179 [†] | 0.162 | 0.206 [†] | 0.171 | 0.245* | 0.214* |
| Entrepreneurial experience | 0.140 | 0.224 | 0.191 | 0.162 | 0.206 | 0.103 | 0.136 |
| Idea generation time | 0.007*** | 0.007*** | 0.007*** | 0.007*** | 0.007*** | 0.007*** | 0.007*** |
| Covid Impact | 0.108 | 0.180 | 0.173 | 0.089 | 0.096 | 0.162 | 0.166 |
| H1: Chronic constraints | | -0.492*** | -0.487*** | -0.210* | -0.218* | | |
| H2: Acute constraints | | 0.441*** | 0.443*** | | | 0.149 [†] | 0.135 [†] |
| Promotion motive | | | 0.129 | -0.104 | | 0.017 | |
| Prevention motive | | | -0.329 [†] | | -0.281 | | -0.247 [†] |
| H3: Chronic x Promotion | | | | 0.212* | | | |
| H4: Chronic x Prevention | | | | | 0.183 [†] | | |
| H5: Acute x Promotion | | | | | | 0.134 | |
| H6: Acute x Prevention | | | | | | | 0.205* |
| R ² | 0.176 | 0.201 | 0.207 | 0.187 | 0.190 | 0.183 | 0.191 |
| ΔR ² | | 0.026*** | 0.006 | 0.006*** | 0.004 | 0.003 | 0.006* |

Notes: N=442; unstandardized coefficients reported in the table; one-tailed tests for chronic and acute constraints in Model 2 and their interaction effects with the regulatory focus motives in Models 4 to 7, two-tailed tests otherwise; ΔR² calculated relative to model containing only the controls; *** p < 0.001, ** p < 0.01, * p < 0.05, † p < 0.10

Table 4*Constructs and measurement items (Study 2)*

| | Factor loading |
|--|-----------------------|
| Perceived constraint ($\alpha = .930$; CR = .934; AVE = .672) | |
| My current situation prevents me from making my own decisions. | 0.815 |
| In my present condition, constraints prevent me from doing things my own way. | 0.856 |
| My current situation restricts my choices regarding how I do things. | 0.835 |
| Under present circumstances, my freedom to make decisions is limited by other people. | 0.876 |
| At present, forces outside of my control limit my freedom to make decisions. | 0.930 |
| In my current situation, regulations prevent me from working in my own way. | 0.534 |
| Under current circumstances, other people limit what I can do. | 0.832 |
| Promotion motive ($\alpha = .864$; CR = .868; AVE = .526) | |
| I frequently imagine how I will achieve my hopes and aspirations. | 0.767 |
| I often think about the person I would ideally like to be in the future. | 0.585 |
| I typically focus on the success I hope to achieve in the future. | 0.782 |
| I see myself as someone who is primarily striving to reach my “ideal self”—to fulfill my hopes, wishes, and aspirations. | 0.780 |
| In general, I am focused on achieving positive outcomes in my life. | 0.744 |
| I often imagine myself experiencing good things that I hope will happen to me. | 0.672 |
| Prevention motive ($\alpha = .804$; CR = .791; AVE = .390) | |
| In general, I am focused on preventing negative events in my life. | 0.543 |
| I am anxious that I will fall short of my responsibilities and obligations. | 0.583 |
| I often think about the person I am afraid I might become in the future. | 0.542 |
| I often imagine myself experiencing bad things that I fear might happen to me. | 0.678 |
| I frequently think about how I can prevent failures in my life. | 0.741 |
| I am more oriented toward preventing losses than I am toward achieving gains. | 0.635 |

Table 5*Descriptive statistics and correlations (Study 2)*

| # | Variable | Mean | SD | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 |
|----|------------------|---------|---------|----------|----------|----------|---------|---------|---------|---------|----------|----------|----------|---------|
| 1 | Age | 3.170 | 1.328 | | | | | | | | | | | |
| 2 | Female | 1.575 | 0.505 | 0.105** | | | | | | | | | | |
| 3 | Education | 4.400 | 1.335 | 0.026 | -0.025 | | | | | | | | | |
| 4 | Ent experience | 0.325 | 0.469 | 0.076* | -0.009 | -0.051 | | | | | | | | |
| 5 | Idea time | 210.827 | 147.061 | 0.187** | -0.023 | -0.100** | 0.061 | | | | | | | |
| 6 | Tech familiarity | 3.983 | 1.583 | -0.111** | -0.105** | 0.035 | 0.069* | 0.014 | | | | | | |
| 7 | COVID impact | 3.495 | 0.983 | 0.039 | -0.040 | 0.009 | 0.002 | 0.050 | 0.101** | | | | | |
| 8 | Promotion | 5.447 | 0.915 | -0.081* | 0.038 | 0.012 | 0.134** | 0.046 | 0.165** | 0.169** | (0.864) | | | |
| 9 | Prevention | 4.280 | 1.145 | -0.218** | 0.004 | -0.120** | -0.053 | -0.047 | 0.024 | -0.012 | -0.153** | (0.804) | | |
| 10 | Perceived const. | 3.387 | 1.458 | -0.102** | -0.037 | -0.061 | 0.053 | 0.012 | 0.009 | -0.052 | -0.188** | 0.385** | (0.930) | |
| 11 | Idea quantity | 2.600 | 1.466 | 0.049 | 0.019 | 0.090* | -0.026 | 0.243** | -0.048 | -0.057 | 0.053 | -0.099** | -0.089* | |
| 12 | Idea quality | 6.585 | 1.198 | 0.021 | 0.016 | -0.028 | -0.009 | 0.156** | 0.032 | 0.092* | 0.004 | -0.042 | -0.165** | 0.183** |

Note: Pearson correlations when both variables are continuous; Spearman correlations when one or both variables are categorical; **p < 0.01, *p < 0.05; construct reliability (where applicable) in the diagonal within parentheses.

Table 6*Regression results (Study 2; dependent variable: idea quantity and idea quality)*

| | DV = Idea Quantity | | | | DV = Idea Quality | | | |
|--------------------------------|--------------------|---------------------|---------------------|---------------------|--------------------|-----------|-----------|--------------------|
| | Model 1 | Model 2 | Model 3 | Model 4 | Model 5 | Model 6 | Model 7 | Model 8 |
| Age | -0.012 | -0.024 | -0.018 | -0.030 | -0.021 | -0.033 | -0.033 | -0.031 |
| Female | 0.026 | 0.019 | 0.008 | 0.014 | 0.056 | 0.034 | 0.033 | 0.039 |
| Education | 0.138** | 0.132** | 0.132** | 0.130** | -0.006 | -0.043 | -0.043 | -0.036 |
| Entrepreneurial experience | -0.138 | -0.116 | -0.142 | -0.134 | -0.052 | -0.033 | -0.031 | -0.043 |
| Idea generation time | 0.003*** | 0.003*** | 0.003*** | 0.003*** | 0.001*** | 0.001** | 0.001** | 0.001*** |
| Technology familiarity | -0.046 | -0.047 | -0.053 | -0.054 | 0.007 | 0.006 | 0.006 | 0.013 |
| Covid Impact | -0.094 | -0.100 [†] | -0.112 [†] | -0.107 [†] | 0.093 [†] | 0.072 | 0.072 | 0.089 [†] |
| H1 & H2: Perc'd const. | | -0.090* | -0.079* | -0.096** | | -0.128*** | -0.130*** | |
| Idea quantity | | | | | | 0.143*** | 0.143*** | 0.151*** |
| Promotion motive | | | 0.084 | 0.073 | | | | |
| Prevention motive | | | | | | | 0.007 | -0.059* |
| H4: Perc'd const. x Promotion | | | | 0.106** | | | | |
| H5: Idea quantity x Prevention | | | | | | | | 0.066* |
| R ² | 0.083 | 0.090 | 0.093 | 0.102 | 0.037 | 0.095 | 0.095 | 0.077 |
| ΔR ² | | 0.008* | 0.002 | 0.009** | | 0.059*** | 0.000 | 0.008* |

Notes: N=590 (for idea quantity) and 541 (for ide quality); unstandardized coefficients reported in the table; one-tailed tests for perceived constraint in Models 2 and 6, and the interaction effects in Models 4 and 8, two-tailed tests otherwise; ΔR2 calculated relative to model containing only the controls; *** p < 0.001, ** p < 0.01, * p < 0.05, † p < 0.10

Table 7*Descriptive statistics and correlations (Study 3)*

| # | Variable | Mean | SD | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
|----|---------------------|---------|---------|----------|---------|----------|----------|---------|---------|---------|----------|--------|--------|
| 1 | Age | 2.891 | 1.209 | | | | | | | | | | |
| 2 | Female | 1.562 | 0.505 | 0.105* | | | | | | | | | |
| 3 | Education | 4.364 | 1.393 | 0.112* | -0.011 | | | | | | | | |
| 4 | Work experience | 2.602 | 2.078 | 0.088 | 0.171** | -0.204** | | | | | | | |
| 5 | Income | 7.661 | 2.480 | 0.136** | -0.001 | 0.322** | -0.331** | | | | | | |
| 6 | Campaign backer | 1.560 | 0.497 | -0.037 | 0.016 | -0.154** | 0.112* | -0.114* | | | | | |
| 7 | Campaign creator | 1.912 | 0.284 | 0.044 | 0.047 | -0.064 | 0.040 | 0.076 | 0.217** | | | | |
| 8 | Founding experience | 1.781 | 0.414 | -0.203** | -0.034 | 0.065 | -0.021 | 0.002 | 0.043 | 0.086 | | | |
| 9 | Prosocial motive | 4.921 | 1.299 | 0.036 | 0.065 | -0.101* | -0.108* | 0.011 | -0.031 | -0.118* | -0.145** | | |
| 10 | Time spent | 138.017 | 69.806 | 0.009 | -0.035 | 0.019 | 0.008 | -0.010 | -0.058 | -0.017 | 0.019 | 0.091* | |
| 11 | Total pledge | 150.042 | 171.257 | 0.062 | 0.038 | -0.021 | 0.074 | -0.012 | 0.003 | -0.042 | 0.019 | 0.261 | -0.001 |

Note: Pearson correlations when both variables are continuous; Spearman correlations when one or both variables are categorical; **p < 0.01, *p < 0.05

Table 8*Results of manipulation check (Study 3)*

| Ratings | Conditions | N | Chi-square value | p-value |
|---------------------|-------------------|----------|-------------------------|----------------|
| Promotion framing | Promotion | 191 | 151.159 | <0.001 |
| | Prevention | 61 | | |
| Prevention framing | Promotion | 43 | | |
| | Prevention | 180 | | |
| Personal constraint | Personal | 182 | 217.869 | <0.001 |
| | Social | 20 | | |
| Social constraint | Personal | 59 | | |
| | Social | 214 | | |

Table 9*Two-way ANCOVA (Study 3; dependent variable: Total pledge amount)*

| | Promotion framing | Prevention framing | Constraints X Regulatory focus framing |
|---------------------|---|---|---|
| Personal constraint | M = 137.083, SD = 162.287 N = 120 | M = 165.702, SD = 187.112 N = 121 | $F(3, 461) = 3.127,$ $p < .05$ |
| Social constraint | M = 166.404, SD = 195.962 N = 114 | M = 131.667, SD = 133.042 N = 120 | |

N = 475; covariates: Age, gender, education, employment, income, backing experience, campaign experience, founding experience, prosocial motive, and the amount of time spent on pitch

FIGURES

Figure 1

Overarching conceptual logic

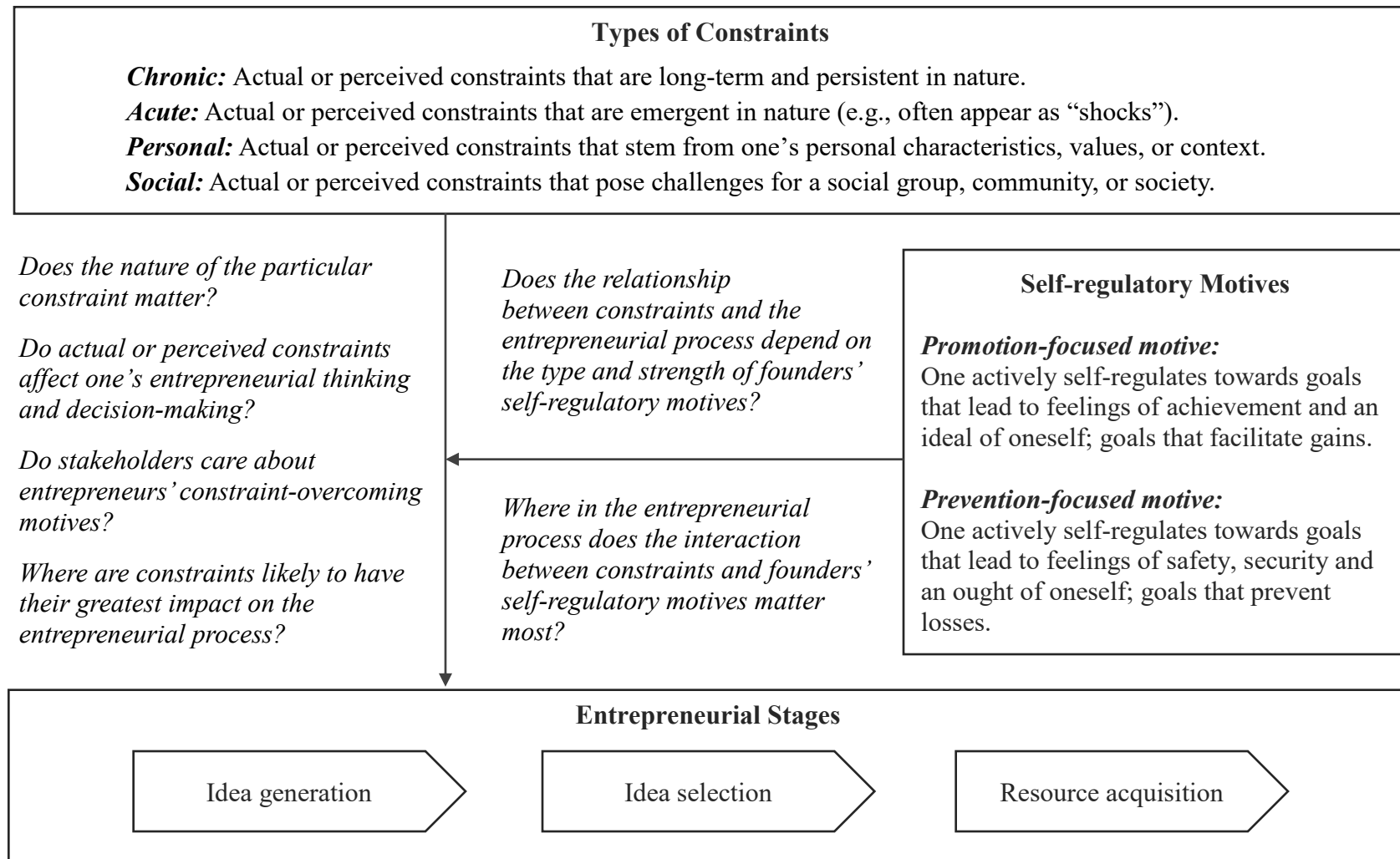


Figure 2

Theoretical relationships among types of constraints, self-regulatory motives, and business idea generation (Study 1)

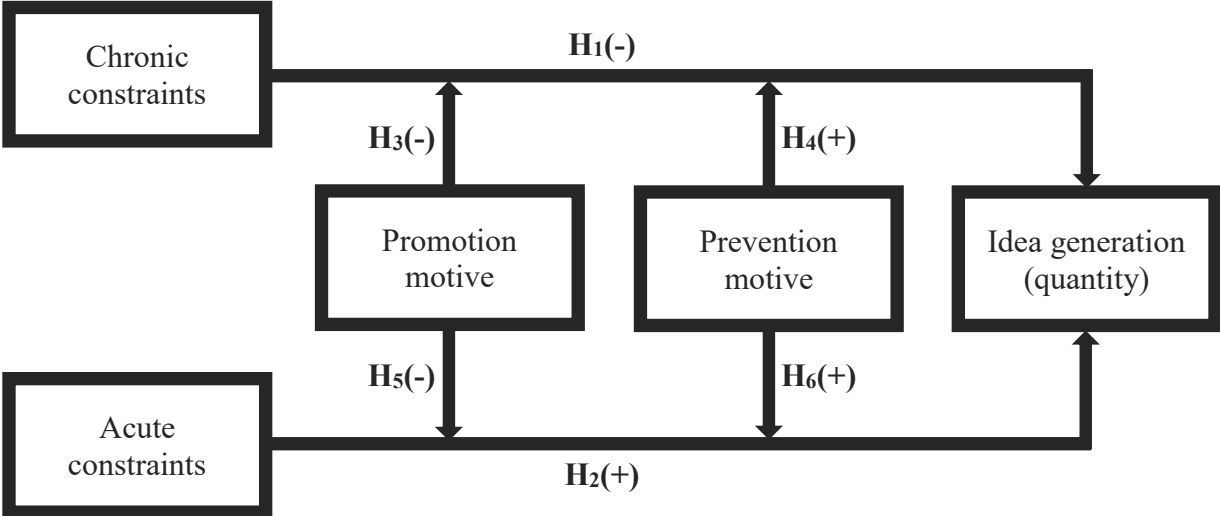
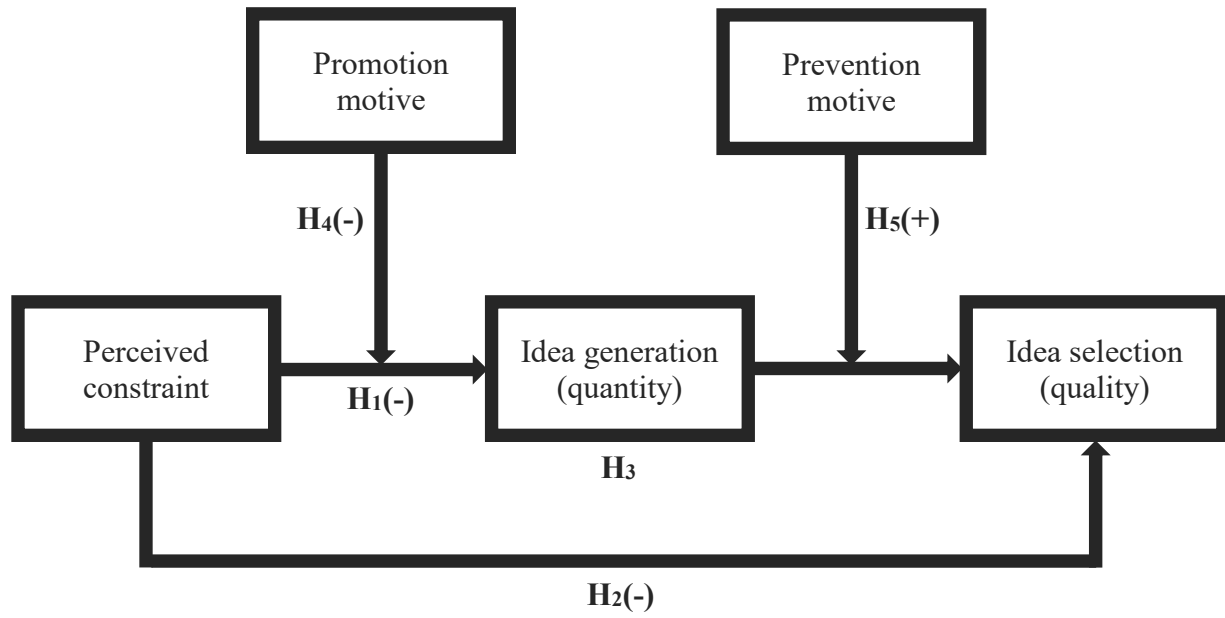


Figure 3

Theoretical relationships among perceived constraint, self-regulatory motives, and business idea generation and selection (Study 2)



REFERENCES

- Acar, O. A., Tarakci, M., & van Knippenberg, D. (2019). Creativity and Innovation Under Constraints: A Cross-Disciplinary Integrative Review. *Journal of Management*, 45(1), 96–121. <https://doi.org/10.1177/0149206318805832>
- Ageev, A. I., Gratchev, M. V., & Hisrich, R. D. (1995). Entrepreneurship in the Soviet Union and post-socialist Russia. *Small Business Economics*, 7(5), 365–376.
- Ahmadi, S., Khanagha, S., Berchicci, L., & Jansen, J. J. P. (2017). Are Managers Motivated to Explore in the Face of a New Technological Change? The Role of Regulatory Focus, Fit, and Complexity of Decision-Making: Are Managers Motivated to Explore. *Journal of Management Studies*, 54(2), 209–237. <https://doi.org/10.1111/joms.12257>
- Aiken, L. S., & West, S. G. (1991). *Multiple regression: Testing and interpreting interactions*. Newbury Park, CA: SAGE Publications Ltd.
- Alcacer, J., & Chung, W. (2014). Location Strategies for Agglomeration Economies. *Strategic Management Journal*, 35(12), 1749–1761. <https://doi.org/10.1002/smj.2186>
- Al-Dajani, H., Carter, S., Shaw, E., & Marlow, S. (2015). Entrepreneurship among the Displaced and Dispossessed: Exploring the Limits of Emancipatory Entrepreneurship: Entrepreneurship among the Displaced. *British Journal of Management*, 26(4), 713–730. <https://doi.org/10.1111/1467-8551.12119>
- Al-Dajani, H., & Marlow, S. (2013). Empowerment and entrepreneurship: A theoretical framework. *International Journal of Entrepreneurial Behaviour & Research*, 19(5), 503–524.
- Aldrich, H. (1999). *Organizations evolving*. Sage.

- Aldrich, H. E., & Fiol, C. M. (1994). Fools rush in? The institutional context of industry creation. *Academy of Management Review*, *19*(4), 645–670.
- Alkhaled, S., & Berglund, K. (2018). ‘And now I’m free’: Women’s empowerment and emancipation through entrepreneurship in Saudi Arabia and Sweden. *Entrepreneurship & Regional Development*, *30*(7–8), 877–900.
<https://doi.org/10.1080/08985626.2018.1500645>
- Allison, T. H., Davis, B. C., Short, J. C., & Webb, J. W. (2015). Crowdfunding in a Prosocial Microlending Environment: Examining the Role of Intrinsic Versus Extrinsic Cues. *Entrepreneurship Theory and Practice*, *39*(1), 53–73. <https://doi.org/10.1111/etap.12108>
- Allison, T. H., Davis, B. C., Webb, J. W., & Short, J. C. (2017). Persuasion in crowdfunding: An elaboration likelihood model of crowdfunding performance. *Journal of Business Venturing*, *32*(6), 707–725. <https://doi.org/10.1016/j.jbusvent.2017.09.002>
- Alloy, L. B., Abramson, L. Y., & Chiara, A. (2000). On the mechanisms by which optimism promotes positive mental and physical health: A commentary on Aspinwall and Brunhart. In J. E. Gillham (Ed.), *The science of optimism and hope: Research essays in honor of Martin E. P. Seligman* (pp. 201–212). Templeton Foundation Press.
- Alvarez, S. A., & Barney, J. B. (2010). Entrepreneurship and Epistemology: The Philosophical Underpinnings of the Study of Entrepreneurial Opportunities. *The Academy of Management Annals*, *4*(1), 557–583. <https://doi.org/10.1080/19416520.2010.495521>
- Amabile, T. M. (1996). Creativity in context. Boulder, CO. *Westview Press*. Amabile TM, Conti R. (1999). Changes in the Work Environment during Downsizing. *Academy of Management Journal*, *42*, 630–640.

- Amabile, T. M., Barsade, S. G., Mueller, J. S., & Staw, B. M. (2005). Affect and creativity at work. *Administrative Science Quarterly*, *50*(3), 367–403.
- Amabile, T. M., Hadley, C. N., & Kramer, S. J. (2002). Creativity under the gun. *Harvard Business Review*, *80*, 52–63.
- An, W., Zhao, X., Cao, Z., Zhang, J., & Liu, H. (2018). How bricolage drives corporate entrepreneurship: The roles of opportunity identification and learning orientation. *Journal of Product Innovation Management*, *35*(1), 49–65.
- Andreoni, J. (1990). Impure altruism and donations to public goods: A theory of warm-glow giving. *The Economic Journal*, *100*(401), 464–477.
- Arenius, P., & Minniti, M. (2005). Perceptual variables and nascent entrepreneurship. *Small Business Economics*, *24*, 233–247.
- Arkowitz, H. (2002). Toward an integrative perspective on resistance to change. *Journal of Clinical Psychology*, *58*(2), 219–227. <https://doi.org/10.1002/jclp.1145>
- Baas, M., De Dreu, C. K., & Nijstad, B. A. (2008). A meta-analysis of 25 years of mood-creativity research: Hedonic tone, activation, or regulatory focus? *Psychological Bulletin*, *134*(6), 779.
- Baas, M., De Dreu, C. K. W., & Nijstad, B. A. (2011). When prevention promotes creativity: The role of mood, regulatory focus, and regulatory closure. *Journal of Personality and Social Psychology*, *100*(5), 794–809. <https://doi.org/10.1037/a0022981>
- Baker, T., & Nelson, R. E. (2005). Creating Something from Nothing: Resource Construction through Entrepreneurial Bricolage. *Administrative Science Quarterly*, *50*(3), 329–366. <https://doi.org/10.2189/asqu.2005.50.3.329>

- Baker, T., & Pollock, T. G. (2007). Making the marriage work: The benefits of strategy's takeover of entrepreneurship for strategic organization. *Strategic Organization*, 5(3), 297–312. <https://doi.org/10.1177/1476127007079957>
- Bandura, A. (1988). Self-efficacy conception of anxiety. *Anxiety Research*, 1(2), 77–98.
- Baron, R. A. (1998). Cognitive mechanisms in entrepreneurship: Why and when entrepreneurs think differently than other people. *Journal of Business Venturing*, 13(4), 275–294.
- Baron, R. A. (2002). OB and entrepreneurship: The reciprocal benefits of closer conceptual links. In B. M. Staw & R. Kramer (Eds.), *Research in organizational behavior* (Vol. 24, pp. 225–269).
- Baron, R. A. (2006). Opportunity recognition as pattern recognition: How entrepreneurs “connect the dots” to identify new business opportunities. *The Academy of Management Perspectives*, 20(1), 104–119.
- Baron, R. A. (2008). The role of affect in the entrepreneurial process. *Academy of Management Review*, 33(2), 328–340.
- Baron, R. A., & Ensley, M. D. (2006). Opportunity recognition as the detection of meaningful patterns: Evidence from comparisons of novice and experienced entrepreneurs. *Management Science*, 52(9), 1331–1344.
- Baron, R. A., & Tang, J. (2011). The role of entrepreneurs in firm-level innovation: Joint effects of positive affect, creativity, and environmental dynamism. *Journal of Business Venturing*, 26(1), 49–60.
- Bartels, R. D., Kelly, K. M., & Rothman, A. J. (2010). Moving beyond the function of the health behaviour: The effect of message frame on behavioural decision-making. *Psychology and Health*, 25(7), 821–838.

- Bernerth, J. B., & Aguinis, H. (2016). A Critical Review and Best-Practice Recommendations for Control Variable Usage. *Personnel Psychology, 69*(1), 229–283.
<https://doi.org/10.1111/peps.12103>
- Bird, B., & Schjoedt, L. (2009). Entrepreneurial Behavior: Its Nature, Scope, Recent Research, and Agenda for Future Research. *Understanding the Entrepreneurial Mind: Opening the Black Box, 24*, 327.
- Bishop, M., Frain, M. P., & Tschopp, M. K. (2008). Self-management, perceived control, and subjective quality of life in multiple sclerosis: An exploratory study. *Rehabilitation Counseling Bulletin, 52*(1), 45–56.
- Blomberg, A., Kallio, T., & Pohjanpää, H. (2017). Antecedents of organizational creativity: Drivers, barriers or both? *Journal of Innovation Management, 5*(1), 78–104.
https://doi.org/10.24840/2183-0606_005.001_0007
- Brockner, J., & Higgins, E. T. (2001). Regulatory focus theory: Implications for the study of emotions at work. *Organizational Behavior and Human Decision Processes, 86*(1), 35–66.
- Brockner, J., Higgins, E. T., & Low, M. B. (2004). Regulatory focus theory and the entrepreneurial process. *Journal of Business Venturing, 19*(2), 203–220.
[https://doi.org/10.1016/S0883-9026\(03\)00007-7](https://doi.org/10.1016/S0883-9026(03)00007-7)
- Brooks, A. W., Huang, L., Kearney, S. W., & Murray, F. E. (2014). Investors prefer entrepreneurial ventures pitched by attractive men. *Proceedings of the National Academy of Sciences, 111*(12), 4427–4431.
- Brown, K. W., & Ryan, R. M. (2003). The benefits of being present: Mindfulness and its role in psychological well-being. *Journal of Personality and Social Psychology, 84*(4), 822.

- Brown, T. E., Boon, E., & Pitt, L. F. (2017). Seeking funding in order to sell: Crowdfunding as a marketing tool. *Business Horizons*, *60*(2), 189–195.
- Burmeister-Lamp, K., Lévesque, M., & Schade, C. (2012). Are entrepreneurs influenced by risk attitude, regulatory focus or both? An experiment on entrepreneurs' time allocation. *Journal of Business Venturing*, *27*(4), 456–476.
- Bygrave, W. D. (2011). The entrepreneurial process. In *The portable MBA in entrepreneurship*.
- Cacciotti, G., & Hayton, J. C. (2015). Fear and entrepreneurship: A review and research agenda. *International Journal of Management Reviews*, *17*(2), 165–190.
- Campbell, J. P. (1990). The role of theory in industrial and organizational psychology. In M. D. Dunnette & L. M. Hough (Eds.), *Handbook of industrial and organizational psychology* (pp. 39–73). Palo Alto, CA: Consulting Psychologists Press.
- Cardon, M. S., Gregoire, D. A., Stevens, C. E., & Patel, P. C. (2013). Measuring entrepreneurial passion: Conceptual foundations and scale validation. *Journal of Business Venturing*, *28*(3), 373–396. <https://doi.org/10.1016/j.jbusvent.2012.03.003>
- Cesario, J., Corker, K. S., & Jelinek, S. (2013). A self-regulatory framework for message framing. *Journal of Experimental Social Psychology*, *49*(2), 238–249.
- Cesario, J., Grant, H., & Higgins, E. T. (2004). Regulatory Fit and Persuasion: Transfer From “Feeling Right.” *Journal of Personality and Social Psychology*, *86*(3), 388–404. <https://doi.org/10.1037/0022-3514.86.3.388>
- Chan, C. S. R., & Parhankangas, A. (2017). Crowdfunding Innovative Ideas: How Incremental and Radical Innovativeness Influence Funding Outcomes. *Entrepreneurship Theory and Practice*, *41*(2), 237–263. <https://doi.org/10.1111/etap.12268>

- Chandra, Y. (2017). Social entrepreneurship as emancipatory work. *Journal of Business Venturing*, 32(6), 657–673. <https://doi.org/10.1016/j.jbusvent.2017.08.004>
- Chen, X.-P., Yao, X., & Kotha, S. (2009). Entrepreneur passion and preparedness in business plan presentations: A persuasion analysis of venture capitalists' funding decisions. *Academy of Management Journal*, 52(1), 199–214.
- Ciuchta, M. P., Letwin, C., Stevenson, R. M., & McMahon, S. R. (2016). Regulatory Focus and Information Cues in a Crowdfunding Context. *Applied Psychology*, 65(3), 490–514. <https://doi.org/10.1111/apps.12063>
- Clough, D. R., Fang, T. P., Vissa, B., & Wu, A. (2019). Turning Lead into Gold: How Do Entrepreneurs Mobilize Resources to Exploit Opportunities? *Academy of Management Annals*, 13(1), 240–271. <https://doi.org/10.5465/annals.2016.0132>
- Cohen, J., & Cohen, P. (1983). *Applied multiple regression/correlation analysis for the behavioral sciences: Correlation analysis for the behavioral sciences*. Hillsdale, NJ: Lawrence Erlbaum.
- Colzato, L. S., Szapora, A., & Hommel, B. (2012). Meditate to create: The impact of focused-attention and open-monitoring training on convergent and divergent thinking. *Frontiers in Psychology*, 116.
- Cooper, D., Peake, W., & Watson, W. (2016). Seizing Opportunities: The Moderating Role of Managerial Characteristics on the Relationship between Opportunity-Seeking and Innovation Efficacy in Small Businesses. *Journal of Small Business Management*, 54(4), 1038–1058. <https://doi.org/10.1111/jsbm.12228>

- Cornwell, J. F., & Higgins, E. T. (2013). Morality and its relation to political ideology: The role of promotion and prevention concerns. *Personality and Social Psychology Bulletin*, 39(9), 1164–1172.
- Corrigan, P. W., Larson, J. E., & Rüsch, N. (2009). Self-stigma and the “why try” effect: Impact on life goals and evidence-based practices. *World Psychiatry*, 8(2), 75–81.
<https://doi.org/10.1002/j.2051-5545.2009.tb00218.x>
- Coursey, R. D., Farrell, E. W., & Zahniser, J. H. (1991). Consumers’ attitudes toward psychotherapy, hospitalization, and aftercare. *Health & Social Work*, 16(3), 155–161.
- Covey, J. (2014). The role of dispositional factors in moderating message framing effects. *Health Psychology*, 33(1), 52.
- Cox, D., & Cox, A. D. (2001). Communicating the consequences of early detection: The role of evidence and framing. *Journal of Marketing*, 65(3), 91–103.
- Crowdfunding Statistics | Fundable. (n.d.). Retrieved October 14, 2022, from <https://www.fundable.com/crowdfunding101/crowdfunding-statistics>
- Crowe, E., & Higgins, E. T. (1997). Regulatory focus and strategic inclinations: Promotion and prevention in decision-making. *Organizational Behavior and Human Decision Processes*, 69(2), 117–132.
- Cui, H.-J., Fam, K.-S., & Zhao, T.-Y. (2019). Regulatory focus and message framing’s effects on intention to consume ethnic food in China. *British Food Journal*, 122(6), 1969–1982.
<https://doi.org/10.1108/BFJ-09-2018-0637>
- Cumming, D., Hornuf, L., Karami, M., & Schweizer, D. (2023). Disentangling Crowdfunding from Fraudfunding. *Journal of Business Ethics*, 182(4), 1103–1128.
<https://doi.org/10.1007/s10551-021-04942-w>

- Dane, E. (2011). Paying attention to mindfulness and its effects on task performance in the workplace. *Journal of Management*, 37(4), 997–1018.
- Datta, P. B., & Gailey, R. (2012). Empowering women through social entrepreneurship: Case study of a women's cooperative in India. *Entrepreneurship Theory and Practice*, 36(3), 569–587.
- Davidsson, P., & Honig, B. (2003). The role of social and human capital among nascent entrepreneurs. *Journal of Business Venturing*, 18(3), 301–331.
[https://doi.org/10.1016/S0883-9026\(02\)00097-6](https://doi.org/10.1016/S0883-9026(02)00097-6)
- Davis, B. C., Hmieleski, K. M., Webb, J. W., & Coombs, J. E. (2017). Funders' positive affective reactions to entrepreneurs' crowdfunding pitches: The influence of perceived product creativity and entrepreneurial passion. *Journal of Business Venturing*, 32(1), 90–106. <https://doi.org/10.1016/j.jbusvent.2016.10.006>
- Davis, M. A. (2009). Understanding the relationship between mood and creativity: A meta-analysis. *Organizational Behavior and Human Decision Processes*, 108(1), 25–38.
- Dean, D., Hender, J., Rodgers, T., & Santanen, E. (2006). Identifying Quality, Novel, and Creative Ideas: Constructs and Scales for Idea Evaluation. *Journal of the Association for Information Systems*, 7(10), 646–699. <https://doi.org/10.17705/1jais.00106>
- Dempsey, D., & Jennings, J. (2014). Gender and entrepreneurial self-efficacy: A learning perspective. *International Journal of Gender and Entrepreneurship*, 6(1), 28–49.
<https://doi.org/10.1108/IJGE-02-2013-0013>
- Diamantopoulos, A., & Sigauw, J. A. (2006). Formative Versus Reflective Indicators in Organizational Measure Development: A Comparison and Empirical Illustration. *British*

- Journal of Management*, 17(4), 263–282. <https://doi.org/10.1111/j.1467-8551.2006.00500.x>
- Dijkstra, A., Rothman, A., & Pietersma, S. (2011). The persuasive effects of framing messages on fruit and vegetable consumption according to regulatory focus theory. *Psychology & Health*, 26(8), 1036–1048. <https://doi.org/10.1080/08870446.2010.526715>
- Dimov, D. (2007). Beyond the single-person, single-insight attribution in understanding entrepreneurial opportunities. *Entrepreneurship Theory and Practice*, 31(5), 713–731.
- Drake, D. (2015, October 23). 2,000 Global Crowdfunding Sites to Choose from by 2016: Top 5 Growth Indicators. Retrieved January 28, 2018, from Huffington Post website: https://www.huffingtonpost.com/david-drake/2000-global-crowdfunding-_b_8365266.html
- Elsbach, K. D. (2003). How to pitch a brilliant idea. *Harvard Business Review*, 81(9), 117–123.
- Elsbach, K. D., & Hargadon, A. B. (2006). Enhancing creativity through “mindless” work: A framework of workday design. *Organization Science*, 17(4), 470–483.
- Fairlie, R. W., & Holleran, W. (2012). Entrepreneurship training, risk aversion and other personality traits: Evidence from a random experiment. *Journal of Economic Psychology*, 33(2), 366–378. <https://doi.org/10.1016/j.joep.2011.02.001>
- Flynn, M., Dooley, L., O’Sullivan, D., & Cormican, K. (2003). Idea management for organisational innovation. *International Journal of Innovation Management*, 7(04), 417–442.
- Foo, M.-D. (2011). Emotions and Entrepreneurial Opportunity Evaluation. *Entrepreneurship Theory and Practice*, 35(2), 375–393. <https://doi.org/10.1111/j.1540-6520.2009.00357.x>

- Förster, J., Grant, H., Idson, C. L., & Higgins, E. T. (2001). Effects of success and failure on motivational strength: Regulatory focus as moderator. *Journal of Experimental Social Psychology, 37*(3), 253–260.
- Förster, Jens. (2009). Relations between perceptual and conceptual scope: How global versus local processing fits a focus on similarity versus dissimilarity. *Journal of Experimental Psychology: General, 138*(1), 88–111.
- Förster, Jens, & Higgins, E. T. (2005). How global versus local perception fits regulatory focus. *Psychological Science, 16*(8), 631–636.
- Förster, Jens, Higgins, E. T., & Bianco, A. T. (2003). Speed/accuracy decisions in task performance: Built-in trade-off or separate strategic concerns? *Organizational Behavior and Human Decision Processes, 90*(1), 148–164.
- Frederiks, A. J., Englis, B. G., Ehrenhard, M. L., & Groen, A. J. (2019). Entrepreneurial cognition and the quality of new venture ideas: An experimental approach to comparing future-oriented cognitive processes. *Journal of Business Venturing, 34*(2), 327–347.
<https://doi.org/10.1016/j.jbusvent.2018.05.007>
- Freitas, A. L., & Higgins, E. T. (2002). Enjoying goal-directed action: The role of regulatory fit. *Psychological Science, 13*(1), 1–6.
- Gafni, H., Marom, D., Robb, A., & Sade, O. (2021). Gender dynamics in crowdfunding (Kickstarter): Evidence on entrepreneurs, backers, and taste-based discrimination. *Review of Finance, 25*(2), 235-274.
- Gallagher, K. M., & Updegraff, J. A. (2012). Health message framing effects on attitudes, intentions, and behavior: A meta-analytic review. *Annals of Behavioral Medicine, 43*(1), 101–116.

- Gallupe, R. B., Dennis, A. R., Cooper, W. H., Valacich, J. S., Bastianutti, L. M., & Nunamaker Jr, J. F. (1992). Electronic brainstorming and group size. *Academy of Management Journal*, 35(2), 350–369.
- Gärtner, C. (2013). Enhancing Readiness for Change by Enhancing Mindfulness. *Journal of Change Management*, 13(1), 52–68. <https://doi.org/10.1080/14697017.2013.768433>
- Garud, R., & Karnøe, P. (2003). Bricolage versus breakthrough: Distributed and embedded agency in technology entrepreneurship. *Research Policy*, 32(2), 277–300.
- Gerber, E. M., Hui, J. S., & Kuo, P.-Y. (2012). Crowdfunding: Why people are motivated to post and fund projects on crowdfunding platforms. *Proceedings of the International Workshop on Design, Influence, and Social Technologies: Techniques, Impacts and Ethics*, 2, 11.
- Retrieved from <https://pdfs.semanticscholar.org/c1e2/a1068f0af1c3120c62be5943340518860ecb.pdf>
- Gerhardt, H. (2013). *Essays in experimental and neuroeconomics*.
- Getz, S. J. (2013). *Cognitive control and intertemporal choice: The role of cognitive control in impulsive decision making*.
- Gielnik, M. M., Bledow, R., & Stark, M. S. (2020). A dynamic account of self-efficacy in entrepreneurship. *Journal of Applied Psychology*, 105(5), 487.
- Gielnik, M. M., Frese, M., Graf, J. M., & Kampschulte, A. (2012). Creativity in the opportunity identification process and the moderating effect of diversity of information. *Journal of Business Venturing*, 27(5), 559–576. <https://doi.org/10.1016/j.jbusvent.2011.10.003>
- Gimeno, J., Folta, T. B., Cooper, A. C., & Woo, C. Y. (1997). Survival of the fittest? Entrepreneurial human capital and the persistence of underperforming firms. *Administrative Science Quarterly*, 750–783.

- Goel, A., & Goel, A., K. (2015, November 7). Number of Worldwide Business Start-Ups Each Year? Retrieved May 5, 2018, from <https://www.lerumba.com/Directory/shocking-number-of-worldwide-business-start-ups-each-year-article-39.aspx#.Wu4JqdPt4W1>
- Goldschmied, N. (2005). *The underdog effect: Definition, limitations, and motivations. Why do we support those at a competitive disadvantage?* (Thesis, University of South Florida). University of South Florida. Retrieved from <https://digitalcommons.usf.edu/etd/2899/>
- Goss, D., Jones, R., Betta, M., & Latham, J. (2011). Power as practice: A micro-sociological analysis of the dynamics of emancipatory entrepreneurship. *Organization Studies*, 32(2), 211–229.
- Grant, A. M., Dutton, J. E., & Rosso, B. D. (2008). Giving Commitment: Employee Support Programs and The Prosocial Sensemaking Process. *Academy of Management Journal*, 51(5), 898–918. <https://doi.org/10.5465/amj.2008.34789652>
- Greenberg, J., & Mollick, E. (2017). Activist choice homophily and the crowdfunding of female founders. *Administrative Science Quarterly*, 62(2), 341–374.
- Grichnik, D., Smeja, A., & Welp, I. (2010). The importance of being emotional: How do emotions affect entrepreneurial opportunity evaluation and exploitation? *Journal of Economic Behavior & Organization*, 76(1), 15–29. <https://doi.org/10.1016/j.jebo.2010.02.010>
- Habitzreuter, A. M., & Koenigstorfer, J. (2021). The impact of environmental CSR-linked sport sponsorship on attitude toward the sponsor depending on regulatory fit. *Journal of Business Research*, 124, 720–730. <https://doi.org/10.1016/j.jbusres.2018.11.040>
- Hackman, R. J., & Oldham, G. R. (1980). *Work redesign* (Vol. 2779). London: Addison-Wesley.

- Hamilton, R. W., Mittal, C., Shah, A., Thompson, D. V., & Griskevicius, V. (2019). How Financial Constraints Influence Consumer Behavior: An Integrative Framework. *Journal of Consumer Psychology, 29*(2), 285–305. <https://doi.org/10.1002/jcpy.1074>
- Hammack, S. E., Cooper, M. A., & Lezak, K. R. (2012). Overlapping neurobiology of learned helplessness and conditioned defeat: Implications for PTSD and mood disorders. *Neuropharmacology, 62*(2), 565–575. <https://doi.org/10.1016/j.neuropharm.2011.02.024>
- Haugh, H. M., & Talwar, A. (2016). Linking Social Entrepreneurship and Social Change: The Mediating Role of Empowerment. *Journal of Business Ethics, 133*(4), 643–658. <https://doi.org/10.1007/s10551-014-2449-4>
- Hayes, A. F. (2017). *Introduction to mediation, moderation, and conditional process analysis: A regression-based approach*. Guilford publications.
- Hayward, M. L. A., Forster, W. R., Sarasvathy, S. D., & Fredrickson, B. L. (2010). Beyond hubris: How highly confident entrepreneurs rebound to venture again. *Journal of Business Venturing, 25*(6), 569–578. <https://doi.org/10.1016/j.jbusvent.2009.03.002>
- Heinig, I. (n.d.). Crowdfunding Demographics Explained in Full | Easyship Blog. Retrieved October 14, 2022, from Easyship website: <https://www.easyship.com/blog/crowdfunding-demographics-explained>
- Helms, M. M. (2003). Japanese managers: Their candid views on entrepreneurship. *Competitiveness Review, 13*(1), 24–34.
- Henao-Zapata, D., & Peiró, J. M. (2018). The importance of empowerment in entrepreneurship. In *Inside the Mind of the Entrepreneur* (pp. 185–206). Springer.
- Henker, N., Sonnentag, S., & Unger, D. (2015). Transformational Leadership and Employee Creativity: The Mediating Role of Promotion Focus and Creative Process Engagement.

- Journal of Business and Psychology*, 30(2), 235–247. <https://doi.org/10.1007/s10869-014-9348-7>
- Hennessey, B. A., & Amabile, T. M. (2010). Creativity. *Annual Review of Psychology*, 61(1), 569–598. <https://doi.org/10.1146/annurev.psych.093008.100416>
- Henriksen, D., Richardson, C., & Shack, K. (2020). Mindfulness and creativity: Implications for thinking and learning. *Thinking Skills and Creativity*, 37, 100689. <https://doi.org/10.1016/j.tsc.2020.100689>
- Herranz, N., Krasa, S., & Villamil, A. P. (2015). Entrepreneurs, Risk Aversion, and Dynamic Firms. *Journal of Political Economy*, 123(5), 1133–1176. <https://doi.org/10.1086/682678>
- Herzenstein, M., Sonenshein, S., & Dholakia, U. M. (2011). Tell me a good story and I may lend you money: The role of narratives in peer-to-peer lending decisions. *Journal of Marketing Research*, 48(SPL), S138–S149.
- Higgins, E. T. (1997). Beyond pleasure and pain. *American Psychologist*, 52(12), 1280–1300.
- Higgins, E. T. (1998). Promotion and prevention: Regulatory focus as a motivational principle. In *Advances in experimental social psychology* (Vol. 30, pp. 1–46). Elsevier.
- Higgins, E. T. (2000). Making a good decision: Value from fit. *American Psychologist*, 55(11), 1217.
- Higgins, E. T. (2006). Value from hedonic experience and engagement. *Psychological Review*, 113(3), 439–460. <https://doi.org/10.1037/0033-295X.113.3.439>
- Higgins, E. T., & Pinelli, F. (2020). Regulatory Focus and Fit Effects in Organizations. *Annual Review of Organizational Psychology and Organizational Behavior*, 7(1), 25–48. <https://doi.org/10.1146/annurev-orgpsych-012119-045404>

- Hinkin, T. R. (1998). A Brief Tutorial on the Development of Measures for Use in Survey Questionnaires. *Organizational Research Methods, 1*(1), 104–121.
<https://doi.org/10.1177/109442819800100106>
- Hon, A. H. Y., Bloom, M., & Crant, J. M. (2014). Overcoming Resistance to Change and Enhancing Creative Performance. *Journal of Management, 40*(3), 919–941.
<https://doi.org/10.1177/0149206311415418>
- How Many Startups Fail and Why? (n.d.). Retrieved November 11, 2022, from Investopedia website: <https://www.investopedia.com/articles/personal-finance/040915/how-many-startups-fail-and-why.asp>
- Hu, L., & Bentler, P. M. (1999). Cutoff criteria for fit indexes in covariance structure analysis: Conventional criteria versus new alternatives. *Structural Equation Modeling: A Multidisciplinary Journal, 6*(1), 1–55.
- Jayawarna, D., Jones, O., & Macpherson, A. (2011). New business creation and regional development: Enhancing resource acquisition in areas of social deprivation. *Entrepreneurship & Regional Development, 23*(9–10), 735–761.
- Jennings, J. E., Jennings, P. D., & Sharifian, M. (2016). Living the dream? Assessing the “entrepreneurship as emancipation” perspective in a developed region. *Entrepreneurship Theory and Practice, 40*(1), 81–110.
- Jennings, J. E., Rahman, Z., & Dempsey, D. (2023). Challenging What We Think We Know: Theory and Evidence for Questioning Common Beliefs About the Gender Gap in Entrepreneurial Confidence. *Entrepreneurship Theory and Practice, 47*(2), 369–397.
<https://doi.org/10.1177/10422587221102108>

- Johnson, M., Monsen, E. W., & MacKenzie, N. G. (2017). Follow the Leader or the Pack? Regulatory Focus and Academic Entrepreneurial Intentions. *Journal of Product Innovation Management*, 34(2), 181–200. <https://doi.org/10.1111/jpim.12355>
- Kanze, D., Huang, L., Conley, M. A., & Higgins, E. T. (2018). We Ask Men to Win and Women Not to Lose: Closing the Gender Gap in Startup Funding. *Academy of Management Journal*, 61(2), 586–614. <https://doi.org/10.5465/amj.2016.1215>
- Kickstarter Stats—Kickstarter. (n.d.-a). Retrieved January 28, 2018, from <https://www.kickstarter.com/help/stats?ref=footer>
- Kickstarter Stats—Kickstarter. (n.d.-b). Retrieved August 29, 2022, from https://www.kickstarter.com/help/stats?ref=about_subnav
- Kier, A. S., & McMullen, J. S. (2018). Entrepreneurial Imaginativeness in New Venture Ideation. *Academy of Management Journal*, 61(6), 2265–2295. <https://doi.org/10.5465/amj.2017.0395>
- Kirzner, I. M. (1983). *Perception, opportunity, and profit*. Chicago University Press Chicago, IL, USA.
- Ko, S., & Butler, J. E. (2007). Creativity: A key link to entrepreneurial behavior. *Business Horizons*, 50(5), 365–372.
- Kong, F., Zhao, L., & Tsai, C.-H. (2020). The relationship between entrepreneurial intention and action: The effects of fear of failure and role model. *Frontiers in Psychology*, 11, 229.
- Kröper, M., Fay, D., Lindberg, T., & Meinel, C. (2011). Interrelations between Motivation, Creativity and Emotions in Design Thinking Processes – An Empirical Study Based on Regulatory Focus Theory. In T. Taura & Y. Nagai (Eds.), *Design Creativity 2010* (pp. 97–104). London: Springer London. https://doi.org/10.1007/978-0-85729-224-7_14

- Kuo, Y.-F., Lin, C. S., & Liu, L.-T. (2022). The effects of framing messages and cause-related marketing on backing intentions in reward-based crowdfunding. *Journal of Retailing and Consumer Services*, 64, 102799. <https://doi.org/10.1016/j.jretconser.2021.102799>
- Kuppuswamy, V., & Bayus, B. L. (2017). Does my contribution to your crowdfunding project matter? *Journal of Business Venturing*, 32(1), 72–89. <https://doi.org/10.1016/j.jbusvent.2016.10.004>
- Lanaj, K., Chang, C.-H., & Johnson, R. E. (2012). Regulatory focus and work-related outcomes: A review and meta-analysis. *Psychological Bulletin*, 138(5), 998.
- Latimer, A. E., Salovey, P., & Rothman, A. J. (2007). The effectiveness of gain-framed messages for encouraging disease prevention behavior: Is all hope lost? *Journal of Health Communication*, 12(7), 645–649.
- Lebuda, I., Zabelina, D. L., & Karwowski, M. (2016). Mind full of ideas: A meta-analysis of the mindfulness–creativity link. *Personality and Individual Differences*, 93, 22–26.
- Lee, A. Y., & Aaker, J. L. (2004). Bringing the Frame Into Focus: The Influence of Regulatory Fit on Processing Fluency and Persuasion. *Journal of Personality and Social Psychology*, 86(2), 205–218. <https://doi.org/10.1037/0022-3514.86.2.205>
- Lee, E.-S., Park, T.-Y., & Paik, Y. (2019). Does shared group identification lead to group creativity? Group regulatory focus as a moderator. *Journal of Applied Social Psychology*, 49(2), 117–129. <https://doi.org/10.1111/jasp.12569>
- Levit Binnun, N., Kaplan Milgram, R., & Raz, J. (2012). Removing the constraints on our choices: A psychobiological approach to the effects of mindfulness-based techniques. In P. R. Shaver & M. Mikulincer (Eds.), *Meaning, mortality, and choice: The social*

- psychology of existential concerns*. (pp. 253–269). Washington: American Psychological Association. <https://doi.org/10.1037/13748-014>
- Li, K. (2021). Exploring the Role of Regulatory Focus and Processing Fluency in the Effectiveness of Narrative versus Non-narrative Advertising: A Study about Sugar Intake in the USA. *Health Communication, 36*(7), 837–846. <https://doi.org/10.1080/10410236.2020.1719320>
- Li, Y. (2011). Emotions and new venture judgment in China. *Asia Pacific Journal of Management, 28*, 277–298.
- Lichtenthaler, P. W., & Fischbach, A. (2019). A meta-analysis on promotion- and prevention-focused job crafting. *European Journal of Work and Organizational Psychology, 28*(1), 30–50. <https://doi.org/10.1080/1359432X.2018.1527767>
- Locke, E. A. (2012). Self-set Goals and Self-efficacy as Mediators of Incentives and Personality. In *Work motivation in the context of a globalizing economy* (pp. 21-34). Psychology Press.
- Lockwood, P., Jordan, C. H., & Kunda, Z. (2002). Motivation by positive or negative role models: Regulatory focus determines who will best inspire us. *Journal of Personality and Social Psychology, 83*(4), 854–864. <https://doi.org/10.1037/0022-3514.83.4.854>
- Lounsbury, M., & Glynn, M. A. (2001). Cultural entrepreneurship: Stories, legitimacy, and the acquisition of resources. *Strategic Management Journal, 22*(6–7), 545–564. <https://doi.org/10.1002/smj.188>
- Maciejewski, P. K., Prigerson, H. G., & Mazure, C. M. (2000). Self-efficacy as a mediator between stressful life events and depressive symptoms: Differences based on history of prior depression. *The British Journal of Psychiatry, 176*(4), 373–378.

- MacKenzie, Podsakoff, & Podsakoff. (2011). Construct Measurement and Validation Procedures in MIS and Behavioral Research: Integrating New and Existing Techniques. *MIS Quarterly*, 35(2), 293. <https://doi.org/10.2307/23044045>
- Maddux, J. E., & Meier, L. J. (1995). Self-efficacy and depression. In *Self-Efficacy, adaptation, and adjustment* (pp. 143–169). Springer.
- Maier, S. F. (1984). Learned helplessness and animal models of depression. *Progress in Neuro-Psychopharmacology and Biological Psychiatry*, 8(3), 435–446.
- Maier, S. F., & Seligman, M. E. (1976). Learned helplessness: Theory and evidence. *Journal of Experimental Psychology: General*, 105(1), 3.
- Maier, S. F., & Seligman, M. E. P. (2016). Learned helplessness at fifty: Insights from neuroscience. *Psychological Review*, 123(4), 349–367.
<https://doi.org/10.1037/rev0000033>
- Mair, J., Battilana, J., & Cardenas, J. (2012). Organizing for society: A typology of social entrepreneuring models. *Journal of Business Ethics*, 111(3), 353–373.
- Mani, A., Mullainathan, S., Shafir, E., & Zhao, J. (2013). Poverty Impedes Cognitive Function. *Science*, 341(6149), 976–980. <https://doi.org/10.1126/science.1238041>
- Martens, M. L., Jennings, J. E., & Jennings, P. D. (2007). Do the stories they tell get them the money they need? The role of entrepreneurial narratives in resource acquisition. *Academy of Management Journal*, 50(5), 1107–1132.
- Marti, I., Courpasson, D., & Barbosa, S. D. (2013). “Living in the fishbowl”. Generating an entrepreneurial culture in a local community in Argentina. *Journal of Business Venturing*, 28(1), 10–29.

- Mathieu, J. E., Martineau, J. W., & Tannenbaum, S. I. (1993). Individual and situational influences on the development of self-efficacy: Implications for training effectiveness. *Personnel Psychology, 46*(1), 125–147.
- Maxwell, A. L., Jeffrey, S. A., & Lévesque, M. (2011). Business angel early stage decision making. *Journal of Business Venturing, 26*(2), 212–225.
- Maxwell, A. L., & Lévesque, M. (2014). Trustworthiness: A critical ingredient for entrepreneurs seeking investors. *Entrepreneurship Theory and Practice, 38*(5), 1057–1080.
- McKenny, A. F., Allison, T. H., Ketchen Jr, D. J., Short, J. C., & Ireland, R. D. (2017). How should crowdfunding research evolve? A survey of the entrepreneurship theory and practice editorial board. *Entrepreneurship Theory and Practice, 41*(2), 291-304..
<https://doi.org/10.1111/etap.12269>
- McKenzie, D., & Woodruff, C. (2014). What are we learning from business training and entrepreneurship evaluations around the developing world? *The World Bank Research Observer, 29*(1), 48–82.
- McMullen, J. S., & Shepherd, D. A. (2006). Entrepreneurial action and the role of uncertainty in the theory of the entrepreneur. *Academy of Management Review, 31*(1), 132–152.
- McNeely, C., Barber, B. K., Spellings, C., Giacaman, R., Arafat, C., Daher, M., ... Abu Mallouh, M. (2014). Human insecurity, chronic economic constraints and health in the occupied Palestinian territory. *Global Public Health, 9*(5), 495–515.
<https://doi.org/10.1080/17441692.2014.903427>
- Medeiros, K. E., Partlow, P. J., & Mumford, M. D. (2014). Not too much, not too little: The influence of constraints on creative problem solving. *Psychology of Aesthetics, Creativity, and the Arts, 8*(2), 198–210. <https://doi.org/10.1037/a0036210>

- Merriam-Webster. (2020). In *Merriam-Webster.com*.
- Meyer, R. D., Dalal, R. S., José, I. J., Hermida, R., Chen, T. R., Vega, R. P., ... Khare, V. P. (2014). Measuring Job-Related Situational Strength and Assessing Its Interactive Effects With Personality on Voluntary Work Behavior. *Journal of Management*, *40*(4), 1010–1041. <https://doi.org/10.1177/0149206311425613>
- Meyers-Levy, J., & Maheswaran, D. (2004). Exploring message framing outcomes when systematic, heuristic, or both types of processing occur. *Journal of Consumer Psychology*, *14*(1–2), 159–167.
- Meyskens, M., & Bird, L. (2015). Crowdfunding and value creation. *Entrepreneurship Research Journal*, *5*(2), 155–166.
- Mishra, P., Pandey, C., Singh, U., Gupta, A., Sahu, C., & Keshri, A. (2019). Descriptive statistics and normality tests for statistical data. *Annals of Cardiac Anaesthesia*, *22*(1), 67. https://doi.org/10.4103/aca.ACA_157_18
- Mitchell, J. R., & Shepherd, D. A. (2010). To thine own self be true: Images of self, images of opportunity, and entrepreneurial action. *Journal of Business Venturing*, *25*(1), 138–154. <https://doi.org/10.1016/j.jbusvent.2008.08.001>
- Mitchell, T. R., Thompson, K. R., & George-Falvy, J. (2000). Goal setting: Theory and practice. *Industrial and Organizational Psychology: Linking Theory with Practice*, Editors: CL Cooper and EA Locke, Blackwell Publishers Ltd, First Published, 2000.
- Mohr, J. A., & Dacin, P. A. (2018). Protection Against Deception: The Moderating Effects of Knowledge Calibration on Consumer Responses to Ambiguous Advertisement Information. *ACR North American Advances*.

- Mollick, E. (2014). The dynamics of crowdfunding: An exploratory study. *Journal of Business Venturing*, 29(1), 1–16.
- Mollick, E. (2016). Filthy lucre? Innovative communities, identity, and commercialization. *Organization Science*, 27(6), 1472–1487.
- Moradi, M., & Dass, M. (2019). An investigation into the effects of message framing on crowdfunding funding level. *Journal of Electronic Commerce Research*, 20(4), 238–254.
- Moss, A. (n.d.). What Is Data Quality in Research and Why Is It Important? Retrieved May 28, 2023, from CloudResearch website:
<https://www.cloudresearch.com/resources/guides/ultimate-guide-to-survey-data-quality/guide-data-quality-what-is-data-quality-why-important/>
- Moss, T. W., Renko, M., Block, E., & Meyskens, M. (2018). Funding the story of hybrid ventures: Crowdfunder lending preferences and linguistic hybridity. *Journal of Business Venturing*, 33(5), 643–659. <https://doi.org/10.1016/j.jbusvent.2017.12.004>
- Mullainathan, S., & Shafir, E. (2013). *Scarcity: Why having too little means so much*. Macmillan.
- Murnieks, C. Y., Klotz, A. C., & Shepherd, D. A. (2020). Entrepreneurial motivation: A review of the literature and an agenda for future research. *Journal of Organizational Behavior*, 41(2), 115–143.
- Muthén, L. K., & Muthén, B. O. (1998). *Mplus user's guide* (8th ed.). Los Angeles, CA: Muthén & Muthén.
- Newman, A., Obschonka, M., Schwarz, S., Cohen, M., & Nielsen, I. (2019). Entrepreneurial self-efficacy: A systematic review of the literature on its theoretical foundations,

- measurement, antecedents, and outcomes, and an agenda for future research. *Journal of Vocational Behavior*, 110, 403–419.
- Nichols, L., & Hunt, B. (2011). The Significance of Spirituality for Individuals with Chronic Illness: Implications for Mental Health Counseling. *Journal of Mental Health Counseling*, 33(1), 51–66. <https://doi.org/10.17744/mehc.33.1.025544189523j738>
- O'Connor, E. (2002). Storied business: Typology, intertextuality, and traffic in entrepreneurial narrative. *The Journal of Business Communication* (1973), 39(1), 36–54.
- Ohly, S., & Fritz, C. (2010). Work characteristics, challenge appraisal, creativity, and proactive behavior: A multi-level study. *Journal of Organizational Behavior*, 31(4), 543–565. <https://doi.org/10.1002/job.633>
- O'keefe, D. J., & Jensen, J. D. (2006). The advantages of compliance or the disadvantages of noncompliance? A meta-analytic review of the relative persuasive effectiveness of gain-framed and loss-framed messages. *Annals of the International Communication Association*, 30(1), 1–43.
- O'Keefe, D. J., & Jensen, J. D. (2007). The relative persuasiveness of gain-framed loss-framed messages for encouraging disease prevention behaviors: A meta-analytic review. *Journal of Health Communication*, 12(7), 623–644.
- O'Keefe, D. J., & Jensen, J. D. (2009). The Relative Persuasiveness of Gain-Framed and Loss-Framed Messages for Encouraging Disease Detection Behaviors: A Meta-Analytic Review. *Journal of Communication*, 59(2), 296–316. <https://doi.org/10.1111/j.1460-2466.2009.01417.x>

- Onarheim, B. (2012). Creativity from constraints in engineering design: Lessons learned at Coloplast. *Journal of Engineering Design*, 23(4), 323–336.
<https://doi.org/10.1080/09544828.2011.631904>
- Oreg, S. (2003). Resistance to change: Developing an individual differences measure. *Journal of Applied Psychology*, 88(4), 680.
- Osborn, A. F. (1963). *Applied imagination: Principles and procedures of creative problem solving*. New York, NY: Scribner.
- Owens, T. J. (1994). Two Dimensions of Self-Esteem: Reciprocal Effects of Positive Self-Worth and Self-Deprecation on Adolescent Problems. *American Sociological Review*, 59(3), 391. <https://doi.org/10.2307/2095940>
- Pardo del Val, M., & Fuentes, C. M. (2003). Resistance to change: A literature review and empirical study. *Management Decision*, 41(2), 148–155.
<https://doi.org/10.1108/00251740310457597>
- Parhankangas, A., & Renko, M. (2017). Linguistic style and crowdfunding success among social and commercial entrepreneurs. *Journal of Business Venturing*, 32(2), 215–236.
<https://doi.org/10.1016/j.jbusvent.2016.11.001>
- Parker, S. L., Laurie, K. R., Newton, C. J., & Jimmieson, N. L. (2014). Regulatory focus moderates the relationship between task control and physiological and psychological markers of stress: A work simulation study. *International Journal of Psychophysiology*, 94(3), 390–398.
- Patel, P. C., Wolfe, M. T., & Manikas, A. S. (2021). Logic is (Somewhat) overrated: Image-based versus concept-based rhetoric in crowdfunding narratives. *Entrepreneurship Theory and Practice*, 45(3), 600–625.

- Payne, J. W., Payne, J. W., Bettman, J. R., & Johnson, E. J. (1993). *The adaptive decision maker*. Cambridge University Press.
- Pechmann, C., & Catlin, J. R. (2016). The effects of advertising and other marketing communications on health-related consumer behaviors. *Current Opinion in Psychology*, *10*, 44–49. <https://doi.org/10.1016/j.copsyc.2015.12.008>
- Peng, J., Cao, F., Zhang, Y., Cao, Y., Zhang, Y., Zhu, X., & Miao, D. (2021). Reflections on motivation: How regulatory focus influences self-framing and risky decision making. *Current Psychology*, *40*(6), 2927–2937. <https://doi.org/10.1007/s12144-019-00217-w>
- Perry-Smith, J., & Mannucci, P. V. (2015). 12 Social Networks, Creativity, and Entrepreneurship. *The Oxford handbook of creativity, innovation, and entrepreneurship*, 205.
- Petruzzelli, A. M., Natalicchio, A., Panniello, U., & Roma, P. (2019). Understanding the crowdfunding phenomenon and its implications for sustainability. *Technological Forecasting and Social Change*, *141*, 138–148.
- Pitesa, M., & Thau, S. (2018). Resource scarcity, effort, and performance in physically demanding jobs: An evolutionary explanation. *Journal of Applied Psychology*, *103*(3), 237–248.
- Pless, N. M., & Appel, J. (2012). In pursuit of dignity and social justice: Changing lives through 100% inclusion—How Gram Vikas fosters sustainable rural development. *Journal of Business Ethics*, *111*(3), 389–411.
- Plous, S. (1993). *The psychology of judgment and decision making*. McGraw-Hill Book Company.

- Pollack, J. M., Rutherford, M. W., & Nagy, B. G. (2012). Preparedness and Cognitive Legitimacy as Antecedents of New Venture Funding in Televised Business Pitches. *Entrepreneurship Theory and Practice*, 36(5), 915–939. <https://doi.org/10.1111/j.1540-6520.2012.00531.x>
- Porsche. (2023). Retrieved from <https://en.wikipedia.org/wiki/Porsche#:~:text=During%20his%2020%2Dmonth%20imprisonment,that%20he%20wanted%20to%20buy.>
- Rindova, V., Barry, D., & Ketchen, D. J. (2009). Entrepreneurship as emancipation. *Academy of Management Review*, 34(3), 477–491.
- Roczniewska, M., Retowski, S., & Higgins, E. T. (2018). How Person-Organization Fit Impacts Employees' Perceptions of Justice and Well-Being. *Frontiers in Psychology*, 8, 2318.
- Rosenzweig, E. Q., & Miele, D. B. (2016). Do you have an opportunity or an obligation to score well? The influence of regulatory focus on academic test performance. *Learning and Individual Differences*, 45, 114–127. <https://doi.org/10.1016/j.lindif.2015.12.005>
- Roskes, M. (2015). Constraints that Help or Hinder Creative Performance: A Motivational Approach: Constraints That Help or Hinder Creative Performance. *Creativity and Innovation Management*, 24(2), 197–206. <https://doi.org/10.1111/caim.12086>
- Rosso, B. D. (2014). Creativity and Constraints: Exploring the Role of Constraints in the Creative Processes of Research and Development Teams. *Organization Studies*, 35(4), 551–585. <https://doi.org/10.1177/0170840613517600>
- Rothman, A. J., Desmarais, K.-J., & Lenne, R. L. (2020). Moving from research on message framing to principles of message matching: The use of gain-and loss-framed messages to

- promote healthy behavior. In *Advances in motivation science* (Vol. 7, pp. 43–73). Elsevier.
- Roundy, P. (2014). The stories of social entrepreneurs: Narrative discourse and social venture resource acquisition. *Journal of Research in Marketing and Entrepreneurship*, 16(2), 200–218.
- Ruebottom, T., & Toubiana, M. (2021). Constraints and opportunities of stigma: Entrepreneurial emancipation in the sex industry. *Academy of Management Journal*, 64(4), 1049–1077.
- Rutherford, M. W., Coombes, S. M., & Mazzei, M. J. (2012). The impact of bootstrapping on new venture performance and survival: A longitudinal analysis. *Frontiers of Entrepreneurship Research*, 32(12), 4.
- Ryan, R. M., & Deci, E. L. (2000). Self-determination theory and the facilitation of intrinsic motivation, social development, and well-being. *American Psychologist*, 55(1), 68.
- Sarasvathy, S. D. (2001). Causation and Effectuation: Toward a Theoretical Shift from Economic Inevitability to Entrepreneurial Contingency. *The Academy of Management Review*, 26(2), 243. <https://doi.org/10.2307/259121>
- Sarasvathy, S. D. (2008). Effectuation: Elements of entrepreneurial expertise. In *Effectuation*. Edward Elgar Publishing.
- Sassenberg, K., Ellemers, N., & Scheepers, D. (2012). The attraction of social power: The influence of construing power as opportunity versus responsibility. *Journal of Experimental Social Psychology*, 48(2), 550–555. <https://doi.org/10.1016/j.jesp.2011.11.008>
- Scholer, A. A., Cornwell, J. F. M., & Higgins, E. T. (2019). Regulatory Focus Theory and Research: Catching Up and Looking Forward After 20 Years. In R. M. Ryan (Ed.), *The*

Oxford Handbook of Human Motivation (pp. 46–66; By A. A. Scholer, J. F. M. Cornwell, & E. T. Higgins). Oxford University Press.

<https://doi.org/10.1093/oxfordhb/9780190666453.013.4>

Scholer, A. A., Ozaki, Y., & Higgins, E. T. (2014). Inflating and deflating the self: Sustaining motivational concerns through self-evaluation. *Journal of Experimental Social Psychology, 51*, 60–73.

Schumpeter, J. (1942). *Creative destruction* (Vol. 825). New York: Harper & Brothers.

Schumpeter, J. A. (1935). The analysis of economic change. *The Review of Economics and Statistics, 17*(4), 2–10.

Scott, L., Dolan, C., Johnstone-Louis, M., Sugden, K., & Wu, M. (2012). Enterprise and inequality: A study of Avon in South Africa. *Entrepreneurship Theory and Practice, 36*(3), 543–568.

Sellier, A.-L., & Dahl, D. W. (2011). Focus! Creative success is enjoyed through restricted choice. *Journal of Marketing Research, 48*(6), 996–1007.

Semin, G. R., Higgins, T., De Montes, L. G., Estourget, Y., & Valencia, J. F. (2005). Linguistic signatures of regulatory focus: How abstraction fits promotion more than prevention. *Journal of Personality and Social Psychology, 89*(1), 36.

Shah, A. K., Mullainathan, S., & Shafir, E. (2012). Some Consequences of Having Too Little. *Science, 338*(6107), 682–685. <https://doi.org/10.1126/science.1222426>

Shalley, C. E., Zhou, J., & Oldham, G. R. (2004). The Effects of Personal and Contextual Characteristics on Creativity: Where Should We Go from Here? *Journal of Management, 30*(6), 933–958. <https://doi.org/10.1016/j.jm.2004.06.007>

- Shane, S., & Venkataraman, S. (2000). The promise of entrepreneurship as a field of research. *Academy of Management Review*, 25(1), 217–226.
- Sharma, L. (2019). A systematic review of the concept of entrepreneurial alertness. *Journal of Entrepreneurship in Emerging Economies*, 11(2), 217–233.
<https://doi.org/10.1108/JEEE-05-2018-0049>
- Shepherd, D. A., & DeTienne, D. R. (2005). Prior Knowledge, Potential Financial Reward, and Opportunity Identification. *Entrepreneurship Theory and Practice*, 29(1), 91–112.
<https://doi.org/10.1111/j.1540-6520.2005.00071.x>
- Shepherd, M. (n.d.). Crowdfunding Statistics (2021): Market Size and Growth - Fundera Ledger. Retrieved October 14, 2022, from <https://www.fundera.com/resources/crowdfunding-statistics>
- Shingla, P., & Singh, M. (2015). Women empowerment through entrepreneurship development. *Studies on Home and Community Science*, 9(1), 27–32.
- Shneor, R. and Maehle, N. (2020). Editorial: Advancing Crowdfunding Research -New Insights and Future Research Agenda. *Baltic Journal of Management*, 15(2), 141-147.
<https://doi.org/10.1108/BJM-04-2020-420>
- Short, J. C., Ketchen, D. J., McKenny, A. F., Allison, T. H., & Ireland, R. D. (2017). Research on Crowdfunding: Reviewing the (Very Recent) Past and Celebrating the Present. *Entrepreneurship Theory and Practice*, 41(2), 149–160.
<https://doi.org/10.1111/etap.12270>
- Snyder, C. R., Harris, C., Anderson, J. R., Holleran, S. A., Irving, L. M., Sigmon, S. T., ... Harney, P. (1991). The will and the ways: Development and validation of an individual-differences measure of hope. *Journal of Personality and Social Psychology*, 60(4), 570.

- Spector, P. E. (2019). Do Not Cross Me: Optimizing the Use of Cross-Sectional Designs. *Journal of Business and Psychology*, 34(2), 125–137. <https://doi.org/10.1007/s10869-018-09613-8>
- St-Jean, É., & Mathieu, C. (2015). Developing attitudes toward an entrepreneurial career through mentoring: The mediating role of entrepreneurial self-efficacy. *Journal of Career Development*, 42(4), 325–338.
- Sullivan, R. (2000). Entrepreneurial learning and mentoring. *International Journal of Entrepreneurial Behavior & Research*, 6(3), 160–175.
- Tabachnick, B. G., & Fidell, L. S. (2013). *Using multivariate statistics* (6th ed.). Pearson Higher Ed.
- Tan, S.-M., Liew, T. W., & Gan, C. L. (2020). Motivational virtual agent in e-learning: The roles of regulatory focus and message framing. *Information and Learning Sciences*, 121(1/2), 37–51. <https://doi.org/10.1108/ILS-09-2019-0088>
- Tang, J., Kacmar, K. M. (Micki), & Busenitz, L. (2012). Entrepreneurial alertness in the pursuit of new opportunities. *Journal of Business Venturing*, 27(1), 77–94. <https://doi.org/10.1016/j.jbusvent.2010.07.001>
- Teeny, J. D., Siev, J. J., Briñol, P., & Petty, R. E. (2021). A Review and Conceptual Framework for Understanding Personalized Matching Effects in Persuasion. *Journal of Consumer Psychology*, 31(2), 382–414. <https://doi.org/10.1002/jcpy.1198>
- Templeton, G. F. (2011). A Two-Step Approach for Transforming Continuous Variables to Normal: Implications and Recommendations for IS Research. *Communications of the Association for Information Systems*, 28, 41–58. <https://doi.org/10.17705/1CAIS.02804>

- Tenner, I., & Hörisch, J. (2021). Crowdfunding sustainable entrepreneurship: What are the characteristics of crowdfunding investors? *Journal of Cleaner Production*, 290, 1–9.
- Tumasjan, A., & Braun, R. (2012). In the eye of the beholder: How regulatory focus and self-efficacy interact in influencing opportunity recognition. *Journal of Business Venturing*, 27(6), 622–636. <https://doi.org/10.1016/j.jbusvent.2011.08.001>
- Turvey, C. L., Schultz, S. K., Beglinger, L., & Klein, D. M. (2009). A Longitudinal Community-Based Study of Chronic Illness, Cognitive and Physical Function, and Depression. *The American Journal of Geriatric Psychiatry*, 17(8), 632–641. <https://doi.org/10.1097/JGP.0b013e31819c498c>
- Tversky, A., & Kahneman, D. (1985). The framing of decisions and the psychology of choice. In *Behavioral decision making* (pp. 25–41). Springer.
- Ucbasaran, D., Westhead, P., & Wright, M. (2009). The extent and nature of opportunity identification by experienced entrepreneurs. *Journal of Business Venturing*, 24(2), 99–115.
- Urban, B. (2017). Corporate Entrepreneurship in South Africa: The Role of Organizational Factors and Entrepreneurial Alertness in Advancing Innovativeness. *Journal of Developmental Entrepreneurship*, 22(03), 1750015 (20 pages). <https://doi.org/10.1142/S1084946717500157>
- Van Dijk, D., & Kluger, A. N. (2011). Task type as a moderator of positive/negative feedback effects on motivation and performance: A regulatory focus perspective. *Journal of Organizational Behavior*, 32(8), 1084–1105. <https://doi.org/10.1002/job.725>

- Veazie, P. J., & Qian, F. (2011). A role for regulatory focus in explaining and combating clinical inertia: Explaining clinical inertia. *Journal of Evaluation in Clinical Practice*, *17*(6), 1147–1152. <https://doi.org/10.1111/j.1365-2753.2010.01491.x>
- Verduijn, K., & Essers, C. (2013). Questioning dominant entrepreneurship assumptions: The case of female ethnic minority entrepreneurs. *Entrepreneurship & Regional Development*, *25*(7–8), 612–630.
- Vogel, P. (2017). From venture idea to venture opportunity. *Entrepreneurship Theory and Practice*, *41*(6), 943–971.
- Wallace, J. C., Butts, M. M., Johnson, P. D., Stevens, F. G., & Smith, M. B. (2016). A Multilevel Model of Employee Innovation: Understanding the Effects of Regulatory Focus, Thriving, and Employee Involvement Climate. *Journal of Management*, *42*(4), 982–1004. <https://doi.org/10.1177/0149206313506462>
- Wallmeroth, J., Wirtz, P., & Groh, A. P. (2018). Venture Capital, Angel Financing, and Crowdfunding of Entrepreneurial Ventures: A Literature Review. *Foundations and Trends® in Entrepreneurship*, *14*(1), 1–129. <https://doi.org/10.1561/03000000066>
- Wang, J., & Lee, A. Y. (2006). The Role of Regulatory Focus in Preference Construction. *Journal of Marketing Research*, *43*(1), 28–38. <https://doi.org/10.1509/jmkr.43.1.28>
- Wang, X., & Wang, J. (2021). Information Matching: How Regulatory Focus Affects Information Preference and Information Choice. *Frontiers in Psychology*, *12*, 618537. <https://doi.org/10.3389/fpsyg.2021.618537>
- Weinberger, E., Wach, D., Stephan, U., & Wegge, J. (2018). Having a creative day: Understanding entrepreneurs' daily idea generation through a recovery lens. *Journal of Business Venturing*, *33*(1), 1–19. <https://doi.org/10.1016/j.jbusvent.2017.09.001>

- Weinstein, N., Przybylski, A. K., & Ryan, R. M. (2012). The index of autonomous functioning: Development of a scale of human autonomy. *Journal of Research in Personality, 46*(4), 397–413. <https://doi.org/10.1016/j.jrp.2012.03.007>
- Whittemore, R., & Dixon, J. (2008). Chronic illness: The process of integration. *Journal of Clinical Nursing, 17*(7b), 177–187.
- Williams, L. J., Vandenberg, R. J., & Edwards, J. R. (2009). Structural equation modeling in management research: A guide for improved analysis. *The Academy of Management Annals, 3*(1), 543–604.
- Williams, S. D. (2002). Self-esteem and the self-censorship of creative ideas. *Personnel Review, 49*–503.
- Wood, M. S., McKelvie, A., & Haynie, J. M. (2014). Making it personal: Opportunity individuation and the shaping of opportunity beliefs. *Journal of Business Venturing, 29*(2), 252–272. <https://doi.org/10.1016/j.jbusvent.2013.02.001>
- Xu, F., & Wang, X. (2019). Transactional leadership and dynamic capabilities: The mediating effect of regulatory focus. *Management Decision, 57*(9), 2284–2306. <https://doi.org/10.1108/MD-11-2017-1151>
- Yi, S., & Baumgartner, H. (2009). Regulatory focus and message framing: A test of three accounts. *Motivation and Emotion, 33*(4), 435–443. <https://doi.org/10.1007/s11031-009-9148-y>
- Zhang, M., Zhang, G., Gursoy, D., & Fu, X. (2018). Message framing and regulatory focus effects on destination image formation. *Tourism Management, 69*, 397–407. <https://doi.org/10.1016/j.tourman.2018.06.025>

- Zhang, S., Cornwell, J. F., & Higgins, E. T. (2014). Repeating the past: Prevention focus motivates repetition, even for unethical decisions. *Psychological Science*, *25*(1), 179–187.
- Zhao, H., Seibert, S. E., & Hills, G. E. (2005). The Mediating Role of Self-Efficacy in the Development of Entrepreneurial Intentions. *Journal of Applied Psychology*, *90*(6), 1265–1272. <https://doi.org/10.1037/0021-9010.90.6.1265>
- Zhao, L., & Ryu, S. (2020). Reward-based crowdfunding research and practice. *Advances in Crowdfunding: Research and Practice*, 119–143.
- Zhao, Q., Chen, C.-D., Wang, J.-L., & Chen, P.-C. (2017). Determinants of backers' funding intention in crowdfunding: Social exchange theory and regulatory focus. *Telematics and Informatics*, *34*(1), 370–384. <https://doi.org/10.1016/j.tele.2016.06.006>
- Zhu, F., Hsu, D. K., Burmeister-Lamp, K., & Fan, S. X. (2018). An Investigation of Entrepreneurs' Venture Persistence Decision: The Contingency Effect of Psychological Ownership and Adversity. *Applied Psychology*, *67*(1), 136–170.
- Zott, C., & Huy, Q. N. (2007). How entrepreneurs use symbolic management to acquire resources. *Administrative Science Quarterly*, *52*(1), 70–105.
- Zou, X., Scholer, A. A., & Higgins, E. T. (2014). In pursuit of progress: Promotion motivation and risk preference in the domain of gains. *Journal of Personality and Social Psychology*, *106*(2), 183–201. <https://doi.org/10.1037/a0035391>

APPENDICES

Appendix A

Ideation Task (Study 1):

You are tired of working for others and have been considering starting something of your own for some time.

One of your neighbouring family is relocating to a different country and thus now wants to get rid of most of their belongings. They have generously given you away their car, which is in good driving condition. This car, along with your other resources, can help you start a new business. Please find all the resources you can use to start a new business as follows:

- a cellphone with internet connection
- a working laptop computer
- a savings of \$5,000
- a functional car (given by neighbor)

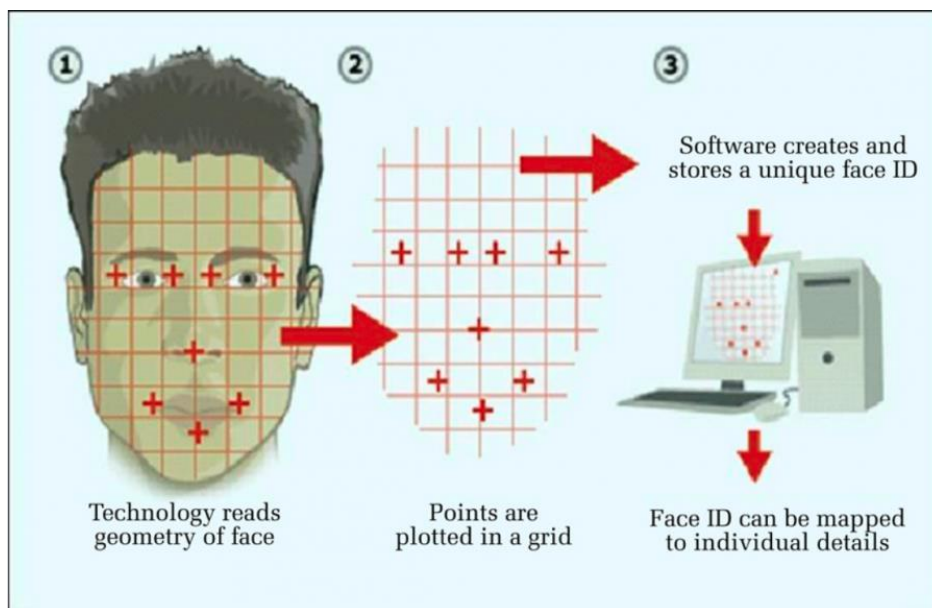
Please take a few minutes to come up with as many **promising** new business ideas as you can using the **resources listed above**. Please list your ideas on the next screen.

Appendix B

Ideation Task (Study 2):

Technology Description

The technology is state-of-the-art facial recognition software that identifies a person by their face, much like a fingerprint identifies a person by their finger. In addition to possessing the potential to revolutionize national surveillance and counter terrorism, the commercial potential of this technology is also promising. For example, the facial recognition software would allow businesses to customize their marketing almost instantaneously by capturing demographic information such as the age, gender, and race of their customers.



Now, please spend a few minutes coming up with as many unique business ideas as possible based on this facial recognition technology.

You might want to think about the type of business that could use this technology and how. There are no right or wrong answers, so feel free to list whatever ideas come to mind.

Appendix C

Personal constraint and promotion focus condition

Who we are

We founded our company with a vision to make a new, cutting-edge toothbrush that would not only promote the oral health of users but also provide a solution to a financial dilemma we recently experienced.

When our former employer—a toothbrush manufacturing company—went out of business, all employees immediately lost their jobs and their means of livelihood. We the founders saw this financial crisis as the perfect condition to create a new firm that would allow us to overcome our financial hardship.

Over the past three years we looked for ways to improve upon existing toothbrush designs. Our efforts led us to offer a state-of-the art product that would not only promote superior health outcomes for customers (e.g., whiter teeth, stronger gums, and fresher breath) but also re-establish a means of livelihood for ourselves.

How you can help

Please back our campaign to bring this innovative product to the market so that we can turn our financial misfortune into an opportunity.

Personal constraint and prevention focus condition

Who we are

We founded our company with a vision to make a new, cutting-edge toothbrush that would not only prevent oral health disease among users but also provide a solution to a financial dilemma we recently experienced.

When our former employer—a toothbrush manufacturing company—went out of business, all employees immediately lost their jobs and their means of livelihood. We the founders saw this financial crisis as the perfect condition to create a new firm that would allow us to avoid further financial hardship.

Over the past three years we looked for ways to fix existing toothbrush designs. Our efforts led us to offer a state-of-the art product that would not only avert negative health outcomes for customers (e.g., tooth decay, gum disease and bad breath) but also re-establish a means of livelihood for ourselves.

How you can help

Please back our campaign to bring this fail-proof product to the market so that we can put our financial misfortune to an end.

Social constraint and promotion focus condition

Who we are

We founded our company with a vision to make a new, cutting-edge toothbrush that would not only promote the oral health of users but also reduce the social and economic consequences that poor oral hygiene creates for society-at-large.

When our former employer—a toothbrush manufacturing company—started prioritizing profit over quality and affordability, its employees became frustrated. We the founders saw this disappointment as the perfect condition to create a new firm that would allow us to transform societal-level oral health.

Over the past three years we looked for ways to improve upon existing toothbrush designs. Our efforts led us to offer a state-of-the art product that would not only promote superior health outcomes for customers (e.g., whiter teeth, stronger gums, and fresher breath) but also increase access to affordable oral hygiene in society.

How you can help

Please back our campaign to bring this innovative product to the market so that we can help society enjoy a healthy lifestyle.

Social constraint and prevention focus condition

Who we are

We founded our company with a vision to make a new, cutting-edge toothbrush that would not only prevent oral health disease among users but also reduce the social and economic consequences that poor oral hygiene creates for society-at-large.

When our former employer—a toothbrush manufacturing company—started prioritizing profit over quality and affordability, its employees became frustrated. We the founders saw this disappointment as the perfect condition to create a new firm that would allow us to safeguard societal-level oral health.

Over the past three years we looked for ways to fix existing toothbrush designs. Our efforts led us to offer a state-of-the art product that will not only avert negative health outcomes for customers (e.g., tooth decay, gum disease and bad breath) but also increase access to affordable oral hygiene in society.

How you can help

Please back our campaign to bring this fail-proof product to the market so that we can protect society from an unhealthy lifestyle.