

**Antecedents and Outcomes of Entrepreneurial Passion:  
A Literature Review**

**Phu Thien Pham, Sai Gon Technology University<sup>1</sup>  
Abstract**

Passion has been recognized as a hot topic in academics and practice. In the process of entrepreneurship, entrepreneurs face great challenges that are defined by uncertainty, ambiguity, scarcity of resources, and other product and technological advancements. Therefore, entrepreneurs make efforts to find effective solutions to deal with particularly complex and challenging situations. Passion is believed to motivate active and persistent goal pursuit as well as mobilize action to overcome difficult circumstances because of its intense and positive affective quality. Moreover, entrepreneurial passion is a strong desire that motivates intentions, persistence, and behaviors that reinforce the identity of an entrepreneur. This study identifies the antecedents and outcomes of entrepreneurial passion and categorizes them into levels of analysis consisting of individual and team levels.

At the individual level, entrepreneurial passion is affected by entrepreneurial education, entrepreneurial experience, and entrepreneurial traits. Entrepreneurs attend entrepreneurship training programs that help them improve their skills. Due to the practice in which they are engaged, they may develop an entrepreneurial passion. Moreover, individuals who make efforts toward entrepreneurial activities develop greater feelings of passion. Entrepreneurs have higher levels of self-efficacy; they are more passionate about their businesses. In addition, entrepreneurial self-efficacy is a mechanism underpinning the recursive relationship between entrepreneurial passion and performance. At the team level, person-team fit, business experience, and the entrepreneur's core self-evaluation all positively impact entrepreneurial passion.

Entrepreneurial passion provokes entrepreneurial intention, persistence, entrepreneurial behavior, venture creation and performance, and creativity at the individual level. Passion is required to generate the energy for an entrepreneur to overcome difficult circumstances and pursue goals for a longer period of time. Therefore, individuals who have a higher level of passion also have a higher level of persistence. Moreover, creativity in entrepreneurship appears to require high levels of passion for pursuing the opportunity in a novel way. At the team level, entrepreneurial passion influences the feasibility, performance, and quality of the business idea.

**Key words: Passion, Entrepreneurial Passion, Entrepreneurship**

**Introduction**

*“With these Internet entrepreneurs, it can be difficult to determine whether their primary motivation is to create successful businesses or is only financial gain. Yet I can guarantee that they won't happen upon building a firm by accident. That's because it's so challenging that if you don't have a passion for it, you'll give up.”* (Steve Jobs, Entrepreneur & Founder of Apple Inc.)

Many firms have acknowledged passion as a critical component of their success. Apple's founder, Steve Jobs, emphasized the importance of persistence and a passion for what one does to achieve success. Entrepreneurs encounter enormous hurdles in their work that are characterized by risk, ambiguity, and resource scarcity, among other problems with products and technologies (Alvarez & Barney, 2005). Even if many people may be exposed to the same knowledge about a chance, the competence and willingness to act are what essential for successful business. (McMullen & Shephard, 2006). Thus, entrepreneurs make efforts to find effective solutions to deal with particularly complex and challenging situations (Biraglia & Kadile, 2017).

---

<sup>1</sup>Instructor, Faculty of Business Administration, 180 Cao Lo Street, Ward 4, District 8, Ho Chi Minh City, Vietnam, Phone(+84 0937764264), Email: [phu.phamthien@stu.edu.vn](mailto:phu.phamthien@stu.edu.vn)

Entrepreneurship researchers have recently focused their attention on the motivational force that drives entrepreneurs to start utilizing chances, persevere, and never give up on their goal despite what may look to be barriers and challenges in the entrepreneurship activities. According to academics, the core of entrepreneurship is passion (Cardon, Gregoire, Stevens, & Patel, 2013; Baron, 2008). The definition of passion by Vallerand and colleagues (2003) is centered on pursuits that people put time and effort into and value highly. According to Cardon et al. (2009), entrepreneurial passion is characterized as a strong desire that propels an individual's intentions, emotions, persistence, and activities that promote their sense of self as entrepreneurs. Additionally, this general topic was expanded by Chen et al. (2009) with the definition of entrepreneurial passion as the entrepreneur's strong emotion along with cognitive and behavioral manifestations of high personality traits.

Academics have examined emotion and its capacity to motivate behavior in an effort to comprehend why individuals become entrepreneurs because the incentive to seize chances and persevere during the creation of new businesses does not really always appear to follow logical patterns of action (Baron, 2008; Cardon, Wincent, Singh, & Drnovsek, 2009; Drnovsek et al., 2014). Entrepreneurs devote a significant amount of their personal resources, including time, effort, and work, to their venture projects, and they frequently stake individual financial capital, professional images, and self-respect on the consequences of the opportunity exploitation process (Cardon et al., 2012). Therefore, the emotion connection to the new venture has been acknowledged as a significant source of motivation in the field of entrepreneurship.

Early studies on entrepreneurship identified passion as a personality attribute (Cardon et al., 2009). For the first time, Baum and Locke (2001) connected an individual's passion with their work. A chief executive officer's passion is viewed as one of their key personal qualities, indicating their love, affective commitment, and perseverance for their task (Baum & Locke, 2004). Later, Vallerand and colleagues (2007) developed the concept of "passion for activity" and expanded the scope of their research to include pastimes, sports, gambling, and online environments. Recently, there has been an increase in scholarly interest in passion, which is seen as crucial in understanding what drives entrepreneurs. One of the most significant emotional factors that contribute to the knowledge of business and make entrepreneurs stand out is passion (Cardon, Wincent, Singh, & Drnovsek, 2009; Cardon, Gregoire, Stevens, & Patel, 2013).

Passion is believed to motivate active and persistent goal commitment and action to solve difficult circumstances because of its intense and positive affective quality (Chen et al., 2009; Cardon et al., 2009). Passion is one of the motivating factors that encourages entrepreneurs to persevere despite significant obstacles and difficulties encountered during entrepreneurship activities (Cardon et al., 2009), time spent on the business (Murnieks et al., 2014), and relationships to entrepreneurial self-efficacy (Murnieks et al., 2016). Additionally, passion may have a substantial impact on how entrepreneurs think, or their cognition, in addition to its ability to motivate them (Baron, 2008; Cardon, Wincent, Singh, & Drnovsek, 2009).

Business owners must be aware of their cognitive processes and biases, as well as how they perceive and process information from their surroundings, in order to identify market opportunities and effectively seize them. Due to this, researchers in entrepreneurship are becoming more concerned about how passion affects an entrepreneur's perception and thought process. The environment for new businesses is incredibly volatile and changing quickly (Shepherd et al., 2020). Despite their complexity, entrepreneurs must make decisions with little information and little time (Busenitz & Arthurs, 2007). In these conditions, it is expected that affect, such as passion, will have an impact on cognition (Baron, 2008).

Therefore, passion has become a key motivator for entrepreneurs' motivation and perseverance, as well as a significant influence on their thought processes and a symbol of the entrepreneurial experience (Delgado, De & Blanco, 2015; Cardon, Wincent, Singh, & Drnovsek, 2009). Most of the research on entrepreneurial passion has focused on how it influences entrepreneurial intention (Biraglia & Kadile, 2017), entrepreneurial behavior (Cardon & Kirk, 2015; Murnieks, Mosakowski & Cardon, 2014), venture success (Mueller, Wolfe, & Syed, 2017), and investment decisions (Chen, Yao & Kotha,

2009). Stroe et al. (2020) also looked at the distinct moderating effects of harmonious and obsessive passion on the connection between the fear of failure and adverse effects.

Scholars have created theoretical models that explain how passion is affective (Cardon, Wincent, Singh, & Drnovsek, 2009; Murnieks, Mosakowski & Cardon, 2014). However, researchers have not addressed how founders' motivation and cognition are affected by their passion. These activities have been linked to both the antecedents and effects of entrepreneurial passion (Cardon et al., 2017). The following aims serve as the foundation for this study's thorough examination of experimental research about entrepreneurial passion.

Firstly, the study investigates the conceptualization and measurement of entrepreneurial passion. The study also examines the antecedents and outcomes of entrepreneurial passion. Finally, this study looks at the explanations for entrepreneurial passion using review theories.

## **Methods**

The literature review is based on a quest of the Web of Science and related database systems (such as Emerald, EBSCO, Scopus) for relevant and important papers published in journals with a social science citation index. The search used a number of terms, including "passion," "entrepreneurial passion," and "passion for work," in the title, keywords, and abstract of papers published in the period up from 2003 to December 2022. This study considered publications that measured entrepreneurs' passion for work, in addition to articles that had focused on entrepreneurial passion. Passion for work encompasses an individual's passion for their profession in general, whereas entrepreneurial passion captures their passion towards entrepreneurial activities or domains (creating, starting, and developing). In addition, we reviewed books to get a broader perspective on the state of the research. We present the many conceptualizations of passion based on the findings from the review of the literature. Then we summarize and systematically present the research progress on passion in entrepreneurship.

In the following sections, we investigate the definitions and measurements of entrepreneurial passion and review the prior research on its antecedents and outcomes. Then we explore the mechanisms and theories related to entrepreneurial passion.

## **LITERATURE REVIEW**

### **Definitions of Entrepreneurial Passion**

The concept of passion is based on philosophical principles (Vallerand, Mageau, Ratelle, Leonard, Blanchard, Koestner & Gagne, 2003). Early philosophers thought that higher-level commitments and performances required passion as a primary factor. Psychologists have adopted a motivational perspective on passion (Vallerand et al., 2003), whereas contemporary literature considers passion as such an activity (Cardon, Wincent, Singh, & Drnovsek, 2009; Cardon & Kirk, 2015). A variety of theoretical perspectives have been adopted to explain entrepreneurial passion (EP), including the dualistic model of passion (DMP) (Vallerand, Mageau, Ratelle, Leonard, Blanchard, Koestner & Gagne, 2003), the passion for one's work (Baum & Locke, 2004), the entrepreneur's passion (Cardon, Wincent, Singh, & Drnovsek, 2009), and perceived passion (Chen et al., 2009).

Entrepreneurial passion, according to Cardon and colleagues (2009), is defined as "consciously accessible, intensely positive emotions experienced through engagement in entrepreneurial activities connected with roles that are relevant and salient to the self-identity of the entrepreneur" (Cardon et al., 2009, p. 517). Based on this definition, an entrepreneur has an entrepreneurial passion when they have strong feelings for a particular entrepreneurial behavior or field that they engage in as part of their business venture, such as creating, founding, or developing, and they view that activity or field as essential to their identity (Cardon, Gregoire, Stevens, & Patel, 2013).

Moreover, Cardon and colleagues (2009) established three role identities (inventor identity, founder identity, and developer identity) at various stages of the entrepreneurial process that correspond to various kinds of entrepreneurial passion. Entrepreneurs who identify as inventors are passionate about tasks that center on finding, discovering, and developing new opportunities. A founder's identity is where the entrepreneur's passion is focused on tasks that focus on starting a company to capitalize on possibilities and market it. An entrepreneur who identifies as a developer is passionate about tasks related to fostering, developing, and growing the business once it has been founded (Cardon et al., 2013; Murnieks et al., 2014). Some business owners may be passionate about multiple roles, while others may consider one role to be far more significant. These roles are all distinct from one another.

Entrepreneurial passion is described as that of an entrepreneur's love, engagement, and desire for their job (Baum & Locke, 2004; De Clercq et al., 2013). Entrepreneurs are those who organize, research, create, and produce new goods or procedures (Baum & Locke, 2004). Despite the variety of activities, they engage in, entrepreneurs work to identify and seize business opportunities through new businesses (Baron et al., 2011).

The definition of passion by Vallerand and colleagues (2003) as "a strong inclination or desire towards an activity that one loves or likes, considers essential, and devotes resources to" served as the foundation for a third group of researchers' study of entrepreneurial passion. Vallerand et al. (2003) distinguish between a harmonious and an obsessive passion depending on whether the desire to participate in the activity is under the individual's control. Obsessive passion is defined as "a controlled internalization of an activity in one's identity that creates an internal desire to participate in the pursuit that the person likes," whereas harmonious passion is characterized as "an autonomous internalization that leads individuals to choose to engage in the activity that they enjoy." (Vallerand, Mageau, Ratelle, Leonard, Blanchard, Koestner & Gagne, 2003; Murnieks et al., 2020; Collewaert et al., 2016; Drnovsek et al., 2016; Stenholm & Renko, 2016).

According to Vallerand et al. (2003), regulated internalization results in obsessive passion, whereas autonomous internalization, as defined by the self-determination theory of Deci and Ryan (1985), leads to harmonious passion. While those with both harmonious and obsessive interests have a strong desire to pursue entrepreneurship, only those with harmonious passion can control their urge to freely pursue entrepreneurship when they choose (Ho & Pollack, 2014). Individuals with obsessive passion, on the other hand, are likely unable to restrain their need to pursue entrepreneurship and feel forced to do so until their passion subsides. Thorgren and Wincent (2015) see entrepreneurial passion as an emotional experience that people can have when doing certain things, not as a trait of their personality.

Researchers have also started to investigate how individuals' perceptions of an entrepreneur's perceived or observed passion (such as that of employees and angel investors) may affect how they act toward the entrepreneur. (Chen et al., 2009; Mitteness et al., 2012). Entrepreneurial passion, as defined by Chen et al. (2009), is an "intense affective state accompanied by cognitive and behavioral manifestations of high personal value" (p. 201). They discovered that encourages venture capitalist funding (Cardon, Mitteness & Sudek, 2017a).

The dualistic model of passion proposed by Vallerand et al. (2003) and the definition of entrepreneurial passion given by Cardon and colleagues (2009) both consider passion as a concept involving the experience of pleasant emotions and participation in significant activities for the individual concerned. Both theoretical frameworks contend that an individual's entrepreneurial passion is a strong attachment to the entrepreneurial pursuits that are significant to their identities. However, the two frameworks take different approaches to entrepreneurship and internalization (Collewaert et al., 2016; Ho & Pollack, 2014). First, Vallerand and colleagues (2003) believe that identity is crucial for understanding passion, but they do not specifically mention identities in their suggested definition of passion, and their concept is not confined to entrepreneurship. Identity centrality is viewed as a crucial component of entrepreneurial passion (Cardon et al., 2009). Moreover, they clearly operationalized a dimension of passion in addition to the more widely accepted positive emotion dimension. Second, while entrepreneurial passion as defined by Vallerand et al. (2003) would refer to the function of an

entrepreneur in general rather than the three separate responsibilities, Cardon et al. (2009) described it as being crucial to the entrepreneurial process. Another distinction is made in the Vallerand et al. (2003) model, which explicitly distinguishes between passion that is harmonious and passion that is obsessive. Individuals engage in passionate activities with freely expressed will when there is harmonious passion at work; however, when there is obsessive passion at task, they feel an uncontrollable urge to participate and are forced to do so. Furthermore, there is a difference between harmonious and obsessive passion in terms of autonomous and regulated internalization toward identity (Vallerand et al., 2003).

This study concentrates on the dynamics of entrepreneurial passion throughout the course of a venture; it is crucial to connect passion to the crucial tasks that entrepreneurs must do at each stage. Therefore, this study employs the framework of Cardon and colleagues (2009). Based on this definition and operationalization of entrepreneurial passion, there are two essential elements of this passion, including intense positive emotions and identity centrality, that provide several paths for the entrepreneur in the new venture process.

### **Measurement of Entrepreneurial Passion**

Cardon, Gregoire, Stevens, & Patel (2013) developed a scale with a five-item self-report to measure an entrepreneur's passion for inventing, and a four-item scale to measure their passion for founding and developing. When designing these measurements, they initially produced a large collection of items and eliminated things during the scale verification process. The measurement used to assess an entrepreneur's passion for inventing includes four items that evaluate their extremely positive feelings about this activity and one item that assesses how important this activity is to their sense of self. Similarly, the scales used to measure an entrepreneur's passion for founding and developing include three items that assess their great passion for each entrepreneurial activity and one item that gauges how important each action is to their self-identity.

Although the subscales developed by Cardon et al. (2013) for the passion for starting, inventing, and developing activities have been used most frequently in subsequent empirical investigations (Huyghe, Knockaert & Obschonka, 2016; Mueller, Wolfe, & Syed, 2017). However, researchers have applied their findings in a very inconsistent manner. For example, some researchers (Biraglia & Kadile, 2017; Campos, 2017; Huyghe, Knockaert & Obschonka, 2016; Mueller, Wolfe, & Syed, 2017) focused on passion in relation to one or two activities rather than three activities, whereas others focused on entrepreneurial passion in relation to three activities (Stenholm & Renko, 2016). Others added items that had been eliminated throughout the scale's validation procedure (Adomako, Mosakowski & Cardon, 2022; Cardon & Kirk, 2015; Drnovsek, Cardon & Patel, 2016; Huyghe, Knockaert & Obschonka, 2016).

Some research integrated items capturing entrepreneurial passion in relation to various types of entrepreneurial behavior into an overall measure of entrepreneurial passion, an approach that Cardon et al. (2013) cautioned against instituting when looking to develop the original measure (Gielnik, Spitzmuller, Schmitt, Klemann & Frese, 2015). Others only used a minimal number of items (Costa et al., 2017; Gielnik et al., 2015; Hubner et al., 2020; Stenholm & Nielsen, 2019). Additionally, there were differences in the measurement of entrepreneurial passion for each activity in terms of the interaction between strong positive emotions and identity centrality. Based on the guidelines of Cardon and colleagues (2013), some scholars grouped the items measuring intense positive emotions towards each activity, prior to examining their complex interactions with the item measuring the centrality of the domain to the entrepreneur's self-identity (Cardon & Kirk, 2015; Drnovsek et al., 2016; Kang et al., 2016; Mueller et al., 2017). Others, against the recommendation of Cardon and colleagues, have combined items measuring identity centrality and extreme positive emotions (Biraglia & Kadile, 2017; Shockley & Turner, 2016; Turner & Gianiodis, 2018), or have excluded items assessing identity centrality (Gielnik et al., 2015).

The initial work by Cardon and colleagues (2013) has served as the foundation for subsequent study efforts that have highlighted additional activities or areas that entrepreneurs may be passionate about. For example, Cardon, Mitteness & Sudek (2017a) conducted qualitative research to discover the pursuits that entrepreneurs were passionate about. They discovered that entrepreneurs had a strong passion for developing and inventing, which is consistent with their earlier research, but they found no

proof of a passion for starting. Additionally, they discovered a number of types of passion that had not before been studied, including a passion for humans, a service or product, and a social cause.

Baum and Locke (2004) created a five-item scale to measure an entrepreneur's level of passion for their job. This scale represents a passion for work in general as opposed to specific entrepreneurial activities, in contrast to that created by Cardon et al. (2013). This metric has only been utilized in two additional studies because it doesn't specifically focus on different entrepreneurial activities (De Clercq et al., 2013).

The scales of harmonious and obsessive passion proposed by Vallerand and colleagues (2003) have been adjusted by researchers to fit the entrepreneurial context. Respondents are asked to score elements of passion regarding activities related to their business. Gielnik et al. (2017) and Stroe et al. (2018) both employed scales with seven observed variables of Vallerand and colleagues (2003), but others (Ho & Pollack (2014), Stenholm & Nielsen 2019), scales with six observed variables, and scales with five observed variables have also been used to quantify harmonious and/or obsessive passion (de Mol, Ho, & Pollack, 2018; Murnieks, Mosakowski & Cardon, 2014; Obschonka et al., 2019; Thorgren & Wincent, 2015). Similar to the Cardon and colleagues (2013) scale, it is challenging to determine the scale's validity in various situations due to inconsistencies in how it has been applied. It should be highlighted that research that looked at the personal profiles of harmonious and obsessive passion has disputed the notion that people may be divided into harmonious and obsessive individuals (Moeller et al., 2015). Researchers have discovered that most passionate people claim a mixture of positive and negative feelings and experience simultaneously high levels of both harmonious and obsessive passion in a number of leisure activity categories (excluding entrepreneurial ones). Harmonious and obsessive passion for leisure activities were connected across all levels of passion, indicating that they were typically both moderately high and low for most individuals in their samples.

A six-item other-report measure of perceived entrepreneurial passion created by Chen, Yao, and Kotha (2009) is used to measure the non-verbal signs and patterns of thought that a presenter is passionate about their business. They initially produced a broader base of items for this scale's development and eliminated things during the scale evaluation process. The six-item measure has been used in an increasing number of studies to evaluate how other people perceive their entrepreneurial passion (Davis et al., 2017; Galbraith et al., 2014). For the crowdfunding setting, Li, Chen, Kotha & Fisher (2017) created a six-item other-report measure of entrepreneurial passion. The scale developed by Chen, Yao & Kotha (2009), according to their argument, should only be used in face-to-face interactions since it measures presenters' entrepreneurial passion through their body language, voice, and facial expression. Based on earlier research by Vallerand and colleagues (2003), Li, Chen & Fisher (2017) created a more generic scale that evaluated the passion displayed by the entrepreneurs. Their six-item scale presents how excited the entrepreneur appears to be about the business idea, whether the entrepreneur exhibits a need to finish the project. They examined the measure with two different groups of MBA and undergraduate students who rated their level of entrepreneurial ambition (Li et al., 2017).

Researchers have developed two other rated metrics of entrepreneurial passion. Mitteness and colleagues (2012) proposed an other-rated scale of perceived passion, including a brief set of two observed variables, to investigate whether angel investors' perceptions of CEOs' perceived entrepreneurial passion affected their assessments of the CEOs' funding potential. Moreover, Breugst and colleagues (2012) created an employee perception scale based on the work of Cardon and colleagues (2009) to measure passion for inventing, founding, and developing. This measure used items from the research of Cardon and colleagues (2009); however, they did not use these items to evaluate identity centrality. They employed them to assess how others perceived the entrepreneurs' strong feelings for their work.

### **Antecedents of Entrepreneurial Passion**

While mainstream research focuses on the outcomes of entrepreneurial passion, a growing body of literature is dedicated to examining its antecedents, namely what triggers the emergence of

entrepreneurial passion. This study divides the antecedents of entrepreneurial passion into two levels of analysis: individual and team levels.

#### *Individual level*

*Entrepreneurial education:* Drawing on social cognitive theory (Bandura, 1986), researchers assert that entrepreneurial passion is developed by entrepreneurial education rather than being intrinsically inherent in or predisposed to entrepreneurs (Gielnik, Uy, Funken & Bischoff, 2017; Kerrick, Cumberland, Church-Nally & Kemelgor 2014). This could be accomplished through formal education, such as pursuing a business degree at a university; informal education, such as participating in an entrepreneurial training program; and reading business books and magazines.

There is proof that taking part in entrepreneurial education inspires students to pursue their business passions. For instance, Kerrick and colleagues (2014) reveal that military veterans of the armed forces who enroll in the community entrepreneurship training program express greater excitement for pursuing an entrepreneurial career. An individual's passion for entrepreneurship is positively correlated with both formal and non-formal entrepreneurial education because the learning method of action-based activities (such as evaluating opportunities, coming up with a business idea, and writing a business plan) aids students in developing their business skills and boosting their self-confidence, both of which stimulate the emergence of their passion (Arshad, Farooq, & Afzal, 2018). Gielnik, Uy, Funken & Bischoff (2017) examined how entrepreneurial education impacts the emergence of an entrepreneurial passion. They discovered that entrepreneurial training boosted harmonic passion and that self-efficacy maintained the program's effect over time (Gielnik et al., 2017).

*Entrepreneurial experience:* Entrepreneurs are likely to be more passionate about exploring opportunities when they feel positive due to previous experiences and are convinced about those potential opportunities. However, those with task-related skills may experience a decrease in passion because of unfavorable entrepreneurial experiences, such as bankruptcy or failure (Stenholm and Nielsen, 2019). Additionally, there is a positive correlation between having entrepreneurial experience and passion, which includes a passion for inventing, developing, and founding (Stenholm and Nielsen, 2019).

Thorgren and Wincent (2015) also examined the relationship between entrepreneurial passion and previous experience. They discovered that individuals who are currently running numerous enterprises, had higher levels of harmonic passion than those who have run multiple businesses but are only presently running one business. Moreover, this research discovered that serial entrepreneurs, on the other hand, demonstrated noticeably higher levels of obsessive passion.

*Entrepreneurial traits:* Researchers have examined the influence of motivational factors, such as entrepreneurial self-efficacy and regulatory focus, on entrepreneurial passion. Cardon and Kirk (2015) discovered that an entrepreneur's love for establishing and innovating was positively correlated with entrepreneurial self-efficacy. They use identity theory to support their case for a good connection by emphasizing that individuals are more likely to relate to and develop a passion for something if they believe they are capable of carrying it out. Additionally, Dalborg and Wincent (2015) discovered that pull entrepreneurship, as opposed to push entrepreneurship, results in greater degrees of entrepreneurial self-efficacy, which predicts greater levels of passion among entrepreneurs. They claimed, using the social learning theory, that self-efficacy encourages entrepreneurs' continuous motivation for their everyday work (Dalborg & Wincent, 2015). Lopez et al. (2018) used the regulatory focus theory to find that when entrepreneurs saw chances, they displayed higher levels of entrepreneurial passion for creating and starting.

Obschonka, Moeller, and Goethner (2019) found that an entrepreneurial personality predicted passion only marginally, with the main drivers being a direct relationship between harmonious passion and openness to experience. Moreover, there is a negative correlation between harmonious passion and neuroticism (Obschonka et al., 2019).

Additional research has examined the connection between entrepreneurial effort and passion. Gielnik and colleagues (2015) discovered that entrepreneurial effort predicted variations in

entrepreneurial passion for inventing and founding. In accordance with the theory of self-regulation, they found, using an experimental method, that effort increases entrepreneurial passion by boosting people's perceptions of startup progress. Gielnik and colleagues (2015) also found that the indirect effects of entrepreneurial passion were greater when participants had the freedom to choose the business in which they worked.

#### *Team level*

According to Klotz et al. (2014), a "new venture team" (NVT) refers to all the individuals in charge of the venture's normal operations as well as strategic decision-making. However, team entrepreneurial passion (TEP) involves a positive group feeling, and in this regard, researchers have paid close attention to sharing extremely favorable emotions and a community feeling (Cardon, Post, & Forster, 2017b; Santos & Cardon, 2019).

Taggar, Domurath, and Coviello (2019) discovered that high levels of person-team fit positively predicted entrepreneurial passion within teams. In addition, they discovered that while experience in founding was positively associated with a passion for founding, business experience was directly correlated with a passion for developing. They also found that the entrepreneur's core self-evaluation was associated with a passion for creating, developing, and inventing.

### **Outcomes of Entrepreneurial Passion**

In the following sections, this study reviews prior works on the relationship between different forms of entrepreneurial passion and intention, persistence, entrepreneurial behavior, venture creation and performance, creativity, and other outcomes.

#### *Individual level*

*Entrepreneurial intentions:* For aspiring entrepreneurs, passion can generate the necessary power to deal with difficult circumstances in addressing ambiguities and failures in the collection of financial, human, and social resources (Cardon et al., 2009). In other words, during the formation of entrepreneurial intents, passion might lead to a narrower concentration on the actual construction of the enterprise without necessarily considering any associated uncertainties or obstacles.

Biraglia and Kadile (2017) discovered that entrepreneurial passion for establishing was positively associated with the entrepreneurial intentions of homebrewers both directly and indirectly by generating greater levels of entrepreneurial self-efficacy. They argued that entrepreneurial passion functions as an emotional state that produces entrepreneurial intentions by drawing on social cognitive theory.

Huyghe, Knockaert & Obschonka (2016) discovered that more entrepreneurial passion for invention among academics was related to higher spin-off and start-up intentions. This finding is consistent with identity theory. Similarly, Turner and Gianiodis (2018) discovered a favorable correlation between students' entrepreneurial ambitions and their passion for invention and founding when they were enrolled in a blended learning entrepreneurship program. Karimi (2020) also found that university students' passion for invention positively influences their intent to become entrepreneurs either by their attitude toward business or their perception of behavioral control.

According to Türk, Zapkau, and Schwens (2019), while obsessive passion was positively associated with intentions to engage in social entrepreneurship, the relationship between harmonious passion and these intentions was mediated by moral duty, entrepreneurial self-efficacy, and social support.

*Entrepreneurial persistence:* Entrepreneurial persistence is a behavior that entails prolonged effort focused on a certain goal, in this case, the success of the entrepreneurial enterprise (Cardon & Kirk, 2015). Perseverance also means working hard over and over again despite problems, setbacks, or challenges, as well as making many attempts to take a certain action (Cardon & Kirk, 2015).

Cardon and Kirk (2015) demonstrated, using the self-concordance theory, that individuals are more likely to stick to their goals if they have prior experience achieving them and identify with the values they stand for. Moreover, when people strongly identify with an activity, even if they do not



enjoy it at the moment, they continue to engage in it. They also discovered that developing passion was unrelated to entrepreneurial persistence, whereas inventing and founding passion were.

*Creativity:* Creativity has been defined as the development of creative and suitable solutions to unresolved issues in any area of human activity (Amabile, 1997). Entrepreneurial creativity appears to necessitate high levels of intrinsic drive for creatively solving a problem or seeking an opportunity (Amabile, 1997).

Within entrepreneurial organizations, studies have investigated the relationship between entrepreneurial passion and both creativity and innovative behavior. While Kang, Matusik, Kim & Phillips (2016) discovered a significant association between employees' inventive behavior in entrepreneurial organizations and their passion for inventing, Cardon, Gregoire, Stevens, & Patel (2013) found that there is a strong link between entrepreneurs' creative behavior and passion for both founding and inventing. Moreover, Shockley and Turner (2016) investigated a relationship between franchisees' entrepreneurial spirit and the degree of innovation in the franchises they operated. They discovered that the entrepreneurial passion for inventing, and innovation were inextricably linked, and that this relationship was stronger the more distributive justice there was among the franchise partners.

Ko and colleagues (2019) found a significant relationship between social entrepreneurs' passion for various activities and their success with social innovation. This relationship was partially explained by the mediating mechanism of their capacity for creative problem-solving. Finally, Ma, Gu & Liu (2018) discovered that the passion of entrepreneurs for various activities was positively correlated with organizational creativity, and that this correlation was larger when entrepreneurs had higher levels of Zhongyong. Moreover, Kiani et al. (2019) found that the link between entrepreneurial passion and innovation was mediated by exploratory learning.

Additionally, Bhansing et al. (2017) discovered that passion for work was related to higher inspiration, a particular form of motivation that enables the entrepreneur to convert unique ideas into innovative products. Hubner (2017) found that there was a strong correlation between an employee's perception of the entrepreneur's entrepreneurial passion and their performance and creativity, and that this relationship depended on how much entrepreneurial passion the employee had prior to meeting the entrepreneur. Schenkel, Farmer & Maslyn (2019) found that employees' harmonious passion for being entrepreneurs favorably affects their ability to spend more time thinking about new ideas, which subsequently leads them to recommend a higher quantity of job-related innovative ideas.

*Venture performance/growth:* Studies on the relationship between entrepreneurial passion for various activities and different measures of venture creation and success have generally found strong evidence that entrepreneurial passion for developing and inventing promotes venture survival and growth, whereas entrepreneurial passion for founding does not. Stenholm and Renko (2016) discovered that, in contrast to passion for founding, passion for inventing and developing positively predicted venture survival over time by encouraging entrepreneurial bricolage. Drnovsek et al. (2016) discovered that, in line with goal setting theory, entrepreneurial passion for development predicted venture expansion over time by enhancing goal commitment but not goal challenge. According to Adomako, Mole, Franklin, Murnieks (2022), passion for founding was negatively related to future venture growth, whereas passion for inventing and developing was favorably correlated. They also discovered that there were connections between passion for developing and passion for founding and venture growth that depended on the availability of capital and the flexibility of those resources, with the linkages being higher when those factors were high.

Mueller, Wolfe & Syed (2017) investigated the relationship between entrepreneurial passion and venture performance using the self-regulation theory. They discovered that entrepreneurs' grit was indirectly strengthened by their passion for development, which predicted venture performance. Additionally, they discovered that the association was stronger in environments with stronger political ties and more dynamic environments. Mensmann et al. (2019) investigated the relationship between entrepreneurial passion for inventing and developing and business success among entrepreneurs who had received personal initiative training. They discovered that it did, but just for female business owners.

Gielnik, Uy, Funken & Bischoff (2017) found that undergraduate students' harmonious entrepreneurial passion had a positive impact on the rate at which they established firms over time. According to Dalborg & Wincent (2015), a person's obsessive entrepreneurial passion indicated whether they would eventually start a business even if they had the strongest of intentions.

Ho and Pollack (2014) used social network theory to investigate the relationship between harmonious and obsessive passion and company performance. They also found that the degree to which entrepreneurs asked their peers for help, or their higher out-degree centrality, mediated the relationship between harmonious passion and business income, while the degree to which their peers asked them for help mediated the relationship between obsessive passion and business income (Ho and Pollack, 2014).

Fisher, Merlot & Johnson (2018) investigated the relationship between entrepreneurial passion and business success. They also discovered that while obsessive passion had a positive correlation with entrepreneurial commitment, which in turn predicted success through entrepreneurial resilience, harmonious passion had a strong association with it both directly and indirectly through the mediating effect of entrepreneurial resilience (Fisher et al., 2018).

*Entrepreneurial Behavior:* According to Bird et al. (2012), human activity in venture conception, development, maintenance, and expansion must be the focus of study in order to comprehend entrepreneurial behavior. Research on entrepreneurial behavior focuses on people's observable behaviors, typically during the start-up or early stages of a business. Therefore, behavior is a result of an entrepreneur's drive, personality, skills, knowledge, experience, and abilities, with these traits externalized through action. McAdam & Cunningham (2019) defined entrepreneurial behavior as subset of entrepreneurial activities that focuses on comprehending, projecting, and influencing individual behavior in entrepreneurial circumstances.

Nordström, Sirén, Thorgren & Wincent (2016) investigated whether entrepreneurs who were also employed for a living were driven by passion. They discovered that the likelihood of passion serving as the primary motivation for starting a business decreased with the length of time the entrepreneurs had been operating the side venture. Due to the intensified negative feelings brought on by option overload, they claimed that when an entrepreneur spends more time operating their business and interacts with others at a greater level, their passion for entrepreneurship is reduced (Nordström et al., 2016). According to Murnieks, Mosakowski & Cardon (2014), there is a significant correlation between a harmonious passion and their behavior as entrepreneurs, as indicated by the time they spend pursuing their businesses. Similar findings were made by Obschonka, Moeller & Goethner (2019), who discovered a link between academics' entrepreneurial behavior and their harmonious passion.

#### *Team level*

According to De Mol and colleagues (2020), in general, the term "team entrepreneurial passion" refers to the average level of individual entrepreneurship amongst team members for particular role identities. The results of team entrepreneurial passion have only been the subject of a few studies. For example, Taggar, Domurath & Coviello (2019) discovered that there is a positive association between team entrepreneurial passion and the viability of business proposals. According to Uy, Jacob, Antonio, Hasan & Lam (2017), whereas entrepreneurial passion heterogeneity has been initially strongly correlated with new startup team success, the favorable correlation weakened over time.

Santos and Cardon (2019) examined their conceptualization of two different types of team entrepreneurial passion (mono-focal and poly-focal), as well as the precise characteristics of both types of team entrepreneurial passion in terms of the emphasis of such passion inside new venture teams. They discovered that, whereas entrepreneurial team passion for founding was lacking, it was positively correlated with team performance for developing and inventing. Additionally, they discovered that complete poly-focal and mono-focal team entrepreneurial passion were both superior to incomplete poly-focal team entrepreneurial passion in terms of improving team performance. Also, Boone, Andries, and Clarysse (2020) looked at new venture teams at different stages and found that, during the commercialization stage, poly-focal entrepreneurial passion, which is high on both inventing and

founding, is better than mono-focal entrepreneurial passion because it reduces relationship conflict (either inventing or founding).

On the other hand, De Mol et al. (2020) found that the team's overall entrepreneurial passion had no influence on the new team's short- and long-term performance. They also discovered that a number of markers of entrepreneurial passion diversity were negatively connected with the team's short- and long-term performance. In addition, they found that, although team entrepreneurial passion for founding, developing, and inventing businesses was not positively correlated to venture performance over the long term, it was related to venture performance over the short term, as judged by the quality of the venture idea. Finally, they discovered that the overall negative effect of the passion intensity split in the team on the quality of the company idea was primarily caused by differences in passion for developing and founding businesses (de Mol, Cardon, DeJong, Khapova & Elfring, 2020).

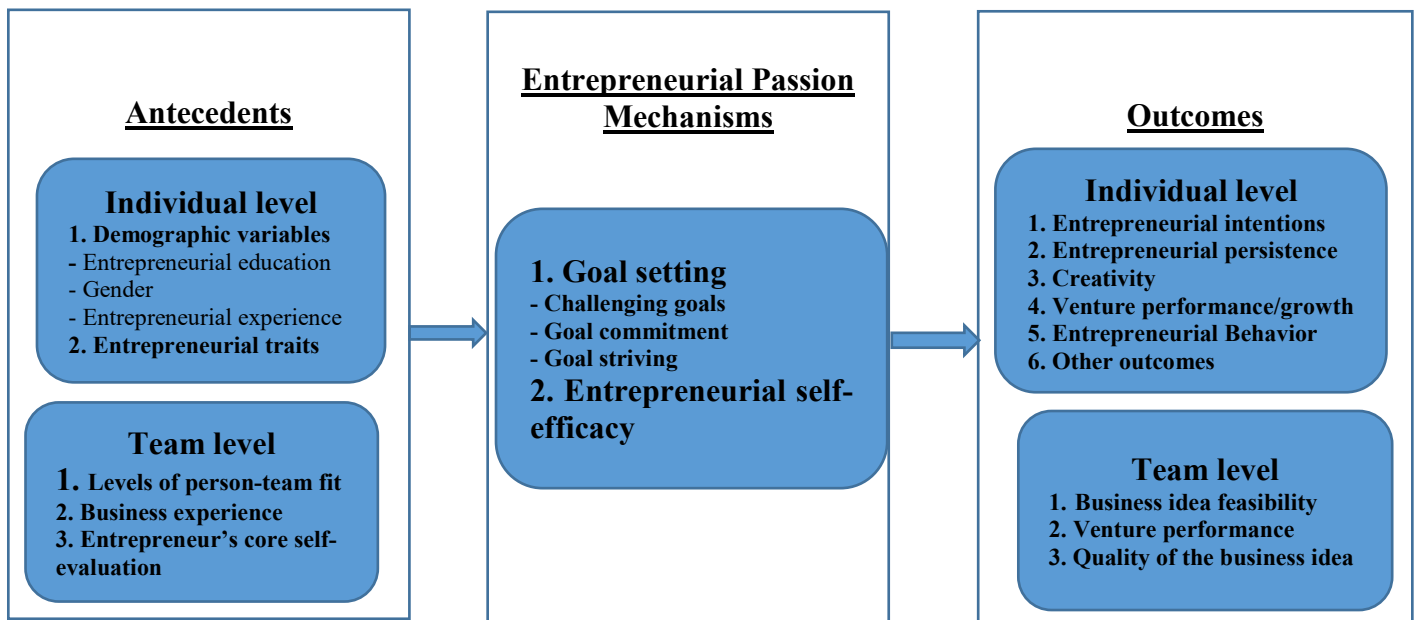


Figure 1: Antecedents, Mechanisms and Consequences of Entrepreneurial Passion

## Conclusion

This study reviews several definitions of entrepreneurial passion from previous studies. In the entrepreneurial domain, two primary theories have been employed as the anchors for investigations of passion: the theory of entrepreneurial passion (EP) by Cardon, Wincent, Singh, & Drnovsek (2009) and the Dualistic Model of Passion (DMP) by Vallerand and colleagues (2003, 2015).

There are a number of important commonalities across these theoretical perspectives as they relate to the passion of entrepreneurs. First, an entrepreneur's passion is focused on a certain goal. That could be an activity, a thing, a person, or a mission, as noted by Cardon et al. (2017), but passion needs to have a goal (Cardon et al., 2009). This point is also explicitly made by Vallerand (2015), who emphasizes that many people are passionate about something specific rather than about passions in general. As a second important commonality, both EP and DMP agree that targets of entrepreneurial passion are simultaneously loved. Entrepreneurial passion compels movement toward or engagement with these objects. In the DMP, passion is directed toward activities that people like enough that they invest time and energy in that activity (Vallerand et al., 2003; Vallerand, 2015). In EP, passion involves positive and intense feelings that propel entrepreneurs to action (Cardon et al., 2009). The EP and the DMP both emphasize the significance of one's identity in relation to entrepreneurial passion, which is the third similarity between the conceptualizations. According to Vallerand (2015), someone who is passionate about something internalizes it into their identity to the point that they are frequently characterized by it. Similar to this, one of the two key characteristics of EP's conception includes identity centrality (Cardon, Wincent, Singh, & Drnovsek, 2009; Cardon, Gregoire, Stevens, & Patel, 2013). For example, entrepreneurs who are passionate about inventing products would define themselves as inventors.

While there is significant agreement about major components of how passion is conceptualized across the EP and the DMP, there are also notable differences. The first important difference between the EP and the DMP is the basic nature of the passion construct. Entrepreneurial passion is specifically defined in the DMP as a motivational construct, in contrast to how EP portrays it as an affective construct. These differences in construction have obvious implications for the basic concept of passion. According to DMP, passion is fundamentally a motivational construct that drives individuals to engage in activities. The emotions and feelings felt during this engagement are the result of motivational drive and cognition or action. On the other hand, according to EP, entrepreneurial passion is primarily an affective construct that involves a strong, positively valenced feeling for an identity-important object. The motivation to engage in activities originates from, but is separate from, this intensely positive feeling. The second key difference between the EP and the DMP lies in their targets and the scales used to measure these two types of passion. The scales developed to assess EP measure the extent to which an individual is passionate about specific activities related to entrepreneurship. Thus, they measure how much passion an individual has for specific entrepreneurial activities (Cardon, Gregoire, Stevens, & Patel, 2013). In contrast, the scales originally developed to assess the DMP measure the extent to which the activities are harmoniously or obsessively internalized into the individual's identity (Vallerand, Mageau, Ratelle, Leonard, Blanchard, Koestner & Gagne, 2003). The scales measure the type and degree of internalization; they do not measure the level or amount of passion a person experiences.

This study divides the antecedents of entrepreneurial passion into two levels of analysis: individual and team levels. The factors at the individual level include entrepreneurial education, entrepreneurial experience, and entrepreneurial traits that develop entrepreneurial passion. Research has shown that individuals can learn what it takes to be a successful entrepreneur through training programs (Gielnik et al., 2017), where they are trained and experienced to do the actual work. It helps them realize their identity. Moreover, while these programs help individuals develop and improve their skills due to the practice in which they are engaged, they may develop entrepreneurial intentions or identities, much less entrepreneurial passion (Cohen et al., 2019). Entrepreneurs' motivation to seize possibilities is probably increased when they feel good feelings based on past experiences and are confident about them (Stenholm & Nielsen, 2019). Individuals who make effort toward entrepreneurial activities develop greater feelings of passion the following week and have free choice to engage in those activities (Gielnik

et al., 2015). In the previous studies, many scholars confirmed the role of entrepreneurial traits, such as entrepreneurial self-efficacy and entrepreneurial effort, in shaping entrepreneurial passion (Cardon & Kirk, 2015; Gielnik et al., 2015). All individuals who are in charge of the venture's routine operations and strategic decision-making at the team level (Klotz, Hmieleski, Bradley & Busenitz, 2014). Taggar, Domurath & Coviello (2019) found that entrepreneurial passion had a positive association with person-team fit, business experience, and the entrepreneur's core self-evaluation.

As the consequences of entrepreneurial passion for individual level, this study reviews the relationship between different forms of entrepreneurial passion and entrepreneurial intention, persistence, entrepreneurial behavior, venture creation and performance, creativity. Evidence shows that higher levels of entrepreneurial passion are associated with entrepreneurial intentions (Huyghe, Knockaert & Obschonka, 2016). Entrepreneurial persistence is a behavior that entails prolonged effort focused on a certain goal (Cardon & Kirk, 2015). Individuals who were passionate about inventing and founding were more likely to succeed as entrepreneurs (Cardon & Kirk, 2015). There is a link between entrepreneurial passion and both creativity and innovative behavior within entrepreneurial organizations (Kang, Matusik, Kim & Phillips, 2016; Kiani, Ali, Kanwal & Wang, 2019). In addition, entrepreneurial passion affects venture performance. However, studies on the link between entrepreneurial passion towards different activities and different measures of venture creation and performance have generally found strong evidence that passion for inventing and developing fosters venture survival and growth, whereas passion for founding does not (Stenholm & Renko, 2016; Adomako, Mosakowski & Cardon, 2018). Finally, entrepreneurial passion influences entrepreneurial behavior as measured by the amount of time spent on entrepreneurial activities (Murnieks et al., 2014). Researchers investigated the relationship between team entrepreneurial passion and business idea feasibility (Taggar, Domurath, & Coviello, 2019) and new venture team success (Uy et al., 2017) at the team level.

From the literature review, this study suggests that research on entrepreneurial passion might still lie unexplored for a deeper understanding of how passion develops and influences outcomes in the entrepreneurship domain. Firstly, while we are explicit about the nature of passion as a state, we know very little about how entrepreneurial passion interacts with other personality traits. For example, do personality factors like openness to experience moderate the effects of entrepreneurial passion on performance? Secondly, most of the entrepreneurial passion research has focused on the outcomes that passion drives. Therefore, we need to conduct intensive research to understand the complex, mediated, and moderated pathways through which entrepreneurial passion works within the venturing process. Finally, entrepreneurship is a social process, and we need to understand how social forces can play critical roles in the formation of passion. Smartphones and social media applications allow entrepreneurs to be connected to people every day. Thus, will social media play a key role in shaping entrepreneurial identity and driving entrepreneurial passion?

## Reference

- Adomako, S., Mole, K. F., Franklin, J. R., Murnieks, C. Y. (2022). Entrepreneurial passion and venture profit: Examining the moderating effects of political connections and environmental dynamism in an emerging market. *International Small Business Journal: Researching Entrepreneurship*, 1–29.
- Ajzen, I. (2011). The theory of planned behavior Reactions and reflections. *Psychology & Health*, 26(9), 1113–1127.
- Amabile, T. M. (1997). Entrepreneurial creativity through motivational synergy. *Journal of Creative Behavior*, 31(1), 18-26.
- Alvarez, S., & Barney, J. (2005). How do entrepreneurs organize firms under Conditions of Uncertainty? *Journal of Management*, 31(5), 776-793.
- Arshad, Muhammad; Farooq, Omer; Afzal, Sadia (2018). The role of entrepreneurship education in developing a passion for business. *Global Business and Organizational Excellence*, 38(1), 15-21.
- Baron, R. (2008). The role of affect in the entrepreneurial process. *Academy of Management Review*, 33, 328–340.
- Baron, R. A., Tang, J., & Hmieleski, K. M. (2011). The downside of being 'up': Entrepreneurs' dispositional affect and firm performance. *Strategic Entrepreneurship Journal*, 5(2), 101-119.
- Baum, J. R., & Locke, E. A. (2004). The relationship of entrepreneurial traits, skill, and motivation to subsequent venture growth. *Journal of Applied Psychology*, 89(4), 587-598.
- Bhansing, P.V., Hitters, E., & Wijngaarden, Y. (2017). Passion inspires: Motivations of creative entrepreneurs in creative business centres in the Netherlands. *Journal of Entrepreneurship*, 27(1), 1–24.
- Biraglia, A., Kadile, V. (2017). The role of entrepreneurial passion and creativity in developing entrepreneurial intentions: Insights from American Homebrewers. *Journal of Small Business Management*, 55(1), 170-188.
- Bird, B., Schjoedt L., Baum, J. R. (2012). Editor's Introduction. *Entrepreneurs' Behavior Elucidation and Measurement. Entrepreneurship Theory and Practice*, 36(5), 889-913.
- Boone, S., Andries, P., & Clarysse, B. (2020). Does team entrepreneurial passion matter for relationship conflict and team performance? On the importance of fit between passion focus and venture development stage. *Journal of Business Venturing*, (35)5, 105984.
- Breugst, N., Domurath, A., Patzelt, H., & Klaukien, A. (2012). Perceptions of entrepreneurial passion and employees' commitment to entrepreneurial ventures. *Entrepreneurship, Theory & Practice*, 36(1), 171–192.
- Campos, H.M. (2017). Impact of entrepreneurial passion on entrepreneurial orientation with the mediating role of entrepreneurial alertness for technology-based firms in Mexico. *Journal of Small Business and Enterprise Development*, 24(2), 353–374.
- Cardon, M. S., Foo, M. D., Shepherd, D., & Wiklund, J. (2012). Exploring the heart: Entrepreneurial emotion is a hot topic. *Entrepreneurship Theory and Practice*, 36(1), 1-10.
- Cardon, M. S., Mitteness, C., & Sudek, R. (2017a). Motivational cues and angel investing: Interactions among enthusiasm, preparedness, and Commitment. *Entrepreneurship Theory and Practice*, 41(6), 1057-1085.
- Cardon, M.S., Post, C., & Forster, W.R. (2017b). Team entrepreneurial passion: Its emergence and influence in new venture teams. *Academy of Management Review*, 42(2), 283–305.
- 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.
- Cardon, M. S., & Kirk, C. P. (2015). Entrepreneurial Passion as Mediator of the Self-Efficacy to Persistence Relationship. *Entrepreneurship Theory and Practice*, 39(5), 1027-1050.

- Cardon, M. S., Wincent, J., Singh, J., & Drnovsek, M. (2009). The nature and experience of entrepreneurial passion. *Academy of Management Review*, 34(3), 511–532.
- Chen, X.P., Yao, X. I. N., & 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.
- Collewaert, V., Anseel, F., Crommelinck, M., De Beuckelaer, A., & Vermeire, A. (2016). When passion fades: Disentangling the temporal dynamics of entrepreneurial passion for founding. *Journal of Management Studies*, 53(6), 966–995.
- Dalborg, C., & Wincent, J. (2015). The idea is not enough: The role of self-efficacy in mediating the relationship between pull entrepreneurship and founder passion—a research note. *International Small Business Journal*, 33(8), 974–984.
- De Mol, E., Cardon, M.S., DeJong, B., Khapova, S.N., & Elfring, T. (2020). Entrepreneurial passion diversity in new venture teams: An empirical examination of short- and long-term performance implications. *Journal of Business Venturing*, 35(4), 105965.
- De Mol, E., Ho, V.T., & Pollack, J. (2018). Predicting entrepreneurial burnout in a moderated mediated model of job fit. *Journal of Small Business Management*, 56(3), 392–411.
- Delgado G. B., De Q. E., Blanco M. V. (2015). How affect relates to entrepreneurship a systematic review of the literature. *International Journal of Management Reviews*, 17, 191–211.
- Drnovsek, M., Cardon, M. S., & Patel, P. C. (2016). Direct and indirect effects of passion on growing technology ventures. *Strategic Entrepreneurship Journal*, 10(2), 194–213.
- Drnovsek, M., Slavec, A. and Cardon, M.S. (2014). Cultural context, passion, and self-efficacy: do entrepreneurs operate on different 'planets. In Mitchell, J.R., Mitchell, R.K. and Randolph-Seng, B. (Eds), *Handbook of Entrepreneurial Cognition*, Edward Elgar Publishing, 227–253.
- Fisher, R., Merlot, E., & Johnson, L.W. (2018). The obsessive and harmonious nature of entrepreneurial passion. *International Journal of Entrepreneurial Behavior & Research*, 24(1), 22–40.
- Foo, M.D., Uy, M. A., & Baron, R. A. (2009). How do feelings influence effort? An empirical study of entrepreneurs' affects and venture effort. *Journal of Applied Psychology*, 94(4), 1086–1094.
- Gielnik, M. M., Bledow, R., & Stark, M. S. (2020). A dynamic account of self-efficacy in entrepreneurship. *Journal of Applied Psychology*, 105(5), 487–505.
- Gielnik, M. M., Spitzmuller, M., Schmitt, A., Klemann, D. K., & Frese, M. (2015). “I put in effort, therefore I am passionate”: Investigating the path from effort to passion in entrepreneurship. *Academy of Management Journal*, 58(4), 1012–1031.
- Hubner, S., Baum, M., & Frese, M. (2020). Contagion of entrepreneurial passion: Effects on employee outcomes. *Entrepreneurship Theory and Practice*, 44(6), 1112–1140.
- Huyghe, A., Knockaert, M., & Obschonka, M. (2016). Unraveling the “passion orchestra” in academia. *Journal of Business Venturing*, 31, 344–364.
- Kang, J. H., Matusik, J. G., Kim, T. Y., & Phillips, J. M. (2016). Interactive effects of multiple organizational climates on employee innovative behavior in entrepreneurial firms: A cross-level investigation. *Journal of Business Venturing*, 31(6), 628–642.
- Karimi, S. (2020). The role of entrepreneurial passion in the formation of students' entrepreneurial intentions. *Applied Economics*, 52(3), 331–344.
- Laaksonen, L., Ainamo, A., & Karjalainen, T.M. (2011). Entrepreneurial passion: An explorative case study of four metal music ventures. *Journal of Research in Marketing and Entrepreneurship*, 13(1), 18–36.
- Lex, Maike; Gielnik, Michael M.; Spitzmuller, Matthias; Jacob, Gabriel H.; Frese, Michael (2020). How passion in entrepreneurship develops over time a self-regulation perspective. *Entrepreneurship Theory and Practice*, 46(4), 1–34.

- Li, J., Chen, X.P., Kotha, S., & Fisher, G. (2017). Catching fire and spreading it: A glimpse into
- Liñán, F., & Chen, Y.-W. (2009). Development and cross-cultural application of a specific instrument to measure entrepreneurial intentions. *Entrepreneurship Theory and Practice*, 33(3), 593-617.
- Mittness, C., Sudek, R., & Cardon, M. (2012). Angel investor characteristics that determine whether perceived passion leads to higher evaluations of funding potential. *Journal of Business Venturing*, 27, 592–606.
- Mueller, B. A., Wolfe, M. T., & Syed, I. (2017). Passion and grit: An exploration of the pathways leading to venture success. *Journal of Business Venturing*, 32(3), 260-279.
- Murnieks, C. Y., Cardon, M. S., & Haynie, J. M. (2020). Fueling the fire: Examining identity centrality, affective interpersonal commitment and gender as drivers of entrepreneurial passion. *Journal of Business Venturing*, 35(1), 105909.
- Murnieks, C.Y., Cardon, M., Sudek, R., White, D., & Brooks, W.T. (2016). Drawn to the fire: The role of passion, tenacity and inspirational leadership in angel investing. *Journal of Business Venturing*, 31, 468–484.
- Murnieks, C.Y., Mosakowski, E., & Cardon, M. (2014). Pathways of passion: Identity centrality, passion, and behavior among entrepreneurs. *Journal of Management*, 40(6), 1583–1606.
- Nordström, C., Sirén, C.A., Thorgren, S., & Wincent, J. (2016). Passion in hybrid entrepreneurship: The impact of entrepreneurial teams and tenure. *Baltic Journal of Management*, 11(2), 167–186.
- Obschonka, M., Moeller, J., & Goethner, M. (2019). Entrepreneurial passion and personality: The case of academic entrepreneurship. *Frontiers in Psychology*, 9, 2697.
- Qian, S., Brannon, D. L., Tabak F. (2021). Exploring mechanisms in the entrepreneurial passion – entrepreneurial behavior relationship mediating role of growth-oriented intentions. *Journal of Career Development*, 49(4), 1-12.
- Shepherd, D. A., Souitaris, V., & Gruber, M. (2021). Creating new ventures: A review and research agenda. *Journal of Management*, 47 (1), 11–42.
- Stroe, S., Sirén, C., Shepherd, D., & Wincent, J. (2020). The dualistic regulatory effect of passion on the relationship between fear of failure and negative affect: Insights from facial expression analysis. *Journal of Business Venturing*, 35(4), 105948.
- Stroe, S., Wincent, J., & Parida, V. (2018). Untangling intense engagement in entrepreneurship: Role overload and obsessive passion in early-stage entrepreneurs. *Journal of Business Research*, 90, 59–66.
- Taggar, S., Domurath, A., & Coviello, N. (2019). Team entrepreneurial passion: Linking intra and interpersonal influences with outcomes. *Academy of Management 2019 Conference*.
- Türk, S., Zapkau, F. B., & Schwens, C. (2019). Prior entrepreneurial exposure and the emergence of entrepreneurial passion: The moderating role of learning orientation. *Journal of Small Business Management*, 58(2), 225-259.
- Uy, M., Jacob, G.H., Antonio, T., Hasan, J., & Lam, S.S. (2017). Entrepreneurial passion heterogeneity and new venture team performance trajectory. *Academy of Management 2017 Conference*.
- Vallerand, R. J., Blanchard, C., Mageau, G. A., Koestner, R., Ratelle, C., Léonard, M., Gagné, M., & Marsolais, J. (2003). Les passions de l'âme: On obsessive and harmonious passion. *Journal of Personality & Social Psychology*, 85(4), 756–767.
- Vallerand, R. J., Salvy, S. J., Mageau, G. A., Elliot, A. J., Denis, P., Grouzet, F. M. E., & Blanchard, C. M. (2007). On the role of passion in performance. *Journal of Personality*, 75, 505–534.
- Zhu, F., Syed, I., Hsu, D.K., Cohen, D., Shinnar, R.S., (2022). I put in effort, but I am still not passionate”: the fit perceptions of novice entrepreneurs. *Journal of Business Venturing Insights*, 18, e00322.