Abstract
The fundamental objective of this paper is to produce a theoretical framework for understanding the relationship between the dualistic model of entrepreneurial passion and entrepreneurial performance. This framework draws upon the principles of the Self-Determination Theory and the Mood Maintenance Hypothesis. To gather information, a comprehensive review of existing conceptual and empirical literature on the subject was conducted, and the findings were synthesized. The results indicate that the association between dualistic model of entrepreneurial passion and entrepreneurial performance is distant. The proposed dualistic model of entrepreneurial passion directly influences entrepreneurial performance, while also exerting indirect effects that are sequentially mediated by factors such as entrepreneurial emotions, risk-taking, competitive aggressiveness, and escalation of commitment. The study presents a concise framework for regulating entrepreneurial passion and its impact on entrepreneurial performance. It expands the ontological understanding of the dualistic model of entrepreneurial passion, and there is a high likelihood that the framework will be validated through empirical research in the future. The practical implications of this study are significant, as it offers a comprehensive understanding of the link between entrepreneurial passion and entrepreneurial performance. This study can be utilized to develop effective strategies and interventions in the field of entrepreneurship.

Keywords: Entrepreneurial, Passion, Performance, Dualistic Model

INTRODUCTION
The value of having a passion for work is widely recognized due to its potential to generate a multitude of positive outcomes, including happiness, financial prosperity, enthusiasm, overall success, persistence, and a sense of fulfillment (Baum and Locke (2004). In recent years, researchers have shown a significant interest in exploring a specific area within the broader field of passion research known as entrepreneurial passion (Drnovsek et al., 2016). Entrepreneurial passion holds immense significance as it plays a fundamental role in facilitating and aligning the cognitive and behavioral processes of entrepreneurs, acting as a catalyst for creativity, determination, commitment, effectiveness, and ultimately, achievement (Murnieks et al., 2014; Collewaert et al., 2016).
Entrepreneurial passion can manifest in various forms, including passion specifically related to the creation, establishment, and development of a venture, commonly known as role-based passion (Ho and Pollack, 2014). It can also be seen as passion for work, characterized by intense positive affect (Baum & Locke, 2004), perceived passion (Chen et al., 2009; Drnovsek et al., 2016), and dualistic models of entrepreneurial passion, which distinguish between harmonious and obsessive passion (Vallerand et al., 2003). Despite the abundance of research on entrepreneurial passion, few studies have explored the link between passion and behavior and attitude within the realm of work or entrepreneurship (Ho and Pollack, 2014). Furthermore, research on the influence of entrepreneurial passion on effort and entrepreneurial performance is also limited (Baum and Locke 2004).

The existing studies on the relationship between entrepreneurial passion and entrepreneurial performance outcomes are limited in scope for several reasons. One of the main limitations is that many of these studies have focused solely on specific types of passion, such as role-based passion or general passion (Chen et al., 2009). This narrow focus has hindered our understanding of how different forms of passion, such as obsessive or harmonious passion, may impact entrepreneurial performance. Additionally, there is a shortage of studies that have explored the effects of the dualistic model of entrepreneurial passion on various outcomes or performance measures in entrepreneurship. The findings from the few existing studies in this area are inconsistent and contradictory (Vallerand et al. 2003). For instance, while some research has found a correlation between harmonious passion and business income (Ho & Pollack, 2014), others have not found a link between both obsessive and harmonious passion and profit and sales growth (Sirén et al., 2016). In a study by Siren et al. (2016), CEO passion was used as a moderator between change-related leadership and firm performance. These limited and inconsistent findings have motivated us to conduct this study to address this knowledge gap and gain a clearer understanding of the topic.

Research has demonstrated that entrepreneurial passion can influence the thoughts and actions of entrepreneurs, including strengthening their intentions and promoting their participation in entrepreneurial activities and ventures (Ateeq et al., 2022; Zhao and Seibert, 2006). However, the impact of passion on emotions, or affect, is not well understood. It is important to investigate the connection between passion and emotions using the dualistic model of passion, which categorizes passion as either harmonious or obsessive (Chen et al., 2009). Harmonious passion may evoke positive emotions, such as joy, as individuals voluntarily engage in entrepreneurship. On the other hand, obsessive passion may lead to negative emotions, such as stress, as individuals feel compelled to participate in entrepreneurship due to internal pressures.

Moreover, the investigation into the effects of entrepreneurial passion has started to uncover potential negative impacts on entrepreneurs and their decision-making. Obsessive passion has been linked to undesirable outcomes such as aggression, addiction, and stubborn persistence (Cardonet et al., 2005; Mitteness et al., 2012)), while harmonious passion leads to more adaptive outcomes and well-being. However, there is still much to be learned in this field. For instance, studies have suggested that excessive passion can lead to cognitive biases, causing entrepreneurs to disregard information that contradicts their beliefs and make poor decisions (Iyortsuun et al., 2019; Newman et al., 2021). When a venture fails, the financial costs of failure may be exacerbated by an entrepreneur’s passion. This is because passion can drive individuals to persist in their entrepreneurial endeavors, even when the chances of success are low, resulting in significant financial risks despite the high probability of failure (Gul et al., 2022; Newman et al., 2021). It is important to examine the dark side of entrepreneurship, such as how entrepreneurial obsessive passion may relate to entrepreneurs’ escalation of commitment, extreme risk-taking, and competitive aggressiveness.

Furthermore, all these findings and recommendations underscore the need to investigate the mechanisms underlying the relationship between entrepreneurial passion and entrepreneurial performance. Researchers have proposed that passion alone is insufficient to gauge a firm’s performance and that it is crucial to study the mechanisms and boundary conditions that shape the connection between passion and performance (Lee & Herrmann, 2021; Shah et al., 2022).
Accordingly, this study aims to explore the entrepreneurial benefits and consequences of the effort invested by entrepreneurs, fueled by entrepreneurial passion, as well as the mechanisms underlying the dynamic relationship between the dualistic model of entrepreneurial passion and entrepreneurial performance. Previous research has examined various mechanisms that can influence the link between passion and performance, such as the utilization of effectuation strategies, network centrality, and deliberate practices (Laskovaia et al., 2022). This study intends to investigate the relationship between the dualistic model of entrepreneurial passion (DMEP) and entrepreneurial performance. The proposed framework will also explore mediating mechanisms encompassing entrepreneurial emotions, entrepreneurial orientation (e.g., competitive aggressiveness and risk-taking), and escalation of commitment. It will draw upon self-determination theory (SDT) and the mood maintenance hypothesis (MMH) to comprehend the cognitive and motivational pathways that lead to positive and negative outcomes and examine the impact of the dualistic model of entrepreneurial passion. This research will provide a framework for understanding how entrepreneurs with both harmonious and obsessive passions exhibit a strong inclination to embark on an entrepreneurial journey, subsequently influencing their entrepreneurial performance.

LITERATURE REVIEW

According to recent literature and mainstream media, there is a widespread belief that having a strong passion for one's work is desirable and associated with numerous positive outcomes (Pollack et al., 2020). Extensive research conducted across various academic fields, including organizational behavior, sports psychology, and educational psychology, highlights the significant influence of passion on individuals' motivation, thoughts, and behaviors (Curran et al., 2015).

Within the domain of passion research, entrepreneurial passion has been investigated through different theoretical frameworks, including the concepts of "passion for work" (Baum & Locke, 2004), "role-based entrepreneurial passion" (Cardon et al., 2009), the "dualistic model of passion" (Vallerand et al., 2003), and "perceived passion" (Chen et al., 2009; Hussain et al., 2022). Role-based passion refers to the situation where an entrepreneur exhibits passion for a specific role they are performing, such as a passion for "inventing, founding, and developing" (Cardon et al., 2009). Passion for work pertains to an individual's level of passion specifically directed towards their job or career (Baum & Locke, 2004). Additionally, perceived passion relates to how individuals perceive their own level of passion for a particular activity or pursuit (Chen et al., 2009). The dualistic model of passion distinguishes between two types: obsessive passion, which is associated with negative outcomes and well-being, and harmonious passion, which is linked to positive outcomes and well-being (Foo et al., 2009; Chen et al., 2009).

The selection of an appropriate framework for this study should be guided by the research question and the conceptualization of passion as outlined in the relevant literature (Cardon et al., 2017b; Iyortsuun et al., 2019). In this study, the dualistic model of entrepreneurial passion proposed by Vallerand et al. (2003) is employed within the context of entrepreneurship. According to Vallerand et al. (2003), passion is defined as a strong inclination or desire towards an activity that one loves or finds important, and invests time and energy in. The dualistic approach distinguishes between harmonious passion (HP) and obsessive passion (OP), based on whether an entrepreneur feels in control of their engagement in entrepreneurship (Stroe et al., 2018). Harmoniously passionate entrepreneurs freely engage in entrepreneurship when they choose to, while obsessively passionate entrepreneurs feel pressured to engage in entrepreneurship (Khan et al., 2022; Lee & Herremann, 2021). This aligns with the self-determination theory, which suggests that harmonious passion arises from autonomous internalization of the pursuit, while obsessive passion stems from controlled internalization (Vallerand et al., 2019).

Building upon the self-determination theory (Deci et al., 2017), this study aims to investigate the key performance outcomes of the dualistic model of entrepreneurial passion (DMEP), as well as the mediating roles of entrepreneurial emotions, entrepreneurial orientation (specifically risk-taking and competitive aggressiveness), and escalation of commitment in this relationship.
Entrepreneurial emotions encompass the range of emotions, feelings, and moods associated with identifying, creating, evaluating, and seizing business opportunities (Cardon et al., 2012). This concept captures the emotions, affect, feelings, and moods that arise before, during, or after the entrepreneurial process (Zhao & Xie, 2020), including both positive emotions like interest and enthusiasm, and negative emotions like anger and fear (Watson et al., 1988).

Entrepreneurial orientation (EO) refers to the strategic mindset adopted by a firm to gain a competitive advantage (Wales et al., 2021). Within the conceptualization proposed by Lumpkin and Dess (2001), EO consists of five key components, with this study focusing on competitive aggressiveness and risk-taking (Ključnikov et al., 2016). Competitive aggressiveness pertains to a firm's efforts to surpass competitors by adopting an assertive stance and forcefully responding to their actions (Lumpkin & Dess, 2001, 2014). Risk-taking, on the other hand, signifies a firm's willingness to take bold actions by venturing into unknown territories, taking on substantial debt, and allocating significant resources to ventures in uncertain environments (Lumpkin & Dess, 2001). EO measures a manager's inclination to commit resources despite potential risks, even when faced with the possibility of costly failures (Wales et al., 2021).

Escalation of commitment is a phenomenon where managers or entrepreneurs persist in investing resources in failing firms or projects, even when it is no longer economically justifiable to do so (Staw, 1981). Although frequently observed in entrepreneurship, this behavior has received limited scholarly attention (Thomas, 2018). The consequence of such escalation often includes increased financial losses and negative psychological impacts on the investors (Jackson et al., 2018; Shepherd & Patzelt, 2018).

ENTREPRENEURIAL PASSION AND PERFORMANCE/OUTCOMES: PROPOSED DIRECT LINK
Researchers are now exploring the implications of entrepreneurial passion on firm performance from various theoretical perspectives (Adomako & Ahsan, 2022; Ho & Pollack, 2014; Iyortsuun et al., 2019; Laskovaia et al., 2022; Ma et al., 2017; Schulte-Holthaus, 2019). However, very limited studies have investigated the performance link in terms of the dualistic model of passion (Y. Lee & Herrmann, 2021). These studies have mainly focused on role-based passion or general passion.

For instance, Mueller et al., (2017) uncovered that developer's entrepreneurial passion indirectly enhance organization performance through self-regulatory grit and mode. Similarly, Campos, (2017) shown that passion for developing has a positive correlation with entrepreneurial orientation and through the mediating mechanism of entrepreneurial alertness. Ma et al., (2017) found that entrepreneurial passion proportionally enhances the innovations in the new venture, as a result, positively enhance organizational performance. Another study by Santos et al., (2020) uncovered that team entrepreneurial passion for developing and inventing is positively related with new ventures team performance. Moreover, entrepreneurial passion based on founder, inventor and developer identities are also proposed to have a direct and indirect relationship with firm performance through entrepreneurial self-efficacy, entrepreneurial behavior and goal-setting (Iyortsuun et al., 2019).

According to research, the perceived entrepreneurial passion has been displayed to play a mediating contribution to the link between user entrepreneurship and crowdfunding performance Oo et al., (2019). De Mol et al., (2020) discovered that the moderate level of passion in a team does not have a correlation with performance. Additionally, a lack of uniformity in the level of entrepreneurial passion within a team, either in terms of intensity or focus, can have negative effects on the quality of business ideas and the amount of funding received by the team. According to Davis et al., (2017) perceived entrepreneurial passion was found to enhance the indirect connection through funders' positive emotions between perceived product creativity and crowdfunding performance. (Boone et al., 2020) found in their study of new venture teams at various stages that, during the commercialization phase, teams with multifocal entrepreneurial passion (high in both founding and inventing) have a greater chance of reaching high performance through lowered relational conflict compared to teams with mono-focal entrepreneurial passion (focused solely on either inventing or founding).
Some recent study has also investigated the impact of the dualistic model of entrepreneurial passion on numerous types of performance or venture outcome, but the findings are conflicting and mixed (Iyortsuun et al., 2019). For instance, Fisher et al., (2018) investigated the association between passion and entrepreneurial success. They discovered that a harmonious approach to entrepreneurial passion positively affects entrepreneurial success both in a direct and indirect way, through enhancing entrepreneurial resilience, whereas an obsessive approach is positively linked to entrepreneurial commitment, which contributes to success through the same mechanism of resilience. Laskovaia et al., (2022) discovered that firm performance can be indirectly improved by having harmonious passion, by way of effectuation. On the other hand, Ho and Pollack, (2014) found that harmonious passion has a positive correlation and obsessive passion has a negative correlation with business total income. However, the outcomes of Siren et al. (2016) showed that neither obsessive nor harmonious passion has a correlation with performance. These conflicting results have generated a need to further examine the relationship, aiming to fill the research gap and ultimately arrive at a clear proposition. These conflicting results ultimately reach a clearer conclusion.

**ENTREPRENEURIAL PASSION AND ENTREPRENEURIAL PERFORMANCE**

The dualistic model of passion encompasses a range of affective, cognitive, and behavioral elements, as opposed to the constrained definition of role-based and general passion, that solely focuses on positive affect and emotions (Newman et al., 2021). The concept of entrepreneurial emotions is associated with the process of identifying, creating, evaluating, and taking advantage of business opportunities, that are precursors to, coinciding with, and/or consequences of the entrepreneurial journey (Cardon et al., 2012; Feng & Chen, 2020). In the context of entrepreneurship, those who possess a harmonious passion for the entrepreneurship are drawn to it for its exciting characteristics, such as being risky and challenging, and result in more enjoyment and fewer negative emotions (St-Louis et al., 2021). On the contrary, those with obsessive passion compulsively pursue entrepreneurship, which conflicts with other aspects of their lives, leading to less enjoyment and more anxiety and guilt (Stroe et al., 2020).

On the other hand, affective experience during task engagement can lead to extreme and moderate behavioral effects (Vallerand & Paquette, 2021). Such as positive emotions lead to different outcomes than negative emotions and can increase risk-taking and risky decision-making.Entrepreneurial orientation (EO) is a strategic mindset that a firm adopts to achieve a competitive advantage, includes two key components among the five, competitive aggressiveness and risk-taking (Lumpkin & Dess, 2001). EO gauges the extent to which business leaders or entrepreneurs are willing to undertake big and dangerous investments, even when there is a chance of costly failure (Wales et al., 2021).

There is inconsistent research on the relationship between risk-taking and competitive aggressiveness. Some studies have found a negative relationship between negative emotions and entrepreneurial orientation (Bernoster et al., 2020), while others have found that emotions such as fear, anger, and sadness are related to higher risk-taking (Matsumoto & Wilson, 2022). The combination of anger and disgust has been found to lead to more aggressive and competitive decision-making (Matsumoto et al., 2017). Positive emotions have been linked to high-quality relationships among teammates, while negative emotions lead to lower-quality relationships. Negative affective states have been found to reliably increase risk behavior, while positive emotions do not (Ferrer et al., 2020).

Decision makers often escalate their commitment when faced with a dilemma of continuing a losing course of action (Staw, 1981), which increases financial losses and negative psychological consequences for the investors (Shepherd & Patzelt, 2018). Similarly, previous studies have also found the link between emotions and escalation, but the results are inconsistent, with some studies finding negative emotions decrease escalation of commitment and others finding they increase it (Dang et al., 2014; Horn, 2012; Tsai & Young, 2010; K. F. E. Wong et al., 2006). Previous studies
have found that positive and negative emotions act as mediators in various domains, linking passion to extreme interpersonal behaviors (Gillet et al., 2013; Vallerand & Paquette, 2021). The DMP advocates that cognitions and states experienced during task engagement also play a role in these effects. This study incorporates entrepreneurial emotions as a mediator. Research has shown that obsessive passion prompt negative affect during activity engagement, while harmonious passion contribute to positive affect (St-Louis et al., 2021; Vallerand et al., 2003). Negative emotions can lead to extreme behaviors, while positive emotions can open up new behavior and reduce extreme behavior (Matsumoto et al., 2017; Matsumoto & Wilson, 2022). Harmonious passion results in uplifting emotions and favorable relationships with others, while obsessive passion leads to negative emotions and negative relationships (Vallerand & Verner-Filion, 2020).

Research have also shown that obsessive passion can lead to extreme interpersonal behaviors such as aggression and addiction (Donahue et al., 2009; Wojdylo, 2019). The cybernetic model of discrepancy reduction asserts that emotions, both positive and negative, serve as feedback for the self-regulation system, guiding the adjustment of effort investment (Tamir, 2021). Similarly, the mood maintenance hypothesis (MMH) (Sen & Patrick, 1983), which concur that when individuals who are in a positive emotional state tend to be cautious with taking risks as losing or failure can negatively impact both their finances and their mood. While, individuals who are in a negative emotional state tend to strive to maintain their emotion with taking risks and are to be aggressive (Colasante et al., 2017). These research supports the proposition that negative emotions can mediate the interplay between obsessive passion and extreme interpersonal behavior and escalation of commitment. On the other hand, harmoniously passionate individuals do not experience the same level of imbalance and extreme behavior as obsessively passionate individuals, possibly due to their experiences of fun and enjoyment and fewer negative emotions.

**Entrepreneurial passion and entrepreneurial performance: proposed serial mediation link**

The entrepreneurial orientation (EO) construct includes essential components such as risk-taking and competitive aggressiveness (Klüčnikov et al., 2016). Studies have revealed a positive connection between these dimensions and various forms of performance measures (Adams et al., 2017; Cho & Lee, 2018). However, literature also suggests negative effects of entrepreneurial orientation on performance, such as the negative implications to performance caused by the risk-taking dimension (Naldi et al., 2007; Rezaei & Ortt, 2018). Despite contradictory results, the majority of literature suggests a positive link between EO and organizational performance (Soares & Perin, 2020; S. K. S. Wong, 2014). Entrepreneurs are also susceptible to the escalation of commitment bias, which has not been extensively studied in entrepreneurship research (Thomas, 2018). Prior research has found that prior organizational performance and negative performance feedback can intensify escalation tendencies. Prior success can lead to a stronger belief in the ability to overcome challenges, but can also increase willingness to de-escalate (DeTienne et al., 2008; Hayward & Shimizu, 2006). However, there is no study available that has investigated the performance-related outcomes of escalation of commitment (Sleesman et al., 2018). Escalation of commitment can lead to greater financial and psychological consequences upon failure (Jackson et al., 2018).

In accordance with self-determination theory (Deci & Ryan, 2000), and Mood Maintenance hypothesis (Khan et al., 2022; Sen & Patrick, 1983) it is proposed that harmonious passion aligns well with the autonomy and relatedness needs of SDT as it is self-determined and aligns with personal values and interests, and it allows the individual to balance their passion with other aspects of their life. Hence, it is less likely to lead to negative emotions, risk-taking, competitive aggression, and escalation of commitment. By contrast, obsessive passion may lead to a lack of autonomy and relatedness and may not align with the competence need of SDT, which may lead to negative emotions such as anxiety and frustration, and it may lead to increased risk-taking, competitive aggression, and escalation of commitment in an effort to achieve their goal.
HYPOTHESES

H₁: Entrepreneurial harmonious passion will have a positive relationship with entrepreneurial performance.
H₂: Entrepreneurial obsessive passion will have a negative relationship with entrepreneurial performance.
H₃: Entrepreneurial emotion will mediate the relationship between entrepreneurial passion and risk-taking.
H₄: Entrepreneurial emotion will mediate the relationship between entrepreneurial passion and competitive aggressiveness.
H₅: Entrepreneurial emotion will mediate the relationship between entrepreneurial passion and escalation of commitment.

CONCEPTUAL FRAMEWORK

This study introduces a framework that explores how entrepreneurial passion influences entrepreneurial performance. The framework draws on the self-determination theory and the mood maintenance hypothesis to provide a theoretical basis for the analysis. The findings suggest that the relationship between entrepreneurial passion and performance is not direct, but rather indirect and distal.

The proposed framework outlines a direct connection between entrepreneurial passion and performance, as well as an indirect link mediated by several variables. These variables include entrepreneurial emotions, risk-taking tendencies, competitive aggressiveness, and the tendency to persist in a venture despite challenges (escalation of commitment).

By presenting this concise framework, the study makes a valuable contribution to the existing literature on entrepreneurship and offers a solid foundation for future empirical research in the field. In this framework, passion is defined as a deep desire or strong inclination towards a particular activity.

It is important to note that this research specifically focuses on regulation-based entrepreneurial passion, considering it as a measurable construct rather than a perceived one. Future studies can further validate the proposed framework using Structural Equation Modeling (SEM), explore the influence of entrepreneurial passion on commitment to the venture, and delve deeper into the potential negative aspects of entrepreneurial passion.

Overall, this study provides a concrete framework that sheds light on the relationship between entrepreneurial passion and performance, paving the way for further investigations and insights in the field of entrepreneurship.
References


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