

Beyond Adversity: Exploring the Role of Entrepreneurial Resilience, Alertness, and Innovative Culture in Career Advancement

Faiza Malik

Quaid-i-Azam School of Management Sciences, Quaid-i-Azam University Islamabad, Pakistan
faiza.spcnust@gmail.com

Rabia Mushtaq

Quaid-i-Azam School of Management Sciences, Quaid-i-Azam University Islamabad, Pakistan

Abstract

This study examines the influence of psychological resilience of entrepreneurs on their career success and opportunity recognition capabilities. Entrepreneurial alertness is taken as an intervening variable in an organizational culture characterized by innovativeness. The sample consists of 353 entrepreneurs residing in various cities of Pakistan. The data was examined using SPSS and Advanced Structural Equation Modeling (SEM) in M-PLUS software. Our findings reveal a strong connection between entrepreneurial resilience, career success and opportunity recognition. Entrepreneurial alertness was also found to play a crucial role in mediating this relationship. The study further explored the moderating role of an innovative organizational culture, exploring its effect in enhancing the effect of entrepreneurial psychological resilience on both career success and opportunity recognition. These results indicate useful synergies amongst psychological aspects, organizational culture, and key entrepreneurial outcomes. Important implications in furthering entrepreneurship research and improving organizational practices are also discussed.

Keywords: Psychological Resilience, Entrepreneurial Alertness, Organizational Innovativeness, Career Success, Opportunity Recognition, Resource-Based View (RBV)

Introduction

Psychological resilience of entrepreneurs is a vital attribute that determines their success and capacity to identify opportunities in a rapidly evolving business landscape (Fisher et al., 2016; Juhdi, 2015). These individuals are always facing numerous difficulties and combating obstacles, such as meager financial capital, unpredictable market conditions, and lack of favorable business (Ramadani et al., 2013). Psychological resilience allows these entrepreneurs to develop mental strength to persevere in times of adversity, enabling them to turn setbacks into opportunities for growth and progress (Schutte & Mberi, 2020; Shepherd et al., 2020)

In developing countries, where the entrepreneurial landscape can be particularly unpredictable, resilient individuals are better equipped to adapt, learn from past mistakes, and sustain the momentum necessary for long-term success (Corner et al., 2017). Entrepreneurs who are resilient learn valuable lessons from their experiences (Santoro et al., 2020) which leads to a heightened sense of awareness and alertness, making them more attuned to potential pitfalls and opportunities based on their past challenges (Kaish & Gilad, 1991). Resilient entrepreneurs are adaptable and this adaptability fosters a mindset of openness to change, making entrepreneurs more receptive and alert to emerging trends, market shifts, and potential business opportunities that may not have been apparent initially (Funston & Wagner, 2010; Zighan et al., 2022). Kirzner (1999) proposes that entrepreneurially alert individuals are better placed to identify opportunities than ones that rank low on this aspect.

Entrepreneurial alertness, is although intricately linked to psychological resilience, but its effectiveness is further effected by cultural innovativeness (Sok, O'cass, & Miles, 2016). Resilient companies make innovation an important facet of their culture (Oecd, 2005). They become resilient by managing uncertainties and develop better innovative capabilities to handle these uncertainties (Lv et al., 2018). As Gölgeci and Ponomarov (2015) state that people are driven by the company's core values and hence an innovative and risk oriented culture helps them become resilient and alert. An innovative culture furthers their drive for novelty and help them leverage their creative and ambitious tendencies for entrepreneurial success (Cooper & Vlaskovits, 2013). It can therefore be

posited that an innovative culture supportive of risk taking behavior and experimentation acts as a springboard for entrepreneurial alertness(Puhakka, 2011). Openness to new ideas and willingness to take risks inherent in an innovative culture leads to greater resilience in a challenging environment (Anderson et al., 2021)

This fusion of psychological resilience, entrepreneurial alertness, and cultural innovativeness can create a potent formula for opportunity recognition and career success, particularly in environments where conventional business models may not suffice (Cavaliere et al., 2022; Duchek, 2018; Ghouse et al., 2021; Vakilzadeh & Haase, 2021).

While the interconnected relationship between psychological resilience, entrepreneurial alertness, and cultural innovativeness in the context of developing countries is becoming increasingly apparent, there is a wide room for further investigation in this domain (Araujo et al.,2023; Hadjielias et al., 2022; Tang et al., 2023). Further exploration is crucial to unpack the nuanced dynamics and underlying mechanisms of how these factors interact and contribute to entrepreneurial success. Such research could inform the development of targeted interventions, support systems, and policies aimed at fostering psychological resilience and enhancing entrepreneurial alertness in culturally diverse settings. By understanding these dynamics more comprehensively, researchers and policymakers can contribute to the creation of sustainable ecosystems that empower entrepreneurs in developing countries to thrive amidst adversity, fostering economic growth and innovation.

Given the above arguments, this paper strives to examine investigation the interplay between psychological resilience, entrepreneurial alertness, and career success. The study aims to understand how an individual's psychological resilience influences their capacity to spot opportunities in the entrepreneurial context and, subsequently, how this contributes to long-term career success. By studying these linkages, the paper strives to shed insights into the psychological factors that may occupy a significant part in shaping an entrepreneur's career journey and resultant outcomes. Additionally, the research aims to augment the existing knowledge in entrepreneurship by offering a positive psychology perspective, emphasizing the significance of personal traits and mental resources alongside external market conditions. The practical implications of the study include informing entrepreneurial education, guiding the development of training programs, and offering strategies to enhance psychological resilience for aspiring startup founders.

Literature Review

Theoretical Background

To understand psychological resilience and its possible connection to entrepreneurial alertness, especially in an organizational culture marked by innovativeness holds important implications for researchers and organizations since it can enable them to gauge factors that may lead to individual success within new environments. This knowledge is vital for devising strategies that can enhance innovation and develop a resilient workforce, which is better positioned to tackle emerging challenges. Organizations that understand the interplay between psychological resilience and entrepreneurial alertness can tailor their workplaces to cultivate these traits among employees. Nurturing resilient and alert employees leads to a culture of innovation, which acts as a springboard for change and competitiveness.

Resource-Based View (RBV) of the firms acts as a suitable background for this study. RBV emphasizes how unique and valuable resources within an organization lead to its competitive advantage. With this background, psychological resilience can be taken as a unique and valuable resource possessed by individual entrepreneurs within a firm. Resilient individuals are better positioned to combat uncertainties and failures in an innovative organizational culture making psychological resilience a valuable resource to attain competitive advantage. It allows these individuals to recognize and seize opportunities to achieve career success. Entrepreneurial alertness, originating from psychological resilience, can be regarded as a unique capability within the RBV framework. The ability to stay vigilant towards opportunities, adjust to changes, and act in enterprising fashion becomes a capability that sets individuals apart. This capability, shaped and nurtured by psychological resilience, leads to competitive advantage in an organization that supports a risk-taking culture and innovation. RBV stresses that internal resources be properly aligned to make use of external opportunities. In the presence of an innovative

organizational culture, the psychological resilience of entrepreneurs leads to enhanced creative potential, risk-taking, and flexibility. Resilient employees help an organization gain competitive advantage by adopting cultural values that lead entrepreneurial alertness and career success.

Psychological resilience, when recognized and cultivated within the organization, becomes a rare and valuable resource that contributes to sustained competitive advantage. The ability to maintain a resilient workforce capable of entrepreneurial alertness fosters an innovative culture, positioning the organization for long-term success.

Psychological Resilience

Masten (2001) conceptualizes resilience as the experience of facing an adverse event and coping or adapting positively to this challenge.

Prior work on resilience has conceptualized this construct at different levels and in different ways. For instance, resilience can be taken at the organizational level (Andersson et al., 2019; Barasa, Mbau & Gilson, 2018; Hillmann & Guenther, 2021), team level (Hartmann et al., 2022) or individual level resilience (Fisher et al., 2016; Lowe et al., 2015), although organizational and team resilience basically derive from an individual's own psychological resilience (Campagnolo et al., 2022; Tang et al., 2012). Psychological resilience has been investigated as an inherent personality trait, a skill that can be honed over time, a process, or a consequence of some adverse event (Seery & Quinton, 2016)

In this subject paper, resilience is being taken at an individual level, i.e., as an entrepreneurs' psychological resilience. Drawing upon prior literature, resilience is designated here as an entrepreneur's comparatively steady tendency to recover well from adversities and amenably adjust (Block & Block, 1980; Carver, 1998). Resilience as a stable capacity places greater stress on the adaptability and quick recovery over time. It suggests that individuals have a lasting ability to bounce back from adversity, even though this capacity may be influenced by experiences and environmental factors (Bullough & Renko, 2013; Duchek, 2018; Schutte & Mberi, 2020).

The reason for conceptualizing psychological resilience as a capacity is grounded in the logic that it covers both a person's exposure to adversity and how they skillfully traverse their way through challenging times, deploying their emotional, cognitive, and behavioral strengths to accomplish advantageous results (Hoegl & Hartmann, 2021). This approach to conceptualize resilience thus considers it as a characteristic that manifests consistently over the long term, accounting for variations in response to different life events. Resilience as a stable capacity recognizes that life experiences and developmental factors may contribute to the formation of this enduring ability (Shepherd & Williams, 2020). Psychological resilience in entrepreneurs thus entails positive adaptation to stress and adversity (Hartmann et al., 2022) and enables people to effectively tackle setbacks or failures (Fletcher & Sarkar, 2013). Although extensive literature is available exploring various facets of resilience, its role in entrepreneurial contexts specially the role of innovative organizational culture in shaping outcomes such as entrepreneurial alertness, opportunity recognition and career success have not been established systematically in the academic literature (Tang et al., 2023).

To investigate these relationships is important for several reasons. For instance, in the context of an innovative organizational culture, understanding how employees' resilience levels contribute to their adaptability is crucial. Resilient individuals are more open to new ideas and demonstrate higher risk taking tendencies and therefore an innovative culture would support their quest to explore new entrepreneurial opportunities. A culture that values resilience can create an environment where employees feel supported in taking risks, learning from failures, and embracing innovation. Research in this area can shed light on how organizational practices can foster a resilient and innovative culture.

Entrepreneurial Alertness

The formation of new ideas and to convert them into profitable product/service is the hallmark of entrepreneurship (Hoskisson, Covin, Volberda, & Johnson, 2011). Successful venture creation is strongly linked to the ability to swiftly gain cognizance of exploitable business opportunities (Baron, 2007).

Entrepreneurial Alertness (EA) denotes to the talent to detect new opportunities that go undetected by others (Kirzner, 1983). EA has been acknowledged as a precious skill in the realm of entrepreneurship. as the ability to recognize opportunities and their subsequent exploitation form the foundation of the entrepreneurial course (Duening, 2010). The notion of entrepreneurial alertness was first brought to the forefront of entrepreneurship research by Kirzner (1999) as a key skill exhibited by venture founders where they could see business prospects generally gone unnoticed by others. Later on, researchers added to this definition by highlighting the significance of time and uncertainty and their role in shaping up the opportunity recognition process (Jaafari, 2001; Korsgaard et al., 2016). This nuanced capability enables startup founders to clearly and lucidly evaluate opportunities (Norton & Moore, 2002).

Entrepreneurial alertness is a vital notion in academic literature, defined as a person's capacity to recognize and categorize entrepreneurial prospects in their environment. This concept gained traction with the passage of time and through the works of various researchers (Baron & Henry, 2011; Corbett, 2007) who stressed it as not merely having the aptitude to be aware of opportunities but also the predisposition to act on them (Tornikoski & Renko, 2014). Entrepreneurially alert individuals are proactive; they take steps to explore and exploit identified opportunities, which results in new enterprise emergence or the growth of prevailing ones (Tang et al., 2023). Alertness is considered an intellectually intensive thought process (Sasseti et al., 2022), involving perception, interpretation, and evaluation of information. It goes beyond mere awareness and involves the ability to connect seemingly unrelated pieces of information to form a coherent understanding of entrepreneurial opportunities (Shirokova et al., 2022).

In the contemporary business landscape, success pivots on the critical ability to recognize and capitalize on opportunities (Luftman et al., 1993). Entrepreneurs must be adaptable and proactive, staying attuned to changes, trends, and worthy developments in their respective industries (Jambulingam et al., 2005). Experts highlight the critical contribution of entrepreneurial alertness, not only for achieving successful entrepreneurial behavior like identifying patterns and recognizing opportunities (Baron, 2006) but also for fostering innovative behavior. Additionally, it is regarded as a broad skill essential for adaptive career progress. In the entrepreneurial domain, numerous scholars argue that the core of entrepreneurial pursuits lies in the identification and taking advantage of emerging developments.

The next aspect, termed "association and connection," pertains to how individuals make sense of this new information, process indications, and establish connections between pieces of information (Tang et al., 2012). Once they have acquired new information and understood the relevance of a problem to past experiences, individuals leverage their intellectual ability to form connections and identify innovative linkages (Wood & Williams, 2014). The final component of entrepreneurial alertness involves the "evaluation and judgment" of newly acquired data and the evaluation process regarding whether these observed linkages actually can be turned into viable businesses (Amato et al., 2017).

Cultural Innovativeness

For a long time, the term organizational culture had no specific definition and researchers kept modifying it as per their research requirements (Lee & Yu, 2004). Lack of a consistent definition resulted in myriad definitions of culture at one point (Fisher & Alford, 2000). According to Schein (1999), some of this confusion existed due to mixing organizational culture with climate though both are distinct constructs. Organizational culture refers to deeper, fundamental values that not only unite organizational members but also encompasses pattern of assumptions that the members have in response to coping with external adaptation and internal integration; how

the organizations sets goals and adopts a strategy to achieve those goals, develops internal practices of communication, integration; concepts of time and space(Parker, 1999).

Amongst the numerous dimensions of organizational culture introduced by researchers, seven unique dimensions of the organization culture profile (OCP) as introduced by O'Reilly III, Chatman, and Caldwell (1991) occupy a unique standing. These dimensions comprise innovativeness, respect for people, stability, outcome orientation, detail orientation, team orientation, and aggressiveness. These cultural dimensions are different to those introduced by Hofstede (2001) and the GLOBE cultural project (Javidan & Dastmalchian, 2009) that have been extensively cited in management literature and pertain mainly to national culture. The OCP dimensions refer primarily to the culture of an organization, which though is influenced by national culture, yet remains distinct and unique to each organization.

An organizational culture that places premium on innovativeness can provide a platform for these individuals to channel their need for recognition into generating and pursuing innovative ideas and opportunities (Tesluk et al., 1997)It can support their drive for novelty and help them leverage their creative and ambitious tendencies for entrepreneurial success(Wisse et al., 2015). It can be posited that an innovative culture supportive of risk taking behavior and experimentation acts as a springboard for entrepreneurial alertness(Puhakka, 2011). An innovation oriented culture encourages its members to detect and utilize opportunities that others may overlook. Additionally, in an innovative culture, members are allowed to undertake risky endeavors that pave way for building greater resilience capacities in the face of challenges and setbacks (de Oliveira Teixeira & Werther, 2013; Mallak, 1998; Vakilzadeh & Haase, 2021).

Entrepreneurial Career Success

Isyaku Salisu et al. (2020) state that career success comprises two distinctive dimensions; one being an objective facet, encompassing elements such as salary, position, career progression etc. and second being a subjective factor entailing aspects such as perceived career success and career satisfaction. Many studies highlight objective appraisals of career success as of less consequence in the modern workplace(Heslin, 2005). Similarly, career success of entrepreneurs also needs to be assessed differently from that of regular personnel of an organization(Markman & Baron, 2003). For example, monthly income, career advancement and rank are insufficient parameters for evaluating entrepreneurial success (Lau et al., 2007). Many small businesses suffer losses in their initial years and assessing their success in terms of commonly used financial parameters such as ROA, ROI, Net profit margin etc may present an erroneous picture. Hence, scholars have gradually recognized that subjective success indicators matter more than the objective criteria alone (Angel et al., 2018)meaningful careers lead to enhanced work satisfaction (Ng & Feldman, 2014).

Resilience forms an important facet of entrepreneurial career success as it compels entrepreneurs to persevere during business downturns (Salisu et. al 2020) and emerges as a pronounced success factor and a vital life skill to combat challenges and tackle uncertainties (Ayala & Manzano, 2014). Hence for entrepreneurs, resilience is a much needed skill. Similarly, entrepreneurial alertness has also taken center stage in entrepreneurship studies and is deemed central not only for gaining success in careers but also to drive innovation and adaptable careers (Baron, 2006).

Opportunity Recognition

Researchers suggest that opportunity recognition can be construed as a process comprising either one, two or all of the following three steps i.e., (1) *Opportunity Recognition*; entails utilizing existing products for an unmet demand; (2) *Opportunity Discovery*; that makes use of a known supply to meet an unidentified demand, or an existing demand that requires active quest for a supply not yet known to market; and (3) *Opportunity Creation*; creating an altogether new product/service/process and generate its unique demand(Dyer, Gregersen, &

Christensen, 2008). The authors posit that on purely technical grounds, an innovative entrepreneur must discover new and novel opportunities for launching successful business.

Similarly resilience also forms an antecedent to opportunity recognition process as resilient entrepreneurs are known to bounce back from setbacks and are likely to be equipped to recognize new business opportunities (Cartwright & Cooper, 2009). Past studies on resilience in entrepreneurial environs has shown that entrepreneurs functioning in hostile situations can develop flexibility and their prior experience allows them to view situations in a different light that aids the opportunity identification process (Bullough et al., 2014).

Nautiyal & Pathak (2024) presented a comprehensive structure to analyze the patterns and trends in the publications of the existing literature at the junction of entrepreneurship and resilience with the help of bibliometric and network analysis. Another study uncovers the positive effects of entrepreneurial failure experiences on re-entrepreneurship performance and highlights the role of entrepreneurial resilience. Entrepreneurial failure experiences positively influence re-entrepreneurship performance, as they trigger entrepreneurial resilience. Resilience enables entrepreneurs to recover from failure, promoting personal growth and subsequent success (Lyu, 2024).

Kromidha & Bachtiar (2024) finds that Uncertainty readiness, uncertainty response, and uncertainty opportunity for resilience emerge as the key learning areas of their study. They are related to resilience on a personal, community, and systemic level. A comprehensive analysis on how resilience relates to contextual, personal, and heuristics biases in entrepreneurial decision-making processes in innovative start-ups was conducted. Results show four types of decision-making profiles related to resilience, i.e. prudent, organized, flexible and balanced, underlining the heterogeneity of profiles embedding resilient capabilities and supporting innovative start-ups to face shocks and challenges (Baroncelli et al., 2024).

A multi-level framework to explain how EA is not only influenced by entrepreneurial ecosystems but can collectively influence the system-level functioning and leadership of ecosystems. The framework clarifies how EA is shaped by the social, cultural, and material attributes of ecosystems and, in turn, how EA influences ecosystem attributes (diversity and coherence) and outcomes (resilience and coordination (Roundy & Im, 2024). Pathak et al. (2024) conducted a study. The results indicate that entrepreneurial resiliency is manifested in various forms where the SME owners engage in bricolage. Resiliency has an inevitable time dimension, where SME owners estimate the period for which adversity is likely to persist. They focus on alternative action to demonstrate resiliency.

Iddris (2024) conducted a research. The findings of this research revealed that entrepreneurship education exerts a positive influence on the international entrepreneurial intention. Furthermore, entrepreneurship alertness acts as a mediator in the relationship between entrepreneurship education and innovative behavior. Similarly, a proactive personality serves as a mediating factor between entrepreneurship education and innovative behavior. Moreover, innovative behavior operates as a mediator in the relationship between entrepreneurship education and international entrepreneurship intention. The research has found that IEO training impacts the entrepreneurial career resilience of small business owners through the development of IEO behavior and career adaptability (Fatima, 2024). Wang & Zhang (2023) proposes that entrepreneurs possessing a high level of digital technology capability have the potential to obtain rich and diverse information, reduce reentry barriers, and enhance their capacity to materialize business.

Contextual Analysis

Psychological resilience of entrepreneurs is a definite precursor to their success and their capacity to identify opportunities amid challenging circumstances (Baluku et al 2016; J. Lee & Wang, 2017). Entrepreneurs face innumerable obstacles e.g., financial constraints, market volatility, lack of favorable policies (Banwo et al 2017; George et al 2016; Harvie & Charoenrat, 2015) and hence these individuals must have the mental endurance to

persevere in inimical conditions. Psychological resilience equips entrepreneurs to take these impediments as opportunities for individual and professional growth (Ayala & Manzano, 2014; Conduah & Essiaw, 2022; Schutte & Mberi, 2020).

The key reason to undertake this research was to investigate the connections amongst psychological resilience, entrepreneurial alertness, and career success in a setting marked by innovative organizational culture. It endeavored to examine how an individual's psychological resilience might make them more alert to opportunities thereby enabling them to succeed in their careers. Through inspecting these connections, the study strived to highlight psychological mechanisms essential in charting a successful entrepreneurial career path.

This study found significant linkages between psychological resilience and entrepreneurial alertness. Given the intrinsic uncertainties and challenges of entrepreneurship, skillful stress management allows entrepreneurs to withstand adversities and hardships (Stephan, 2018), thereby nurturing heightened alertness by staying attuned to their surroundings (Tang et al., 2012). These findings agree with prior studies that point towards a possible link between resilience and alertness suggesting that resilience allows individuals to recover relatively swiftly from setbacks and failures (Stoverink et al., 2020), enabling them to maintain an optimistic outlook. This positive mindset further aids them to incessantly scan their environment for emerging opportunities, fostering a perpetual state of alertness (Pathak & Lata, 2018).

The results of this study also positively connect alertness with career success and opportunity recognition. Prior research suggests that after identifying one or more opportunities, entrepreneurs assess them across various criteria. These evaluations typically encompass considerations such as the opportunities' potential to generate value, both economically and socially, and the entrepreneurs' confidence in their ability to effectively pursue and develop these opportunities (McMullen & Shepherd, 2006) to achieve success. Resilient entrepreneurs exhibit greater persistence and enthusiasm when undertaking tasks related to alertness, such as information search, connection, and evaluation.

Multiple studies have testified a positive link connecting entrepreneurs' alertness and opportunity recognition, and also with financial prosperity of their enterprises, however, these studies couldn't elucidate how these linkages are constituted (Tang et al., 2023). This research therefore adds an important element to the existing body of literature by highlighting a vital precursor of alertness i.e., psychological resilience, that eventually leads to entrepreneurial career success and opportunity recognition through entrepreneurial alertness as a mediator variable. Opportunity recognition process entails entrepreneurs utilizing diverse mechanisms during periods of crises and volatility. In this context, a resilient firm is characterized by learning from past failures consistently seeking out new opportunities arising from such circumstances. To achieve this, businesses must employ creativity, alertness, attentiveness to the support and on rebuild for the future (Kromidha & Bachtiar, 2024). Our research corroborates these findings by validating the resilience-alertness connection that leads to heightened opportunity recognition and career success at the individual level of an entrepreneur, adding new insights on this topic.

Formation of Hypotheses

Resilience and Entrepreneurial Alertness

Resilient individuals are better equipped to cope with stress and adversity (Skodol, 2010). As entrepreneurship involves facing uncertainties and challenges, the ability to manage stress allows entrepreneurs to maintain mental clarity, stay focused (Stephan, 2018), and remain attentive to their surroundings, contributing to heightened alertness (Tang et al., 2012). Resilience facilitates a faster recovery from setbacks and failures (Stoverink et al., 2020). Entrepreneurs who swiftly rise up after failings demonstrate optimism. This positive mindset enables them to continuously scan their environment for new opportunities, fostering a state of constant alertness (Pathak & Lata, 2018). Resilient entrepreneurs view failures as learning lessons, and actively strive to seek new entrepreneurial opportunities. They traverse through setbacks while making sense of possible linkages by

connecting seemingly disconnected information and make use of their business networks to come up with new business ideas(Wang et al., 2023). In light of the above arguments, it can thus be posited that;

H1: Resilience positively effects entrepreneurial alertness.

H1 is based on the theory presented by Martin et al. (2013). According to Martin et al. (2013) the outcome of investment in human capital i.e. knowledge and skills to identify the opportunity has a positive effect on entrepreneurial intention.

Entrepreneurial Alertness as a Mediator

It has been discussed in the preceding paras that psychological resilience of entrepreneurs acts as a critical resource in determining their success and ability to recognize opportunities within challenging environments(Lima et al., 2019). Resilient entrepreneurs are quick learners (Duchek, 2018; Guerrero & Walsh, 2023) and demonstrate a heightened sense of awareness and alertness, making them more apt to identify opportunities based on their past challenges(Coelho & McClure, 2005; Hadjielias et al., 2022). This heightened sense of awareness leads to opportunity recognition (Gaglio & Katz, 2001; Neneh, 2019; Zulfiqar et al., 2019) and increase their chances of career success (Chen & Tseng, 2021).

Hence it can be posited that;

H2: Entrepreneurial Alertness positively effects entrepreneurial career success.

H2 is based on the theory of entrepreneurial opportunity identification and development by Ardichvili et al. (2003). It identifies entrepreneur's personality traits, social networks, and prior knowledge as antecedents of entrepreneurial alertness to business opportunities. Entrepreneurial alertness, in its turn, is a necessary condition for the success of the opportunity identification triad: recognition, development, and evaluation

H3: Entrepreneurial Alertness acts as an intervening variable between psychological resilience and career success.

H3 is based on the theory of A grounded theory of psychological resilience and optimal sport performance by Fletcher and Srkar (2013). It states that numerous psychological factors (relating to a positive personality, motivation, confidence, focus, and perceived social support) protect the world's best athletes from the potential negative effect of stressors by influencing their challenge appraisal and meta-cognitions. These processes promote facilitative responses that precede optimal sport performance.

H4. Entrepreneurial Alertness positively effects opportunity recognition.

This hypothesis is based on the theory of psychological basis of opportunity identification by Gaglio (2003). It states that alertness have a direct, mediating effect on an individual's ability to identify entrepreneurial opportunities

H5. Entrepreneurial Alertness acts as an intervening variable between psychological resilience and career success.

Hypotheses is based on the work done by Juhdi (2015) and Salisu et al. (2019). They studied mediated relationship between Psychological capital and entrepreneurial success.

The Moderating Role of Cultural Innovativeness

Within the OCP framework, the dimension of innovativeness encompasses risk orientation, failure tolerance, new ideas' generation, originality, readiness for change, constant learning, empowerment, working together, adaptability, and open, candid communication (Chandler et al. 2000; Dess et al., 1999). Organizations rating high on innovation culture have known to develop successful product faster than their counterparts (De Brentani & Kleinschmidt, 2004) and are better equipped to meet evolving market demands (Khazanchi et al., 2007). A risk

oriented culture drives innovative behavior and performance among the organizational members (Iranmanesh et al., 2021).

Sok et al. (2016) conclude that organizational innovativeness effects the use of information in the organization, nudging its members to utilize new information and knowledge and applying in more creative ways, which will lead to higher entrepreneurial alertness. Resilient companies make innovation an important facet of their culture (Oecd, 2005). They become resilient by managing uncertainties and develop better capabilities to handle these uncertainties (Reilly & Tushman, 2004) and also seek new business ideas. As de Oliveira Teixeira and Werther Jr (2013) state that people are driven by the company's core values and hence an innovative and risk oriented culture also helps them become resilient, alert and ultimately successful in their careers. Hence it can be hypothesized;

H6: Psychological resilience indirectly effects career success with entrepreneurial alertness as a mediating variable and an innovative organizational culture as a moderating variable, and this effects is stronger at higher levels of innovative culture.

H7: Psychological resilience indirectly effects opportunity recognition with entrepreneurial alertness as a mediating variable and an innovative organizational culture as a moderating variable, such that this indirect effect is stronger at higher levels of innovative culture.

Sample and Procedure

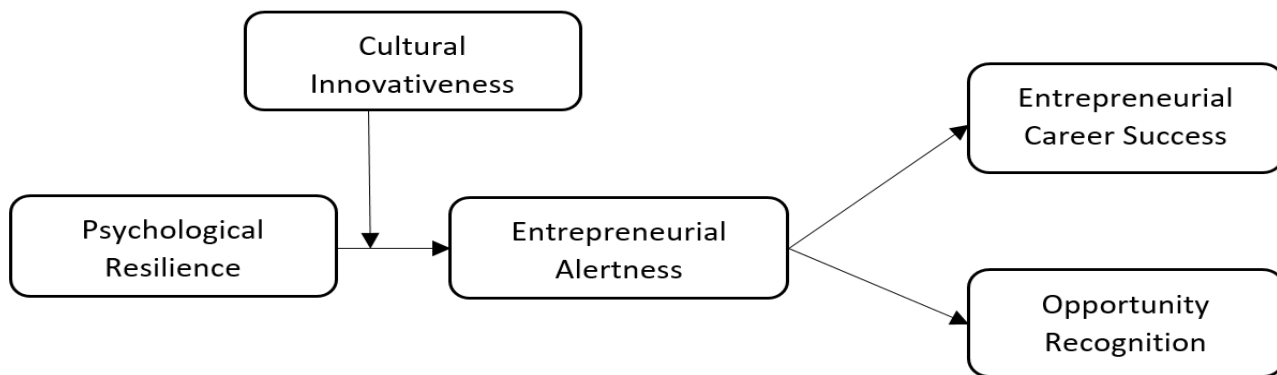


Figure 1: Theoretical Framework

Sample Size for the current study is 353 Start-Up founders/co-founders. The sample covers major cities of Pakistan including Islamabad, Rawalpindi, Lahore, Karachi, Peshawar, Quetta, and Faisalabad. Non-probability sampling techniques, convenience and snowball sampling has been used in this research. The target population for this research is entrepreneurs, specifically founder/co-founders of startups. Startups are small businesses aiming to produce a unique and innovative product or service (Grant, 2022). Generally startups are aiming to expand quickly and tend to also experiment with different models in the initial phases of their business, in order to see what works best for their business (Sarway, 2022). What differentiates a startup from a small and medium sized company is often considered in terms of their technology, growth goals and revenue prospects. Startups strive to create market disruptions by introducing technology based, innovative products and strive to make substantial profits quickly whereas SMEs set long-term goals are low to medium tech and focus on stable growth in the existing market (Camagni & Capello, 1988; Cavallo et al., 2021; Mickle, 2020; Womack & Jones, 1997).

For the subject study, startup founders based in the cities of Islamabad, Rawalpindi, Lahore, Karachi, Peshawar, Quetta, and Faisalabad have been accessed. These cities have been selected since they are major business centers of the country and have presence of some sort of entrepreneurial ecosystem such as business incubators, i.e., incubators that are housed in universities or those that are supported by public or private sector. An effective and doable strategy to reach out this hard to-access group of individuals is through convenience and snowball

sampling. The initial sampling frame consists of those entrepreneurs that are housed in the identified incubators. Participants are either founders or co-founders of least one company, for at least one year or more, and still working there. Participants filled the form online as well as given hard copy of questionnaire to fill out. Upon completion, they were requested to forward a link of the questionnaire to anyone in their network who fulfills the study criteria, consequently snowballing the initial sample.

For all non-probability sampling techniques such as those being used in the subject paper, the choice of the correct sample size remains a matter of debate and discussion. Contrary to probability sampling techniques, the main purpose of conducting the study as well as the sample selection technique remain the key driver of deciding the right sample size (Saunders et al., 2009). Numerous researchers have suggested that the total number of cases has to exceed the count of independent variables by 50 (Harris, 2001). VanVoorhis and Morgan (2007) propose using at least 10 participants per independent variable. As per this convention, the sample size should at least be 30 respondents.

For this research data from 353 founders/co-founders has been collected. The current study asks the participants to fill out the survey questionnaires themselves. Common method bias (CMB) poses a problem in such research designs that utilize cross-sectional data. To avoid CMB, the survey form was divided in sections and data collected on the predictor, moderator, mediator and outcome variables separately with a gap of two weeks between each collection phase. In the initial step, respondents filled out the questionnaire that only contained the items pertaining to independent variable i.e., psychological resilience. In the 2nd step, the same respondents completed questionnaire encompassing items relating to moderator and mediator variables. In the 3rd and step, data on the outcome variables was collected from the same pool of respondents. Past research has found this to be an effective technique that helps avoid problems arising due to data collection from a single source data collection (Syed, et al., 2022). Time-based separation between independent, mediating, moderating and outcome variables also helps reduce CMB (Podsakoff et al., 2003). Key demographic attributes of the startup founders/co-founders is shown in Table 1 and 2.

Table 1
Demographic attributes of respondents

Gender			Age		Education			
	Frequency	Percentage	Years	Frequency	Percentage		Frequency	Percentage
Male	226	64	18-25	159	45	Bachelor's	219	61.5
Female	127	35	26-35	145	41.1	Master's	85	23.8
			36-45	38	10.8	M.Phil	43	11.9
			46-50	4	1.1	PhD	10	2.8
			>50	7	2			
Total	353	100		353	100		353	100

Table 1 shows that a total population of 353 sample size containing 64% of males and 35% of females, 45% of the sample size falls in the age group of 18-25 years, 41.1% are in the age group of 26-35, 10.8% are in the age group of 36-45, 1.1% are in the age group of 46-50, and 2% falls in the age group of 50 and above. Whereas 61.5% of the sample size have a bachelor's degree, 23.5% have a Master's degree, 11.9% have an M.Phil. degree, and 2.8% have a PhD degree.

Table 2*Demographic profile of participants*

Income PKR	Experience		Experience Years	Experience	
	Frequency	Percentage		Frequency	Percentage
<100,000	161	45.6	0-5	217	61.5
100,000- 200,000	98	27.8	6-10	88	24.9
200,000- 300,000	35	9.9	11-15	26	7.4
>300,000	59	16.7	16-20	12	3.1
			21-25	2	0.6
			>25	9	2.5
	353	100		353	100

Table 2 shows that from the total population of 353 sample size, 45.6% fall in an income gauge from Pkr. 100,000 and below, 27.8% have income from Pkr. 100,000 to Pkr. 200,000, 9.9% have income from Pkr. 200,000 to Pkr. 300,000, and 16.7% fall in an income gauge from Pkr. 300,000 and above. Whereas 61.5 % of the total population have 0 to 5 years of work experience, 24.9% have 6 to 10 years of experience, 7.4% have 11 to 15 years of experience, 3.1% have 16 to 20 years of experience, 0.6% have 21 to 25 years of experience, and 2.5% have 25 and above years of work experience.

Measurement

Each of the measures has been sourced from extant literature.

Psychological Resilience (PsyRes)

To measure psychological resilience, the instrument containing six items and previously used by Wagnild and Young (1993) resilience scale, to measure psychological resilience in entrepreneurial contexts (Chadwick & Raver, 2020), has been used which rates items on a seven-point Likert's scale.

Entrepreneurial Alertness (EntpAl)

To measure this construct, the frequently utilized instrument of Tang et al. (2012) has been employed. However, instead of using all three sub dimensions of this instrument, only the dimension of scanning and searching for information, is being used as it most closely aligns to Kirzner's original conception of entrepreneurial alertness (Montiel-Campos, 2018). This dimension consists of six items which have are evaluated that makes use of a five-point Likert's scale.

Organizational Innovativeness (OrgInn)

To measure organizational innovativeness, four items measuring the dimension of innovativeness from the original OCP instrument have been chosen (Chow, Harrison, McKinnon, & Wu, 2001; Malo, 2015). The OCP instrument is a 28 item scale with four items per OCP dimension. These questions are graded on a five-point Likert's scale.

Entrepreneurial Career Success (CarSucc)

Entrepreneurial Career Success is assessed using a subjective measure comprising three dimensions (Salisu et al., 2019). The first dimension Career Satisfaction (CSS) has been assessed using scale developed by Greenhaus et al. (1990), while the other two dimensions i.e., Perceived Career Achievement (PCA) as well as perceived Financial Attainment (PFA) are gauged using pre-existing scale. Altogether there are 14 items in this Likert style scale.

Opportunity Recognition (OppRec)

Opportunity recognition has been assessed using a well utilized scale comprising three items (Ozgen & Baron, 2007). It is also a five point Likert scale.

Data Analysis

The present study incorporates three independent variables, utilizing a dataset consisting of 353 valid cases. The ratio of cases to independent variables stands at 1:118, aligning with the recommended minimum limit (Abrams, 2007). The 353 valid cases were derived after addressing for missing values and outliers. Examination of skewness and kurtosis was employed to assess the normality of the data. For structural equation modeling, skewness is expected to fall within -3 to $+3$, and kurtosis should be between -10 to $+10$ (Brown, 2006), both of which were confirmed within the specified ranges. Correlation coefficient values, presented in Table 3, were scrutinized to evaluate multicollinearity, and the absence of significant correlation was observed. Collinearity diagnostics, including Tolerance (>0.1) and Variance Inflation Factor (V.I.F.) values below the threshold (V.I.F. <10), further affirms the absence of multicollinearity among variables.

Table 3

Correlation among the constructs

	EntpAl	OppRec	OrgInn	PsyRes	CarSucc
EntpAl	1				
OppRec	0.543**	1			
OrgInn	0.674**	0.596**	1		
PsyRes	0.484**	0.317**	0.287**	1	
CarSucc	0.392**	0.565**	0.532**	0.209**	1

Correlation is significant at the 0.01 level (2-tailed). **

Table 3 shows that all independent variables have a weak correlation.

Results

Model reliability and validity

Model fitness was assessed using confirmatory factor analysis (C.F.A.). Results verified model fitness adequacy as per standard conventions ($\chi^2 = 1235.249$, $\chi^2 /df = 2.57$, $p < 0.000$, CFI = 0.91, RMSEA = 0.067, SRMR = 0.05, TLI = 0.90). All the standard path loadings were above 0.50, meeting the requisite criteria (Hair, 2009). Next convergent validity (CV) and discriminant validity (DV), average variance extracted (AVE) and composite reliability (CR) were calculated. All values were within prescribed limits with results all shown in Table 4 and Table 5(appendix).

Results of hypotheses tests

M-Plus software was used for hypotheses testing. It was found that alertness strongly and positively impacts resilience ($\beta = 0.485$, $p = 0.000$) as well as alertness and career success ($\beta = 0.391$, $p = 0.000$) and opportunity recognition ($\beta = 0.544$, $p = 0.000$). Therefore H1, H2 and H4 were all accepted. For the mediation hypotheses, entrepreneurial alertness was also found to mediate the relationship, therefore H3 and H5 were also accepted. For the moderated mediation hypotheses H6 and H7; in the first stage, the index of moderated mediation (i.e., $B2*B4$) was calculated and its significance checked for all the respective hypotheses. If this value was established as significant, only then we proceeded onto the next step, in which the indirect effect of predictor variable was checked on both outcome variables at various levels of the moderator. The tests used bootstrap confidence intervals and the resulting values shown in Table 6 (Appendix) indicate significant index of moderated mediation and hence both H6 and H7 are accepted.

Discussion

Resilient organizations prioritize innovation as a core aspect of their culture enabling them to navigate uncertainties effectively and develop enhanced capabilities in managing those (O'Reilly & Tushman, 2004). Furthermore, resilient companies actively seek out new business opportunities (de Oliveira Teixeira & Werther Jr, 2013), driven by their innovative and risk-oriented culture, which also fosters alertness among employees and enables them to experiment for new products, services, or improved scientific processes (Hult et al., 2004). Sok et al. (2016) conclude that organizational innovativeness effects the utilization of knowledge in the organization, nudging its members to utilize new information and knowledge and applying in more creative ways, which will lead to higher entrepreneurial alertness. Resilient companies make innovation an important facet of their culture (Oecd, 2005). As de Oliveira Teixeira and Werther Jr (2013) state that people are driven by the company's core values and hence an innovative and risk oriented culture also helps them become resilient, alert and ultimately successful in their careers. The findings of this study also supported this argument by highlighting how organizational innovativeness acts as a potent moderator and strengthens resilience-alertness nexus to enhance an entrepreneur's opportunity recognition skills and career success prospects. The findings also show how entrepreneurial alertness increases with increase in the levels of the moderator i.e., organizational innovativeness.

Theoretical implications

This paper strived to validate a model that connects psychological resilience of entrepreneurs with entrepreneurial alertness, opportunity recognition and career success using the RBV theory. The study validates the applicability of the RBV framework in the Pakistani context by examining how resources such as psychological resilience and organizational innovativeness impact entrepreneurial alertness, opportunity recognition, and career success. It further highlights how organizational innovativeness strengthens the linkage between psychological resilience and entrepreneurial alertness, providing an interesting insight into how previously unnoticed resources can drive entrepreneurial outcomes. The study provides fresh insights regarding the dynamic capabilities within the RBV framework by discovering how businesses can utilize psychological resilience and cultural innovativeness to enhance alertness, achieve career success and seize opportunities. Whilst the Resource-Based View (RBV) has been extensively applied in academic research, its application in the domain of entrepreneurship, especially in third world countries such as Pakistan, is relatively limited. This study makes use of the RBV framework in entrepreneurship research and explores how psychological resilience and organizational innovativeness influence entrepreneurial alertness, opportunity recognition, and career success, thereby venturing into a previously underexplored area.

Given the environment of Pakistan, the study reveals how an innovative organizational culture can influence the linkages between psychological resilience, entrepreneurial alertness, and career success, providing interesting new insights into resource utilization and entrepreneurship. The resultant theoretical implications stemming from the Resource-Based View (RBV) framework, can be further investigated across similar cultures. The fundamental philosophy of RBV, such as the deliberate organization of resources, are applicable globally and can further pave way for more investigation in various cultural contexts.

Practical implications

Outcomes of this research can help policymakers and practitioners in understanding the role psychological resilience and promoting organizational innovativeness for furthering entrepreneurial alertness, opportunity recognition, and career success in Pakistan. This knowledge can lay the foundation for developing targeted plans and strategies for supporting a fledgling entrepreneurship and economic landscape.

Furthermore, varsities and educational institutes can devise specific training programs to cultivate psychological resilience and develop organizational cultures that place premium on innovation, alertness and better career outcomes for the youth in Pakistan.

Studying the interaction between psychological resilience, organizational innovativeness, entrepreneurial alertness, and career success can lead to adoption of better businesses practices in Pakistan, improved resource allocation and capacity building endeavors to remain competitive in dynamic environments.

Summing up, the study has the potential to further theoretical understanding, devise practicable interventions, and informed decision-making in entrepreneurship and organizational management within the Pakistani context, at the same time broadening the application of the resource-based perspectives in entrepreneurship.

Limitations and future research areas

Even though this paper reveals interesting insights into the connection between psychological resilience, entrepreneurial alertness, organizational innovativeness, and career success, it is vital to recognize its deficiencies. For example, this study has been done in Pakistan, and given its unique issues and environment, it is hard to generalize its results till the time more research is done in comparable scenarios. Future research can be done in our neighboring countries such as India, Afghanistan, Bangladesh, Iran etc. to gauge its generalizability across varied populations. The study relies on self-report measures for assessing psychological resilience, entrepreneurial alertness, innovativeness, and career outcomes, which has the chances to enhance common method bias. Future research could utilize mixed-method approaches or taking observations from multiple resources to address measurement issues. Other potential moderators can be the other six dimensions of OCP framework. Future research could look at additional contextual and discrete factors that influence the relationships among psychological resilience, alertness, innovativeness, and career outcomes.

Conclusion

This study provides valuable insights into the complex links between psychological resilience, entrepreneurial alertness, organizational innovativeness, and career success. The findings do reveal a compelling association between psychological resilience and entrepreneurial alertness, stressing the importance of psychological factors in increasing cognizance and receptiveness to entrepreneurial opportunities. The results further establish link a positive between entrepreneurial alertness and career success, as well as opportunity recognition, emphasizing how entrepreneurial enhances entrepreneurial performance. Psychological resilience does connect with both opportunity recognition and career success as corroborated empirically, signifying the apparatus through which resilience influences entrepreneurial success. By integrating the OCP dimension of innovativeness, this study shifts the focus from personal factors to the organizational context. It recognizes that innovation is not a function of individual characteristics alone but also influenced by the values and practices within an organization. The OCP dimension of innovativeness provides an all-inclusive measure of organizational culture related to innovation. It utilizes various facets of organizational practices, values, and norms that promote or inhibit innovation, offering a deep understanding of how organizational culture shapes entrepreneurial processes using the Resource-Based View (RBV) framework,. By taking innovativeness as a resource entrenched within organizational culture, the study enriches the RBV perspective on entrepreneurship.

References

- Abrams, D., 2007. Introduction to Regression. Retrieved from. https://dss.princeton.edu/online_help/analysis/regression_intro.htm
- Amato, C., et al. (2017). Regulatory modes and entrepreneurship: The mediational role of alertness in small business success. *Journal of Small Business Management*, 55, 27-42.
- Anderson, R. C., et al. (2021). Generating buoyancy in a sea of uncertainty: Teachers creativity and well-being during the COVID-19 pandemic. *Frontiers in Psychology*, 11, 614774.
- Andersson, T., et al. (2019). Building traits for organizational resilience through balancing organizational structures. *Scandinavian Journal of Management*, 35(1), 36-45.
- Angel, P., et al. (2018). Understanding entrepreneurial success: A phenomenographic approach. *International Small Business Journal*, 36(6), 611-636.
- Araujo, C. F., et al. (2023). Entrepreneurial alertness: A meta-analysis and empirical review. *Journal of Business Venturing Insights*, 19, e00394.
- Ardichvili, A., Cardozo, R., & Ray, S. (2003). A theory of entrepreneurial opportunity identification and development. *Journal of Business venturing*, 18(1), 105-123.
- Ayala, J.-C., et al. (2014). The resilience of the entrepreneur. Influence on the success of the business. A longitudinal analysis. *Journal of Economic Psychology*, 42, 126-135.
- Barasa, E., et al. (2018). What is resilience and how can it be nurtured? A systematic review of empirical literature on organizational resilience. *International journal of health policy and management*, 7(6), 491.
- Baron, R. A. (2006). Opportunity recognition as pattern recognition: How entrepreneurs “connect the dots” to identify new business opportunities. *Academy of management perspectives*, 20(1), 104-119.
- Baron, R. A. (2007). Behavioral and cognitive factors in entrepreneurship: Entrepreneurs as the active element in new venture creation. *Strategic Entrepreneurship Journal*, 1(1-2), 167-182.
- Baron, R. A., et al. (2011). Entrepreneurship: The genesis of organizations.
- Baroncelli, S., Caputo, A., Santini, E., & Theodoraki, C. (2024). Resilience and entrepreneurial decision-making: the heterogeneity among Italian innovative start-ups. *Entrepreneurship & Regional Development*, 36(5-6), 798-815.
- Block, J., et al. (1980). California child Q-set. *Developmental Psychology*.
- Boso, N., et al. (2019). Do entrepreneurs always benefit from business failure experience? *Journal of Business Research*, 98, 370-379.
- Bullough, A., et al. (2013). Entrepreneurial resilience during challenging times. *Business Horizons*, 56(3), 343-350. doi:<https://doi.org/10.1016/j.bushor.2013.01.001>
- Bullough, A., et al. (2014). Danger zone entrepreneurs: The importance of resilience and self-efficacy for entrepreneurial intentions. *Entrepreneurship Theory and Practice*, 38(3), 473-499.
- Camagni, R., et al. (1988). Italian success stories of local development: theoretical conditions and practical experience. *Universita {Luigi}{Bocconi {Milano mimeo*.
- Campagnolo, D., et al. (2022). Stay alert, save businesses. Planning for adversity among immigrant entrepreneurs. *International Journal of Entrepreneurial Behavior & Research*, 28(7), 1773-1799.
- Cartwright, S., et al. (2009). *The Oxford handbook of organizational well-being*: Oxford Handbooks.
- Carver, C. S. (1998). Resilience and thriving: Issues, models, and linkages. *Journal of social issues*, 54(2), 245-266.
- Cavaliere, V., et al. (2022). Entrepreneurial alertness and self-perceived employability: a virtuous marriage for career development. *Personnel Review*, 51(1), 137-158. doi:10.1108/PR-05-2020-0350
- Cavallo, A., et al. (2021). Small-medium enterprises and innovative startups in entrepreneurial ecosystems: exploring an under-remarked relation. *International Entrepreneurship and Management Journal*, 17, 1843-1866.
- Chandler, G. N., et al. (2000). Unraveling the determinants and consequences of an innovation-supportive organizational culture. *Entrepreneurship Theory and Practice*, 25(1), 59-76.

- Chen, M.-H., et al. (2021). Creative entrepreneurs' artistic creativity and entrepreneurial alertness: the guanxi network perspective. *International Journal of Entrepreneurial Behavior & Research*.
- Chow, C. W., et al. (2001). Organizational culture: Association with affective commitment, job satisfaction, propensity to remain and information sharing in a Chinese cultural context. *San Diego University CIBER Working Paper Series, Publication, 1(11)*, 1-28.
- Coelho, P. R., et al. (2005). Learning from failure. *American Journal of Business*, 20(1), 1-1.
- Cooper, B., et al. (2013). *The lean entrepreneur: How visionaries create products, innovate with new ventures, and disrupt markets*: John Wiley & Sons.
- Corbett, A. C. (2007). Learning asymmetries and the discovery of entrepreneurial opportunities. *Journal of Business Venturing*, 22(1), 97-118.
- Corner, P. D., et al. (2017). Entrepreneurial resilience and venture failure. *International Small Business Journal*, 35(6), 687-708.
- Davidsson, P., et al. (2016). Much ado about nothing? The surprising persistence of nascent entrepreneurs through macroeconomic crisis. *Entrepreneurship Theory and Practice*, 40(4), 915-941.
- De Brentani, U., et al. (2004). Corporate culture and commitment: impact on performance of international new product development programs. *Journal of product innovation management*, 21(5), 309-333.
- de Oliveira Teixeira, E., et al. (2013). Resilience: Continuous renewal of competitive advantages. *Business Horizons*, 56(3), 333-342.
- Delmar, F. (2005). The entrepreneurial process: emergence and evolution of new firms in the knowledge-intensive economy. *Entrepreneurship research in Europe, outcomes and perspectives*, 55-79.
- Dess, G. G., et al. (1999). Linking corporate entrepreneurship to strategy, structure, and process: Suggested research directions. *Entrepreneurship Theory and Practice*, 23(3), 85-102.
- Duchek, S. (2018). Entrepreneurial resilience: a biographical analysis of successful entrepreneurs. *International Entrepreneurship and Management Journal*, 14(2), 429-455.
- Duening, T. N. (2010). Five minds for the entrepreneurial future: Cognitive skills as the intellectual foundation for next generation entrepreneurship curricula. *The Journal of Entrepreneurship*, 19(1), 1-22.
- Dyer, J. H., et al. (2008). Entrepreneur behaviors, opportunity recognition, and the origins of innovative ventures. *Strategic Entrepreneurship Journal*, 2(4), 317-338.
- Fatima, T., Bilal, A. R., Imran, M. K., & Sarwar, A. (2024). Action-oriented entrepreneurial training and career resilience: a serial mediation model. *Journal of Organizational Change Management*.
- Fisher, C. J., et al. (2000). Consulting on culture: A new bottom line. *Consulting Psychology Journal: Practice and Research*, 52(3), 206.
- Fisher, R., et al. (2016). Does individual resilience influence entrepreneurial success. *Academy of Entrepreneurship Journal*, 22(2), 39-53.
- Fletcher, D., & Sarkar, M. (2013). Psychological Resilience: A Review And Critique Of Definitions. Concepts, And Theory, *European psychologist*, 18 (1), 12–23.
- Funston, F., et al. (2010). *Surviving and thriving in uncertainty: Creating the risk intelligent enterprise*: John Wiley & Sons.
- Gaglio, C. M., et al. (2001). The psychological basis of opportunity identification: Entrepreneurial alertness. *Small business economics*, 16, 95-111.
- Ghose, S. M., et al. (2021). Rural women entrepreneurs in Oman: problems and opportunities. *International Journal of Entrepreneurial Behavior & Research*, 27(7), 1674-1695.
- Gölgeci, I., et al. (2015). How does firm innovativeness enable supply chain resilience? The moderating role of supply uncertainty and interdependence. *Technology analysis & strategic management*, 27(3), 267-282.
- Grant, M. (2022). What a Startup Is and What's Involved in Getting One Off the Ground *Investopedia*.
- Greenhaus, J. H., et al. (1990). Effects of race on organizational experiences, job performance evaluations, and career outcomes. *Academy of Management Journal*, 33(1), 64-86.
- Guerrero, M., et al. (2023). How do entrepreneurs build a resilient and persistent identity? Re-examining the financial crisis impact. *International Entrepreneurship and Management Journal*, 1-35.

- Hadjielias, E., et al. (2022). Contextualizing small business resilience during the COVID-19 pandemic: evidence from small business owner-managers. *Small business economics*, 59(4), 1351-1380.
- Harris, R. J. (2001). *A primer of multivariate statistics*: Psychology Press.
- Hartmann, S., et al. (2022). Psychological resilience of entrepreneurs: A review and agenda for future research. *Journal of Small Business Management*, 60(5), 1041-1079.
- Hayward, M. L., et al. (2010). Beyond hubris: How highly confident entrepreneurs rebound to venture again. *Journal of Business Venturing*, 25(6), 569-578.
- Heslin, P. A. (2005). Conceptualizing and evaluating career success. *Journal of Organizational Behavior: The International Journal of Industrial, Occupational and Organizational Psychology and Behavior*, 26(2), 113-136.
- Hillmann, J., et al. (2021). Organizational resilience: a valuable construct for management research? *International Journal of Management Reviews*, 23(1), 7-44.
- Hoegl, M., et al. (2021). Bouncing back, if not beyond: Challenges for research on resilience. *Asian Business & Management*, 20(4), 456-464.
- Hofstede, G. (2001). *Culture's consequences: Comparing values, behaviors, institutions and organizations across nations*: sage.
- Hoskisson, R. E., et al. (2011). Revitalizing entrepreneurship: The search for new research opportunities. *Journal of Management Studies*, 48(6), 1141-1168.
- Hult, G. T. M., et al. (2004). Innovativeness: Its antecedents and impact on business performance. *Industrial marketing management*, 33(5), 429-438.
- Iddris, F. (2024). Entrepreneurship education on international entrepreneurship intention: the role of entrepreneurship alertness, proactive personality, innovative behaviour and global mindset. *Journal of Applied Research in Higher Education*.
- Iranmanesh, M., et al. (2021). The impacts of organizational structure on operational performance through innovation capability: innovative culture as moderator. *Review of Managerial Science*, 15, 1885-1911.
- Jaafari, A. (2001). Management of risks, uncertainties and opportunities on projects: time for a fundamental shift. *International journal of project management*, 19(2), 89-101.
- Jambulingam, T., et al. (2005). Entrepreneurial orientation as a basis for classification within a service industry: the case of retail pharmacy industry. *Journal of operations management*, 23(1), 23-42.
- Javidan, M., et al. (2009). Managerial implications of the GLOBE project: A study of 62 societies. *Asia Pacific Journal of Human Resources*, 47(1), 41-58.
- Juhdi, H. (2015). Psychological capital and entrepreneurial success: a multiple-mediated relationship. *European Journal of Interdisciplinary Studies*, 1(2), 110-133.
- Kaish, S., et al. (1991). Characteristics of opportunities search of entrepreneurs versus executives: Sources, interests, general alertness. *Journal of Business Venturing*, 6(1), 45-61.
- Khazanchi, S., et al. (2007). Innovation-supportive culture: The impact of organizational values on process innovation. *Journal of operations management*, 25(4), 871-884.
- Kirzner, I. M. (1983). *Perception, opportunity, and profit*: Chicago University Press Chicago, IL, USA.
- Kirzner, I. M. (1999). Creativity and/or alertness: A reconsideration of the Schumpeterian entrepreneur. *The review of Austrian economics*, 11(1-2), 5-17.
- Korsgaard, S., et al. (2016). A tale of two Kirznerns: Time, uncertainty, and the “nature” of opportunities. *Entrepreneurship Theory and Practice*, 40(4), 867-889.
- Kromidha, E., et al. (2024). Developing entrepreneurial resilience from uncertainty as usual: a learning theory approach on readiness, response and opportunity. *International Journal of Entrepreneurial Behavior & Research*.
- Krueger Jr, N. F., et al. (1994). Entrepreneurial potential and potential entrepreneurs. *Entrepreneurship Theory and Practice*, 18(3), 91-104.
- Lau, V. P., et al. (2007). Entrepreneurial career success from a Chinese perspective: conceptualization, operationalization, and validation. *Journal of International Business Studies*, 38, 126-146.
- Lee, S. K. J., et al. (2004). Corporate culture and organizational performance. *Journal of managerial psychology*.

- Lemon, M., et al. (2004). Organizational culture as a knowledge repository for increased innovative capacity. *Technovation*, 24(6), 483-498.
- Lima, L. G. d., et al. (2020). The power of psychological capital: The strength of beliefs in entrepreneurial behavior. *Revista de Administração Contemporânea*, 24, 317-334.
- Lowe, S. R., et al. (2015). Psychological resilience after Hurricane Sandy: the influence of individual-and community-level factors on mental health after a large-scale natural disaster. *PLoS one*, 10(5), e0125761.
- Luftman, J. N., et al. (1993). Transforming the enterprise: The alignment of business and information technology strategies. *IBM systems journal*, 32(1), 198-221.
- Luthans, F., et al. (2004). Human, social, and now positive psychological capital management: Investing in people for competitive advantage.
- Lv, W.-D., et al. (2018). Innovation resilience: A new approach for managing uncertainties concerned with sustainable innovation. *Sustainability*, 10(10), 3641.
- Lyu, Y. (2024). Interplay of entrepreneurial failure experience, entrepreneurial resilience, and re-entrepreneurship performance: Evidence from China. *Environment and Social Psychology*, 9(3).
- Mallak, L. (1998). Putting organizational resilience to work. *INDUSTRIAL MANAGEMENT-CHICAGO THEN ATLANTA-*, 8-13.
- Malo, B. (2015). *Organisational culture and job satisfaction among academic professionals at a South African University of Technology*. Bloemfontein: Central University of Technology, Free State.
- Markman, G. D., et al. (2003). Person-entrepreneurship fit: why some people are more successful as entrepreneurs than others. *Human Resource Management Review*, 13(2), 281-301.
- Martin, B. C., McNally, J. J., & Kay, M. J. (2013). Examining the formation of human capital in entrepreneurship: A meta-analysis of entrepreneurship education outcomes. *Journal of business venturing*, 28(2), 211-224.
- Masten, A. S. (2001). Ordinary magic: Resilience processes in development. *American psychologist*, 56(3), 227.
- McMullen, J. S., et al. (2006). Entrepreneurial action and the role of uncertainty in the theory of the entrepreneur. *Academy of management review*, 31(1), 132-152.
- Mikle, L. (2020). *Startups and reasons for their failure*. Paper presented at the SHS Web of Conferences.
- Mitchell, R. K., et al. (2008). Inside opportunity formation: Enterprise failure, cognition, and the creation of opportunities. *Strategic Entrepreneurship Journal*, 2(3), 225-242.
- Nautiyal, S., & Pathak, P. (2024). Resilience through the lens of entrepreneurship: a bibliometric analysis and network mapping of the emerging research field. *International Journal of Organizational Analysis*, 32(3), 522-544.
- Neneh, B. N. (2019). From entrepreneurial alertness to entrepreneurial behavior: The role of trait competitiveness and proactive personality. *Personality and Individual Differences*, 138, 273-279.
- Ng, T. W., et al. (2014). Subjective career success: A meta-analytic review. *Journal of Vocational Behavior*, 85(2), 169-179.
- Norton, W. I., et al. (2002). Entrepreneurial risk: have we been asking the wrong question? *Small business economics*, 18, 281-287.
- O'Reilly III, C. A., et al. (1991). People and organizational culture: A profile comparison approach to assessing person-organization fit. *Academy of Management Journal*, 34(3), 487-516.
- O'Reilly, C. A., et al. (2004). The ambidextrous organization. *Harvard business review*, 82(4), 74-83.
- Oecd, E. (2005). Oslo manual: Guidelines for collecting and interpreting innovation data. *Paris 2005, Sp*, 46, 1-34.
- Ozgen, E., et al. (2007). Social sources of information in opportunity recognition: Effects of mentors, industry networks, and professional forums. *Journal of Business Venturing*, 22(2), 174-192.
- Parker, M. (1999). Organizational culture and identity: Unity and division at work. *Organizational Culture and Identity*, 1-272.
- Pathak, R., et al. (2018). Optimism in relation to resilience and perceived stress. *Journal of Psychosocial Research*, 13(2), 359-367.

- Pathak, M. D., Kar, B., Panigrahi, R. R., & Shrivastava, A. K. (2024). Role of entrepreneurial resilience in SMEs to promote marketing and entrepreneurship amid Covid19 challenges. *Journal of Research in Marketing and Entrepreneurship*, 26(1), 44-62.
- Podsakoff, P. M., et al. (2003). Common method biases in behavioral research: a critical review of the literature and recommended remedies. *Journal of applied psychology*, 88(5), 879.
- Puhakka, V. (2011). Developing a creative-cognitive model of entrepreneurial alertness to business opportunities. *Journal of Management and Strategy*, 2(4), 85.
- Ramadani, V., et al. (2013). Women entrepreneurs in the Republic of Macedonia: waiting for directions. *International Journal of Entrepreneurship and Small Business*, 19(1), 95-121.
- Roundy, P. T., et al. (2019). Dynamic capabilities and entrepreneurial ecosystems: the micro-foundations of regional entrepreneurship. *The Journal of Entrepreneurship*, 28(1), 94-120.
- Roundy, P. T., & Im, S. (2024). Combining cognition and context: entrepreneurial alertness and the microfoundations of entrepreneurial ecosystems. *Asia Pacific Journal of Management*, 1-19.
- Salisu, I., et al. (2019). Entrepreneurial career resilience and entrepreneurial career success: Does entrepreneurial career commitment matter? *Management Science Letters*, 9(1), 73-90.
- Salisu, I., Hashim, N., & Galadanchi, A. (2019). Social capital and entrepreneurial career resilience: The role of entrepreneurial career commitment. *Management Science Letters*, 9(1), 139-154.
- Salisu, I., et al. (2020). Perseverance of effort and consistency of interest for entrepreneurial career success: Does resilience matter? *Journal of Entrepreneurship in Emerging Economies*, 12(2), 279-304.
- Santoro, G., et al. (2020). Self-efficacy and success of disadvantaged entrepreneurs: The moderating role of resilience. *European Management Review*, 17(3), 719-732.
- Sarway, E. D. (2022). What's the Difference Between a Startup and a Small Business? *Entrepreneur*. Retrieved from <https://www.entrepreneur.com/starting-a-business/whats-the-difference-between-a-startup-and-a-small/439411>
- Sassetti, S., et al. (2022). The rhythm of effective entrepreneurs' decision-making process. The pathways of alertness scanning and search and cognitive style. A mediation model. *International Entrepreneurship and Management Journal*, 18(2), 555-578.
- Saunders, M., et al. (2009). *Research methods for business students*: Pearson education.
- Schein, E. H. (1999). Sense and nonsense about culture and climate.
- Schutte, F., et al. (2020). Resilience as survival trait for start-up entrepreneurs.
- Seery, M., et al. (2016). Understanding resilience: From negative life events to everyday stressors *Advances in experimental social psychology* (Vol. 54, pp. 181-245): Elsevier.
- Shepherd, D. A., et al. (2020). How to circumvent adversity? Refugee-entrepreneurs' resilience in the face of substantial and persistent adversity. *Journal of Business Venturing*, 35(4), 105940.
- Shepherd, D. A., et al. (2020). Entrepreneurship responding to adversity: Equilibrating adverse events and disequilibrating persistent adversity. *Organization Theory*, 1(4), 2631787720967678.
- Shirokova, G., et al. (2022). Unravelling the Relationship between Dark Triad Traits and Effectuation and Causation within Small-and Medium-sized Enterprises. *British Journal of Management*.
- Skodol, A. E. (2010). The resilient personality. *Handbook of adult resilience*, 112.
- Sok, P., et al. (2016). The performance advantages for SMEs of product innovation and marketing resource–capability complementarity in emerging economies. *Journal of Small Business Management*, 54(3), 805-826.
- Stephan, U. (2018). Entrepreneurs' mental health and well-being: A review and research agenda. *Academy of management perspectives*, 32(3), 290-322.
- Stoverink, A. C., et al. (2020). Bouncing back together: Toward a theoretical model of work team resilience. *Academy of management review*, 45(2), 395-422.
- Syed, F., et al. (2022). Dealing with the devil: Combined effects of destructive leadership and Dark Triad personality on revenge, happiness and psychological detachment. *Canadian Journal of Administrative Sciences/Revue Canadienne des Sciences de l'Administration*, 39(2), 213-230.

- Tang, J., et al. (2023). Entrepreneurial alertness: Exploring its psychological antecedents and effects on firm outcomes. *Journal of Small Business Management*, 61(6), 2879-2908.
- Tang, J., et al. (2012). Entrepreneurial alertness in the pursuit of new opportunities. *Journal of Business Venturing*, 27(1), 77-94.
- Tesluk, P. E., et al. (1997). Influences of organizational culture and climate on individual creativity. *The journal of creative behavior*, 31(1), 27-41.
- Tornikoski, E., et al. (2014). Timely creation of new organizations: The imprinting effects of entrepreneurs' initial founding decisions. *M@ n@ gement*(3), 193-213.
- Urban, B. (2019). Institutional influence on entrepreneurial alertness and business growth in an emerging market context. *Institutions and Economies*, 93-117.
- Vakilzadeh, K., et al. (2021). The building blocks of organizational resilience: A review of the empirical literature. *Continuity & Resilience Review*, 3(1), 1-21.
- Valliere, D. (2013). Towards a schematic theory of entrepreneurial alertness. *Journal of Business Venturing*, 28(3), 430-442.
- VanVoorhis, C. W., et al. (2007). Understanding power and rules of thumb for determining sample sizes. *Tutorials in quantitative methods for psychology*, 3(2), 43-50.
- Wang, H., et al. (2023). Bouncing back from failure: Digital technology capability, entrepreneurial alertness, and reentry intention. *Asia Pacific Journal of Management*, 1-36.
- Wisse, B., et al. (2015). How innovative is your employee? The role of employee and supervisor Dark Triad personality traits in supervisor perceptions of employee innovative behavior. *Personality and Individual Differences*, 82, 158-162.
- Womack, J. P., et al. (1997). Lean thinking—banish waste and create wealth in your corporation. *Journal of the Operational Research Society*, 48(11), 1148-1148.
- Wood, M. S., et al. (2014). Opportunity evaluation as rule-based decision making. *Journal of Management Studies*, 51(4), 573-602.
- Zighan, S., et al. (2022). The role of entrepreneurial orientation in developing SMEs resilience capabilities throughout COVID-19. *The International Journal of Entrepreneurship and Innovation*, 23(4), 227-239.
- Zulfiqar, S., et al. (2019). Opportunity recognition behavior and readiness of youth for social entrepreneurship. *Entrepreneurship Research Journal*, 11(4), 20180201.

Appendix

Table 4
Confirmatory factor analysis (CFA)

Construct	Items	Estimate	AVE	CR	
Psychological Resilience (PsyRes)	PR1	0.79	0.728	0.941	
	PR2	0.844			
	PR3	0.881			
	PR4	0.878			
	PR5	0.86			
	PR6	0.863			
Entrepreneurial Alertness (EntpAl)	EA1	0.713	0.520	0.866	
	EA2	0.726			
	EA3	0.65			
	EA4	0.775			
	EA5	0.774			
	EA6	0.681			
Organizational Innovativeness (OrgInn)	Inn1	0.755	0.581	0.845	
	Inn2	0.833			
	Inn3	0.834			
	Inn4	0.605			
	Entrepreneurial Career Success (CarSucc)	CSS1	0.814	0.553	0.945
		CSS2	0.785		
CSS3		0.805			
CSS4		0.779			
CSS5		0.759			
PCA1		0.763			
PCA2		0.779			
PCA3		0.774			
PCA4		0.763			
PFA1		0.737			
PFA2		0.684			
PFA3		0.715			
PF4A		0.648			
PF5A		0.562			
Opportunity Recognition (OppRec)	OR1	0.832	0.761	0.905	
	OR2	0.885			
	OR3	0.898			

Table 5
Discriminant validity (DV)

	CarSucc	PsyRes	EntpAl	OrgInn	OppRec
CarSucc	0.743				
PsyRes	0.209	0.853			
EntpAl	0.392	0.484	0.721		
OrgInn	0.532	0.287	0.674	0.762	
OppRec	0.565	0.317	0.543	0.596	0.872

Table 6
Results of H1: Resilience positively effects entrepreneurial alertness.

	Hypotheses	β	ρ	t-value	Status
H1	PsyRes \rightarrow EntpAl	0.485	0.000	10.455	Accepted

Table 7
Results of H2: Entrepreneurial Alertness positively effects entrepreneurial career success.

	Hypotheses	β	ρ	t-value	Status
H2	EntpAl \rightarrow CarSucc	0.394	0.000	7.786	Accepted

Table 8
Results of H3: Entrepreneurial Alertness acts as an intervening variable between psychological resilience and career success.

	Hypotheses	β	ρ	t-value	Status
H3	PsyRes \rightarrow EntAl \rightarrow CarSucc				Accepted
	CarSucc on PsyRes (Path c')	0.025	0.687	0.403	
	CarSucc on EntAl; (Path b)	0.374	0.000	6.079	
	EntAl on PsyRes; (Path a)	0.484	0.000	10.426	
	Total Effects (Path c)	0.206	0.000	3.801	
	Total Indirect Effect (Path $a \times b$)	0.181	0.000	5.069	

Table 9
Results of H4: Entrepreneurial Alertness positively effects opportunity recognition.

	Hypotheses	β	ρ	t-value	Status
H4	EntpAl \rightarrow OpRec	0.544	0.000	12.266	Accepted

Table 10
Moderation of Entrepreneurial Alertness

	Hypotheses	β	ρ	t-value	Status
H5	PsyRes \rightarrow EntAl \rightarrow OpRec				Accepted
	OpRec on PsyRes (Path c')	0.069	0.247	1.158	
	OpRec on EntAl; (Path b)	0.510	0.000	9.173	
	EntAl on PsyRes; (Path a)	0.484	0.000	10.422	
	Total Effects (Path c)	0.315	0.000	6.035	
	Total Indirect Effect (Path $a \times b$)	0.247	0.000	6.558	

Table 11
Mediation of Entrepreneurial Alertness in PsyRec and CarSucc

	Hypotheses	β	ρ	t-value	Status
H6	PsyRec \rightarrow EntpAl \rightarrow CarSucc is moderated by OrgInn (ab~ CarSucc)	β	ρ	t-value	Accepted
	Step1: CarSucc on EntpAl (Path B2)	0.384	0.000	6.821	
	Step2: EntpAl on PsyRec (Path B1)	0.193	0.000	4.942	
	Step3: EntpAl on OrgInn (Path B3)	0.565	0.000	9.191	
	Step4: EntpAl on CarSucc * OrgInn (B4)	0.105	0.000	6.463	
	Step5: Index of Moderated Mediation (B2*B4)	0.040	0.000	5.690	
Slope Tests	Moderator	Conditional	ρ	LL 95% CI	UL 95% CI
Indirect Effect	Level (OrgInn)	Indirect Effect β			
PsyRec \rightarrow EntpAl \rightarrow CarSucc	Low	0.034	0.004	0.012	0.062
	Med	0.074	0.000	0.044	0.102
	High	0.114	0.000	0.075	0.161

Table 12
22

Mediation of Entrepreneurial Alertness in PsyRec and OpRec

Hypotheses		β	ρ	t-value	Status
H7	PsyRec → EntpAl → OpRec is moderated by OrgInn (ab~ OpRec)	β	ρ	t-value	Accepted
	Step1: OpRec on EntpAl (Path B2)	0.530	0.000	8.311	
	Step2: EntpAl on PsyRec (Path B1)	0.201	0.000	5.084	
	Step3: EntpAl on OrgInn (Path B3)	0.573	0.000	8.211	
	Step4: EntpAl on OpRec*OrgInn(B4)	0.097	0.000	5.926	
	Step5: Index of Moderated Mediation (B2*B4)	0.051	0.000	5.984	
Slope Tests	Moderator	Conditional	ρ	LL 95% CI	UL 95% CI
Indirect Effect	Level (OrgInn)	Indirect Effect β			
	Low	0.055	0.002	0.021	0.092
H 6	Med	0.106	0.000	0.063	0.152
PsyRec → EntpAl → OpRec	High	0.158	0.000	0.103	0.217