

Grit and Entrepreneurial Resilience: The Moderating Role of Locus of Control among Entrepreneurs in Jos Plateau State.

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ABSTRACT

Entrepreneurs are the backbone of every thriving economy, as they own firms that pay taxes to the government, but as important as they seem to be, they struggle through resilience to achieve the fit they reach in the business venture they pursue. This study investigated how grit personality (consistency of interest and perseverance of effort) affects Entrepreneurial resilience. The study specifically looked at the role of locus of control (internal and external) as a moderating construct. The study was carried out in Jos North and environs, Plateau State, Nigeria. The research discovered a strong, significant link between grit personality consistency of interest, perseverance of effort and entrepreneurial resilience, moderated by locus of control: internal and external. This reveal that even though grit personality can have a positive impact on entrepreneurial resilience, the moderating effect of locus of control reveals which of the grit constructs is more significant than the other in developing Entrepreneurial resilience.

Keywords: Entrepreneurial resilience; Locus of control; Grit personality.

INTRODUCTION

Entrepreneurs are often considered a substantial resource for the economy (McMullen & Shepherd, 2006). They aid in the production of wealth and facilitate growth for society as a whole. However, entrepreneurs experience several challenges that must be solved in order to launch a viable new enterprise. An entrepreneur must possess the trait of perseverance because some obstacles might be extremely difficult and take several attempts to overcome (Cardon Kirk, 2013). According to Hallak et al. 2018), the idea of persistence describes the enduring and resolute efforts made by entrepreneurs in the face of difficulties and obstacles they confront while starting their entrepreneurial process. However, it can be argued that persistence alone is insufficient. Resilient entrepreneurs, who possess the ability to swiftly adapt to the ever-evolving demands of the business landscape and navigate through uncertainties, may be better equipped to achieve success compared to those who rely solely on persistence (Ayala Manzano, 2014).

Attaining success in one's career typically requires a significant amount of time and effort, extending over several months or even years. Despite being acknowledged as the driving force behind economic progress (Hyder & Lussier, 2016; Efobi & Orkoh, 2018), entrepreneurial endeavours are frequently confronted with a high rate of attrition, as studies indicate that over 70 per cent of entrepreneurs ultimately quit Hyder & Lussier, 2016). Furthermore, scholars argue that the path to success is both challenging and distant, characterised by significant stress and substantial personal sacrifices Alexander-Passe (2017). Numerous research studies have investigated the factors that determine who persist in pursuing their long-term objectives and who succumbs to surrender and abandonment. The existing literature emphasises the importance of various non-cognitive factors in predicting a range of positive outcomes. One such relatively unexplored factor, which has been correlated with positive outcomes, the pursuit of goals, and achievement, is individuals' proclivity to demonstrate passion and perseverance in the pursuit of long-term goals Bonfiglio (2017). Duckworth et al. (2007) introduced the term 'grit' to characterise this quality, which they define as 'the unwavering determination and passion in pursuing long-term goals' (p. 1087). The construct of grit can be differentiated by two primary aspects: the persistence of effort and the consistency of interests (Duckworth et al., 2007)

The act of entrepreneurship presents an extreme scenario wherein individuals face substantial risks and rewards, in contrast to regularly paid workers who have lower stakes in the success or failure of their business. Self-employment entails heightened levels of pressure, ambiguity in roles, intensified emotional exertion, as well as elevated risks and potential rewards (Cardon & Patel, 2013). The process of entrepreneurship is characterised by uncertain and unfavourable circumstances in which the individual has relatively limited control (Bird B, 1989). One significant source of adversity faced by entrepreneurs is their financial condition or income derived from their business activities. A decline in economic conditions can be identified as the primary factor associated with the stress experienced by entrepreneurs (Pollack JM et al., 2012). The level of income among entrepreneurs is positively correlated with their overall well-being and health (Cardon & Patel, 2013). In this study, the author tests the relationship between grit personality and entrepreneurial resilience, moderated by locus of control.

According to Ayala Manzano (2014), resilience is characterised as a dynamic process of adjustment that empowers entrepreneurs to maintain their focus on their aspirations, regardless of market and economic adversities and other disruptive factors that persistently impact the business. Resilience constitutes a pivotal element in the establishment of a sustainable business venture. It is a multifaceted notion that lacks specificity. Rather, it is regarded as a fusion of an individual's diverse array of attitudes and behaviours (Ayala & Manzano, 2014). Consequently, the attribution of significance to the concept of resilience has presented challenges (Luthar & Becker, 2000), to the extent that devising a practical and operational definition to quantify this construct has become arduous (Ayala & Manzano, 2014). Despite the development of scales to gauge the resilience construct, the process of comprehensive validation remains intricate (Windle et al., 2011; Ayala & Manzano, 2014).

Considering the empirical evidence put forth by Meyer et al. (2020), it is imperative to investigate the distinct constructs of grit and resilience within the field of positive psychology. Consequently, it becomes particularly pertinent to explore these constructs and investigate their potential relationship with Entrepreneurial resilience. This research paper aims to expand the existing body of knowledge on grit by establishing its connection with entrepreneurial resilience. Additionally, in response to the suggestions put forth by Datu et al. (2016) and Mooradian et al. (2016), this paper addresses the need for further exploration of the impact of grit on various key outcome variables within the entrepreneurship literature. Furthermore, Karaman et al. (2019) have called for additional studies that recognise the relationships between grit and resilience scores and other constructs. By examining the influence of grit and resilience on important outcomes and other constructs related to entrepreneurship, this research may offer valuable insights into the role of grit and resilience in the context of entrepreneurs. While previous studies have established the modest predictive power of grit in relation to various outcomes, it is crucial to conduct additional investigations to understand the mechanisms that mediate and moderate this relationship, as highlighted by Luthans et al. (2018). Therefore, the study conducted by Datu et al. (2016) reveals that perseverance of effort is a more relevant predictor of outcomes than consistency of interest.

Windle et al. (2011) also supported the view that although several scales have emerged in pursuit of measuring resilience, evidence supporting the validation of the scales remains weak and obscure, such that the ability to measure the construct remains subjective, inconsistent and in some cases inappropriate even with respect to its applicability to different contexts. Mustaza & Kutty (2022), in their studies, it provides empirical evidence of a moderate positive correlation between grit and resilience, indicating that grit personality can predict resilience. While Caza, A. et al (2020), in their empirical studies evidence suggests that grit does not consistently contribute to resilient outcomes. The weight of evidence suggests that there is no consistent relationship between grit and resilience, and this "non-relationship" could arise either because grit is entirely unrelated to resilience or because it has different implications for resilience in different contexts. The study revealed no empirical research that directly tested the proposed moderating model explaining the relationship between grit, resilience, and locus of control.

This research offers elucidation with regard to the determinants that impact the resilience of entrepreneurs, as this has a significant influence on the long-term viability of their business endeavours. By comprehending the essence of the resilience required, entrepreneurs may then be empowered to tap into and exploit it in order to establish sustainable business ventures. This article seeks to explore and understand the factors that influence

entrepreneurial resilience to be able to respond and adapt to disturbances in the entrepreneurial process. Furthermore, the article will also provide clarity on the potential for fostering resilience, which in turn may enhance the capacity to foster entrepreneurial initiatives, a key goal of business incubators.

- i. Examine entrepreneurial grit personality and its effects on entrepreneurial resilience.
- ii. Explore the moderating effect of locus of control in the relationship between grit personality and Entrepreneurial resilience

The remainder of this paper is organised as follows. Section 2 addresses the review of relevant literature and hypothesis development. Section 3 presents the methodology. Section 4 reports the results. Section 5 provides discussion, and Section 6 presents the conclusion.

LITERATURE REVIEW AND HYPOTHESIS DEVELOPMENT

Theoretical Framework

The study is grounded in the attribution theory that was originally introduced by Heider (1958). The main theoretical frameworks have been developed by Kelley (1967), Weiner, Nierenberg, & Goldstein (1976), and Bandura's (2001; 1988) Social Cognitive Theory, as well as Fredrickson's (2001; 1998) Broaden-and-Build Theory.

Attribution theory has since spread out of social psychology and has been used in numerous fields of management science. Attribution theory finds its roots in the concept of “naive psychology” developed by Heider (1958), the objective of which is to understand how laypersons determine the causes of specific events. From this starting point, not one but several “attribution theories” have been developed. Among them, two main frameworks have been widely adopted within academic literature: Kelley’s model and Weiner’s model.

Kelley’s model. According to Harold H. Kelley, when observing another person’s behaviour in front of a specific stimulus at a specific moment, one can attribute such behaviour to three different causes: the person itself, the stimulus (referred to as the “entity” by Kelley), and/or the circumstances of the moment (referred to as “time” by Kelley). This type of attribution is made through the principle of covariance: “An effect is attributed to one of its possible causes with which, over time, it covaries” (Kelley, 1973). Covariance is qualified by three factors: consistency (does this person always display the same behaviour in front of similar stimuli at different moments in time), consensus (do other people behave in the same way when confronted with similar stimuli), and distinctiveness (does this person display similar behaviour when confronted with different stimuli). According to the levels of consistency, consensus, and distinctiveness, observers will attribute causes of another person’s behaviour either to internal causes (proper to the person) or to external causes (linked to the stimulus or the situation).

Weiner’s model. Weiner’s attribution model studies the way people explain their success or failure in achieving their goals or fulfilling a task. Weiner identifies two dimensions that describe potential causes of success/failure. The first dimension is called the locus of causality. It defines the origin of the cause, which can be internal (linked to the person) or external (linked to the situation). Internal causes are the skills displayed by the person, as well as the effort this person invests in the task. External causes are the difficulty of the task, as well as the luck the person may have. This first dimension determines the pride (or value) that the person will experience in the event of goal achievement: higher value will be derived from an attribution to internal causes.

Generally, the theory is concerned with how people explain or attribute various causes to events. According to the “attribution theory” it is normal for people to look for explanations or causes that can be attributed to their success or failure. The attribution theory assumes that people will interpret their environment in such a way as to maintain a positive self-image. There are three main categories of attributes for explaining success or failure:

- i. Internal or external
- ii. Stable or unstable

iii. Controllable or uncontrollable

Examples of internal factors may be that you are either stupid or bright or not interested etc. It seems women tend to point to internal factors more than the seemingly more self-confident men. External factors are anything or anybody else you can blame.

An outcome can also be perceived as stable or unstable. If you think the outcome is stable, then it is likely to be the same the next time as well. If, on the contrary, it is unstable, the outcome will probably be different on another occasion. If you tend to go for the stable explanation, you may tend to rationalise: It doesn't matter how hard I try, I will fail anyway. If you point to the unstable explanation, on the other hand, you think you might succeed if you put in more or smarter efforts.

Success or failure factors may be either controllable or uncontrollable. A controllable factor you can alter or influence if you wish to do so. An uncontrollable factor is one that you cannot easily alter. If you e.g., depend on the teacher for success or if you compete with your peers for the few available high grades, you explain your situation by pointing to uncontrollable factors.

According to the framework of social cognitive theory human behaviour is influenced by three interconnected elements: the individual, the environment, and behaviour. In a social context, individuals acquire knowledge through the reciprocal interaction of personal factors, environment, and behavioural outcomes. For instance, the theory posits that individuals' positive resources, such as resilience, play a crucial role in understanding how individuals develop and acquire new skills and abilities to overcome challenges or obstacles while maintaining control over their environment. This implies that the interaction between cognition and mutual behaviour reveals the connection between thought, consequence, and action.

Conversely, positive emotions have a broadening effect on individuals' attention and thoughts, enabling them to access a wider range of ideas and ultimately aiding in the identification and cultivation of important personal resources, as suggested by the broaden and build theory. This theory is relevant to the present study as it equips entrepreneurs with positive resources and resilience to cope with negative emotions or threats encountered during the business process, thereby leading to improved business performance (Fredrickson, 2013). Moreover, positive emotions also facilitate knowledge acquisition, skill development, and competence enhancement, fostering self-motivation and increasing the likelihood of achieving goals.

Entrepreneurial resilience, grit personality and the moderation of locus of control are all connected in this study by the attribution theory, social cognitive theory in conjunction with the broaden-and-build theory, to highlight the significance of human affective, cognitive, and behavioural patterns in developing Entrepreneurial resilience research.

Entrepreneurial resilience and Grit Personality

Entrepreneurial resilience

Resilience pertains to the attribute possessed by individuals who are able to overcome setbacks that are associated with their personal lives and professional careers (Zautra et al., 2010). Despite its extensive utilisation in the field of psychology for over five decades (Rogoff et al., 2004), the literature on entrepreneurship has paid limited attention to this concept. Resilience holds significant importance for entrepreneurs, as the entrepreneurial environment is characterised by both extreme successes and failures (Sutcliffe & Vogus, 2003; Shane & Khurana, 2003).

Entrepreneurial resilience refers to the ability of entrepreneurs to conquer particularly challenging circumstances. It encompasses a dynamic process of adaptation that enables entrepreneurs to envision the future positively, even in the face of severe financial setbacks (Windle et al., 2011). Through this process, entrepreneurs are capable of confronting an uncertain future with a constructive mindset rather than succumbing to helplessness, fear, apathy, or despair (Ayala & Manzano, 2014; Pollack et al., 2012; Heinze, 2013). Resilience signifies the ability to adapt positively when confronted with significant adversity (Luthar, Cicchetti, & Becker, 2000). Therefore, the ability to maintain well-being in the face of adversity can be considered an indicator of entrepreneurial resilience. The less adverse entrepreneurial conditions affect the

well-being of entrepreneurs, the greater their resilience. Positive affect is regarded as an indication of coping abilities and the capacity to tolerate high levels of stress.

Grit Personality

The concept of grit refers to an individual's inclination to persist in working towards challenges and maintaining effort and interest despite experiencing failure, adversity, and plateaus in progress (Duckworth et al., 2007, p. 1088). Grit is composed of two primary components: perseverance and consistency of effort (Duckworth et al., 2007; Duckworth and Quinn, 2009). Perseverance is characterised by the inclination to exert significant effort and persist in the face of obstacles or difficult circumstances. Consistency of interest refers to the tendency to maintain long-term stability in one's goals. Although some research has suggested the possibility of studying these two aspects separately (e.g., Disabato et al., 2018), most empirical studies have treated grit as a unidimensional construct, and we adopt the same approach here.

Grit's popularity can be attributed to its association with a wide range of positive outcomes and its effectiveness across contexts where these effects have been observed (Crede et al., 2017). Of particular relevance to our concerns, grit is linked to multiple outcomes that reflect resilience. For instance, the concept of grit has been linked to higher levels of wellbeing (Kannangara et al., 2018; Sharkey et al., 2018) as well as life satisfaction (Datu et al., 2018; Disabato et al., 2018). In addition, grit is associated with increased job satisfaction and organisational citizenship behaviour (Jordan et al., 2018; Ion et al., 2017; Dugan et al., 2018). In addition, there is evidence to suggest that there is a negative relationship between grit and anxiety (Sharkey et al., 2018), burnout (Halliday et al., 2017), and turnover intentions (Jordan et al., 2018). Therefore, grit may be a factor in resilience.

However, the examination of grit also encounters certain controversies that jeopardise its efficacy as an individual factor explaining resilient outcomes. As discussed above, there is a debate as to whether grit should be treated as a single construct with two facets or as two distinct factors (Disabato et al., 2018). Although the one-dimensional approach has been dominant in the literature, a recent meta-analysis proposes that perseverance, when used independently, emerges as a better predictor for certain outcomes and thus merits separate examination (Crede et al., 2017). Correspondingly, others have suggested the inclusion of additional elements within the construct of grit, specifically a measure of adaptability in response to one's surroundings (Datu et al., 2018). We shall revisit the issue of grit's dimensionality later on, within the framework of our findings.

Despite the evident importance of grit for attaining success, there exists a dearth of studies investigating how grit contributes to the subjective entrepreneur's resilience. Consequently, Stoffel and Cain (2018) put forth the notion that grit warrants further exploration in terms of its predictive capacity for entrepreneurs' resilience. Given that an individual's capacity to persist, overcome obstacles, and endure hardships along the arduous path to success is often considered a hallmark of entrepreneurial achievement (Mueller et al., 2016), the present paper posits the following:

H1a&b: Grit personality (consistency of interest and perseverance of effort) is positively associated with entrepreneurial resilience.

Hypothesis 1: (GP) Consistency of interest is positively associated with entrepreneurial resilience.

Hypothesis 2: (GP) Perseverance of effort is positively associated with entrepreneurial resilience.

Locus of Control and Resilience

Entrepreneurial resilience is a consequence of the compatibility between individuals and the entrepreneurial environment, as discussed by Ayala & Manzano (2014) and Markman & Baron (2003). In this study, the author looks at locus of control as psychological capital that can contribute to entrepreneurial resilience and coping. Locus of control entails the perception of personal control and a lack of dependence on external circumstances or fate.

This concept is intertwined with notions of responsibility and accountability, as discussed by Rogoff et al.

(2004). Individuals with a high internal locus of control tend to exhibit greater persistence, respond more effectively to challenges, and view themselves as the architects of their success, as indicated by Kirkcaldy et al. (2002). Moreover, an internal locus of control is linked to heightened levels of job satisfaction and overall well-being, as found by Kirkcaldy et al. (2002). Owens et al. (2013) demonstrated that locus of control accounted for a substantial proportion of the variance in work satisfaction among small business owners. Additionally, Owens et al. (2013) discovered positive associations between locus of control and emotional resilience, risk tolerance, and tolerance for financial insecurity.

Nevertheless, a high internal locus of control can be problematic. Self-employment entails a significantly greater number of work hours and effort, resulting in additional stress and strain, which in turn can potentially lead to serious physical health consequences related to stress (Cardon & Patel, 2013). Furthermore, there exists a limited positive correlation between internal locus of control and business success among self-employed individuals, as stated by Owens et al. (2013) and Rauch & Frese (2000).

Given the complex nature of the relationship between locus of control and entrepreneurial well-being and success, the use of moderation effects can enhance our comprehension of the impact of locus of control on entrepreneurial resilience. Based on the interaction effect, a study conducted by Hmieleski and Carr demonstrates that psychological capital mitigates the adverse impact of work tension on job satisfaction among entrepreneurs. Furthermore, Rahim A. (1996) found a significant moderating effect of locus of control on the stress-strain relationship among managers.

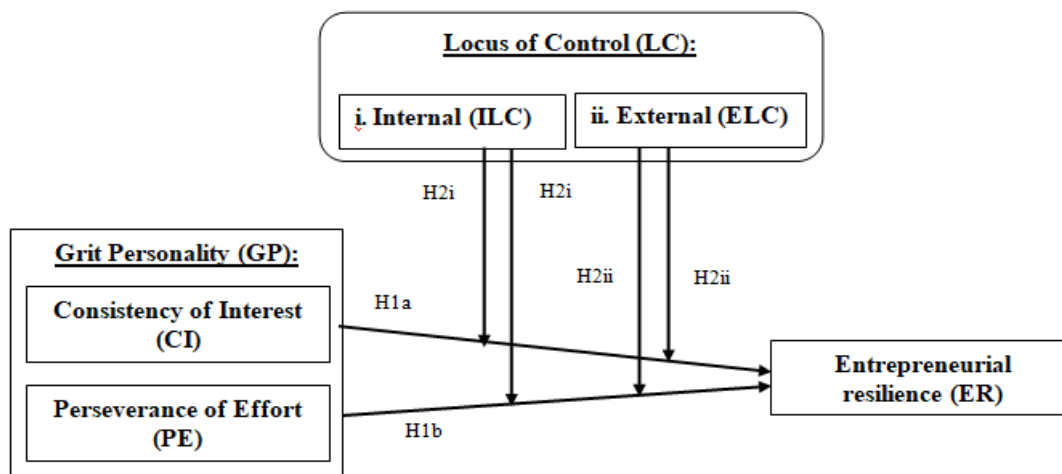
H2i&ii: The effect of grit personality (consistency of interest and perseverance of effort) on entrepreneurial resilience will be moderated by locus of control (internal and external).

Hypothesis 3: Internal (LC) moderates the relationship between (GP) consistency of interest and entrepreneurial resilience.

Hypothesis 4: Internal (LC) moderates the relationship between (GP) perseverance of effort and entrepreneurial resilience.

Hypothesis 5: External (LC) moderates the relationship between (GP) consistency of interest and entrepreneurial resilience.

Hypothesis 6: External (LC) moderates the relationship between (GP) perseverance of effort and entrepreneurial resilience.



H1a & H1b hypotheses: direct model

H2i & H2ii hypotheses: conditional moderation model

Source: The Researcher (2023)

Figure 1: The Conceptual Model

METHODOLOGY

The study used a cross-sectional (survey) design. The design was deemed appropriate as it involves the collection of data on multiple cases at a single point in time on various variables that were then analysed to identify patterns of association (Bryman and Bell, 2011). Typically, surveys aim to describe what is happening or to investigate the reasons behind a particular activity.

This study embraces the positivist orientation, which posits that the researcher has a perception of the world around him since the researcher is the constructor of such a world around him. Positivism offers various perspectives through which to examine the world, enabling the recognition of the unique differences among individuals while also facilitating the identification of the fundamental similarities that unite humanity (Ashworth, 2003). It is imperative that the sharing of others' views contributes to the enhancement of knowledge, and these views should not be altered (Gergen, 2009). It is important to note that each individual's perception of reality is valid based on their personal experiences.

Population of the Study

The population includes a representative sample of entrepreneurial Businesses within Jos North Local Government, Plateau State. The population includes all entrepreneurs who are into entrepreneurial activities in Jos North. According to PLASMEDA 2018, the total population of entrepreneurs who registered their businesses in Jos North, Plateau State, is 2,401 (Echu & Okpara, 2020).

Therefore, confirming the report from the Ministry of Industry (2017). About 2,349 entrepreneurs registered their businesses in Jos North Local Government Area of Plateau State. Therefore, this research adopted the G*Power statistical tool to determine the sample from the population of entrepreneurs in Jos North. The sampling unit for this study was individual entrepreneurs (owners) of Businesses within Jos North Local Government Area and environs of Plateau State, Echu & Okpara (2020).

Sample Size Determination

An a priori power analysis was conducted using G*Power version 3.1 (Faul et al., 2007) to determine the minimum sample size required to test the study hypothesis. Results indicated that the required sample size to achieve 95% power for detecting a medium effect size $f^2 = 0.15$, at a significance criterion of $\alpha = .05$, was $N = 107$ for linear multiple regression analysis. Thus, the obtained sample size of $N = 107$ is adequate to test the study hypothesis. Below represents how we arrived at the sample size using G*Power 3.1.9.7

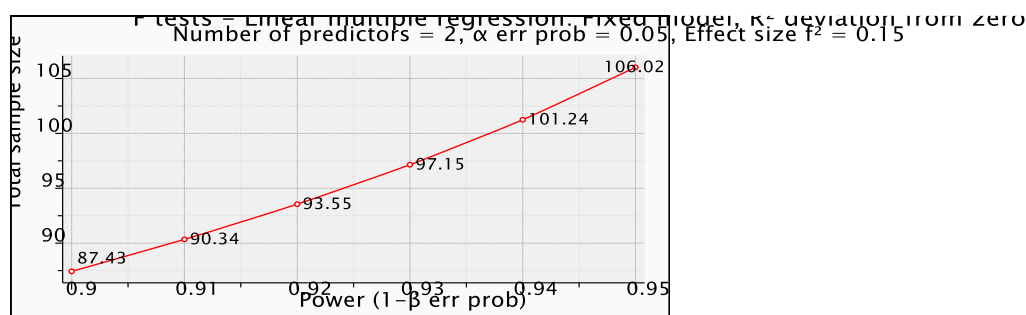


Figure 2: G-power Sample Size

Source: G*Power 3.1 (2023)

Methods

The study gathered its data from 107 entrepreneurs in Jos North and environ in a cross-sectional survey. the region is best suited for this study. According to the descriptive statistics, there were 49 female respondents (45.8.9%), compared to 58 male respondents (54.2%), 51.4% are married compared to 48.6% are singles. Most of the respondents 40 (37.4%) are in Services' business, 26 (24.3%) are in Retail & trading business, 12 (11.2%) are in Food & beverages business, 4 (3.7%) are in Manufacturing businesses while 25 (23.4%) are in others kind of businesses. They range in age from 18 to 25 (19.6%), 26 to 35 (32.7%), 36 to 45 (30.8%) and 46 & above (16.8%). Also, 71 (66.4%) of respondents have a Diploma/Bachelor Honours, while 4 (3.7%) have a Doctoral Honours, 22 (20.6%) have master's degree Honours while 10 (9.3%) of respondents have just Secondary Education Certificates. The kurtosis and skewness values in this study were within the acceptable range of -1 and +1; hence the data did not pose a serious hazard. The data was then analysed using a partial least square structural equation model (PLS-SEM).

Measures

Entrepreneurial resilience: was operationalised by adapts of Sinclair & Wallston (2004) were used with a seven likert questionnaire to gauge resilience, with questions like: "I look for creative ways to alter difficult situations" and "Regardless of what happens to me, I believe I can control my reaction to it", are examples of items on this scale that were evaluated.

Internal & External locus of control: The researcher adopts the updated version of internal locus of control and operationalized the moderating construct using Hamzah MI & Othman AK (2023), with questions such as: "My life is determined by my own actions" and "I can pretty much determine what will happen in my life" for ILC and questions like: "To a great extent, my life is controlled by accidental happenings", "When I get what I want, it's usually because I'm lucky" and others to moderate the relationship that is inconsistent between the independent variable and the dependent variable.

Grit Personality: Consistency of interest and Perseverance of effort: The study adopts the upgraded construct of Duckworth AL & Quinn PD (2009), with questions like, "I often set a goal but later choose to pursue a different one", and "I have been obsessed with a certain idea or project for a short time but later lost interest" to operationalise consistency of interest. While questions like, "I finish whatever I begin" and "Setbacks don't discourage me" to operationalise perseverance of effort.

RESULT

The study's items were evaluated for reliability, convergent validity, and discriminant validity. According to the findings, each item employed in this study meets the minimal threshold requirements, making them all reliable indicators of the latent variables (Table 1). The loading of every item in our analysis was higher than 0.720 with the exception of one at 0.697 though not significant enough to change the outcome of latent variable. The composite reliability (CR) values range from 0.75 to 0.952. These values are greater than the cut-off value of 0.70 (Nunnally & Bernstein 1994) and indicate the dependability of the items loaded on each construct (Ringle, Sarstedt & Straub, 2012). Also, all average variance extracted (AVE) values (Consistency of interest: 0.610, External locus of control: 0.663, Entrepreneurial resilience: 0.772, Internal locus of control: 0.657 and Perseverance of effort: 0.695) are higher than the 0.50 threshold, demonstrating convergent validity (Henseler, 2017). Last but not least, the heterotrait-monotrait (HTMT) technique was used to evaluate the study's discriminant validity (Henseler, Ringle, & Sarstedt, 2015). The HTMT values are less than 0.90, providing strong evidence that discriminant validity has been established (Tables 3 & 4).

Table 1. Result Summary for the Measurement Models

Latent variable	Indicators	Loadings > 0.70	Composite Reliability 0.70-0.95	AVE >0.50
Consistency of interest	CII. I often set a goal but later choose to pursue a different one.	0.781	0.862	0.610

	CI4. New ideas and projects sometimes distract me from previous ones.	0.855		
	CI5. My interests change from year to year.	0.783		
	CI6. I become interested in new pursuits every few months.	0.697		
<i>External locus of control</i>	ELC1. To a great extent, my life is controlled by accidental happenings.	0.824	0.887	0.663
	ELC2. When I get what I want, it's usually because I'm lucky.	0.865		
	ELC3. It's not always wise for me to plan too far ahead because many things turn out to be a matter of good or bad fortune.	0.810		
	ELC4. Whether or not I get to be a leader depends on whether I'm lucky enough to be in the right place at the right time.	0.755		
<i>Entrepreneurial resilience</i>	ER1. I look for creative ways to alter difficult situations.	0.855	0.931	0.772
	ER2. Regardless of what happens to me, I believe I can control my reaction to it.	0.889		
	ER3. I believe I can grow in positive ways by dealing with difficult situations.	0.925		
	ER4. I actively look for ways to replace the losses I encounter in life.	0.844		
<i>Internal locus of control</i>	ILC1. My life is determined by my own actions.	0.840	0.852	0.657
	ILC3. When I make plans, I am almost certain to make them work.	0.808		
	ILC4. When I get what I want, it's usually because I worked hard for it.	0.783		
<i>Perseverance of effort</i>	PE1. I finish whatever I begin.	0.788	0.932	0.695
	PE2. Setbacks don't discourage me.	0.805		
	PE3. I am diligent.	0.887		
	PE4. I am a hard worker.	0.834		
	PE5. I have achieved a goal that took years of work.	0.840		
	PE6. I have overcome setbacks to conquer an important challenge.	0.843		

Source: The Researcher 2023.

Measurement model assessment

Table 2: Construct Reliability and Validity

	Cronbach's Alpha	rho_A	Composite Reliability	Average Variance Extracted (AVE)
CI-ELC*-ER	1.000	1.000	1.000	1.000

CI-ILC*-ER	1.000	1.000	1.000	1.000
Consistency of Interest	0.798	0.875	0.862	0.610
Entrepreneurial resilience	0.901	0.903	0.931	0.772
External Locus of Control	0.844	0.903	0.887	0.663
Internal Locus of Control	0.740	0.747	0.852	0.657
PE-ELC*-ER	1.000	1.000	1.000	1.000
PE-ILC*-ER	1.000	1.000	1.000	1.000
Perseverance of Effort	0.912	0.920	0.932	0.695

Source: Smart-PLS 3 (2023)

Table 3: Discriminant Validity (Fornell-Larcker Criterion)

	CI-ELC*-ER	CI-ILC*-ER	Consistency of Interest	Entrepreneurial resilience	External Locus of Control	Internal Locus of Control	PE-ELC*-ER	PE-ILC*-ER	Perseverance of Effort
CI-ELC*-ER	1								
CI-ILC*-ER	0.433	1							
Consistency of Interest	0.176	0.093	0.781						
Entrepreneurial resilience	-0.116	-0.08	-0.22	0.879					
External Locus of Control	0.393	0.173	0.414	-0.224	0.815				
Internal Locus of Control	0.168	0.315	-0.097	0.373	0.072	0.811			
PE-ELC*-ER	0.343	0.45	0.248	-0.168	0.331	0.031	1		
PE-ILC*-ER	0.073	-0.154	0.173	-0.376	0.015	-0.603	0.089	1	
Perseverance of Effort	0.188	0.269	-0.134	0.624	0.014	0.634	-0.106	-0.529	0.833

Source: Smart-PLS 3 (2023)

Table 4: Heterotrait-Monotrait Ratio (HTMT)

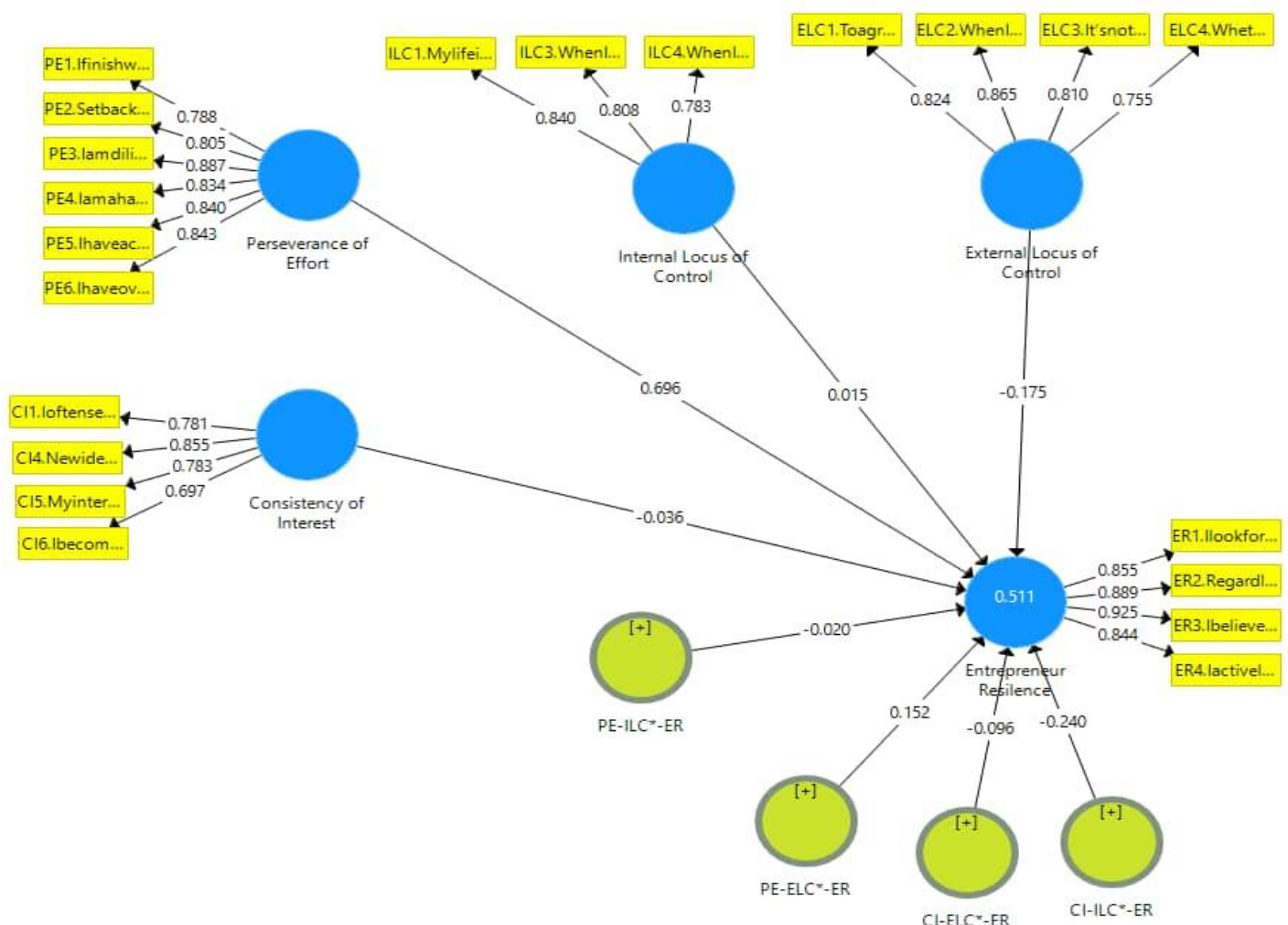
	CI-ELC*-ER	CI-ILC*-ER	Consistency of Interest	Entrepreneurial resilience	External Locus of Control	Internal Locus of Control	PE-ELC*-ER	PE-ILC*-ER	Perseverance of Effort
CI-ELC*-ER									
CI-ILC*-ER	0.433								
Consistency of Interest	0.217	0.106							
Entrepreneurial resilience	0.12	0.092	0.233						
External Locus of Control	0.446	0.243	0.576	0.224					
Internal Locus of Control	0.199	0.358	0.146	0.458	0.261				
PE-ELC*-ER	0.343	0.45	0.298	0.197	0.355	0.046			
PE-ILC*-ER	0.073	0.154	0.199	0.397	0.159	0.686	0.089		
Perseverance of Effort	0.197	0.288	0.193	0.679	0.175	0.751	0.124	0.552	

Source: Smart-PLS 3 (2023)

Furthermore, in examining the measurement model, the bootstrapping approach was used to evaluate the structural model. Figures 3 and Table 6 displayed the results of the bootstrapping. All six paths - Consistency of Interest -> Entrepreneurial resilience ($\beta = -0.036$, $p = 0.702$); PE-ILC*-ER -> Entrepreneurial resilience ($\beta = -0.020$, $p = 0.747$); CI-ELC*-ER -> Entrepreneurial resilience ($\beta = -0.096$, $p = 0.385$); PE-ELC*-ER -> Entrepreneurial resilience ($\beta = 0.152$, $p = 0.328$) had a significant and positive relationship. Hence, hypotheses 1, 4, 5, and 6 are confirmed, except for hypotheses 2 and 3: Perseverance of Effort -> Entrepreneurial resilience ($\beta = 0.696$, $p = 0.000$); CI-ILC*-ER -> Entrepreneurial resilience ($\beta = -0.240$, $p = 0.029$) which have been rejected.

Likewise, the variations described by the dependent latent constructs are shown in Figure 3 and Table 6. According to Hair et al. (2017), the greater the value of R, the better the 2 model's ability to predict outcomes and the variance it can explain. R values of 0.25, 0.50 and 0.75 respectively, represent weak, moderate, and large values. The R result suggests that the endogenous latent construct may be explained by the exogenous latent constructs (Entrepreneurial resilience and (GP) Consistency of interest and perseverance of effort) with a moderate (51%) variance based on the Hair et al. (2017) threshold value.

Figure 3: Path Coefficients



Source: Smart-PLS 3 (2023)

Table 5: Path Coefficients

	Entrepreneurial resilience
CI-ELC*-ER	-0.096
CI-ILC*-ER	-0.240
Consistency of Interest	-0.036

External Locus of Control	-0.175
Internal Locus of Control	0.015
PE-ELC*-ER	0.152
PE-ILC*-ER	-0.020
Perseverance of Effort	0.696

Source: Smart-PLS 3 (2023)

Structural model assessment

Table 6: Hypotheses Testing

No	Hypothesis	Beta Values (β)	Standard Deviation	T-Values	P Values	Decision
H1	Consistency of Interest -> Entrepreneurial resilience	-0.036	0.095	0.383	0.702	Not Supported
H2	Perseverance of Effort -> Entrepreneurial resilience	0.696	0.108	6.444	0	Supported
H3	CI-ILC*-ER -> Entrepreneurial resilience	-0.24	0.11	2.179	0.029	Supported
H4	PE-ILC*-ER -> Entrepreneurial resilience	-0.02	0.061	0.322	0.747	Not Supported
H5	CI-ELC*-ER -> Entrepreneurial resilience	-0.096	0.11	0.868	0.385	Not Supported
H6	PE-ELC*-ER -> Entrepreneurial resilience	0.152	0.155	0.979	0.328	Not Supported

Source: The Researcher (2023)

Table 7: Coefficient of Determination (R^2)

	R Square	R Square Adjusted
Entrepreneurial resilience	0.511	0.471

Source: Smart-PLS 3 (2023)

DISCUSSIONS

The study looked at the effect of grit personality on Entrepreneurial resilience, as well as the moderating role of locus of control on their relationship which is inconsistent. The study was anchored on the attribution theory, supported by social cognitive theory and the broaden and build theory, it revealed that *external locus of control* has significant moderating role in the relationship between consistency of interest and Entrepreneurial resilience leading to hypothesis 5 with p-value 0.385 accepted, as against *internal locus of control* moderating role on consistency of interest relationship with Entrepreneurial resilience of which hypothesis 3 with p-value 0.029 was rejected. This implies that when it comes to consistency of interest the moderating role external locus of control latent construct is what entrepreneur needs to focus on to be able develop resilience which is crucial for entrepreneurial consistent interest for survival, and growth.

Again, when it comes to perseverance of efforts effect on Entrepreneurial resilience the moderating role of *internal locus of control* hypothesis 4 was accepted with a strong significance of p-value 0.747 vis-à-vis *external locus of control* moderating effect on perseverance of effort on Entrepreneurial resilience leading to hypothesis 6 also accepted with a relatively significance p-value of 0.328. Thus, the implication is that perseverance of effort as a latent construct, relationship with Entrepreneurial resilience can be enhanced by either of the locus of control (internal or external).

However, the direct relationship between consistency of interest and Entrepreneurial resilience leading to the acceptance of hypothesis 1 with a p-value of **0.702**, while the direct effects, relationship between perseverance of efforts was rejected with a p-value of **0.000** this implies that perseverance of efforts as a grit personality variable to be effective on developing Entrepreneurial resilience must be moderated by either of the locus of control.

This study makes several contributions. First, it contributes to the literature by theoretically highlighting and empirically testing the mechanisms underlying the relationship between grit personality (Consistency of interest and perseverance of effort) and Entrepreneurial resilience. Theoretically in the attribution theory in support of the social cognitive theory and broaden build theory. According to Harold H. Kelley, when observing another person's behaviour in front of a specific stimulus at a specific moment, one can attribute such behaviour to three different causes: the person itself, the stimulus and/or the circumstances of the moment. This type of attribution is made through the principle of covariance: "An effect is attributed to one of its possible causes with which, over time, it covaries" (Kelley, 1973). Covariance is qualified by three factors: consistency (does this person always display the same behaviour in front of similar stimuli at different moments in time), consensus (do other people behave in the same way when confronted with similar stimuli), and distinctiveness (does this person display similar behaviour when confronted to different stimuli). The study though underpinned around this theory also contribute to the theory framework by introducing possibility of adding locus of control to moderating perseverance as one of attributes to resilience.

Secondly, the study adds to the body of literature on Entrepreneurial resilience and the moderating role of locus of control in moderating grit personality (consistency of interest and perseverance of efforts) developing Entrepreneurial resilience. It also emphasis how crucial resilience is the survival of the interest or venture the entrepreneur is embarking upon. As path to a successful entrepreneur is full of risks of multifaceted dimension, hence the need for developing Entrepreneurial resilience. In conclusion, it should be stressed that while entrepreneur resilient can be inherit, entrepreneurs must know that there are things that can moderate our personality grit to achieving and developing resilience that is dearth in the entrepreneurial journey.

CONCLUSION

Conclusion and Implications

The findings of this study have important research, practical, and policy implications for assisting young entrepreneurs and startup in succeeding in the desired entrepreneurial journey. For instance, the relationship between grit personality (CI, PE) on Entrepreneurial resilience the role of moderation to enhance resilience it enhances struggle by young entrepreneurs to succeed and developing the "thick skin" by not giving in to challenges that are associated with entrepreneurship. Other researchers can build on and use the conceptualization of this study by drawing on the foundation of attributes theory, social cognitive theory and broadening and building theory. Given this, the study advocate for the use of personal resources and develop resilience to boost venture success as an alternative to other resources in a challenging or volatile business environment.

Finally, entrepreneurship educators and policymakers must develop training programmes to assist entrepreneurs in developing resilience and other entrepreneurship skills in order to succeed in business. More specifically, business associations should encourage their members to attend resilience trainings. This will assist them in improving and meeting the complex demands of the ever-changing business world.

LIMITATIONS AND DIRECTIONS FOR FUTURE STUDY

The limitation of the study is first, the study sample is small, which may not be sufficient to draw valid conclusions that are generalisable across entrepreneurs within a large area. As a result, future research could be based on larger samples, allowing for easier generalisation. Additionally, researchers could attempt to validate the work by replicating or testing our model in other geographical locations, cultures, and industries, such as other fields of endeavour. Second, the study relied heavily on self-reported data using the google form questionnaire a new trending method of data collection, which may be criticized due to respondents' social

bias. A longitudinal study, as well as a case-control study, could be used in future work to expose some participants to business intervention programmes. Third, future research may look into other areas that entrepreneur need to improve on and grow.

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APPENDIX

Table 1. Result Summary for the Measurement Models

Table 2: Construct Reliability and Validity

Table 3: Discriminant Validity (Fornell-Larcker Criterion)

Table 4: Heterotrait-Monotrait Ratio (HTMT)

Table 5: Path Coefficients

Table 6: Hypothesis Testing

Table 7: Coefficient of Determination (R^2)

Figure 1: The Conceptual Model

Figure 2: G-power Sample Size

Figure 3: Path Coefficients