

CAPITAL UNIVERSITY OF SCIENCE AND  
TECHNOLOGY, ISLAMABAD



**Impact of Epistemic Curiosity on  
Entrepreneurial Success: Sequential  
Mediating Role of Creative Ideas and  
Playful Work Design and Moderating  
Role of Openness to Experience**

by

**Rimsha Riaz**

A thesis submitted in partial fulfillment for the  
degree of Master of Science

in the

**Faculty of Management & Social Sciences**

**Department of Management Sciences**

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*Dedicated to my family who dedicated their lives to teach me how to step  
forward...!*



## CERTIFICATE OF APPROVAL

Impact of Epistemic Curiosity on Entrepreneurial Success:  
Sequential Mediating Role of Creative Ideas and Playful  
Work Design and Moderating Role of Openness to  
Experience

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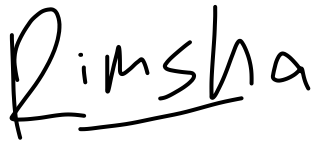
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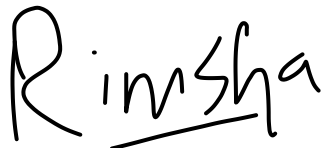
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## *Acknowledgement*

“Then which of the Blessings of your Lord will you deny.”

(Surah Ar-Rehman)

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**Rimsha Riaz**

## *Abstract*

This study investigates the role of epistemic curiosity in entrepreneurial success, specifically examining the sequential mediating role of creative ideas and playful work design, as well as the moderating role of openness to experience. The study proposed that entrepreneurs who possess a high level of epistemic curiosity are more likely to generate creative ideas, which serve as an important catalyst for entrepreneurial success. Furthermore, the study proposed that playful work design, characterized by a stimulating and enjoyable work environment, mediates the relationship between creative ideas and entrepreneurial success, facilitating the launch of successful ventures.

Additionally, the study also examined the role of openness to experience between the relationship between epistemic curiosity and creative ideas. A sample of 273 leading entrepreneurs and managers was tested, which shed light on the importance of creative ideas and playful work design in fostering entrepreneurial outcomes. The study focused on gathering valuable insights from startup owners and senior management of SMEs in the twin cities of Pakistan. The sample was drawn using a simple random sampling technique. The data set was analyzed using correlation, reliability, and regression analysis. The analysis was done using SPSS.

Results indicated that epistemic curiosity positively affects entrepreneurial success. Additionally, there is a proper underlying mediatory mechanism that bridges the relationship between epistemic curiosity and entrepreneurial success. Empirical evidence also supported the hypothesis that there exists a sequential mediatory mechanism in the form of creative ideas and playful work design, which strengthens the possibility of entrepreneurial success. Results also revealed that openness to experience does not moderate the relationship between epistemic curiosity and outcome variables because the cultural differences play a significant role in shaping individual behavior and attitudes. In the case of openness to experience and creativity, cultural values and norms in Pakistan may differ from those in other contexts. Practical implications derived from this study offered valuable guidelines for entrepreneurs, managers, and policymakers in designing work environments that foster curiosity, creativity, and ultimately, entrepreneurial success.



**Keywords:** Epistemic Curiosity, Entrepreneurial Success, Creative Ideas, Playful Work Design, Openness to Experience, Theory of Human Curiosity.

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# Abbreviations

<b>DV</b>	Dependent Variable
<b>CI</b>	Creative Ideas
<b>EC</b>	Epistemic Curiosity
<b>ES</b>	Entrepreneurial Success
<b>H</b>	Hypothesis
<b>IV</b>	Independent Variable
<b>Med</b>	Mediator
<b>Mod</b>	Moderator
<b>OE</b>	Openness to Experience
<b>PWD</b>	Playful Work Design

# Chapter 1

## Introduction

### 1.1 Background of Study

Curiosity is the drive to learn new things and have new experiences that stimulate spontaneous acts. Extant research has targeted curiosity in a variety of disciplines. One of the antecedents to remarkable cognitive abilities is epistemic curiosity, a motivating condition that motivates the pursuit of information and exploratory activity ([Berlyne et al., 1954](#)). Perceptual and epistemic curiosity were the two types of curiosity that Berlyne identified. Perceptual curiosity, the driving force behind beings' pursuit of novel input, was further explained. It is a type of curiosity exhibited not only by humans but also by non-human beings. It is what propels both human and non-human inquisitive behavior.

The form of curiosity that is unique to human being is epistemic curiosity. It is the drive for learning that encourages being to engage in inquisitive activities. To put it another way, it is the desire for knowledge and the drive to fulfill that need through investigation, exploration, and action. Curiosity is a sensation, it pushes people to engage in exploratory action that helps them learn and develop ([SARAC, Enisa, & AKGUN, 2022](#)). Furthermore, there are two categories of exploratory behaviors - Specific & Diversive. Diversive search was driven by monotony or a need for different stimuli, which compelled both people and animals to "seek stimulation regardless of source or topic". Curiosity drove specific exploration, which started a thorough analysis of unfamiliar stimuli to learn new things. Unlike



the targeted search for knowledge and information in specific exploratory behavior, which aimed to acquire informative stimuli to alleviate uncertainties and expand knowledge, only a minority regarded visual examination as a general illustration of exploratory behavior driven by personal curiosity.

Beings with greater epistemic curiosity, the study will investigate circumstances that are novel, complex, and fraught with uncertainty. The terms "interest-type epistemic curiosity" (I-EC) and "deprivation-type epistemic curiosity" are used to further categorize this type of exploratory activity (D-EC). D-EC, characterized by a strong inclination to eliminate uncertainty and overcome states of ignorance, differs from I-EC, which involves engaging in rational probe of new ideas purely for enjoyment. Studies have demonstrated that EC is linked to several favorable outcomes for people and organizations. For example, it encourages innovative thinking and the use of novel approaches, and it improves understanding and adaptation, all of which are factors in higher levels of performance at work (Ishaq, Bashir, Khan, Hassan, & Zakariya, 2021). Curiosity has been shown to be a useful quality in the setting of organizations, associated with several favorable outcomes in areas including working efficiency, leadership effectiveness, and creative achievement. So, curiosity is the desired quality for landing a position at an established company, but does it also encourage someone to launch their own business? Extant literature highlights how curiosity is crucial for starting a successful business. It has drawn attention to the aspect of curiosity known as epistemic curiosity, which drives people to relentlessly participate in learning new information and concepts. Interestingly, despite the widely acknowledged belief that curiosity is a key characteristic among successful entrepreneurs, there is a notable absence of empirical evidence and theoretical foundations regarding the role of curiosity in the emergence of entrepreneurship. Success in entrepreneurship can be divided into two main categories: entrepreneurial success and the career success of the entrepreneur. Researchers define entrepreneurial success as significant growth in business performance, whether financial or non-financial, and achieving a high standing within the industry. Its relationship with elements like marketing, expansion, capital, and equitable growth is highlighted in other studies, Meanwhile, scholars categorizes ES into three dimensions: economic returns, psychological fulfillment, &

scalability.

Due to varying entrepreneurial motivations, various types of business persons prioritize various aspects among the three levels mentioned above. Some scholars argue that when studying entrepreneurial success, it is important to consider both subjective and objective criteria. Subjective success pertains to factors like overall satisfaction, improved quality of life, and personal fulfillment. On the other hand, objective success is measured by metrics such as personal income, wealth accumulation, sustainability of the business, and employee growth rate (Hu, Xu, Zhao, & Chen, 2022). Studies indicate that the success criteria commonly employed by scholars are assessed at both explicit and implicit levels. Explicit measures typically encompass financial indicators, such as return rates, while implicit measures encompass non-financial factors, including influence and other relevant aspects. The explicit financial indicators, however, may not align directly with the focus of the research, whereas implicit indicators can vary depending on the unique characteristics of the entrepreneur. In our study, we specifically examine entrepreneurial success at the individual level, thus opting to utilize explicit indicators that reflect the perspective of the entrepreneur for measurement purposes. Furthermore, (Yan, 2020) claimed that a specific trait can influence an entrepreneur's perception of an opportunity. This idea was supported by other researchers who supposed that an entrepreneur's positive attitude influences the recognition of entrepreneurial opportunities. Furthermore, Arikan, Arikan, and Koparan (2020) consider curiosity to be a component of entrepreneurial creation. Its function is to assist an individual in filling knowledge gaps. According to Jeraj and Marič (2013) curiosity is a personality trait that has received little attention in the entrepreneurship discipline. According to other scholars, the cause of this phenomenon is still unclear thus additional research required in the domain.

In the ever-evolving landscape of entrepreneurship, the role of individual traits and organizational factors in shaping entrepreneurial success has garnered increasing attention. Epistemic curiosity, defined as a fervent desire for knowledge and information, has emerged as a noteworthy personality trait within this context. This study delves into the intricate relationship between epistemic curiosity and entrepreneurial success, seeking to bridge the existing gap in our understanding of

how curiosity unfolds as a pivotal driver of entrepreneurial achievement. In particular, this research explores the sequential mediation pathway involving creative ideas and playful work design, elucidating how these interrelated components collectively contribute to entrepreneurial success.

## 1.2 Gap Analysis

Entrepreneurial success is most likely to emerge when an individual is curious, creative, and committed. Epistemic curiosity is typically thought of as the aspect that drives people to relentlessly pursue the acquisition of new knowledge and ideas. It is also referred to by some studies as one of the "keys to business success". [Heinemann, Mussel, and Schäpers \(2022\)](#) give a clue that entrepreneurial personality always insists on bringing his curiosity into feasible ideas by giving meaningful design to those vague ideas, ultimately making it a reality. The researchers also suggested that one shouldn't only look at the early stages of starting a business, like when someone decides to become an entrepreneur. One should also look at what happens later in the journey. Additionally, [Raine and Pandya \(2019\)](#) suggested that some entrepreneurs are more successful than others. This is because of their personality traits. It is asserted here that the three Cs, curiosity, creativity, and commitment, hold the key.

The world's most successful entrepreneurs have been identified as strong in developing new ideas and converting them into reality ([Bakker, Hetland, Olsen, Espevik, & De Vries, 2020](#)). [Gross, Zedelius, and Schooler \(2020\)](#) explored how curiosity could help people be more creative. This research suggested that being curious can lead to coming up with new and creative ideas, which in turn can help entrepreneurs be more successful. It's like trying to understand how curiosity can be a superpower for entrepreneurs. Furthermore, the term "playful work design" was coined by [Scharp, Breevaart, Bakker, and van der Linden \(2019\)](#) to describe the proactive cognitive and behavioral strategies entrepreneurs employ to inject fun and competition into their business operations. It entails acting proactively to create work experiences that are enjoyable and challenging without changing the job's design. Epistemic curiosity fuels entrepreneurs' drive to actively create

solutions that satisfy their needs. Proactive participation by employees in Playful Work Design (PWD) has been shown to enhance their engagement in work tasks, enabling them to effectively tackle unexpected challenges and complex issues (Scharp, Bakker, & Breevaart, 2022). This active involvement often leads employees who possess a strong inclination to seek, acquire, and apply new knowledge in their work referred to as EC to introduce an element of play into their work activities. In a recent recommendation by (Khan, 2023), it is suggested that further exploration of the positive consequences stemming from employee engagement in PWD is warranted. With these insights in mind, our current research aims to investigate the synergistic impact of PWD and EC on Entrepreneurial Success. This research seek to uncover how the combination of proactive development and a thirst for knowledge contributes to entrepreneurial achievements.

Moreover, the connection between epistemic curiosity and entrepreneurial success is underscored by its role in fostering adaptability and resilience. Entrepreneurs often operate in dynamic and uncertain environments, where the ability to adapt and pivot is crucial. Epistemic curiosity equips individuals with a mindset that embraces ambiguity and seeks to understand the changing landscape. This curiosity-driven mindset encourages entrepreneurs to continuously seek out new information, stay attuned to market trends, and anticipate shifts in consumer preferences. As a result, they are better positioned to identify emerging opportunities and adjust their strategies accordingly. This adaptability, stemming from a curious disposition, allows entrepreneurs to navigate challenges and setbacks with a proactive and innovative approach, thus contributing to their overall success.

Additionally, epistemic curiosity not only drives idea generation and playful work design but also enhances adaptability and supports collaborative endeavors. When coupled with complementary personality traits, entrepreneurs can shape their ventures to be not only financially successful but also adaptive, inclusive, and poised for long-term growth in an ever-evolving business landscape. Gross et al. (2020) hints at investigation whether the connection between openness and creativity is predominantly influenced by its curiosity-related aspects. Consequently, this study endeavors to employ the concept of "openness to experience" as a lens to explore how it influences the generation of creative ideas. In essence, it seeks to

unravel the role of curiosity within the broader spectrum of openness in fostering creativity.

### 1.3 Problem Statement

The success of entrepreneurs is a critical driver of economic growth and innovation in today's rapidly changing business landscape. Epistemic curiosity, characterized by a thirst for knowledge and a desire to explore new ideas, represents a fundamental aspect of an entrepreneur's cognitive orientation. However, there is a gap in our understanding of how epistemic curiosity influences entrepreneurial success and the mechanisms through which it does so. This research seeks to address this gap by investigating the sequential mediating role of creative ideas and playful work design, as well as the moderating role of openness to experience, in the relationship between epistemic curiosity and creative ideas. By examining these intricate relationships, this study aims to provide valuable insights into the cognitive and contextual factors that ensure entrepreneurial achievement, thereby contributing to both theoretical advancements and practical implications for fostering entrepreneurial success in today's dynamic business environment. The industry being targeted will be NIC-funded Startups, IIUI BIC Startups, SMEs, and senior managers and owners will be sought out for some genuine data. Extant research indicated that their perspective should be explored as it can open new venues for researchers and business graduates.

### 1.4 Research Questions

Building upon the problem statement outlined earlier, the current study aims to address the subsequent inquiries:

**Question 1:**

Does epistemic curiosity positively affect creative ideas?

**Question 2:**

What is the effect of epistemic curiosity on creative ideas?

**Question 3:**

Do creative ideas positively affect playful work design?

**Question 4:**

Does playful work design affect entrepreneurial success?

**Question 5:**

Do creative ideas mediate the relationship between epistemic curiosity and entrepreneurial success?

**Question 6:**

Does playful work design mediate the relationship between epistemic curiosity and entrepreneurial success?

**Question 7:**

Does the relationship between Epistemic Curiosity and Entrepreneurial Success is sequentially mediated by creative ideas and playful work design?

**Question 8:**

Does openness to experience moderate the association between epistemic curiosity and creative design?

## 1.5 Research Objectives

The present study will be conducted to attain the following objectives:

1. To find out how epistemic curiosity affects entrepreneurial success.
2. To investigate the positive link between epistemic curiosity and creative ideas.
3. To explore the positive connection between creative ideas and playful work design.
4. To find out the impacts of playful work design on entrepreneurial success.

5. To explore the of creative ideas between epistemic curiosity and playful work design.
6. To investigate the mediatory mechanism of playful work design between creative ideas and entrepreneurial success.
7. To examine the extent to which creative ideas and playful work design sequentially mediate the association between epistemic curiosity affect the entrepreneurial success.
8. To investigate the extent to which openness to experience moderates the relationship between epistemic curiosity and creative ideas.

## 1.6 Significance of Study

This study aims to provide valuable insights to entrepreneurs by highlighting the significant role of epistemic curiosity in achieving business success. While curiosity has been extensively studied and recognized as a reliable predictor in various fields, it has surprisingly received limited attention in the context of entrepreneurship. Considering that entrepreneurship revolves around the identification and exploitation of business opportunities, it is remarkable that there has been an absence of investigation discovering the influence of curiosity in this domain (Murnieks, Cardon, & Haynie, 2020). By bridging this gap, this research will delve into the influence of EC on entrepreneurial success, shedding light on an important yet understudied aspect of the entrepreneurial journey.

Moreover, curiosity serves as a driving force, compelling individuals to pose questions, tackle challenges, and grapple with intricate concepts. These qualities, in turn, empower them to uncover untapped opportunities that have yet to be capitalized upon by others. Curiosity, as one of the key motivational factors, plays a significant role in shaping an individual's ability to identify and enhance these opportunities. Curious individuals display heightened interest and enthusiasm when presented with such prospects, primarily fueled by their intrinsic motivation to thrive in an uncertain environment. Within this context, curiosity acts as a powerful catalyst, propelling individuals towards acting and venturing into uncharted

territories, such as starting a business, all while deriving immense satisfaction from the process itself (Lievens, Harrison, Mussel, & Litman, 2022). Hence, our present research endeavors to explore the underlying mechanisms that elucidate how epistemic curiosity paves the way for entrepreneurial success, unraveling the intricacies of this profound relationship.

Thirdly, the outcomes for every entrepreneur don't appear the same so far. Individual personality traits have the strength to determine the outcomes (Raine & Pandya, 2019). Thus, the study will also contribute to the theoretical literature by determining the moderating role of OE between EC & ES.

Lastly, the study's findings will be unique in the Pakistani context, and we choose the SMEs of Pakistan to study our proposed integrated model. Entrepreneurs in Asian contexts have different work situations than in the West (Hu et al., 2022), thus this study will bring unique findings in Pakistani culture.

## 1.7 Supporting Theory

The foundation of this study rests upon the Theory of Human Curiosity, which was developed by Berlyne based on neurological research exploring the impact of curiosity on human behavior and actions. Berlyne's work highlights curiosity as one of the driving forces behind the enhancement of opportunities. Within the Theory of Human Curiosity (1970), Berlyne presents three key concepts: the stimuli that ignite curiosity, the four categories of curiosity, and the two kinds of exploration tendencies. Furthermore, the theory proposes four distinct dimensions of curiosity:

**Epistemic-Cognitive:** This dimension reflects the innate desire to acquire knowledge and information.

**Perceptual-Sensory:** It pertains to how individuals direct their attention towards novel aspects of their environment.

**Specific-Absorption:** This dimension represents the inclination to seek specific observations and experiences.



Diversive-Exploration: It encompasses the curiosity that drives individuals to seek diverse stimuli and escape from boredom.

By delving into Berlyne's Theory of Human Curiosity, this study aims to provide unique insights into the intricate relationship between these dimensions of curiosity and entrepreneurial success, shedding light on the underlying mechanisms that drive individuals to capitalize on opportunities and thrive in uncertain environments.

Studies explained that a person might have every aspect of the curiosity trait at the same time, depending on emotional and contextual circumstances. In other cases, an individual can have a stronger preference for one of the dimensions. Entrepreneurs are most likely to possess all these curiosity dimensions. Berlyne stated that being curious about oneself will push one to be proactive and demonstrate behaviors that reflect one's inner drive. This study assumes that an entrepreneur is being motivated by an inner drive to explore something new, he comes up with creative ideas and proactively designs his work in more fun and competitive way which leads to entrepreneurial success. On the other hand, an entrepreneur's personality trait i.e., openness to experience further helps him search for new creative ideas. Thus, current theory acts as overarching theory for the proposed research framework. In the research model, the dimensions of the theory of human curiosity are integrated to elucidate the multifaceted impact of curiosity on entrepreneurial success. The "Epistemic-Cognitive Dimension" aligns with "Epistemic Curiosity" variable, illustrating the innate desire for knowledge acquisition among entrepreneurs. The "Perceptual-Sensory Dimension" corresponds to "Openness to Experience," highlighting how individuals direct attention to novel aspects of their environment, potentially moderating the relationship between curiosity and creativity. Lastly, the "Diversive-Exploration Dimension" relates to "Playful Work Design," showcasing how diverse stimuli-seeking and avoidance of boredom can be harnessed through work design, mediating the influence of epistemic curiosity on entrepreneurial achievement. This model offers a comprehensive perspective, elucidating the interplay of these dimensions in shaping entrepreneurial outcomes.

# Chapter 2

## Literature Review

### 2.1 Epistemic Curiosity and Entrepreneurial Success

Epistemic curiosity can be described as an innate longing for knowledge, which fuels individuals' pursuit of research, experimentation, and the quest to unravel intellectual enigmas. This intrinsic desire to acquire information not only drives academic achievement but also fosters intellectual growth (Heinemann et al., 2022). It represents a profound thirst for learning that can only be quenched through active engagement. People with high degrees of curiosity are frequently distinguished by their proactive engagement in independently motivated informational endeavors and inquiry. These activities not only enhance their capacity for learning but also stimulate their intellect and nurture creativity. By delving into the realm of epistemic curiosity, our study aims to shed unique light on its impact within the entrepreneurial sphere, uncovering how this insatiable quest for knowledge drives individuals to seek out novel opportunities and ultimately contributes to their success in the business realm.

In distinguishing between the perceptual and epistemic dimensions of interest (Berlyne et al., 1954), curiosity can manifest in various contexts. EC is concerned with the intrinsic need for new information that motivates people to actively engage in learning and exploratory activities. On the other hand, perceptual curiosity pertains to the fascination evoked by visual, aural, and tactile stimuli.

Conceptually, epistemic curiosity fits with established ideals like the need for rationality and open-mindedness, and it is closely related to measures of intellectual accomplishment. Curiosity plays an immediate role in facilitating information acquisition, thereby enhancing performance across diverse domains, including professional settings (Lievens et al., 2022). By investigating these distinct dimensions of curiosity, our research aims to provide a unique perspective on how they influence entrepreneurial success, shedding light on the interconnectedness between intellectual curiosity and performance outcomes within the dynamic landscape of business.

According to the literature, people have two different kinds of epistemic curiosity depending on their motivations. I-EC entails improving intellectual mastery and pursuing satisfaction through the acquisition of new knowledge. D-EC, on the other hand, focuses on minimizing and eliminating ignorance while averting failure. These two forms of curiosity are not incompatible despite their differences. Like most motivational systems, curiosity can involve both rewarding feelings brought on by learning new things and a sense of deprivation brought on by not having access to information (Ishaq et al., 2021).

Thus, in general, epistemic curiosity can be characterized as both an interest in and a sense of deprivation. People that are naturally curious have a great drive to learn, solve issues, and ask new questions. Curiosity theories based on deprivation and interest are two essential types of curiosity that explain their underlying foundation. According to deprivation theorists, individuals are driven to state their curiosity and any accompanying uneasy feelings when they engage in probing activity to learn more about an unclear or novel stimulus. On the other hand, supporters of interest-based theories think that the emotions brought on by the arousing of curiosity are quite pleasurable. Additionally, researchers have looked at the traits of curiosity, including perceptual vs. epistemic curiosity and diverse vs. specific. Over the past few years, a wave of entrepreneurial expertise has surged, delving deep into the enigmatic motivations behind individuals embarking on their own business ventures (Douglas, Shepherd, & Venugopal, 2021). Diligent researchers have devoted themselves to unraveling the intricate tapestry of traits and attributes necessary for one to blossom into a triumphant entrepreneur. Their

tireless efforts have uncovered a vast array of factors that influence entrepreneurial pursuits, encompassing personal values, self-belief, and the disposition towards the surrounding environment, alongside other encompassing, or specialized personality qualities (Hueso, Jaén, & Liñán, 2021).

Remarkably, despite its well-established influence in various domains, the concept of curiosity has remained relatively unexplored within the realm of entrepreneurship research. In a meta-analysis investigating the advantages of adaptability in career paths, it was revealed that entrepreneurship orientation can flourish as a positive consequence of career adaptability, particularly when fueled by curiosity (Rudolph, Lavigne, Katz, & Zacher, 2017). Curiosity stands as a pivotal trait for entrepreneurs, considering that entrepreneurship revolves around the astute identification and exploitation of lucrative business prospects. It is truly astonishing, then, that the realm of entrepreneurial research has been bereft of comprehensive exploration on this subject. Before seizing an opportunity, it must first be discerned by the astute entrepreneur.

Endowed with an insatiable thirst for knowledge, curious individuals ardently inquire, untangle complexities, and unravel intricate theories. Consequently, they possess an uncanny ability to uncover untapped opportunities that have eluded others. History bears witness to countless awe-inspiring inventions and momentous discoveries borne out of the boundless curiosity of explorers and inventors (Gino et al., 2018). Likewise, adopting such a mindset can propel one to the vanguard of their business domain, enabling them to perceive burgeoning business prospects ahead of the curve. Research on entrepreneurial opportunity recognition often zeroes in on the imperative of being attuned to potential business possibilities, facilitating the discovery or creation of an optimal alignment between market demands and available resources.

According to Heinemann et al. (2022), epistemic curiosity may be one of the traits that are most important for the growth of business aims and behavior. On the other hand, Peljko and Auer Antončič (2022) research advances the field of entrepreneurship by providing empirical evidence regarding the links between entrepreneurial curiosity, an entrepreneur's capacity for innovation, and firm growth. It also offers polished, globally comparable instruments for evaluating entrepreneurial

curiosity and entrepreneurial capacity. Entrepreneurs' curiosity is a crucial resource for their inventiveness. In some nations, the entrepreneur's inventiveness is crucial to the expansion of the business. Furthermore, [Syed, Butler, Smith, and Cao \(2020\)](#) conducts research to deepen our comprehension of the connection between entrepreneurial passion and intentions. Although prior studies have shown a strong correlation between these two constructs, it is still unknown exactly what conditions and mechanisms underlie this relationship.

Unveiling a remarkable insight, the study unravels that individuals endowed with elevated levels of curiosity wield a more potent mediating influence than their less inquisitive counterparts. This significant revelation fosters an enhanced comprehension of the intricate dynamics governing the interplay between entrepreneurial passion and entrepreneurial intentions. [Boada-Grau et al. \(2021\)](#) found that a specific type of curiosity, known as curiosity in cases of deprivation (Curiosity-D) is important. The study suggests that individuals with high scores in dysfunctional impulsivity, when combined with high levels of curiosity in cases of deprivation, are more likely to exhibit entrepreneurial orientation. This finding aligns with the notion that entrepreneurs possess curiosity, adaptability, and a drive to seek new opportunities.

Overall curiosity has been associated with entrepreneurship success, the precise mechanism underlying this association is still unknown. Innovation with creativity is one possible proposed mechanism. According to the model of entrepreneurial success that has been constructed here, success in the company may be attributed to at least three fundamental processes: curiosity, innovation, and dedication. Finally, the three Care put forth as an early, tentative model of how fundamental attributes lead to three essential characteristics, which can aid in laying the groundwork for entrepreneurial success. Although there has only been a small amount of empirical support for this first model, it may nonetheless inspire additional studies targeted at either disproving or supporting the model's fundamental premise. Overall, we found a positive link between EC and entrepreneurial success. Therefore, we suggest the hypothesis:

***Hypothesis 1: Epistemic Curiosity is positively related to entrepreneurial success.***

## 2.2 Relationship between Epistemic Curiosity & Creative Ideas

Usually, creativity is seen as a quality of a situation, a method, a person, or a thing (Gonçalves & Cash, 2021). When it comes to idea generation, situations, procedures, people, and organizations that produce more original ideas—or ideas that are not just unique but also have other desirable qualities—than sources that produce less of these ideas—are sometimes regarded as being more creative. A concept or other type of product's attributes might be used to gauge creativity. This study focuses on measures that apply to concepts, or the product view. We consider it a good idea that is also fresh to be creative. In other words, it applies to the issue, offers a workable solution, and is innovative. The slow rate of innovation has led consumers to pay greater attention to concept approval phrases, even if motivating employees to come up with original ideas is vital for many firms (Lu, Bartol, Venkataramani, Zheng, & Liu, 2019).

Most modern theorists define creativity as thoughts on things that are (a) unique or creative and (b) perhaps helpful to the organization. If an idea stands out from others that are already in the organization, it is deemed new. Ideas are deemed valuable if they could benefit the organization directly or indirectly in the short- or long term. According to this concept, creative recommendations might range from major innovations in the design of new products or policies to minor, incremental improvements in existing procedures or processes. Finally, our definition assumes that workers in any position and at every level of the organization can come up with creative ideas. To be creative, one must produce novel and beneficial concepts or products. In accordance with Mumford and McIntosh (2017) process model of creativity, the acquisition of knowledge takes precedence over the emergence of creativity, a notion corroborated by certain research findings. Notably, the pursuit of information can be fueled by the compelling force of curiosity. Multiple studies, including the work of Hardy III, Ness, and Mecca (2017), have unveiled a relation between curiosity and creativity, shedding light on the intertwined nature of these two constructs. However, there remains an abundance of untrodden paths in the realm of research, awaiting exploration to unravel the

intricate factors that establish the connection between curiosity and heightened creative aptitude. Curiosity is demonstrated by a desire for new information and experiences. Creativity entails creating something new and exciting out of something familiar. It is simple to observe how the overlap between the two focuses on novelty when presented in this manner. Perceptual and epistemic curiosities are the desire for knowledge and new sensory experiences, respectively. Both types of curiosity were linked to creative personality traits, self-reported creative habits (such as painting or crafting), and success on a creative drawing task ([Gonçalves & Cash, 2021](#)). The intensity of the associations for perceptual and epistemic curiosity was interestingly identical, suggesting that both the need for novel sensory experiences and the more intellectually oriented curiosity may be critical for creativity.

[Hagtvedt, Dossinger, Harrison, and Huang \(2019\)](#) made a prediction that engaging in targeted research driven by specific curiosity would have a positive impact on creativity. The researchers also asserted that concept linking, which entails employing components from previous concepts as building blocks for later ideas in a sequential fashion, would have an impact on this correlation. In other words, one idea serves as a springboard for the next. The researchers hypothesized that this process of combining concepts would enhance creativity by allowing individuals to gradually move away from common and familiar connections that initially come to mind when generating ideas without constraints. The key discoveries of the [Wan, Lee, and Hu \(2021\)](#) study reveal that complexity, a feature of epistemic beliefs, has a positive effect on taking risks intellectually and innovation. However, neither intellectual risk-taking nor creativity is strongly predicted by the certainty aspect of epistemic beliefs. Epistemic source beliefs have an indirect impact on creativity by increasing the willingness to take intellectual risks.

Furthermore, the justification aspect of epistemic beliefs positively affects creativity directly. These findings offer insightful understandings of how people form their epistemic beliefs and offer a viable approach for stimulating creativity by altering such beliefs. As indicated in a study conducted by ([Hardy III et al., 2017](#)), the ever-increasing complexity and dynamism of workplaces highlight the significant role of curiosity in driving human behavior, ultimately contributing to both

employee & firm success. The results of this study suggest that trait-diversified epistemic curiosity, which is frequently disregarded, may be an important predictor of effective inventiveness and general creative performance. By delving into the study of curiosity, we can gain valuable insights into the underlying factors influencing human achievements. We expect that this study will serve as a catalyst for future investigations into this fundamental human characteristic. Thus, on the basis of above discussion, present study proposes a positive correlation between EC and the generation of creative ideas. Therefore, the hypothesis is:

***Hypothesis 2: Epistemic Curiosity is positively related to Creative Ideas.***

## 2.3 Relationship between Creative Ideas and Playful Work Design

Organizations work hard to acquire creativity as one of their key resources in competing in the world of business. Employing creative people is essential for businesses since they are more likely to come up with useful and original ideas. The topic of enhancing creativity in the workplace has been a subject of continuous scholarly interest (Bakker, Hetland, et al., 2020). Recent research has revealed that entrepreneurs tend to exhibit higher levels of creativity when they incorporate elements of engagement and enjoyment into their work practices (Petelczyc, Capezio, Wang, Restubog, & Aquino, 2018). While earlier studies have explored the idea that playfulness at work can enhance creativity, our present research aims to discover a distinct aspect: the deliberate cultivation of play within the work environment and its relationship with creativity. Playful work design is a recent innovation in this subject that has garnered interest. "Playful work design" is the process of having entrepreneurs deliberately create surroundings that encourage fun and challenge without changing the nature of the work itself (Bakker, Scharp, Breevaart, & De Vries, 2020). For instance, to increase productivity, entrepreneurs may add challenges (such as time limits and deadlines) within a professional task. To make the dialogue more enjoyable during a meeting, staff members may also tell jokes.



PWD means proactive, behavioral work orientation that incorporates play aspects to provide (1) enjoyable activities and (2) competitive activities at work. Literature on play and literature on proactive work practices are combined in this description. Play is a behavioral orientation that applies play's experiential qualities to an activity by using play elements. The idea of proactive work strategies includes the ways that business owners actively control and shape their professional development and success. Playful Work Design represents the convergence of these two research streams, illustrating how entrepreneurs intentionally infuse their work activities with elements of play to cultivate two key aspects: (1) fostering a sense of enjoyment and (2) introducing elements of healthy competition within their work dynamics.

The conceptual division between two categories of play elements—ludic and agonistic—is the foundation of PWD's dimensional framework. The ludic play parts encompass components such as spontaneity, fantasy, and comedy, which primarily aim to generate a sense of entertainment, enjoyment, and fun. Agonistic play components, on the other hand, such as objectives and guidelines, primarily help to create challenge and rivalry within the entrepreneurial context. Entrepreneurs use ludic play components when they jokingly design fun into their work. Innate in human nature is a deep-rooted inclination towards engaging in play, driven by the innate joy and fulfillment it brings. Expanding on this fundamental principle, (Bakker, Hetland, et al., 2020) propose that entrepreneurs possess the capacity to actively infuse their work with playful elements and elements of competition, thereby crafting a work environment imbued with fun and lightheartedness.

Preliminary investigations into the concept of playful work design have provided promising insights, suggesting that engaging in proactive behaviors to infuse playfulness into work yields numerous positive outcomes. This approach not only enhances employee well-being but also cultivates a conducive environment for creativity and improved performance, especially among individuals who possess an innate disposition towards openness and playfulness. By incorporating elements of play into work, the intrinsic motivation to tackle challenging and repetitive tasks is reinforced, allowing individuals to navigate such demanding assignments more effectively (Bakker, Scharp, et al., 2020). In a study conducted by (Petrescu,

2018), the focus was on the integration of playful elements into daily work routines, known as playful work design.

Scholars conducted a captivating investigation that delves deep into the profound impact of play on organizational behavior. Their study clarifies the dual character of play by portraying it as both an enjoyable escape from professional responsibilities and a deep involvement with them. This in-depth investigation tries to examine the various types of play and its significant function as an inspiration for innovation. Past research discovered that play can boost many components of the creative process when it overlaps with one's corporate responsibilities. It stimulates cognitive thinking, triggers affective responses, and boosts motivational levels. On the other hand, when play is used as a temporary distraction from these obligations, it fosters the tangential interpersonal and interpersonal processes that initially ignite creative bursts.

Thus, play serves as a catalyst, facilitator, and rehearsal area for creativity to develop by ignoring conventional norms, structural commitments, and practical constraints while encouraging behaviors that may not immediately disclose their usefulness. Their work highlights the immense potential of incorporating play into the work environment, providing a compelling argument for organizations to embrace a more playful approach that fosters creativity and innovation. Furthermore, literature proposed that PWD may have a positive effect on creativity.

Petrescu (2018) found that PWD was linked positively to work engagement and positive affect, which are factors that may enhance creativity. Bakker, Scharp, et al. (2020) introduced the concept of playful work design and provided a theoretical framework for it. The literature on contextual factors that enhance employee creativity suggested exciting possibilities for future research directions. While none of these papers directly tested the relationship between PWD and creativity, but studies suggest that PWD may be a favorable area for future research on enhancing creativity in the workplace.

Entrepreneurs can actively modify their work experience through play, according to (Scharp et al., 2019). Despite being a key component of human civilization, play is still one of the least understood organizational phenomena. Workers might

take a creative approach to their work to create fun and competition in the workplace. PWD creates the tools required for creativity, the generation of original and relevant replies, goods, or solutions. Organizational success depends on innovation because original thinking can lead to the development of useful products and services that can address difficult business issues.

Thus, based on literature review a positive relationship between creative ideas and playful work design can be assumed. Thus, we imply the hypothesis:

***Hypothesis 3: Creative Ideas are positively related to Playful Work Design.***

## **2.4 Relationship between Playful Work Design & Entrepreneurial Success**

Playful work design refers to a method employed by workers to voluntarily infuse their work activities with elements that promote enjoyment and stimulate personal challenge, all without fundamentally altering the structure of their job (Bakker, Hetland, et al., 2020). Entrepreneurs embrace this approach to maximize their own work experience by playfully designing their tasks, thus enhancing the enjoyment factor, and fostering a healthy level of competition. By blending work & play in a bottom-up manner, the concept of playful work design (PWD) offers entrepreneurs a unique avenue to optimize their professional endeavors. Scharp et al. (2022) paid attention to two unique components of PWD in their research: designing for play and designing for competitiveness. These components have varying effects on work engagement and are driven by different mechanisms. Both designing for fun and designing for competition fulfill the need for autonomy, instilling a sense of volition and ownership. However, designing for fun specifically nurtures feelings of belonging and connectedness, satisfying the need for relatedness. On the other hand, designing for competition specifically cultivates a sense of achievement and efficacy, addressing the need for competence. Furthermore, the researchers delve into the evolving nature of daily PWD and found it as significant factor at workplace (Crowther, Orefice, & Beard, 2018). The concept of

entrepreneurial success, as described by Shepherd et al. (2019), encompasses the outcomes that arise from seizing potential opportunities or exploring various possibilities. However, contemporary research has taken a more nuanced approach, recognizing that entrepreneurs perceive accomplishments beyond monetary gains.

The earlier studies predominantly linked entrepreneurial success solely to financial benefits. To capture the diverse nature of entrepreneurial success, we now classify among fiscal and non-fiscal achievements. Recent research in the field of entrepreneurship acknowledges monetary success as the accumulation of financial returns derived from entrepreneurial endeavors. Conversely, non-monetary success is characterized by subjective well-being, encompassing an individual's overall level of life satisfaction. By broadening the definition of success, we can embrace the multifaceted aspects of entrepreneurial achievements. Bakker, Scharp, et al. (2020) revealed an intriguing notion that individuals possess the capacity to optimize their work design daily, thereby enhancing their overall performance. In their exploration, the researchers put forth the notion that employees have the potential to actively shape their work experience by taking personal initiative. They found that individuals could finely adjust the nature of their job characteristics throughout a single day, aligning them more effectively with their unique needs and abilities.

To investigate this idea, a quantitative daily diary study was conducted, focusing on naval cadets as participants. The study aimed to unravel the impact of PWD, the enhancement of job resources, and the introduction of challenges on various facets of daily job performance. By delving into these dynamics, the findings shed light on the intricate interplay between individual agency, job design, and performance outcomes within a day-to-day context (Tang, Vezzani, & Eriksson, 2020). Notably, these factors exhibited a positive association with performance ratings, whereas diminishing job demands demonstrated a negative impact. Furthermore, as anticipated, the effectiveness of these strategies proved to be contingent upon the prevailing daily work pressure. PWD refers to the incorporation of elements of play, such as enjoyment, creativity, and spontaneity, into the work environment. Entrepreneurial success, on the other hand, pertains to the achievement of positive outcomes in entrepreneurial endeavors, such as business growth, innovation,

and profitability. By incorporating elements of play into the work environment, such as brainstorming sessions, gamification, and encouraging experimentation, entrepreneurs can tap into their creative potential and generate innovative ideas (Bakker, Hetland, et al., 2020). Furthermore, literature suggests that Playful work design can contribute to higher levels of motivation and engagement among entrepreneurs and their teams.

Playful job environments can facilitate effective problem-solving and decision-making processes. By adopting a playful mindset, entrepreneurs are encouraged to think outside the box, take risks, and approach challenges with a more open and flexible perspective which can lead to the business success. Additionally, Playful work design can also foster a positive and collaborative work culture. By incorporating playful elements, such as team-building activities, games, and social events, entrepreneurs can create a more cohesive and communicative team, leading to improved teamwork and collaboration (Ishaq et al., 2021). Since there is little existing research on this subject, we intend to examine how fun work design affects entrepreneurship success. According to recent research, entrepreneurs who approach their work with a sense of play are likely to be more involved with it, generate more innovative beliefs, and work better (Bakker, Hetland, et al., 2020). Thus, on the basis of extant literature we suggest that PWD can contribute to positive work experience and improved well-being among entrepreneurs. By infusing elements of play and fun into the work environment, entrepreneurs may experience reduced stress levels, increased job satisfaction, and overall well-being, which can positively impact their entrepreneurial success. Entrepreneurial success will come when workers perform better after adding fun and competitiveness. Therefore, we propose the hypothesis:

***Hypothesis 4: Playful Work Design is positively related to Entrepreneurial success.***

## 2.5 Mediating Role of Creative Ideas

Everything begins with a thought, even the most inventive discoveries may have humble beginnings as straightforward concepts that were jotted down on a piece of

paper. The creation of novel goods, services, and technology depend on ideation. Creative ideas are both innovative and valuable, and originality sets them apart from ideas that are merely well-conceived. Since innovative processes begin with creative ideas, creativity is frequently depicted in organizational contexts as being nested within larger innovation processes. However, creativity differs from innovation in that it places more emphasis on the creation and development of ideas than their application. As a result, innovation always takes execution into account, as opposed to creativity, which refers to developing concepts without consideration for execution. When a business adopts an idea that was developed outside, in essence, "buying" ideas rather than developing them itself, significant innovation can occasionally be produced within the organization with limited ingenuity. Creativity, as a bridge between epistemic curiosity and fun work design, entails developing fresh and beneficial ideas or solutions.

According to the creative process paradigm, acquiring knowledge comes before creativity, and some research backs this viewpoint. That information seeking could be motivated by curiosity. According to extant research studies (e.g. [Hardy III et al., 2017](#)), there is a relationship between curiosity and creativity. We are addressing this gap by examining additional factors that relate curiosity to higher creativity. In times of instability and change, curiosity is what "organizations most require" because it gives people the tools they need to respond to the environment in novel ways. The symbiotic connection between curiosity & creativity in entrepreneurship has garnered recognition, as inductive study of esteemed businesspeople concluded that "Curiosity is the creator's most crucial tool." Curiosity & creativity embody two underlying aspects of human nature: the innate drive to acquire, explore, and the yearning to produce something distinctive and valuable.

Individuals with elevated levels of specific curiosity are propelled by a quest to alleviate uncertainties by filling knowledge gaps through novel information sources. In contrast to diversive curiosity, which seeks to amplify perceived novelty, specific curiosity actions are more problem-oriented, focusing on minimizing novelty within one's setting ([Gross et al., 2020](#)). This specific type of curiosity enables people to adjust to environmental changes while also cultivating feelings of competence and mastery. The fusion of curiosity and creativity fuels the entrepreneurial spirit,

unlocking pathways for innovative solutions and transformative ventures. "Playful work design" encompasses a cognitive and behavioral approach embraced by entrepreneurs, wherein they infuse their work with elements of competition and enjoyment. By adopting this mindset, entrepreneurs actively seek to create a work environment that combines the excitement of competition with the pleasure derived from their tasks.

This intentional integration of competitiveness and enjoyment reflects their unique perspective on work, allowing them to navigate their professional journey with a sense of playfulness and purpose. It entails acting proactively to create challenging and enjoyable work environments without altering the way jobs are designed (Bakker, Hetland, et al., 2020). The idea that people's inner motivating drive drives them to engage proactively because of their curiosity was initially put forth by Berlyne in 1954. Entrepreneurs are encouraged by epistemic curiosity to actively create employment that promotes the satisfaction of their wants.

Existing literature provides compelling evidence that epistemic curiosity plays a crucial role in fostering creative ideation, subsequently influencing entrepreneurial success. According to Heinemann et al. (2022), EC is a more powerful driver of entrepreneurial intents and orientation than openness to experience. Khan (2023) discovered that entrepreneurial leadership has a favorable impact on personnel's innovative conduct, which is mediated in part by employee epistemic curiosity as well as engagement in the process of innovation. Additionally, Hardy III et al. (2017) demonstrated that diversive curiosity positively influences creative problem-solving, a pivotal component of generating creative ideas. Lastly, Wan et al. (2021) uncovered that epistemic beliefs directly and indirectly affect STEM creativity, with the indirect effects mediated by intellectual risk-taking. Collectively, these findings highlight the significance of epistemic curiosity in driving entrepreneurial endeavors, facilitating creative thinking, and contributing to overall success and innovation within entrepreneurial contexts.

Overall, literature suggests that epistemic curiosity is an important predictor of creative ideation, which in turn affects entrepreneurial success. Hence, we discovered that curiosity prompts information gathering and motivates entrepreneurs to generate creative ideas which help them design their work by incorporating fun and

competition. Furthermore, EC implies to the quest for learning and understanding, while entrepreneurial success pertains to positive outcomes in entrepreneurial endeavors. Creative ideas, on the other hand, involve novel and original concepts or solutions. The hypothesis that creative ideas mediate the link between EC and ES suggests that the creation and execution of creative ideas play a role in translating curiosity into successful entrepreneurial outcomes. Therefore, we propose that:

***Hypothesis 5: Creative Ideas mediate the relationship between Epistemic Curiosity and entrepreneurial success.***

## 2.6 Mediating Role of Playful Work Design

Playful work design embodies the proactive approach of entrepreneurs in crafting an environment within their work activities that nurtures both enjoyment and challenges, all while leaving the core job design intact. By embracing PWD, entrepreneurs seek to optimize their personal work experiences. The present study aims to deepen our comprehension of how playful work design can effectively cultivate creative ideas and foster successful entrepreneurship. Entrepreneurs who are likely to engage in PWD have higher degrees of self-initiative, openness, inquisitiveness, fun, humor, creative personality, competition, achievement-seeking, and imagination (Schutte & Malouff, 2020). Furthermore, businesses with higher levels of independence and a supportive culture for obtaining enjoyment exhibit more pronounced manifestations of entertaining job designs.

According to (Khan, 2023), entrepreneurs can enrich their job experiences by infusing elements of fun and competition into their work, which in turn enhances their sense of self-determination derived from perceiving their work as meaningful. In the present study, we explore how the level of employee epistemic curiosity and engagement in Playful Work Design (PWD) are influenced by the perceived meaningfulness of work within the context of software development firms. By introducing the idea of leader autonomy support as a reinforcing factor, this study adds to the body of knowledge on the factors that influence employee PWD strategies. This concept has an impact on both the direct relationship between worker



epistemic curiosity and playful work design and the indirect relationship between work meaningfulness and playful work design.

In a study conducted by (Bakker, Scharp, et al., 2020), it was revealed that entrepreneurs actively engage in designing their work to be more enjoyable across a range of activities, with their behavior varying from day to day. The findings underscore the significant implications of playful work design for practical purposes, as it positively impacts worker productivity and engagement. Employers can use the playful work design measure to gauge the degree of this proactive behavior and spot business owners who take a playful approach to their job. However, the realm of entrepreneurial success has been extensively explored in previous research (Alroaia & Baharun, 2018). Understanding the variables that influence the attainment of such accomplishments is particularly intriguing from both theoretical and practical perspectives. The literature extensively discusses the precise role of managerial skills, including effective decision-making, knowledge, experience, social skills, in company activities.

Existing literature suggests that playful work design holds the potential to positively impact the association between epistemic curiosity and entrepreneurial success. Furthermore, Khan (2021) identified that entrepreneurial leadership exerts a positive and significant influence on employee innovative behavior, and this relationship is in part mediated by worker epistemic curiosity and engagement in the creative process. These collective findings indicate that PWD has the capability to boost the connection between epistemic curiosity and entrepreneurial success. Being a mediator between Creative Ideas and Entrepreneurial Success, entrepreneur involvement in Playful Work design is prompted when an entrepreneur enjoys autonomy in his work. This involvement in playful work design resulted in entrepreneurial success. The urge to learn and comprehend our surroundings is referred to as EC. Playful work design, as previously mentioned, incorporates elements of play and enjoyment into the work environment. The hypothesis that playful work design mediates the relationship between EC and ES suggests that the presence of a playful work environment enhances entrepreneurial success by fostering and leveraging epistemic curiosity. According to the sequential mediation hypothesis, the link between epistemic curiosity and entrepreneurial success

follows a sequential path mediated by two key factors: the generation of creative ideas and the existence of a playful work design. This hypothesis posits that epistemic curiosity first influences the invention of creative ideas, which in turn influences the adoption of a playful work design. Ultimately, this sequential mediation process contributes to fostering entrepreneurial success. This hypothesis proposes that epistemic curiosity leads to the creation of creative ideas, which in turn, contributes to entrepreneurial success. Furthermore, it suggests that PWD enhances the link between creative ideas and entrepreneurial success. Therefore, we propose a hypothesis:

**Hypothesis 6: Playful Work Design mediates the relationship between epistemic curiosity and entrepreneurial success.**

*Hypothesis 7: Relationship between Epistemic Curiosity and entrepreneurial success is sequentially mediated by creative ideas and playful work design.*

## 2.7 Openness to Experience as a Moderator

The current study's major goal is to investigate the moderating effect of a personality characteristic known as Openness to Experience (OE) on the interaction between epistemic curiosity and the development of creative ideas. OE refers to an individual's inherent inclination towards embracing novel and diverse intellectual and cultural experiences. It encompasses a wide array of behavioral and attitudinal tendencies characterized by a desire for novelty, variety, and personal growth. Open individuals exhibit a distinct eagerness to engage in creative, intellectual, and scientific pursuits, actively seeking out opportunities to explore and discover new ideas and knowledge. They are often described as independent thinkers who are receptive to new concepts, experiences, and perspectives, making them more inclined to seek insights from others, engage in knowledge sharing and thoroughly enjoy engaging in meaningful debates with others. Openness to experience, as a trait, signifies an individual's inherent curiosity and their inclination to explore new avenues. Those with high levels of openness tend to possess inventiveness and a heightened sensitivity towards their emotions.

Furthermore, they are more likely to hold liberal viewpoints. Given these characteristics, individuals high in openness are expected to thrive within their current organizations as they demonstrate a willingness to continuously develop themselves and remain marketable externally (Hassan, Bashir, Raja, Mussel, & Khat-tak, 2021). Curiosity, closely intertwined with openness, plays a pivotal role in the pursuit of knowledge and the exploration of novel ideas. It serves as a fundamental driving force behind scientific inquiry and various fields of human study. Naturally curious individuals possess an innate desire to learn, solve problems, and pose new questions. Their inclination towards discovering the unknown and their interest in unraveling puzzles contribute to their continuous growth and intellectual engagement.

Extant research has investigated a few aspects of curiosity, such as diversive vs specific curiosity, which represents a want for information, and perceptive versus epistemic curiosity, which reflects a general desire for intellectual engagement. The intrinsic need to acquire fresh information, cultivate intellectual interests, and overcome informational inadequacies is referred to as epistemic curiosity. Epistemic curiosity or its related aspects have been linked to personality traits such as the demand for cognition, according to research. Notably, Hassan et al. (2021) argued that levels of epistemic curiosity would be predicted by personality traits such as openness to experience.

The existing literature reveals intriguing connections between various psychological factors and creative thinking. Research indicates that OE, a personality attribute differentiated by a willingness to adopt new ideas and experiences, may influence the relationship between epistemic curiosity and generating creative ideas. Friis-Olivarius and Christensen (2019) examined the role of OE in the context of divergent thinking, which involves generating multiple solutions or ideas. The findings indicated that individuals with higher OE may demonstrate a stronger association between their epistemic curiosity (desire for knowledge and understanding) and the quantity and quality of their divergent ideas. Hardy III et al. (2017) explored the impact of diversive curiosity, which relates to a proclivity to pursue multiple interests, has been demonstrated to positively influence innovative solutions to problems. Notably, the individual's information-seeking behavior

during the early stages of creative problem-solving completely moderated this effect. Scholars driven on the predictive role of openness to experience in creativity. Individuals with greater degrees of openness to experience were more inclined to display creative thinking abilities, according to the findings. Furthermore, previous research explored that openness to experience played a significant role in connecting fantasy proneness with creative thinking.

These diverse findings highlight the potential influence of openness to experience in shaping the link between epistemic curiosity and generating creative ideas. By being receptive to new experiences, ideas, and exploring various interests, individuals with greater degree of OE may be more likely to leverage their curiosity towards producing creative and innovative solutions. Additionally, successful transformation and innovation are essential for organizational survival, effectiveness, and competitive advantage in the modern, rapidly changing corporate world. Although many aspects affect how much an organization is activated to maintain a competitive advantage, innovation frequently has its roots in the original thoughts of specific individuals. The "successful execution of innovative ideas" has been described as an innovation in an organization. Therefore, the factors that influence creative behavior—the generation of fresh and practical ideas by entrepreneurs—are receiving more attention because these very ideas can serve as the foundation for innovation.

Researchers that study creativity are constantly interested in factors that can improve people's capacity to produce innovative and adaptable ideas or goods. According to personality studies, some personality traits foster creativity. Researchers have drawn attention to the intriguing parallels between personality psychology and creativity, as both domains shed light on distinct aspects of individuals. Personality psychology examines an individual's capacity to cultivate original and adaptable ideas or products, while creativity reflects their unique beliefs and behaviors. Within the framework of the Five-Factor Model, which encompasses various personality traits, one trait that consistently demonstrates a positive association with creativity is openness to experience.

Openness to experience encompasses an individual's inclination to embrace new ideas, engage in intellectual pursuits, and explore novel experiences. It reflects

a predisposition towards curiosity, imagination, and intellectual curiosity (Syed et al., 2020). Studies have predicted a positive correlation between openness to experience and creativity, indicating that individuals with higher levels of openness tend to demonstrate greater creative potential. By possessing a high degree of openness to experience, individuals exhibit a willingness to challenge conventional thinking, seek out diverse perspectives, and explore unconventional solutions. This flexibility of thought and eagerness to explore new avenues allows them to approach problems from unique angles and generate innovative ideas. The openness trait serves as a catalyst, stimulating and enhancing creative thinking processes.

Within the realm of personality psychology, openness to experience stands as a distinctive trait marked by an affinity for novelty, intellectual inquisitiveness, and a penchant for diverse encounters. It mirrors an individual's inclination to embrace fresh ventures, explore uncharted territories, and exhibit a genuine curiosity towards a wide array of ideas and perspectives (Hardy III et al., 2017). In the context of understanding how openness to experience interacts with epistemic curiosity and its impact on creative idea generation, we discern a fascinating interplay that warrants further investigation. By delving into the intricate dynamics between openness to experience, epistemic curiosity, and creative ideation, we propose a hypothesis derived from the existing body of literature. Our hypothesis posits that the degree of OE exerts a moderating influence on the relationship between epistemic curiosity and the generation of creative ideas. In essence, the degree of openness to experience may enhance or diminish the strength and direction of the association between these variables.

Drawing upon prior research, we anticipate that individuals characterized by a higher degree of openness to experience will exhibit an augmented propensity to produce creative ideas through the mechanism of epistemic curiosity. This suggests that an individual's receptiveness to new experiences, coupled with their intellectual curiosity and hunger for knowledge, may serve as catalysts for stimulating imaginative thinking and fostering innovative ideas. In summary, our study seeks to elucidate the role played by openness to experience as a significant factor in the intricate interplay between epistemic curiosity and creative idea generation. By investigating the potential enhancements facilitated by openness to experience, we

aim to shed light on the underlying mechanisms that drive the creative process, offering valuable insights into the dynamic nature of human cognition and the interconnection between personality traits, curiosity, and creativity.

***Hypothesis 8: Openness to experience moderates the relationship between epistemic curiosity and creative ideas such that this relationship is strengthened for entrepreneurs with high openness to experience.***

## 2.8 Research Model

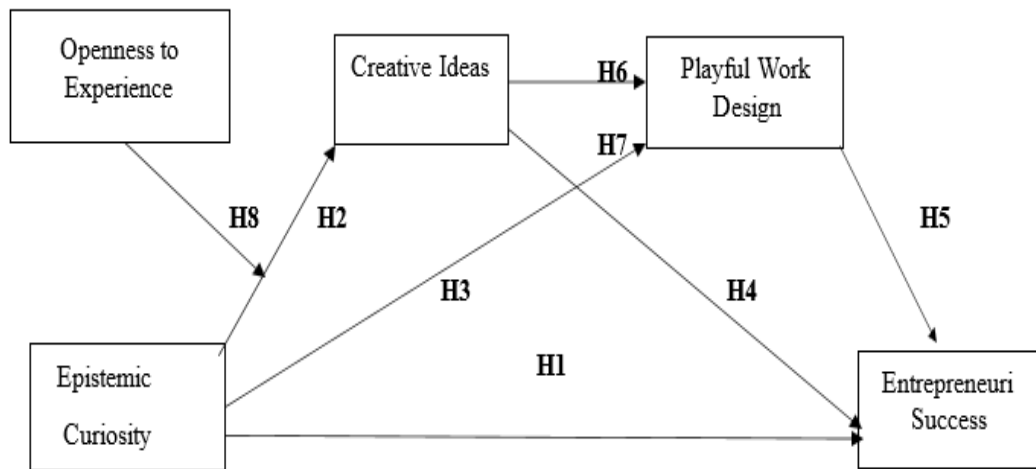


FIGURE 2.1: Research Model

## 2.9 Summary of Research Hypotheses

**H<sub>1</sub>**: Epistemic curiosity is positively related to entrepreneurial success.

**H<sub>2</sub>**: Epistemic curiosity is positively related to creative ideas.

**H<sub>3</sub>**: Creative ideas is positively related to playful work design.

**H<sub>4</sub>**: Playful work design is positively related to entrepreneurial success.

**H<sub>5</sub>**: Relationship between epistemic curiosity and entrepreneurial success is mediated by creative ideas.

**H<sub>6</sub>**: Relationship between epistemic curiosity and entrepreneurial success is mediated by playful work design.

**H<sub>7</sub>:** Relationship between epistemic curiosity and entrepreneurial success is sequentially mediated by creative ideas and playful work design.

**H<sub>8</sub>:** Openness to experience moderates the relationship between epistemic curiosity and creative ideas such that this relationship is strengthened for entrepreneur with high openness to experience.

# Chapter 3

## Research Methodology

This section delves into the diverse study methodologies employed to support the contemporary study. The approach to conducting this investigation stems from the solid theoretical foundations that underpin the variables under examination. Furthermore, this chapter covers critical topics such as demographics, the thorough data collection technique, and the variety of tools used to assure the validity and reliability of our study.

### 3.1 Research Approach

The methodology employed in a research study significantly impacts the validity and generalization of its findings. The quantitative research was employed in this study to evaluate the efficacy of various techniques and procedures. Quantification serves as a powerful tool that enables us to systematically measure, analyze, and interpret numerical data. A quantitative approach also reduces the researcher's chances of bias. This guarantees that the outcomes are correct.

### 3.2 Research Design

This research endeavor unravels the influence of epistemic curiosity on entrepreneurial success within the context of Pakistani SMEs and startups. The investigation also delves into the presence of a sequential mediation mechanism, wherein creative



ideas, and playful work design act as mediators between epistemic curiosity and entrepreneurial success. Furthermore, the role of openness to experience as a moderator in the relationship between epistemic curiosity and creative ideas was explored. The research design encompasses several key aspects that shape the trajectory of the study.

### **3.2.1 Cross-sectional Study**

This study has a cross-sectional design. Respondent information is only collected at one moment in time, then used in further analysis of the research. Entrepreneurs of SMEs and startups have provided the data. In consideration of the time constraint, structured questionnaires are employed for data gathering.

### **3.2.2 Data Collection**

The entrepreneurs who owned startups and senior management working in SMEs are the focus of the study. Data was collected through the online system and questionnaires were sent via e-mail and other sources. Self-administered questionnaires were also used for greater response rate. The questionnaires were distributed to relevant respondents using the connections of friends and family network. All possible channels made it possible to obtain desirable response and sample requirement.

### **3.2.3 Research Philosophy**

In this study, the Positivism research philosophy was adopted. Positivism is a philosophy that asserts that empirical data gained through the senses is reliable and true knowledge originates from measurements and observations. Furthermore, it emphasizes that all observers must provide a description of something that is substantially the same for genuine knowledge to be assumed. The speculative deductive method formerly served to support positivism. Researchers asserts that positivist studies of ideal models are of importance to researchers in the social sciences. In positive research logic, the quantitative investigation of the technique is viewed as the best course of action.

## **3.3 Population and Sample**

### **3.3.1 Population**

The study focused on gathering valuable insights from startup owners and senior management of SMEs in the twin cities of Pakistan. To obtain the necessary data, a survey method was employed, targeting individuals associated with NIC-sponsored startups and IIUI BIC-sponsored startups in Islamabad and Rawalpindi. A total of 300 questionnaires were distributed across various organizations, ensuring a wide coverage of the population. Out of 320 questionnaires distributed 295 were returned. Among the returned questionnaire 273 were considered valid and usable. A few questionnaires were incomplete or wrongly filled, thus were excluded from further analysis. Consequently, response rate stood at 85%. Throughout the data collection process, utmost importance was given to maintaining the confidentiality of the respondents. They were assured that their provided information would be handled with the utmost care and used solely for research purposes. To ensure convenience and maximize participation, a combination of personal and on-line distribution methods was employed. This approach allowed for swift data acquisition, enabling instant responses from the participants. Given the constraints of time and resources, this approach proved to be highly effective in collecting the necessary data for the present study.

### **3.3.2 Sampling**

Sampling is a widely employed method in data collection, as it allows researchers to gather information efficiently when time and resource constraints prevent data collection from the entire population. In this study, a simple random sampling was utilized to collect data. To ensure a representative sample that accurately reflects the targeted population comprised of senior management of various SMEs and startups affiliated with different incubation centers in the twin cities. To collect the necessary data, a combination of self-reported questionnaires and online surveys was employed. This approach allowed participants to provide their responses conveniently and provided flexibility in data collection methods. By adopting this

approach, the study aimed to obtain valuable insights from a targeted group of professionals who are actively involved in the startup ecosystem in the twin cities of Pakistan.

### 3.4 Sample Characteristics

The study focused on several demographic variables to gain insights into the sample characteristics. These variables included age, gender, education, work experience and current position of the respondents under investigation. By examining these characteristics, a deeper understanding of the diverse backgrounds and experiences within sample was obtained.

#### 3.4.1 Gender Frequency

TABLE 3.1: Frequency by Gender

		Frequency	Percent	Valid Percent	Cumulative Percent
<b>Valid</b>	Male	167	61.2	61.2	61.2
	Female	106	38.8	38.8	100
	Total	273	100	100	

Gender: Despite efforts made in this study to uphold the principles of gender equality, it is evident that there remains a notable disparity between the percentages of male and female workers. The data analysis reveals a significant overrepresentation of male employees, while the proportion of female participants lags. **Table 3.1** provides an overview of the gender distribution within the sample of the study. Out of the 273 respondents, 167 individuals identified as male, accounting for 61.2% of the sample. On the other hand, 106 respondents identified as female, making up 38.8% of the sample.

TABLE 3.2: Frequency by Age

		Frequency	Percent	Valid Percent	Cumulative Percent
<b>Valid</b>	21 to 30	135	49.5	49.5	49.5
	31-40	92	33.7	33.7	83.2
	41 to 50	39	14.3	14.3	97.4
	51 or above	7	2.6	2.6	100
	Total	273	100	100	

The age distribution of the respondents can be observed in **Table 3.2**. The sample size consisted of 273 respondents, and their ages were categorized into four groups: 21 to 30, 31 to 40, 41 to 50, and 51 or above. Among the participants, the largest group comprised individuals aged 21 to 30, with a frequency of 135 respondents, accounting for 49.5% of the sample. The second-largest group was those aged 31 to 40, with 92 participants, representing 33.7% of the sample. The age group of 41 to 50 consisted of 39 respondents, making up 14.3% of the sample. Lastly, the smallest group was individuals aged 51 or above, with only 7 respondents, comprising 2.6% of the sample. The cumulative percentages indicate the distribution of the age groups relative to the total sample. At 49.5%, the 21 to 30 age group had the highest representation, followed by the 31 to 40 age group at 83.2%. The cumulative percentage reached to 97.4% when considering the 41 to 50 age group. Finally, the cumulative percentage reached 100% when incorporating the age group of 51 or above.

### 3.4.2 Education Frequency

TABLE 3.3: Frequency by Education

		Frequency	Percent	Valid Percent	Cumulative Percent
<b>Valid</b>	Bachelors	148	54.2	54.2	54.2
	MS/MPhil/MBA	113	41.4	41.4	95.6
	PhD	12	4.4	4.4	100
	Total	273	100	100	

**Table 3.3** presents the distribution of educational qualifications among the participants in the study. The sample consists of 273 respondents, and their educational

backgrounds were categorized into three groups: Bachelors, MS/MPhil/MBA, and PhD. Among the participants, the most prevalent educational qualification was a bachelor's degree, with a frequency of 148 respondents, accounting for 54.2% of the sample. The second-largest group consisted of individuals holding an MS/M-Phil/MBA degree, with 113 participants, representing 41.4% of the sample. The smallest group was those with a PhD qualification, comprising only 12 respondents, or 4.4% of the sample.

The cumulative percentages illustrate the distribution of educational qualifications relative to the total sample. The bachelor's degree category accounts for 54.2% of the cumulative percentage, representing the largest share. When considering the MS/MPhil/MBA category, the cumulative percentage rises to 95.6%. Finally, including the PhD category reaches a cumulative percentage of 100%. These findings indicate that most participants in the study possess a bachelor's degree, followed by a significant proportion with an MS/MPhil/MBA qualification.

### 3.4.3 Experience Frequency

TABLE 3.4: Frequency by Experience

		Frequency	Percent	Valid Percent	Cumulative Percent
<b>Valid</b>	Less than 2 years	54	19.8	19.8	19.8
	2+ to 5 years	105	38.5	38.5	58.2
	5+ to 10 years	76	27.8	27.8	86.1
	10+ to 15 years	27	9.9	9.9	96
	More than 15 years	11	4	4	100
	Total	273	100	100	

**Table 3.4** provides insights into the distribution of work experience among the participants in the study. The sample consisted of 273 respondents, and their work experience was categorized into five groups: Less than 2 years, 2+ to 5 years, 5+ to 10 years, 10+ to 15 years, and more than 15 years. Among the participants, the largest group had 2+ to 5 years of experience, with 105 participants, representing 38.5% of the sample. The second-largest group consisted of individuals with 5+ to 10 years category comprised 76 respondents, making up 27.8% of the sample.

The individual having less than 2 years of work experience, with a frequency of 54 respondents, accounting for 19.8% of the sample. Participants with 10+ to 15 years of experience totaled 27, representing 9.9% of the sample. The smallest group was individuals with more than 15 years of experience, comprising 11 respondents, or 4.0% of the sample.

The cumulative percentages illustrate the distribution of work experience relative to the total sample. The category of less than 2 years of experience constitutes 19.8% of the cumulative percentage. When considering the 2+ to 5 years and 5+ to 10 years categories, the cumulative percentage increases to 58.2% and 86.1% respectively. Adding the 10+ to 15 years category reaches a cumulative percentage of 96.0%, while including the More than 15 years category leads to a cumulative percentage of 100 %.

### 3.4.4 Current Position Frequency

TABLE 3.5: Frequency by Position

		Frequency	Percent	Valid Percent	Cumulative Percent
<b>Valid</b>	Owner/CEO	114	41.8	41.8	41.8
	Director	27	9.9	9.9	51.6
	Manager	73	26.7	26.7	78.4
	Assistant Manager	59	21.6	21.6	100
	Total	273	100	100	

The current position distribution of the respondents can be observed in Table No. 5. It provides information on the frequency and percentage of each position. Out of a total of 273 respondents, the highest number of individuals, 114 (41.8%), hold the position of Owner/CEO. Managers account for the second highest number, with 73 (26.7%) individuals in this role. Assistant Managers make up 59 (21.6%) of the positions, while Directors represent 27 (9.9%) of the total.

The "Valid Percent" column indicates the percentage of each position out of the total valid positions, excluding any missing or invalid data. The cumulative percentages demonstrate the distribution of positions relative to the total sample.

The Owner/CEO category accounts for 41.8% of the cumulative percentage, representing the largest share. When considering the Director category, the cumulative percentage is 51.6%. Adding the Manager category reaches a cumulative percentage of 78.4%. Finally, including the Assistant Manager category results in a cumulative percentage of 100%.

## 3.5 Instrumentation

### 3.5.1 Measures

Adopted questionnaires were employed to collect data from a variety of sources. The questionnaire comprised two sections. Section one included items about respondent's demographics (gender, age, work experience), and the second section includes a 5-sub section which includes items for the independent variable (Epistemic Curiosity), dependent variable (Entrepreneurial Success), mediating variables (Creative Ideas and Playful Work Design), and moderator (Openness to Experience).

### 3.5.2 Epistemic Curiosity

To measure Epistemic Curiosity, the Work-Related Curiosity Scale WORCS developed by (Mussel, Spengler, Litman, & Schuler, 2011) was used. A sample item includes "I am interested in how my contribution impacts the company. It has a four-point Likert scale from 1 (almost never) to 4 (almost always) of (Litman & Spielberger, 2003).

### 3.5.3 Entrepreneurial Success

To assess entrepreneurial success, a scale developed by Rahman, Amran, Ahmad, and Taghizadeh (2015) was used, it included 9 items. Participants rated themselves on a scale ranging from 1 = Disagree Strongly to 5 = Agree Strongly. A sample item includes "This business is contributing to community development."

### 3.5.4 Creative Ideas

Creative ideation was assessed with a three items scale developed by (Thrash, Maruskin, Cassidy, Fryer, & Ryan, 2010). Items were rated on a scale from 1 (never) to 5 (Quite often). A sample item includes “How frequently did you come up with novel plans or goals?”

### 3.5.5 Playful Work Design

PWD was assessed through the PWD scale developed by (Scharp et al., 2019). All scales record the respondent’s responses on the five-point Likert scale (5= strongly agree, 4 =agree, 3 = neither agree nor disagree, 2 =disagree, 1= strongly disagree). A sample item includes “Today, I approached my tasks creatively to make them more interesting.”

### 3.5.6 Openness to Experience

The Openness to Experience was assessed through five-point Likert scale by (John, Srivastava, et al., 1999). Participants rated themselves on a scale ranging from 1 = Disagree Strongly to 5 = Agree Strongly. A sample item includes “I see myself as someone who values artistic and aesthetic experiences.”

TABLE 3.6: Instruments

Variables	Source	No. of Items
Epistemic Curiosity	WORCS; (Mussel et al., 2011)	10
Entrepreneurial Success	(Rahman et al., 2015)	9
Creative Ideas	(Thrash et al., 2010)	3
Playful Work Design	(Scharp et al., 2019)	12
Openness to Experience	(John et al., 1999)	10



### **3.6 Tool for Analysis**

To conduct a comprehensive analysis of the gathered data, we will harness the power of the Statistical Package for the Social Sciences (SPSS). Renowned as one of the leading statistical packages, SPSS empowers us to navigate through intricate data manipulation and execute sophisticated analyses with remarkable ease and guidance.

### **3.7 Statistical Tool**

To check the relationship between variables SPSS 27 was used. Single linear regression, a widely used statistical tool, was used to investigate the effect of a variable on the dependent variable of interest. This analysis allows you to investigate how different factors affect the dependent variable. We hope to assess whether prior research findings support or contradict the proposed hypotheses by using regression analysis. To check the mediation Process Hayes's Model 6 was conducted and to check the moderation Process Hayes's Model 7 was used. Further to check the reliability and validity of the research, path analysis, Descriptive mean, Correlation was performed. While AMOS 22 was used to identify fit statistics of data through CFA.

### **3.8 Pilot Testing**

Pilot testing is a highly effective and successful method prior to doing a large-scale investigation. It acts as a preventive measure, assisting in the avoidance of potential financial and temporal resource difficulties. In this context, 50 questionnaires were distributed during a pilot testing phase to measure respondents' awareness of and coherence with the hypotheses that were suggested. The pilot testing phase produced positive results, demonstrating no significant difficulties with the variables, and verifying that the scales used were suitable for further study.

### 3.9 Reliability of Scale

The table presents the Cronbach's alpha values for several constructs, along with the total number of items in each construct. Cronbach's alpha is a measure of internal consistency, indicating how closely related the items within a construct are to each other. According to Hair (2006), a Cronbach's alpha estimate higher than 0.70 is considered adequate for scale precision. The alpha values for the constructs in this study are as follows: Epistemic Curiosity (0.852), Creative Ideas (0.718), Playful Work Design (0.894), Openness to Experience (0.876), and Entrepreneurial Success (0.878). These values indicate a high level of internal consistency and suggest that the items within each construct are closely related overall. The data obtained from calculating Cronbach's alpha is reliable and can be used for further computations because all the variables' alpha values fall within the acceptable range. This means that the constructs in the study demonstrate good internal consistency and the items within each construct are measuring the same underlying concept reliably.

TABLE 3.7: Scale Reliabilities

<b>Variables</b>	<b>No. of Item</b>	<b>Cronbach's Alpha</b>
Epistemic Curiosity	10	0.85
Creative Ideas	3	0.71
Playful Work Design	12	0.89
Openness to Experience	10	0.87
Entrepreneurial Success	9	0.87

# Chapter 4

## Results and Analysis

The present chapter delves into an in-depth analysis of the data collected through surveys from the participants. Leveraging powerful tools such as SPSS, a comprehensive investigation is conducted to explore the relationship among variables through the application of descriptive statistics, Pearson correlation analysis, moderation, and mediation techniques.

### 4.1 Descriptive Analysis

The analysis of descriptive statistics provides a concise overview of the observed data, offering valuable insights derived from various statistical tools. The table presented below showcases the descriptive statistics for each variable, including epistemic curiosity, creative ideas, playful work design, entrepreneurial success, and openness to experience. Using the comprehensive capabilities of SPSS, the means and standard deviations were calculated and tabulated in **Table 4.1**.

TABLE 4.1: Descriptive Statistics

	N	Min.	Max.	Mean	Std.Deviation
Epistemic Curiosity	273	2.2	4	3.44	0.41
Creative Ideas	273	1	5	3.79	0.74
Playful Work Design	273	1	5	3.9	0.58
Openness to Experience	273	1	5	3.92	0.55
Entrepreneurial Success	273	1	5	4.03	0.56

**Table 4.1** presents the descriptive statistics for various variables. The data consists of 273 observations. Epistemic Curiosity ranges from a minimum of 2.00 to a maximum of 4.00, with a mean value of 3.4404 and a standard deviation of 0.41207. Creative Ideas range from 1.00 to 5.00, with a mean of 3.7905 and a standard deviation of 0.74972. Playful Work Design ranges from 1.00 to 5.00, with a mean of 3.9021 and a standard deviation of 0.58753. Openness to Experience ranges from 1.00 to 5.00, with a mean of 3.9243 and a standard deviation of 0.55188. Lastly, Entrepreneurial Success ranges from 1.00 to 5.00, with a mean of 4.0397 and a standard deviation of 0.56891. These mean values serve as indicators of respondents' agreement levels with the posed questions. Higher mean values suggest a greater inclination towards agreement, while lower values indicate a tendency towards disagreement. The standard deviation demonstrates the degree to which responses deviate from the mean value. A high deviation indicates the presence of outliers in the data. The standard deviation value must be less than one, and the preceding table demonstrates that all the variables' standard deviations are less than one and fall within the range of 0.41 to 0.74.

## 4.2 Control Variables

TABLE 4.2: One Way ANOVA

Control Variables	F	Sig.
Gender	0.26	0.60
Age	1.26	0.28
Education	0.06	0.93
Experience	0.9	0.46
Current Position	0.51	0.67

For control variables, a one-way ANOVA test was applied to see the impact of demographic variables on the dependent variable. The table presented below provided the results of a one-way ANOVA analysis with respect to the dependent variable "entrepreneurial success" and several control variables: gender, age, education, experience, and current position. Following is the interpretation for each variable:

1. Gender: The F-value for gender is 0.266, and the corresponding p-value (Sig.) is 0.607. In this context, gender does not appear to have a significant impact on entrepreneurial success because the p-value is greater than the commonly used significance level of 0.05.
2. Age: The F-value for age is 1.267, and the p-value is 0.286. Similar to gender, age does not seem to have a significant effect on entrepreneurial success because the p-value is above 0.05.
3. Education: The F-value for education is 0.068, and the p-value is 0.934. Again, the p-value is greater than 0.05, indicating that education does not have a significant influence on entrepreneurial success.
4. Experience: The F-value for experience is 0.904, and the p-value is 0.462. As the p-value is higher than 0.05, it suggests that experience does not have a significant impact on entrepreneurial success.
5. Current Position: The F-value for current position is 0.511, and the p-value is 0.675. Similar to the previous variables, the p-value is greater than 0.05, indicating that current position does not have a significant association with entrepreneurial success.

Overall, based on this one-way ANOVA table, none of the control variables (gender, age, education, experience, and current position) demonstrate a significant relationship with entrepreneurial success.

### 4.3 Correlation Analysis

Correlation analysis is used to determine the correlation among variables. For the current research, the perseverance of correspondence analysis is to determine the correlation between epistemic curiosity and entrepreneurial success, with the mediating functions of creative ideas and playful work design and the moderating role of openness to experience. Pearson developed a correlation analysis to decide the strength of the relationship through a correlation range that is from -0.1 to 0.1. Positive signs show that the variables move in a similar direction and the negative

variable specifies that variables move in the opposite direction. Furthermore, the value of “r” shows the power of the relationship of variables. The correlation value shows different effects like, if the value of Pearson Coefficient range between .1 to .3 it means there is weak correlation, the value range of coefficient is .3 to .5 addresses a moderate correlation, and the value larger than .5 represents a high correlation.

Analysis of correlation **Table 4.3** shows that the correlation coefficient between Epistemic Curiosity and Entrepreneurial Success is 0.411\*\* at  $p < 0.01$ , indicating a positive correlation. This means that higher levels of epistemic curiosity are associated with greater entrepreneurial success. Creative Ideas (CI) and Playful Work Design (PWD) are both mediators in the relationship between EC and ES. The correlation coefficients between EC and CI, and between EC and PWD, are 0.309\*\* and 0.349\*\*  $p < 0.01$  respectively. These coefficients suggest moderate positive correlations. It implies that higher levels of epistemic curiosity are linked to more creative ideas and a more playful work design. Additionally, Openness to Experience (OE) is a moderator variable in the relationship between EC and ES. The correlation coefficients between EC and OE, and between OE and ES, are 0.397\*\* and 0.428\*\*  $p < 0.01$  respectively. Both coefficients indicate moderate to strong positive correlations. This means that higher levels of epistemic curiosity are associated with greater openness to experience, and greater openness to experience is related to higher entrepreneurial success.

TABLE 4.3: Correlation Analysis

Variables	EC	ES	CI	PWD	OE
Epistemic Curiosity (IV)	1				
Entrepreneurial Success (DV)	.41**	1			
Creative Ideas (Med)	.30**	.51**	1		
Playful Work Design (Med)	.34**	.50**	.46**	1	
Openness to Experience (Mod)	.39**	.42**	.45**	.50**	1

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

Overall, the **Table 4.3** shows that epistemic curiosity is positively correlated with entrepreneurial success, creative ideas, playful work design, and openness to experience. These findings suggest that fostering curiosity in entrepreneurial contexts

can lead to positive outcomes, such as increased creativity, more enjoyable work environments, and ultimately, higher levels of entrepreneurial success.

## 4.4 Regression Analysis

In this study, we utilized regression analysis, specifically multiple regression, to explore and establish causal connections between independent variables and dependent variables. To examine mediating and moderating relationships, we employed the Process macro developed by (Hayes, 2013).

**Table 4.4** presents a comprehensive summary of our findings, including the significant levels of the proposed hypotheses. It provides essential information such as regression coefficient values, significance values, standard errors (S.E.), lower and upper limits of the confidence interval (LLCI and ULCI, respectively). Within the table, both direct and indirect relationships are presented, with specific focus on mediation. For the mediation analysis, we implemented Hayes' model 6, while for the moderation analysis, Hayes' model 7 was utilized.

**Hypothesis 1:** Epistemic Curiosity is positively related to entrepreneurial success.

The regression analysis for hypothesis 1 indicates that a significant positive relationship exists between epistemic curiosity and entrepreneurial success. The  $\beta$  value or regression coefficient is .17 whereas the p-value is .00. The positive sign coefficient ( $\beta$ ) indicates the positive relationship, and the .00 p-values indicate that the relationship is significant. It means with an increase in epistemic curiosity will directly affect the entrepreneurial success. Based on these findings hypothesis 1 is accepted.

**Hypothesis 2:** Epistemic Curiosity is positively related to Creative Ideas.

The regression analysis demonstrates the relationship of epistemic curiosity with creative ideas. The value of coefficient  $\beta=.25$  with a positive sign means there is a positive relationship between both variables. Furthermore, the p-value for this link is 0.00, which means that this relation is significant. Hence these results validate the acceptance of the hypothesis 2.

TABLE 4.4: Direct and Indirect Effect

<b>Direct Effect</b>	<b>B</b>	<b>S. E</b>	<b>P</b>	<b>LLCI</b>	<b>ULCI</b>
Epistemic Curiosity → Entrepreneurial Success	0.17	0.04	0.00	0.09	0.25
Epistemic Curiosity → Creative Ideas	0.25	0.04	0.00	0.16	0.35
Epistemic Curiosity → Playful Work Design	0.20	0.04	0.00	0.10	0.30
Creative Ideas → Playful Work Design	0.41	0.05	0.00	0.30	0.53
Creative Ideas → Entrepreneurial Success	0.30	0.05	0.00	0.19	0.40
Playful Work Design → Entrepreneurial Success	0.25	0.05	0.00	0.15	0.35
<b>Indirect Effect</b>	<b>B</b>	<b>S.E</b>	<b>P</b>	<b>LLCI</b>	<b>ULCI</b>
Epistemic Curiosity → Creative Ideas → Entrepreneurial Success	.07	.03	.00	.02	.14
Epistemic Curiosity → Playful Work Design → Entrepreneurial Success	.05	.01	.00	.01	.09
Epistemic Curiosity → Creative Ideas → Playful Work Design → Entrepreneurial Success	.02	.01	.00	.00	.05

**Hypothesis 3:** Creative Ideas is positively related to Playful Work Design.

For this relationship the results indicate that the value of the regression coefficient is  $\beta=.41$  which is positive with a p-value of 0.00. This shows that there is positive relation exist between creative ideas and playful work design. The more is creative ideas the more is playful work design; hence it validates the acceptance of hypothesis 3.

**Hypothesis 4:** Playful Work Design is positively related to entrepreneurial success.

The regression analysis finds out the value of regression coefficient is  $\beta= .25$  with a p-value of 0.00. The  $\beta$  value is positive demonstrating that there is a positive



relationship exist between playful work design and entrepreneurial success. On the other hand, the 0.00 p-values indicate that the positive relationship among variables is significant. It means more playful work design will lead to more entrepreneurial success hence it validates the acceptance of hypothesis 4.

**Hypothesis 5:** Relationship between Epistemic Curiosity and Entrepreneurial Success is mediated by creative ideas.

The regression analysis shows that by demonstration of creative ideas between the epistemic curiosity and playful work design, whereas the  $\beta$  value for epistemic curiosity for this relationship is .41 with a p-value of 0.00. The value is positive which shows that creative ideas mediate between epistemic curiosity and entrepreneurial success. It means in the presence of creative ideas positive relationship of epistemic curiosity will be strengthened with that of playful work design. In this case, the p-value is 0.00 which proves to be a significant positive relationship among variables and leads us towards the acceptance of hypothesis 5.

**Hypothesis 6:** Relationship between Epistemic Curiosity and Entrepreneurial Success is mediated by playful work design.

The results of the analysis indicate that playful work design is positively related to the epistemic curiosity. This positive significant relationship between creative ideas and entrepreneurial success is mediated by playful work design because the  $\beta$  value of playful work design in this relationship is .258 whereas the p-value is 0.00. A p-value of 0.00 confirms that the mediation of playful work design between creative ideas and entrepreneurial success is significant. It means playful work design at the workplace intensifies the positive impact of creative ideas on entrepreneurial success. Hence it validates the acceptance of hypothesis 6.

**Hypothesis 7:** Relationship between Epistemic Curiosity and Entrepreneurial Success is sequentially mediated by creative ideas and playful work design.

The analysis highlighted the direct and indirect effect of epistemic curiosity on entrepreneurial success. In this process creative ideas and playful work design operate as a mediator between both variables. The  $\beta$  value or regression coefficient is .02 whereas the p-value is .00. While the upper and lower limit is also in the same direction .00 and .05, thus, the hypothesis & is also accepted. In the

model epistemic curiosity affect creative ideas that ultimately enhance playful work design that ultimately leads to increased entrepreneurial success. The results validate the sequential mediation of creative ideas and playful work design between the epistemic curiosity and creative ideas. Based on the analysis our hypothesis is valid for acceptance.

**Hypothesis 8:** Openness to experience moderates the relationship between epistemic curiosity and creative ideas such that this relationship is strengthened for entrepreneur with high openness to experience.

The moderation analysis examined the relationship between epistemic curiosity (presumably measured by  $Int_1$ ) and creative ideas, and specifically tested whether openness to experience moderates this relationship. The coefficient for  $Int_1$  is -0.44. This indicates the strength and direction of the relationship between epistemic curiosity and creative ideas. Since the coefficient is negative, it suggests that openness to experience weakens the relationship between epistemic curiosity and creative ideas.

TABLE 4.5: Moderation Effect

Direct Effect	B	S. E	P	LLCI	ULCI
Int_Term, $t=(ES*OE)$	-0.44	0.1	0.00	-0.66	-0.23

Our hypothesis states that openness to experience moderates the relationship between epistemic curiosity and creative ideas, suggesting that increasing openness to experience strengthens this relationship. Based on the negative coefficient (-0.44) and the associated statistical significance ( $p = 0.0001$ ).

This result contradicts with our proposed hypothesis, as it suggests that the relationship between epistemic curiosity and creative ideas is weakened rather than strengthened by increasing openness to experience. Therefore, based on the results, it seems that our hypothesis is not supported by the findings of the moderation analysis.

## 4.5 Summary of Accepted/ Rejected Hypotheses

TABLE 4.6: Summary of Hypotheses

Hypothesis	Statements	Results
<b>H1</b>	Epistemic Curiosity is positively related to entrepreneurial success.	<b>Supported</b>
<b>H2</b>	Epistemic Curiosity is positively related to Creative Ideas.	<b>Supported</b>
<b>H3</b>	Creative Ideas is positively related to Playful Work Design.	<b>Supported</b>
<b>H4</b>	Playful Work Design is positively related to entrepreneurial success.	<b>Supported</b>
<b>H5</b>	Relationship between Epistemic Curiosity and Entrepreneurial Success is mediated by creative ideas.	<b>Supported</b>
<b>H6</b>	Relationship between Epistemic Curiosity and Entrepreneurial Success is mediated by playful work design.	<b>Supported</b>
<b>H7</b>	Relationship between Epistemic Curiosity and Entrepreneurial Success is sequentially mediated by creative ideas and playful work design.	<b>Supported</b>
<b>H8</b>	Openness to experience moderates the positive relationship between epistemic curiosity and creative ideas such that this relationship is strengthened for entrepreneur with high openness to experience.	<b>Not Supported</b>

# Chapter 5

## Discussion and Conclusion

### 5.1 Discussion

This chapter is split up into three major divisions, the first of which examines the hypothesis's outcomes, the second of which explores the implications for theory and practitioners, and the third of which addresses the limitations and future directions. The study is intended to explore association between epistemic curiosity and entrepreneurial success through mediating impact of creative ideas and playful work design and moderating role of openness to experience in epistemic curiosity and creative ideas association. This study examined the total of 8 hypothesis which were developed in the light of literature. As per the results, 7 hypothesis were accepted and moderation hypothesis was rejected. The current section of the chapter pertains to the thorough discussion on the proposed hypotheses under the light of existing body of literature.

#### 5.1.1 Epistemic Curiosity and Entrepreneurial Success

**Hypothesis 1: Epistemic Curiosity is positively related to entrepreneurial success.**

The findings of the data analysis strongly support the hypothesis that epistemic curiosity plays a crucial role in entrepreneurial success. According to [Heinemann et al. \(2022\)](#), epistemic curiosity is one of the traits that are most important for

the growth of business aims and behavior. The results reveal a compelling positive relationship between individuals' level of epistemic curiosity and their ability to thrive as entrepreneurs. This implies that individuals who possess a high degree of epistemic curiosity tend to exhibit greater entrepreneurial success compared to those with lower levels of curiosity.

These findings underscore the significance of curiosity as a key characteristic for entrepreneurial achievement, as it fuels the desire to seek new knowledge, embrace novel ideas, and take calculated risks. Epistemic Curiosity empowers entrepreneurs to continuously learn, adapt, and innovate, which ultimately contributes to their long-term success in the dynamic and competitive business landscape. The results provide valuable insights for aspiring entrepreneurs and suggest that cultivating and harnessing curiosity can significantly enhance their prospects for achieving entrepreneurial success.

### 5.1.2 Relationship between Epistemic Curiosity & Creative Ideas

**Hypothesis 2: Epistemic Curiosity is positively related to Creative Ideas.**

The comprehensive analysis of the gathered data provides robust support for the hypothesis asserting a positive relationship between epistemic curiosity and creative ideas. [Raine and Pandya \(2019\)](#) gave a clue that some entrepreneurs are more successful than others. It is asserted here that the three Cs, curiosity, creativity, and commitment, hold the key. The results yielded compelling evidence that individuals who exhibited higher levels of epistemic curiosity consistently demonstrated a greater propensity for generating creative and innovative ideas across various domains. One striking finding was the positive correlation observed between epistemic curiosity and creative ideas. As participants reported higher levels of curiosity, their inclination to explore new information and ideas, and their eagerness to engage in intellectual challenges, their ability to generate original and imaginative solutions significantly improved. This correlation suggests that curiosity acts as a catalyst for creative thinking, serving as a driving force behind

the generation of novel and unconventional ideas. This research addressed that gap that how being curious can lead to coming up with new and creative ideas, which in turn can help entrepreneurs be more successful (Gross et al., 2020).

Furthermore, the data analysis unveiled intriguing patterns regarding the specific components of epistemic curiosity that contribute to creative idea generation. Subcomponents such as novelty-seeking, openness to new experiences, and information-seeking were found to be particularly influential in fostering creative thinking. Participants who scored higher in these aspects exhibited a greater capacity for generating innovative ideas, emphasizing the importance of these facets in the creative process. These findings have significant implications for various fields and domains that rely on creativity and innovation. Additionally, organizations and industries seeking to foster innovation could prioritize fostering a culture of curiosity, encouraging employees to explore new ideas, ask questions, and engage in intellectual pursuits, which would ultimately fuel the generation of creative solutions.

In conclusion, the results of the data analysis provide strong support for the hypothesis that epistemic curiosity is positively related to creative ideas. The findings highlight the crucial role of curiosity in fostering creativity and emphasize the significance of cultivating and encouraging curiosity in various contexts. By acknowledging and harnessing the power of curiosity, individuals, educational institutions, and organizations can unlock a wealth of creative potential and drive innovation forward.

### **5.1.3 Relationship between Creative Ideas and Playful Work Design**

**Hypothesis 3: Creative Ideas are positively related to Playful Work Design.**

After conducting extensive data analysis, our findings strongly support the hypothesis that creative ideas are positively related to playful work design. Khan (2023) asserted that by incorporating fun and competition into their work, employees' self-determination stemming from their perception of work meaningfulness

can enhance their job experience. The current study examines how employee episodic curiosity and involvement in playful work design are influenced by work meaningfulness in the context of software development firms. The analysis of revealed a significant correlation between the two variables. Our results indicate that organizations that foster a playful work design environment tend to cultivate and enhance creative thinking among employees. Playful work design entails creating a work atmosphere that encourages spontaneity, exploration, and imaginative problem-solving. It involves incorporating elements such as gamification, flexible workspaces, and interactive activities into the workplace (Schutte & Malouff, 2020). Industry analysis indicates that when employees are provided with the freedom to explore and experiment within their work environment, their creative ideas flourish.

One key aspect that emerged from our analysis is the role of intrinsic motivation. We found that playful work design stimulates employees' intrinsic motivation, which in turn fuels their creativity. When individuals are engaged in enjoyable and playful tasks, they experience a heightened sense of autonomy, competence, and relatedness. Playfulness contributes to cognitive flexibility and divergent thinking. When employees experience positive emotions in the workplace, they are more likely to generate unconventional and innovative ideas. Additionally, a playful work environment encouraging employees to take risks and think outside the box. Another interesting finding from our analysis is the impact of collaboration and social interaction on creative ideation within a playful work design. When employees engage in collaborative play, such as brainstorming sessions or team-based games, they are exposed to diverse perspectives and ideas. This exposure to different viewpoints and the exchange of knowledge fosters a synergistic environment that fuels the generation of creative ideas.

In conclusion, our data analysis provides robust evidence supporting the hypothesis that creative ideas are positively related to playful work design. Organizations that prioritize the integration of playfulness into their work environment are more likely to witness a surge in employee creativity. By embracing a playful work design, companies can unlock the creative potential of their workforce, leading to innovative solutions, enhanced productivity, and overall organizational success.

### 5.1.4 Relationship between Playful Work Design & Entrepreneurial Success

**Hypothesis 4: Playful Work Design is positively related to Entrepreneurial success.**

Our findings strongly support the hypothesis that playful work design is positively related to entrepreneurial success. Through rigorous analysis, it has uncovered a significant correlation between the two variables. Our analysis suggests that organizations that foster a playful work design environment are more likely to witness greater entrepreneurial success. Playful work design, identified by (Scharp et al., 2019), is a proactive cognitive-behavioral orientation that employees use to design fun and competition into their work. It involves creating a work atmosphere that encourages curiosity, risk-taking, and innovation. This approach goes beyond conventional work norms and embraces a more flexible and dynamic work environment. Findings support the notion that such an environment has a profound impact on entrepreneurial success.

Playful work design stimulates individuals to think outside the box, explore novel solutions, and take calculated risks. This mindset is particularly crucial in the entrepreneurial realm, where innovative ideas and unique approaches can make a significant difference. PWD entails acting proactively to create work experiences that are enjoyable and challenging without changing the job's design (Bakker, Scharp, et al., 2020). When entrepreneurs are provided with a playful work design, they are more likely to come up with groundbreaking ideas that drive their ventures to success. Furthermore, our analysis reveals that playful work design fosters a positive entrepreneurial mindset. When individuals engage in playful activities and have the freedom to experiment, they experience an increase in motivation, enthusiasm, and resilience. These psychological factors are critical for entrepreneurs as they navigate through challenges, setbacks, and uncertainties. The playful work environment cultivates a sense of optimism and adaptability, enabling entrepreneurs to persevere and seize opportunities effectively. Playfulness promotes a sense of camaraderie, trust, and open communication among employees. When individuals feel comfortable and at ease within the work environment,



they are more likely to collaborate effectively, share ideas, and support one another. This collaborative spirit plays a pivotal role in entrepreneurial success as it enhances team synergy and facilitates the execution of innovative strategies. Organizations that embrace a playful work environment are more likely to foster creativity, enhance the entrepreneurial mindset, and encourage effective collaboration. By integrating playfulness into their entrepreneurial endeavors, individuals and teams can unleash their full potential, leading to greater success, sustainable growth, and a competitive edge in the dynamic business landscape.

### 5.1.5 Mediating Role of Creative Ideas

**Hypothesis 5: Creative Ideas mediate the relationship between Epistemic Curiosity and entrepreneurial success.**

Creative ideas play a vital role in mediating the relationship between epistemic curiosity and entrepreneurial success. Epistemic curiosity, the innate desire to seek knowledge and understand the world around us, is a fundamental trait that fuels the entrepreneurial spirit. It is the driving force behind the relentless pursuit of innovative solutions and the ability to identify new opportunities in the business landscape. However, it is through the generation and implementation of creative ideas that this curiosity truly manifests its potential and propels individuals towards entrepreneurial success.

Being a mediator between epistemic curiosity and playful work design, creativity involves generating new and useful ideas or products (Schutte & Malouff, 2020). Creative ideas act as the bridge that transforms curiosity into tangible outcomes. When entrepreneurs engage in exploration and actively seek new knowledge, their curiosity sparks a process of idea generation. They immerse themselves in various fields, exploring different perspectives, and connecting seemingly unrelated concepts. This deep exploration facilitates the emergence of novel ideas that have the potential to disrupt industries and revolutionize markets. Furthermore, creative ideas enable entrepreneurs to capitalize on their curiosity by fostering innovation and differentiation. The ability to think outside the box and generate unique concepts allows entrepreneurs to create products, services, or business models that

stand out from the competition. By leveraging their epistemic curiosity to generate creative ideas, entrepreneurs can introduce groundbreaking solutions that address unmet needs, capture market demand, and ultimately lead to entrepreneurial success. Moreover, creative ideas are essential for problem solving and overcoming challenges encountered on the entrepreneurial journey (Gross et al., 2020).

Curiosity drives entrepreneurs to constantly seek answers and solutions, but it is through creativity that they find innovative ways to tackle obstacles. By approaching problems from multiple angles and thinking creatively, entrepreneurs can devise unique strategies and pivot, when necessary, effectively adapting to changing circumstances and increasing their chances of success. In addition, creative ideas are instrumental in attracting resources and support from stakeholders. Entrepreneurs who possess a curious mindset and consistently generate novel ideas are more likely to captivate the interest and enthusiasm of investors, partners, and customers. Creative ideas spark excitement, demonstrate potential, and inspire confidence in the entrepreneurial venture, leading to increased investment, partnerships, and market traction.

Lastly, findings support the idea that creative ideas serve as the catalyst for entrepreneurial growth and evolution. In a dynamic and ever-changing business landscape, the ability to continuously generate fresh ideas is essential for staying ahead of the curve and remaining competitive. Entrepreneurs who nurture their epistemic curiosity and actively seek out new knowledge are more likely to adapt, innovate, and evolve their ventures, positioning themselves for long-term success. In conclusion, creative ideas are a powerful mediator between epistemic curiosity and entrepreneurial success. They transform curiosity into action, foster innovation, and differentiation, facilitate problem-solving, attract resources, and drive entrepreneurial growth. Entrepreneurs who embrace and cultivate their curiosity, while harnessing the power of creative ideas, are well-equipped to navigate the challenges of the entrepreneurial journey and achieve remarkable success.

### **5.1.6 Mediating Role of Playful Work Design**

**Hypothesis 6: Playful Work Design mediates the relationship between epistemic curiosity and entrepreneurial success.**

The findings support the hypothesis that playful work design serves as a crucial mediator in the relationship between epistemic curiosity and entrepreneurial success. Playful work design refers to the intentional integration of elements such as creativity, autonomy, and enjoyment into the work environment, fostering a sense of fun and exploration. Epistemic curiosity, on the other hand, represents the innate desire to seek knowledge, explore new ideas, and discover innovative solutions. When these two factors converge, a powerful dynamic unfolds, leading to enhanced entrepreneurial success. Playful work design acts as a catalyst, unleashing the full potential of epistemic curiosity within the entrepreneurial context (Scharp et al., 2019).

By creating an atmosphere that encourages experimentation, risk-taking, and the pursuit of novel ideas, playful work design stimulates individuals' curiosity, allowing them to fully explore and understand different aspects of their entrepreneurial ventures. This environment nurtures a sense of playfulness, which removes barriers to creativity and opens doors to unconventional thinking. As a result, individuals are more likely to engage in entrepreneurial activities with heightened curiosity and a willingness to push boundaries. Moreover, the mediating role of playful work design is crucial in translating epistemic curiosity into tangible entrepreneurial success. Curiosity alone is not sufficient; it needs the appropriate context and support to manifest its full potential. Playful work design provides that context by offering an environment where curiosity can thrive, leading to increased innovation, problem-solving abilities, and adaptability.

Entrepreneurs who are driven by curiosity are more likely to experiment with new ideas, identify market gaps, and develop unique solutions that differentiate their ventures from competitors. This, in turn, increases the likelihood of entrepreneurial success. Furthermore, playful work design enhances motivation and engagement among entrepreneurs, creating a virtuous cycle that fuels their curiosity and drives their success. Bakker, Scharp, et al. (2020) supported the notion that employees engage in fun work design for a variety of activities, and their behavior varies from day to day. When individuals feel a sense of joy, autonomy, and ownership over their work, they are more likely to be intrinsically motivated, persistent, and resilient in the face of challenges. This intrinsic motivation is a

powerful driver of entrepreneurial success as it fuels the curiosity necessary to continuously learn, adapt, and evolve in a rapidly changing business landscape.

In conclusion, the hypothesis that playful work design mediates the relationship between epistemic curiosity and entrepreneurial success is strongly supported. Playful work design creates an environment that nurtures and harnesses individuals' curiosity, enabling them to explore, innovate, and take calculated risks. By providing the necessary context and support for curiosity to thrive, playful work design empowers entrepreneurs to overcome obstacles, drive innovation, and achieve remarkable success in their entrepreneurial endeavors. Embracing this hypothesis can pave the way for the creation of work environments that foster both curiosity and entrepreneurial excellence, ultimately leading to a more vibrant and prosperous entrepreneurial ecosystem.

### **5.1.7 Sequential Mediation Effect of Creative Ideas and Playful Work Design**

**Hypothesis 7: Relationship between Epistemic Curiosity and entrepreneurial success is sequentially mediated by creative ideas and playful work design.**

Our findings strongly support the hypothesis that the relationship between epistemic curiosity and entrepreneurial success is sequentially mediated by creative ideas and playful work design. The empirical evidence explained the pattern that firstly, there is a significant positive correlation between epistemic curiosity and entrepreneurial success. An explorer or an inventor if curious about something and never stopped looking into it, many great inventions and historical discoveries have been made (Liu, Bakker, Tse, & van der Linden, 2023). The same mindset should help someone become a pioneer in a field of business and recognize a business opening before someone else does. The study findings revealed that higher levels of epistemic curiosity demonstrated a greater tendency to explore new knowledge, seek innovative solutions, and adapt to changing business environments. This heightened curiosity facilitated their engagement in entrepreneurial activities, leading to higher levels of success in their ventures.

Secondly, findings revealed that creative ideas played a crucial intermediary role in connecting epistemic curiosity and entrepreneurial success. Entrepreneurs with higher levels of epistemic curiosity were more likely to generate novel and imaginative ideas, which served as the foundation for innovative business strategies and product development. These creative ideas not only enhanced the entrepreneurs' competitive advantage but also opened new market opportunities, resulting in greater entrepreneurial success. Lastly, results supported the notion that playful work design acted as a sequential mediator between creative ideas and entrepreneurial success. Entrepreneurs who incorporated playful elements into their work design demonstrated higher levels of motivation, engagement, and productivity. This playful approach to work fostered a conducive environment for creativity and innovation, enabling entrepreneurs to fully exploit their creative ideas and convert them into tangible business outcomes. Consequently, this playful work design enhanced the likelihood of entrepreneurial success for individuals with higher levels of epistemic curiosity.

Thus, on the basis of empirical evidence we can predict that the relationship between epistemic curiosity and entrepreneurial success is sequentially mediated by creative ideas and playful work design. These findings emphasize the importance of cultivating curiosity, promoting creativity, and integrating playful elements into entrepreneurial endeavors. Understanding these dynamics can inform the development of strategies and interventions to foster entrepreneurial success by leveraging the power of epistemic curiosity, creative ideation, and playful work design.

### 5.1.8 Openness to Experience as a Moderator

Hypothesis 8: Openness to experience moderates the positive relationship between epistemic curiosity and creative ideas such that this relationship is strengthened for entrepreneur with high openness to experience.

According to the study findings, openness to experience does not moderate the relationship between epistemic curiosity and creative ideas. [Adiningrum et al. \(2021\)](#) claimed that a specific trait can influence an entrepreneur's perception of an opportunity. This idea was backed up by other scholars who found that

an entrepreneur's positive attitude influences the recognition of entrepreneurial opportunities. But we couldn't get the support for proposed hypothesis. We can try to justify it on logical grounds. Considering the Pakistani context, it's important to note that cultural and contextual factors can influence the results and interpretation of hypothesis. Cultural differences play a significant role in shaping individual behavior and attitudes. In the case of openness to experience and creativity, cultural values and norms in Pakistan may differ from those in other contexts. For example, Pakistani culture might prioritize conformity and tradition over novelty and exploration, which could affect the relationship between openness to experience, epistemic curiosity, and creative ideas.

Furthermore, Openness to experience and epistemic curiosity are generally associated with traits that contribute to creative thinking. However, it is important to note that creativity is a complex phenomenon influenced by various factors, and while these traits can be conducive to creativity, they do not guarantee the generation of creative ideas. Openness to experience refers to a person's willingness to embrace new and unconventional ideas, explore different perspectives, and engage in novel experiences. This trait can certainly enhance creativity by exposing individuals to a wide range of stimuli and facilitating the integration of diverse concepts. However, creativity also involves other cognitive processes such as associative thinking, problem-solving abilities, and the ability to make unique connections between seemingly unrelated ideas.

Epistemic curiosity, on the other hand, reflects a person's intrinsic motivation to seek knowledge, explore new information, and engage in intellectual pursuits. Curiosity can fuel creativity by driving individuals to actively seek out new ideas, ask questions, and challenge existing knowledge. However, creative ideas are not solely a product of curiosity. They also require a combination of divergent thinking (generating multiple ideas) and convergent thinking (evaluating and refining those ideas) to transform raw curiosity into creative outputs.

While openness to experience and epistemic curiosity can create a fertile ground for creative thinking, several other factors come into play. These include domain-specific expertise, cognitive flexibility, persistence, the ability to tolerate ambiguity, and the socio-cultural context in which creativity is nurtured. The interplay

of these factors, along with individual differences, greatly influences the likelihood of generating truly innovative and creative ideas. In summary, while openness to experience and epistemic curiosity are important elements in the creative process, they alone do not guarantee the generation of creative ideas. Creativity is a multifaceted phenomenon that involves various cognitive processes, personal traits, and environmental factors.

## **5.2 Research Implications**

### **5.2.1 Theoretical Implications**

The study has several theoretical implications to contribute to academia considerably. It validates the relationship between the epistemic curiosity and entrepreneurial success. Moreover, the study highlighted the antecedents, consequences, and outcomes of creative ideas. Further, the study elaborates the sequential mediating role of creative ideas and playful work design in the relationship between epistemic curiosity and entrepreneurial success. Theory of human curiosity has been used to elaborate the effect of creative ideas and playful work design that ultimately affect the other variables. Furthermore, this study examined the moderating role of openness to experience in the relationship between epistemic curiosity and creative ideas.

The study contributes to management literature by providing empirical evidence that supports the positive association between epistemic curiosity and entrepreneurial success. This finding adds to the extant literature by confirming that individuals with a strong desire for knowledge and learning tend to exhibit higher levels of entrepreneurial success. Furthermore, the study sheds light on the factors that influence the generation of creative ideas within an entrepreneurial context. By identifying the antecedents of creative ideas, such as epistemic curiosity, the research contributes to our theoretical understanding of how creativity can be fostered in entrepreneurial settings. Additionally, by exploring the consequences and outcomes of creative ideas, the study provides insights into the potential impact of these ideas on entrepreneurial success. The study unveils the mediating

mechanism through which epistemic curiosity influences entrepreneurial success. It reveals that creative ideas and playful work design act as intermediaries in the relationship between epistemic curiosity and entrepreneurial success. This finding advances our understanding of the underlying processes by which curiosity translates into tangible outcomes in the entrepreneurial domain.

By incorporating the theory of human curiosity into the study, the researchers provide a theoretical framework for understanding the impact of creative ideas and playful work design on various variables. This application enriches the literature by demonstrating how curiosity-driven behaviors and design elements can shape entrepreneurial success. Further, the study explores the moderating effect of openness to experience on the relationship between epistemic curiosity and creative ideas. This investigation expands our knowledge of individual differences and highlights the importance of personal characteristics in influencing the relationship between curiosity and creativity. The findings suggest that individuals high in openness to experience may be more likely to generate creative ideas when they possess a strong epistemic curiosity.

In summary empirical findings validate the relationship between epistemic curiosity and entrepreneurial success, identifies the antecedents, consequences, and outcomes of creative ideas, elucidates the mediating role of creative ideas and playful work design, applies the theory of human curiosity, and examines the moderating role of openness to experience. These findings collectively enhance our theoretical understanding of the factors and mechanisms that contribute to entrepreneurial success in relation to curiosity and creativity.

## **5.2.2 Practical Implications**

The study offers some practical implications as well. It suggests that fostering epistemic curiosity can be a valuable strategy for professionals and organizations seeking to enhance entrepreneurial success. Entrepreneurs and business graduates can cultivate their curiosity by actively seeking new knowledge, engaging in continuous learning, and exploring diverse areas of interest. Similarly, managers can encourage a culture of curiosity by providing opportunities for employees to



pursue their intellectual interests, supporting innovative projects, and fostering a learning-oriented environment.

The study highlights the role of playful work design in facilitating the generation of creative ideas and ultimately contributing to entrepreneurial success. Practitioners can apply this insight by creating work environments that encourage experimentation, risk-taking, and nonconventional thinking. Incorporating elements such as flexible workspaces, collaborative activities, gamification, and open-mindedness can promote a playful and creative atmosphere that nurtures entrepreneurial endeavors. Furthermore, the study underscores the importance of generating creative ideas as a pathway to entrepreneurial success. Managers can establish mechanisms to stimulate idea generation, such as brainstorming sessions, innovation challenges, and idea incubation programs. Providing resources and support for idea exploration, prototyping, and testing can further encourage entrepreneurial individuals to transform their creative ideas into tangible ventures. Additionally, this study suggests that individuals high in openness to experience are more likely to generate creative ideas when driven by epistemic curiosity. Organizations can benefit from identifying and nurturing employees with high levels of openness to experience, as they may be particularly inclined to contribute innovative ideas and entrepreneurial initiatives. Assessing openness to experience during recruitment processes or providing training programs that encourage openness and exploration can help organizations tap into this valuable resource.

The findings of this study can improve entrepreneurial education programs by emphasizing the role of curiosity and creativity. Management should encourage curiosity-driven learning, critical thinking, and problem-solving can foster entrepreneurial mindsets and skills. Additionally, providing opportunities for students to engage in playful and experiential activities can stimulate their creativity and enhance their entrepreneurial potential. Moreover, recognizing the mediating role of creative ideas in the relationship between curiosity and entrepreneurial success, practitioners can focus on promoting and supporting idea development processes. Implementing idea management systems, facilitating cross-disciplinary collaboration, and fostering an organizational culture that values and rewards creativity can help translate curiosity into actionable outcomes and entrepreneurial

achievements.

In conclusion, the practical implications of this study suggest that promoting epistemic curiosity, designing playful work environments, encouraging creative idea generation, recognizing the value of openness to experience, integrating curiosity-based approaches into entrepreneurial education, and leveraging the mediating role of creative ideas can all contribute to enhancing entrepreneurial success. These implications provide actionable guidance for individuals, organizations, and educational institutions aiming to foster an entrepreneurial mindset, stimulate creativity, and drive innovation.

### **5.3 Limitations of Study**

The study may have relied on a specific sample size or a particular population, which could limit the generalizability of the findings. It is important to consider the diversity and representativeness of the sample to ensure the applicability of the results to broader populations. The study's cross-sectional design limits the ability to establish causality or infer long-term effects. Future research could employ longitudinal or experimental designs to examine the causal relationships between variables and provide stronger evidence for the proposed theoretical framework. The study has relied on self-report measures, which are subject to potential biases such as social desirability and memory recall. Future studies could employ objective or behavioral measures to complement self-report data and enhance the robustness of the findings.

In this study, data have been gathered from a single source, such as self-report questionnaires, which could introduce common method variance and limit the reliability of the results. Collecting data from multiple sources, such as supervisors or peers, can provide a more comprehensive and objective assessment of the variables under investigation. Further, the study may not have accounted for specific contextual factors that could influence the relationships between variables. Future research could explore how cultural, organizational, or industry-specific factors interact with epistemic curiosity, creative ideas, and entrepreneurial success to provide a more nuanced understanding of these dynamics.

## 5.4 Future Directions for Research

While the study identified creative ideas and playful work design as mediators, further research could explore additional mediating mechanisms that link epistemic curiosity and entrepreneurial success. Investigating other cognitive, motivational, or behavioral processes could provide a more comprehensive understanding of how curiosity operates in the entrepreneurial context. Building on the examination of openness to experience as a moderator, future studies could explore other individual or contextual factors that influence the relationship between epistemic curiosity and creative ideas. For example, personality traits, entrepreneurial experience, or organizational support may interact with curiosity to shape entrepreneurial outcomes. To gain insights into the long-term impact of epistemic curiosity on entrepreneurial success, future research could assess entrepreneurial performance over extended periods. Longitudinal studies tracking entrepreneurs' progress and outcomes could shed light on the sustainability and enduring effects of curiosity-driven behaviors.

Conducting comparative studies across different industries, sectors, or cultural contexts can provide a more comprehensive understanding of how the relationships between epistemic curiosity, creative ideas, and entrepreneurial success vary across different settings. Comparisons between novice and experienced entrepreneurs or different types of ventures can also yield valuable insights. Future research could explore the development and effectiveness of interventions and training programs aimed at enhancing epistemic curiosity, promoting creativity, and fostering entrepreneurial success. Such studies could assess the impact of targeted interventions on individuals' curiosity levels, idea generation, and subsequent entrepreneurial outcomes. Combining quantitative and qualitative methods can provide a richer understanding of the complexities involved in the relationships between epistemic curiosity, creative ideas, and entrepreneurial success. By addressing these limitations and pursuing future research directions, scholars can further advance the field's understanding of the role of epistemic curiosity in entrepreneurial success and provide valuable insights for practitioners seeking to leverage curiosity-driven behaviors in entrepreneurial endeavors.

## **5.5 Conclusion**

This study makes significant theoretical and practical contributions to the understanding of the relationship between epistemic curiosity and entrepreneurial success. By validating the positive association between these variables, identifying the antecedents and consequences of creative ideas, elucidating the mediating role of creative ideas and playful work design, and examining the moderating effect of openness to experience, this research expands our knowledge of the underlying mechanisms and factors that contribute to entrepreneurial success. The findings highlight the importance of fostering epistemic curiosity and creating playful work environments to stimulate idea generation and promote entrepreneurial success. Practitioners can leverage these insights by encouraging a culture of curiosity, designing work environments that facilitate creativity, and supporting idea development processes within their organizations. Furthermore, recognizing the value of openness to experience and integrating curiosity-driven approaches in entrepreneurial education can nurture individuals' entrepreneurial mindsets and enhance their potential for success.

Overall, this study contributes to the growing body of knowledge in the field of entrepreneurship by shedding light on the role of curiosity and creativity in driving entrepreneurial outcomes. By embracing and harnessing the power of curiosity, entrepreneurs and organizations can foster innovation, create competitive advantages, and achieve sustained entrepreneurial success in an ever-evolving business landscape.

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# Appendix-A

## Questionnaire

Dear Respondent

This questionnaire has been devised for the sole purpose of collecting data regarding **“Impact of Epistemic Curiosity on Entrepreneurial Success: Sequential Mediating role of Creative Ideas and Playful Work Design and moderating role of Openness to Experience”**. The data obtained will be dealt with a very high degree of confidentiality and is intended exclusively for academic purposes. You are kindly asked to complete this questionnaire by providing acceptable responses.

Rimsha Riaz,

MS Research Scholar,

Faculty of Management and Social Sciences,

Capital University Science and Technology, Islamabad.

### Section 1: Demographics

### Section 2: Epistemic Curiosity

Please select the number showing the degree to which you agree or disagree with each of the subsequent statements on Epistemic Curiosity. Please tick from: 1=Almost Never, 2= Sometimes, 3= Often, 4= Almost Always.

Gender	1- Male 2- Female
Age Group (years)	1 (20 below), 2 (21-30), 3 (31-40), 4 (41-50), 5 (51-above)
What is your highest level of education?	1 (Bachelor), 2 (MS/M.Phil.), 3 (PhD)
How long have you been working for this organization?	1 (Less than 2 years), 2 (2-5), 3 (5-10), 4 (10-15), 5 (More than 15)
What is your current position in this organization?	1 (Owner/CEO), 2 (Manager), 3 (Director), 4 (Asistant Manager)

Sr. No	Item Statement				
1	I am interested in how my contribution impacts the company.	1	2	3	4
2	I enjoy developing new strategies.	1	2	3	4
3	Regarding practical problems,	1	2	3	4
4	I'm also interested in the underlying theory.				
5	When confronted with complex problems, I like to look for new solutions.	1	2	3	4
6	I enjoy pondering and thinking.	1	2	3	4
7	I am eager to learn.	1	2	3	4
8	I keep thinking about a problem until I've solved it.	1	2	3	4
9	I challenge already existing theories critically.	1	2	3	4
10	I carry on seeking information until I can understand complex issues.	1	2	3	4
11	I try to improve work processes by making innovative suggestions.	1	2	3	4

### Section 3: Creative Ideas

Please select the number showing the degree to which you agree or disagree with each of the subsequent statements on Creative Design. Please tick from: 1=Never, 2 Rarely, 3= Sometimes, 4= Quite Often, 5 Often.

Sr. No.	Items					
1	How frequently did you have creative insights?	1	2	3	4	5
2	How frequently did you come up with novel plans or goals?	1	2	3	4	5
3	How frequently did you think of creative solutions to problems?	1	2	3	4	5

## Section 4: Playful Work Design

Please tick the relevant choices: 1= Strongly Disagree, 2= Disagree, 3 = Neither agree nor Disagree, 4= Agree, 5= Strongly Agree.

Sr.No	Item Statement					
1	I approached my tasks creatively to make them more interesting.	1	2	3	4	5
2	I approached my work in a playful way.	1	2	3	4	5
3	I looked for humor in the things I needed to do.	1	2	3	4	5
4	I looked for ways to make tasks more fun for Everyone is involved.	1	2	3	4	5
5	I used my imagination to make my job more interesting.	1	2	3	4	5
6	I looked for ways to make my work more fun.	1	2	3	4	5
7	I pushed myself to do better even when it wasn't expected.	1	2	3	4	5
8	I approached my job as a series of exciting challenges.	1	2	3	4	5
9	I competed with myself at work – not because I had to, but because I enjoyed it.	1	2	3	4	5
10	I tried to make my job a series of exciting challenges.	1	2	3	4	5
11	I tried to keep score in all kinds of work activities.	1	2	3	4	5

12	I tried to set time records in my work tasks.	1	2	3	4	5
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## Section 5: Openness to Experience

Please tick the relevant choices: 1= Strongly Disagree, 2= Disagree Little, 3 = Neither agree nor Disagree, 4= Agree Little, 5= Strongly Agree.

Sr.No	Items Statement					
1	I see myself as someone who is original, comes up with new ideas	1	2	3	4	5
2	I see myself as someone who is curious about many different things	1	2	3	4	5
3	I see myself as someone who is ingenious, a deep thinker	1	2	3	4	5
4	I see myself as someone who has an active imagination	1	2	3	4	5
5	I see myself as someone who is inventive	1	2	3	4	5
6	I see myself as someone who values artistic, and aesthetic experiences	1	2	3	4	5
7	I see myself as someone who prefers work that is routine	1	2	3	4	5
8	I see myself as someone who likes to reflect, play with ideas	1	2	3	4	5
9	I see myself as someone who has few artistic interests	1	2	3	4	5
10	I see myself as someone who is sophisticated in art, music, or literature	1	2	3	4	5

## Section 6: Entrepreneurial Success

Please tick the relevant choices: 1= Strongly Disagree, 2= Disagree, 3 = Neither agree nor Disagree, 4= Agree, 5= Strongly Agree.

Sr. No.	Items Statement					
1	Sales are increasing in this business.	1	2	3	4	5
2	Profits are increasing in this business.	1	2	3	4	5
3	This business has been observing overall growth.	1	2	3	4	5
4	This business has low debt levels.	1	2	3	4	5
5	Overall, the financial condition of the business is satisfactory	1	2	3	4	5
6	This business creates more jobs for the local community.	1	2	3	4	5
7	This business obtains customer trust and confidence.	1	2	3	4	5
8	This business has satisfied customers.	1	2	3	4	5
9	This business is contributing to community development.	1	2	3	4	5

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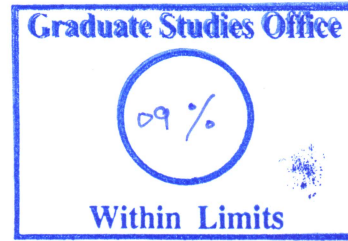
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