

**MEASURING THE RELATIONSHIP OF
ENTREPRENEURIAL COMPETENCIES, INTENTION TO
PERSIST, RISK RESILIENCE AND FIRM PERFORMANCE
THROUGH AN EXTENDED THEORY OF PLANNED
BEHAVIOUR: A STUDY OF MSME'S IN GUJARAT**

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DOCTOR OF PHILOSOPHY

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Management

By

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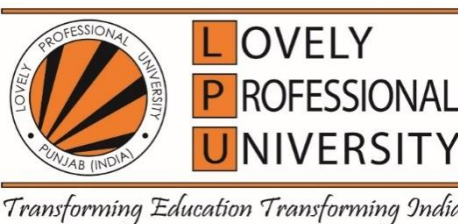
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DECLARATION

I, hereby declared that the presented work in the thesis entitled “**Measuring the Relationship of Entrepreneurial Competencies, Intention to Persist, Risk Resilience and Firm Performance through an Extended Theory of Planned Behaviour: A study of MSME’s in Gujarat**” in fulfilment of degree of **Doctor of Philosophy (Ph.D.)** is outcome of research work carried out by me under the supervision **Dr. Pooja Sharma**, working as **Associate Professor**, in the **Mittal School of Business of Lovely Professional University**, Punjab, India. In keeping with general practice of reporting scientific observations, due acknowledgements have been made whenever work described here has been based on findings of other investigator. This work has not been submitted in part or full to any other University or Institute for the award of any degree.

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CERTIFICATE

This is to certify that the work reported in the Ph.D. thesis entitled “**Measuring the Relationship of Entrepreneurial Competencies, Intention to Persist, Risk Resilience and Firm Performance through an Extended Theory of Planned Behaviour: A study of MSME’s in Gujarat**” submitted in fulfillment of the requirement for the reward of degree of **Doctor of Philosophy (Ph.D.)** in the Lovely Professional University, is a research work carried out by **Niraj Gurprakash Plaha, 42000139**, is bonafide record of his original work carried out under my supervision and that no part of thesis has been submitted for any other degree, diploma or equivalent course.

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ABSTRACT

The Micro, Small, and Medium Enterprises (MSMEs) sector in Gujarat, India, has become a critical driver of economic growth, employment, and innovation. This thesis embarks on a comprehensive exploration of the complex relationships among key variables in the context of Gujarat's MSME sector, including entrepreneurial competencies, intention to persist, risk resilience, and firm performance. Entrepreneurial competencies, comprising a combination of skills, knowledge, and personality traits, are examined as the foundation of entrepreneurial success in this study. Specifically, the research aims to unravel the direct impact of these competencies on two critical outcomes: intention to persist and firm performance. This exploration seeks to illuminate the role of these competencies as originator to entrepreneurial success, offering insights into which competencies are most vital in this context.

Theoretical frameworks and models are discussed, including the Theory of Planned Behaviour (TPB), which serves as the foundation for this research. Furthermore, the study delves into the mediating roles of attitude towards business, perceived behavioural control, personal norms, and subjective norms in the relationship between entrepreneurial competencies and intention to persist. It seeks to uncover the pathways through which competencies shape an entrepreneur's intent to persist in the face of challenges and opportunities. Additionally, this research investigates the moderating effect of risk resilience on the relationship between entrepreneurial competencies and firm performance. It strives to shed light on how an entrepreneur's ability to navigate and adapt to risk influences the translation of competencies into tangible business outcomes.

Thus, following are the five objectives of the study:

1. To examine the effect of Entrepreneurial Competencies (EC) on Intention to Persist (IP)
2. To study the effect of Entrepreneurial Competencies (EC) on Firm performance (FP)
3. To analyze the effect of Intention to Persist (IP) on Firm performance (FP)
4. To measure the mediating effect of Attitude towards Business (ATB), Perceived Behavioral Control (PBC), Personal Norms (PN) and Subjective Norms (SN) in the relationship of Entrepreneurial Competencies (EC) and Intention to Persist (IP).

5. To examine the moderating role of Risk-resilience (RR) on the relation of Entrepreneurial Competencies (EC) and Firm Performance (FP).

In the realm of entrepreneurial research within the dynamic state of Gujarat, this study embarks on a crucial journey of questionnaire design. The primary aim is to construct a robust instrument tailored to the local entrepreneurial landscape, accommodating the unique nuances and challenges faced by Micro, Small, and Medium Enterprises (MSMEs) in the region. This rigorous questionnaire development process is essential to ensure the reliability and validity of the upcoming research, which will investigate the profound influence of entrepreneurial competencies on various facets of business performance and resilience. These competencies encompass skills, knowledge, and personality traits that underpin the entrepreneurial spirit. Through careful design and validation, this questionnaire is poised to become an invaluable tool for capturing insights from Gujarat's entrepreneurs. It will provide a structured framework for them to express their attitudes, perceptions, and intentions. By tailoring the questionnaire to the local context, the aim is to uncover the intricate relationships between entrepreneurial competencies, intention to persist, and risk resilience, ultimately contributing to a deeper understanding of Gujarat's vibrant entrepreneurial ecosystem. The methodology employed in this study, titled "Measuring the Relationship of Entrepreneurial Competencies, Intention to Persist, Risk Resilience and Firm Performance through an Extended Theory of Planned Behaviour: A study of MSME's in Gujarat," is rooted in a descriptive survey research approach. This method aims to explore the impact of entrepreneurial competencies, intention to persist, and an extended theory of planned behaviour on firm performance. Additionally, the study assesses the influence of entrepreneurial competencies and risk resilience on firm performance. This study adopts a quantitative approach to develop hypotheses and theories concerning these phenomena. It focuses on entrepreneurs in Micro, Small, and Medium Enterprises (MSMEs) in Gujarat who hold decision-making authority within their organizations. The primary objectives are to analyse their entrepreneurial competencies, intention to persist, and risk resilience in relation to firm performance. The hypotheses were developed based on these variables.

H1: There is a significant relationship between entrepreneurial competencies and attitude towards business, perceived behavioural control, subjective norms, and personal norms.

H2: There is a significant relationship between attitude towards business, perceived behavioural control, subjective and personal norms, and intention to persist.

H3: There is a significant relationship between entrepreneurial competencies and the intention to persist

H4: There is a significant relationship between entrepreneurial competencies and firm performance

H5: There is a significant relationship between the intention to persist and firm performance

H6: There is a significant relationship between attitude towards business, perceived behavioural control, subjective norms, and personal norms as a mediator between entrepreneurial competencies and intention to persist

H7: There is a significant relationship between risk resilience as a moderator between entrepreneurial competencies and firm performance

The study encompasses registered MSMEs in Gujarat, which numbered 33.16 lakh as of December 31, 2020, according to the MSME Annual Report for 2020-21. To achieve the desired sample size, a target of 500 respondents is set, considering the vast number of MSMEs in Gujarat. The actual sample collected from the state amounted to 352 respondents. The study covers 20 districts out of the total 33 in Gujarat, selected based on criteria like total employment and total investment. Quotas were determined for each district, and purposive sampling methods were utilized to select respondents. Various communication channels, including emails and social media platforms like LinkedIn and WhatsApp, were employed to reach potential participants.

Data collection primarily relied on a questionnaire designed using well-established measurement scales from existing literature. Some scales were developed by the author, while others were adapted to suit the specific research needs. The scales developed are registered at copyright office, Government of India. Respondents were asked to provide their feedback using a seven-point Likert scale, ranging from 1 (Strongly Disagree) to 7 (Strongly Agree), allowing for nuanced responses to the survey items. The research employs a variety of statistical techniques, including Descriptive Statistics, Data Normality assessment, Construct Validity through Convergent and Discriminant Validity tests, and Reliability analysis. The primary analytical tool is Partial Least Squares Structural Equation Modelling (PLS SEM), which facilitates a nuanced examination of the hypothesized relationships. The aim is to uncover the engines that drive these enterprises forward, represented by their entrepreneurial competencies. These competencies encompass skills, knowledge, and personality traits, all of which are found to significantly impact the intention of these entrepreneurs to persist in their endeavours.

Furthermore, the investigation scrutinizes the effect of these entrepreneurial competencies on the performance of these enterprises. The results reveal a significant and positive correlation, highlighting that a robust set of skills, knowledge, and the right personality traits tend to steer businesses in Gujarat towards more prosperous outcomes. To gain a comprehensive understanding, the mediating role of various factors, including Attitude towards Business, Perceived Behavioural Control, Personal Norms, and Subjective Norms, in the relationship between entrepreneurial competencies and intention to persist observe. Significantly, all but one mediator prove to be influential, contributing to the comprehension of the intricate web of determinants in the entrepreneurial ecosystem. Moreover, the study introduces an intriguing factor, Risk Resilience, into the mix. By examining its moderating role, the study aim to discern whether the ability to navigate through uncertain conditions can enhance the relationship between entrepreneurial competencies and firm performance. The implications of this study extend to policymakers, entrepreneurs, educators, and researchers, offering a deeper comprehension of the factors that drive entrepreneurial success in Gujarat's vibrant MSME sector. It also serves as a stepping stone for future investigations into various dimensions of entrepreneurship, providing a robust foundation for further research.

In sum, this thesis enriches the existing body of knowledge regarding entrepreneurship in Gujarat's MSME sector, unveiling the multifaceted interplay between competencies, intent, risk, and performance. It illuminates the path to sustainable entrepreneurship and economic growth in the region while inspiring further scholarly exploration.

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LIST OF ABBREVIATIONS

ATB = Attitude towards business

EC = Entrepreneurial competencies

ECK = Entrepreneurial competencies knowledge

ECPT = Entrepreneurial competencies personality traits

ECS = Entrepreneurial competencies skills

FP = Firm Performance

GDP = Gross domestic product

GEM = Global Entrepreneur Monitor

IP = Intention to persist

MSME = Ministry of micro, small, and medium enterprise

NFI = Normed Fit Index

PBC = Perceived behavioural control

PLS SEM = Partial least squares structural equation modelling

PN = Personal norms

RR = Risk resilience

SN = Subjective norms

SRMR = Standardized Root Mean Square Residual

CHAPTER - 1

INTRODUCTION

1. INTRODUCTION

A nation's ability to grow and thrive economically depends on how competitive its businesses are. This competitiveness is largely influenced by the skills and goals of business owners and managers. Entrepreneurship, which involves starting and running new businesses, is rapidly changing in many ways, including economically, financially, and legally (Sergiu Rusu, 2012). There are still numerous unresolved disagreements that relates to define "entrepreneurship" and "entrepreneurs," and thus this topic is still comparatively unmapped (da Silva Veiga et al., 2017; Shadbolt & Olubode-Awosola, 2016). The word "entrepreneur" comes from a French word meaning "to undertake," which perfectly describes what they do. They are not just regular business owners; they are people who see opportunities where others might not and work hard to make the most of those opportunities. An entrepreneur is someone who starts and runs their own business. They come up with new ideas and take risks to turn those ideas into reality, hoping to make a profit. Entrepreneurs are often seen as creative and driven individuals who bring change and innovation to the market (Ayob et al., 2013; H. L. Chen & Hsu, 2013; Escamilla-Fajardo et al., 2021; Jancenelle et al., 2018; Lal, 2002).

Entrepreneurs are known for a few key traits. They are willing to take risks, investing their time, money, and effort into a business even when success is not guaranteed. They are highly motivated, often driven by a strong desire to succeed and make a difference. Creativity is another important trait; entrepreneurs frequently come up with new products, services, or ways of doing business that stand out from the competition. As an entrepreneur, one has to understand where to invest money, time, and available resources. An entrepreneur is an individual who is motivated, innovative and seeks success (Ritu & Chawla, 2021). On the other hand, an entrepreneur regards as a unique member of the population with exceptional abilities who serves as a "change pioneer." According to Peter Drucker, an entrepreneur aggressively pursues out, replies to, and take advantage of initiating new things (Buckley, 2014). Aside from these personal qualities, successful entrepreneurs need good business skills. They need to understand how markets work, manage finances well, and plan strategically for the future. Leadership is also crucial, as they need to build and inspire a team, manage resources efficiently, and keep their business on the path to success (Bagheri & Pihie, 2011; Guritno et al., 2019; Smutny et al., 2016). However, different authors' definitions are context-specific, so no universal definition of

entrepreneurship exists. Cantillon (1755) defines an entrepreneur as taking risks and dealing with uncertainty. Similarly, Adam Smith (1723-1790), whose overall objective was to understand the process of wealth creation, began his dissertation with the lesson that labour limits the size of the market (Diandra & Azmy, 2020).

Entrepreneurship is the process of starting and running your own business. It involves taking an idea, like a unique product or service, and turning it into a successful business. This means figuring out how to bring the idea to life, finding customers, and managing all the different parts of the business. At the heart of entrepreneurship is innovation. This means coming up with new ideas or finding better ways to do things. Entrepreneurs are often creative thinkers who can see opportunities where others don't. They take risks, investing their time, money, and effort into something new, hoping that it will succeed (Sergiu Rusu, 2012). Being an entrepreneur means wearing many hats. One has to be a leader, guiding team and making important decisions. Entrepreneurs need to understand market, knowing who their customers are and what they want. Financial skills are also crucial, to manage money wisely to keep your business running smoothly (Afifi et al., 2016).

Entrepreneurship is not just about making money; it's also about solving problems and making a difference. Many entrepreneurs start their businesses because they see a need in the market and want to provide a solution. They are motivated by the challenge and the potential to create something new and valuable. Entrepreneurship can be exciting but also challenging. It requires hard work, dedication, and resilience. Entrepreneurs often face setbacks and failures, but they learn from these experiences and keep pushing forward (Basim & N, 2011; Gray et al., 2014; Song et al., 2006). Entrepreneurship isn't just about launching new businesses; it also includes improving existing ones. Entrepreneurs need to think strategically, manage resources well, lead their teams, and handle the challenges of the business world. What makes them unique is the capability to find and take advantage of chances while being willing to take risks (Miceli et al., 2021; Rasmussen et al., 2015). Due to the various meanings of entrepreneurship, it is necessary to consider terminology and context. Entrepreneurship is focused on how entrepreneur's initiate with innovation and development (Greco & De Jong, 2017). As markets expanded, entrepreneurship would lead to innovation, resulting in more significant labour and higher productivity. Innovation is at the heart of entrepreneurship. Entrepreneurs with innovative products, services, or ways of

doing business can set themselves apart and help the economy grow. This kind of innovation leads to more efficient work and contributes to overall economic development. Having a supportive environment is crucial for entrepreneurs (Bazan et al., 2020; Breuer et al., 2018; Djupdal & Westhead, 2015; Hadi et al., 2023; Shin & Cho, 2020; Umar & Ngah, 2016).

In simple terms, entrepreneurship is a vital and dynamic process that helps drive economic growth. By building the right skills, staying motivated, and using available support, entrepreneurs can overcome business challenges and contribute to the success of their communities and countries. Adam Smith stated that increased entrepreneurial activity leads to increased economic growth (Adam Smith, 1776) (Özler, 2012). Business is often complicated, and as a result, many businesses need help to survive. People value success and the benefits that come from achieving goals. Business owners must first understand what entrepreneurship is; they do not need to rush to turn a profit (J. Chen et al., 2016; Dean & McMullen, 2007; Lal, 2002). It's important to understand where new ideas or inventions come from. For example, knowing if an idea is popular with customers is crucial. Entrepreneurs need to research and figure out if their idea solves a problem or meets a need that people have. By testing the market, they can see if there is interest and demand for their product or service. This might involve surveys, focus groups, or small trial runs (Ritu & Chawla, 2021). Testing the market helps business owners gather valuable feedback and make necessary adjustments before fully launching their business. This approach supports sustainability, as it can save time and money by avoiding a full-scale launch of a product that might not succeed. For instance, if someone wants to start a bakery, they could first sell their baked goods at a local market to see how people respond. This way, they can fine-tune their recipes and marketing strategy based on real customer feedback, increasing their chances of success while ensuring their business is built on a solid, sustainable foundation. Entrepreneurial activities can be performed through entrepreneurial competencies and entrepreneurial intention, which can help entrepreneurs to get successful businesses (Muñoz-Bullón et al., 2015; Sánchez, 2011, 2013).

1.1 ENTREPRENEURIAL COMPETENCIES

It is universally recognized that an entrepreneur's competencies show a noteworthy role in an MSME's achievement, growth and performance. The small business owner plays a vital role in the operational activity because of its independent management style and structure of the small business (Bagheri & Harrison, 2020; Mitchelmore & Rowley, 2013). Furthermore, according to some academics, understanding the competencies that successful small business owners employ can be utilized to encourage the development of such competencies, which could then contribute to the expansion of the company (Bagheri & Harrison, 2020; Bhardwaj, 2016; Mojab et al., 2011).

The idea of competencies and its application, mainly in free enterprise, is at its initial stage and thus the term competency is first use by Boyatzis in 1982 to distinguish superior from the average performance of managers (Boyatzis, 2008). Furthermore, this describes the fundamental things of an individual that relates to the practical or superior performance of the firm. As per introduction by Boyatzis's "The Competent Manager: A Model for Effective Performance," it began to gain popularity and importance's of managerial "knowledge, skills, and abilities," or KSA (Jones & English, 2004). KSA, as a model suggest Knowledge, skills, and abilities which denotes the requirement to perform the tasks considering firm success and thus it shares many of the characteristics of entrepreneurship competency models. To explain competencies many authors universally used variables such as knowledge refers to understanding specific information relevant to the business environment, such as market trends, customer preferences, and industry regulations. Entrepreneurs leverage this knowledge to make informed decisions and strategize effectively (Becker- Jakob et al., 2013; Belso-Martínez, 2006; Bolzani & Luppi, 2021), Skills traits encompass practical abilities needed to perform tasks effectively in business operations. These skills may include financial management, marketing, leadership, and technical expertise, depending on the nature of the business (Fillis, 2004; Kljucnikov et al., 2020),

Motive drive entrepreneurs to start businesses, often fuelled by ambitions for success, personal fulfilment, or a desire to solve a problem in society. Understanding these motives helps entrepreneurs stay focused and motivated through the challenges of business ownership (Guerrero et al., 2008; Krael, 2018), Self-image influences how entrepreneurs perceive themselves within the business context. A positive self-image fosters confidence, resilience in the expression of setbacks, and the ability to take calculated risks necessary

for business growth (Makhura, 2011; Neupert et al., 2004). Social roles involve interactions with others in the business community, including customers, suppliers, investors, and peers. Building strong relationships through effective networking enhances opportunities for collaboration, support, and business development (De Mattos & Salciuvienė, 2019; Omar, 2021),

Risk-taking is about the willingness to venture into uncertain opportunities for potential rewards. Entrepreneurs assess risks carefully, balancing potential benefits against potential losses, to make decisions that propel their businesses forward (Ozaralli & Rivenburgh, 2016; Rosenbaum, 2019). Creativity involves thinking of new ideas or approaches that set businesses apart from competitors. Innovative thinking enables entrepreneurs to develop unique products, services, or business models that meet evolving market demands (Fillis, 2004; Mamun & Fazal, 2018). Networking is about building and maintaining relationships that can provide support, advice, partnerships, or new business opportunities. Effective networking expands an entrepreneur's circle of influence, which helps to get resources for business growth (Keith, 2014; Rosenbaum, 2019). Decision making is critical for entrepreneurs as they navigate various challenges and opportunities in business. Strong decision-making skills involve gathering relevant information, analysing options, and choosing the best course of action to achieve business goals (Marinova & Marinov, 2017),

Innovativeness drives the growth of novel products, facilities, or procedures that address market needs or create new market opportunities. Entrepreneurs who prioritize innovation can stay ahead in competitive markets and sustain long-term business growth (De Mattos & Salciuvienė, 2019; Vila-Lopez & White, 2018). Communication skills are essential for entrepreneurs to articulate their vision, build relationships, and convey ideas effectively. Clear and persuasive communication helps entrepreneurs inspire confidence in stakeholders, attract customers, and lead their teams toward achieving business objectives (Khadka et al., 2013; Mukherji Dr., 2015). Problem-solving is crucial for entrepreneurs to effectively address challenges that arise in business operations. It involves identifying issues, analysing their root causes, and developing practical solutions to overcome obstacles. Strong problem-solving skills enable entrepreneurs to adapt to changing circumstances, improve business processes, and maintain operational efficiency (Bolzani & Luppi, 2021; Makhura, 2011), etc.

Man's 2002 theory on "The Model of SME Competitiveness" identifies three critical elements influencing the competitiveness of SMEs: internal firm factors, the external environment, and the impact of the entrepreneur (Man et al., 2002). These elements, in turn, play an essential role in shaping the business performance. Additionally, the entrepreneur's influence is explored through the competency approach, focusing on process or behavioural perspectives (Botha et al., 2019; Man et al., 2002). Entrepreneurial competencies, surrounding personality traits, skills, and knowledge, are regarded as higher-level features, defining the overall capability of an entrepreneur to successfully fulfil their role (Man et al., 2002, 2008; Man & Lau, 2005). Within Man's SME competitiveness model, knowledge, skills, and personal traits are introduced as key components.

1.1.1 ENTREPRENEURIAL SKILLS

Entrepreneurial skills encompass a diverse set of technical, leadership, business management, and creative thinking abilities. These skills are crucial for individuals aspiring to thrive in entrepreneurial endeavours. Entrepreneurial skills are versatile, applicable to various roles and industries. For example, to sharpen business management abilities is essential for success as a business owner. Entrepreneurial skills cover a wide spectrum, encompassing both soft and hard skills. Time management, communication and networking skills, problem-solving capabilities, training and experience, creative thinking, and more can all be classified as essential entrepreneurial skills. In essence, these skills are multifaceted, equipping individuals to navigate the complexities of entrepreneurship across different facets of their professional journey (Abbasi et al., 2011; Castro & G, 2020; Hussain Aroona; Gilani, Misbah, 2018; Ibrahim & Abdullahi, 2014; Neupert et al., 2004; Shah et al., 2020; Wu & Wu, 2008). Financial management skills are about handling money wisely in a business. Entrepreneurs track their income (money coming in) and expenses (money going out) to see if their business is making a profit. They also plan for future expenses to ensure there's enough money to keep the business running smoothly (Mcmullen & Warnick, 2016). Marketing skills are about promoting a business and attracting customers. Entrepreneurs use these skills to spread the word about their products or services. This could involve creating ads, using social media to reach potential customers, or offering special deals to attract new buyers (Jones & English, 2004).

Leadership skills are about guiding and motivating a team. Even if a business starts alone, as it grows, there might be employees or others to work with. Good leadership helps share the business vision, delegate tasks effectively, and keep everyone motivated to achieve common goals (Abbasi et al., 2011; Guritno et al., 2019; RezaeiZadeh et al., 2017). Communication skills are about interacting with people and sharing ideas effectively. Entrepreneurs use these skills to talk to customers, negotiate with suppliers, and work with their team. Clear communication ensures everyone understands what needs to be done (Bolzani & Luppi, 2021; Khadka et al., 2013; Tam et al., 2021). Time management skills are about using time effectively to get things done. Entrepreneurs prioritize tasks, set deadlines, and stay organized to ensure everything is completed on time. Problem-solving skills are about finding solutions to business challenges. Entrepreneurs identify problems, brainstorm solutions, and choose the best one to overcome obstacles (Shah et al., 2020).

Negotiation skills are about reaching agreements with others. Entrepreneurs use these skills when buying supplies, setting prices, or making contracts. Good negotiation ensures favourable deals and positive relationships (Sandhu et al., 2019). Technical skills are specific abilities needed for a particular business (Opdam et al., 2005). For instance, a graphic designer needs skills in design software, while a baker requires skills in baking and decorating cakes. These skills are crucial for delivering high-quality products or services and gaining customer trust. Customer service skills are about providing excellent service to customers. Entrepreneurs ensure customers are satisfied, handling inquiries, returns, and deliveries promptly. Adaptability and flexibility are about adjusting to changes. Entrepreneurs adapt to market shifts, customer preferences, and unexpected situations to stay competitive. Networking skills are about building relationships. Entrepreneurs connect with potential customers, partners, or mentors for business growth (Suomi, 2006; Winn et al., 2011). Networking opens doors to opportunities and valuable advice. For example, a photographer networks with wedding planners for client referrals and learns from other photographers for skill improvement and collaboration (Belso-Martínez, 2006; Guritno et al., 2019; Rosenbaum, 2019). Skills, another cornerstone of entrepreneurial competence, represent the practical capabilities that individuals bring to the business arena. These encompass a broad spectrum, ranging from effective communication and leadership to problem-solving and financial acumen. Entrepreneurs equipped with a diverse skill sets well positioned to address the multifaceted challenges that rise in the complex business

environment. As reflected in my research, the focus on entrepreneurial skills underscores their significance in shaping the intention to persist and influencing firm performance. By examining the specific skills that entrepreneurs in the MSME sector possess, the study aims to provide nuanced insights into how these competencies contribute to the overall success and longevity of their ventures.

1.1.2 ENTREPRENEURIAL KNOWLEDGE

Knowledge means theoretical and practical understanding of entrepreneurs. It is to recognize or create an opportunity and take action to realize innovative knowledge. To know the issues in the firm, entrepreneurs have proper in-depth knowledge related to their work. Knowledge can be define as the possession and understanding of values, evidences, processes, and the interactions among them (Krabel, 2018; Shah et al., 2020). For entrepreneurs, it's crucial to possess a comprehensive understanding of the market dynamics, demand and supply patterns, government regulations, relevant technologies, and effective business management. This knowledge extends to specific domains like accounting, marketing, manufacturing and production, human resources, and general management. In essence, a well-rounded entrepreneurial expertise involves navigating and mastering diverse facets of the business landscape (Ahmed Chemseddine & Kamel, 2021; Gladstone et al., 2006; Krabel, 2018; Shah et al., 2020).

Knowledge is a critical component of entrepreneurial success, encompassing a range of information, facts, and expertise that entrepreneurs use to make informed decisions and navigate the complexities of running a business. Entrepreneurs need to understand their industry thoroughly. This includes knowing about trends, customer preferences, and competitors. For example, if someone wants to start a coffee shop, they should research popular coffee trends, learn about different brewing techniques, and understand what their competitors are offering. Technical knowledge refers to specific skills and understanding related to the type of business an entrepreneur operates. For instance, a software developer needs technical knowledge in coding languages, while a chef requires expertise in culinary techniques and food safety. This knowledge is essential for delivering high-quality products or services that meet customer expectations (Gladstone et al., 2006; Krabel, 2018; Sandhu et al., 2019; Willis & DeKay, 2007).

Market knowledge involves understanding the dynamics of the market where the business operates. Entrepreneurs gather data on consumer behaviour, market size, demographics, and purchasing patterns. This information helps them identify target customers, predict demand, and tailor their offerings to meet market needs effectively (Ahmed Chemseddine & Kamel, 2021; Dolhey, 2019; Han et al., 2017). Financial knowledge is crucial for managing the monetary aspects of a business. Entrepreneurs need to understand financial statements, budgeting, cash flow management, and financial forecasting. This knowledge allows them to make sound financial decisions, secure funding, and ensure the financial health and sustainability (Afifi et al., 2016; Khatib et al., 2021; Pulka et al., 2021).

Entrepreneurs must be aware of the legal and regulatory requirements that impact their business operations. This includes understanding business licenses, permits, tax obligations, and industry-specific regulations. Compliance with these laws ensures that the business operates legally and avoids potential fines or penalties. Understanding customers is essential for business success. Entrepreneurs gather insights into customer preferences, needs, and pain points through market research, surveys, and direct interactions. This knowledge helps in creating products or services that resonate with customers, delivering excellent customer service, and building long-term relationships.

Entrepreneurs stay updated on innovation and industry trends to remain competitive. This involves monitoring technological advancements, emerging business models, and disruptive innovations. By embracing innovation and staying ahead of trends, entrepreneurs can identify new opportunities for growth and differentiation in the market (Botha et al., 2019; Botha & Taljaard, 2019; Mamun & Fazal, 2018; Shin & Cho, 2020). Strategic knowledge involves developing long-term plans and goals for the business. Entrepreneurs analyse market trends, assess strengths and weaknesses, and formulate strategies to achieve sustainable growth and competitive advantage. Strategic knowledge guides decision-making, resource allocation, and adaptation to changing business environments (Farhangmehr et al., 2016; Khadka et al., 2013; Khatun et al., 2021; Sandhu et al., 2019). Entrepreneurs leverage networking skills to build relationships with industry peers, mentors, investors, and potential customers. Networking provides opportunities for learning, collaboration, and business development. Strong relationships can lead to partnerships, referrals, and valuable insights that contribute to business success.

In a globalized world, entrepreneurs benefit from cultural awareness and understanding of international markets. This includes knowledge of cultural differences, global business practices, and international trade regulations. Cultural and global awareness enables entrepreneurs to expand into new markets, forge international partnerships, and cater to diverse customer bases. Entrepreneurs recognize that knowledge is dynamic and continuously evolving. They prioritize ongoing learning, professional development, and staying updated on industry trends. This commitment to learning allows entrepreneurs to adapt to changes, innovate, and sustain long-term business success. Entrepreneurial knowledge, a fundamental pillar of entrepreneurship, encompasses the both theoretic and practical understanding for various facets within the business domain. This involves an adept grasp of industry-specific information, market trends, and the dynamics that shape the entrepreneurial landscape. Entrepreneurs with a wealth of knowledge can make informed decisions, navigate challenges, and identify viable opportunities. In the context of my research, entrepreneurial knowledge becomes a focal point as it directly influences the competencies and actions of entrepreneurs in the vibrant MSME sector of Gujarat. By delving into the intricacies of this knowledge base, the study seeks to uncover how a well-informed entrepreneurial mind contributes to intention persistence and ultimately impacts firm performance.

1.1.3 ENTREPRENEURIAL PERSONALITY TRAITS

Entrepreneurs exhibit unique thought processes, feelings, and behaviour patterns that are reflective of their personality traits. These inherent characteristics shape their approach to business and contribute to their success. Common personality traits found in entrepreneurs include self-confidence, integrity, honesty, optimism, enthusiasm, cooperativeness, and commitment. Each of these traits plays a significant role in influencing how an entrepreneur interacts with others, makes decisions, and navigates challenges. Resilience is the ability to spring back back from setbacks and adversity. Entrepreneurs with strong resilience persevere in the face of challenges, setbacks, and failures. They view obstacles as opportunities for growth and learning, remaining steadfast in their pursuit of business goals despite difficulties (M.-A. Enoch et al., 2010; Mikami & Hinshaw, 2006; Song et al., 2006; Swain et al., 2014).

Initiative means the readiness and willingness to take action and make decisions independently. Entrepreneurs with a strong initiative are proactive in identifying opportunities, solving problems, and driving their businesses forward. They are self-starters who are motivated to turn ideas into reality (Al Mamun et al., 2016; Guritno et al., 2019; Keijzers, 2002; Krueger et al., 2000). Adaptability is the ability to adjust to changing circumstances and environments. Entrepreneurs who are adaptable embrace uncertainty and quickly respond to shifts in the market, customer preferences, and business conditions. They are flexible in their approaches and open to exploring new ideas and strategies (Suomi, 2006; Winn et al., 2011). Persistence is the determination to continue striving towards goals despite obstacles or challenges. Entrepreneurs with persistence demonstrate unwavering commitment and dedication to their vision. They are willing to work hard, overcome setbacks, and stay focused on achieving long-term success for their businesses (Guritno et al., 2019; Makhura, 2011; Mikami & Hinshaw, 2006).

Creativity involves generating innovative ideas, solutions, and approaches to business challenges. Entrepreneurs with creativity think outside the box, envision new possibilities, and differentiate their products or services in the market. They embrace experimentation and encourage a culture of innovation within their businesses (Fillis, 2004; Gundry et al., 2016; Mamun & Fazal, 2018; Ozaralli & Rivenburgh, 2016). Risk-taking is the willingness to take calculated risks and make decisions that involve uncertainty. Entrepreneurs who are comfortable with risk assess potential outcomes, weigh alternatives, and make informed decisions to pursue opportunities. They understand that calculated risks can lead to growth and innovation in their businesses (Bolton & Lane, 2012; M. A. Enoch, 2006; Mamun & Fazal, 2018; Shadbolt & Olubode-Awosola, 2016; Vila-Lopez & White, 2018). Visionary thinking involves having a clear and inspiring vision for the future of the business. Entrepreneurs with visionary thinking articulate long-term goals, anticipate industry trends, and develop strategies to achieve their vision. They inspire others with their enthusiasm and drive towards creating a meaningful impact through their businesses (Frangopol et al., 2017a; Gladstone et al., 2006; Jansson et al., 2011b; Sandhu et al., 2019; Smith, 2015).

Self-confidence is belief in one's abilities, decisions, and ideas. Entrepreneurs with self-confidence trust their instincts, take ownership of their actions, and communicate effectively with stakeholders. They exude a positive attitude and inspire trust in others, which is essential for building relationships and leading teams (Abbasi et al., 2011;

Kusumawijaya & Astuti, 2021; Makhura, 2011; Windapo, 2018). Empathy is the ability to appreciate and share the feelings and perspectives of others. Entrepreneurs with empathy prioritize customer needs, build strong relationships with employees, and cultivate a supportive work environment. They listen actively, consider diverse viewpoints, and make decisions that consider the impact on stakeholders (Afifi et al., 2016; Ayob et al., 2013; Igwe et al., 2020; Swain et al., 2014). Networking skills involve building and maintaining relationships with others in the industry or community. Entrepreneurs with strong networking skills connect with potential customers, partners, and mentors who can support business growth. They leverage relationships for learning, collaboration, and accessing new opportunities (Belso-Martínez, 2006; Guritno et al., 2019; Keith, 2014; Rosenbaum, 2019). Assertiveness is the ability to confidently express opinions, advocate for ideas, and negotiate effectively. Entrepreneurs with assertiveness communicate clearly, set boundaries, and make decisions that align with business objectives. They assert their needs while respecting the perspectives and interests of others (Makhura, 2011).

Decisiveness is the ability to make prompt and effective decisions. Entrepreneurs who are decisive gather relevant information, weigh options, and take decisive action to achieve business goals. They understand the importance of timely decision-making in navigating competitive markets and seizing opportunities (Jansson et al., 2011b; Memon et al., 2021; Russell, 2005; Shepherd et al., 2013; Xiang et al., 2018). Integrity is the adherence to ethical principles and values in business practices. Entrepreneurs with integrity prioritize honesty, transparency, and accountability in their interactions with stakeholders. They build trust and credibility by consistently demonstrating ethical behaviour and upholding their commitments (Gladstone et al., 2006; Khadka et al., 2013). Collaboration involves working effectively with others to achieve common goals. Entrepreneurs who value collaboration foster teamwork, encourage diverse perspectives, and leverage collective strengths to solve problems and drive innovation. They recognize the value of collaborative efforts in achieving sustainable business growth (Abeysekara et al., 2019; Bocken, 2015; Bolzani & Luppi, 2021; Breuer et al., 2018).

Personality traits, by their nature, imply consistency and stability. Individuals who score high on a specific trait, such as extraversion, tend to consistently display more sociable and outgoing behaviours in various contexts. These enduring traits contribute to the distinctiveness and resilience of entrepreneurs as they navigate the dynamic landscape of

business. Exploring the third dimension of entrepreneurial competence, which involves individual characteristics and behavioural patterns, sheds light on the unique qualities' entrepreneurs bring to their endeavours. Factors such as resilience, adaptability, and a preparedness to take risks play a fundamental part in shaping the entrepreneurial journey. In the course of my research, a deeper understanding of these personality traits proves essential in unravelling the intricate connections between entrepreneurial competencies, the intention to persist, and overall firm performance. Through an examination of the nuanced interplay of traits within the entrepreneurial landscape of Gujarat, the study aims to emphasize how specific personal attributes contribute to the sustainable growth and success of micro, small, and medium enterprises (MSMEs) in the region.

Thus, the overall meaning of entrepreneurial competencies refers to knowledge, skills, and personality skills. Knowledge refers to the theoretical and practical understanding of entrepreneurs. It can also include theories, information, facts & figures, etc, related to business. Skills refer to an entrepreneur's ability, including goal setting, time management, communication, etc. Furthermore, Personality traits refer to honesty, self-confidence, enthusiasm, commitment, etc (Man et al., 2002, 2008; Man & Lau, 2005). Now, it is not only the competencies but also the intention that make successful entrepreneurs. Entrepreneurs have positive intentions to start a business, run it properly, and for a longer duration (Ajzen, 2020; Bolton & Lane, 2012).

1.2 THEORY OF PLANNED BEHAVIOUR

The Theory of Planned Behaviour (TPB) is a psychological theory that explains how people make decisions and act in certain ways. It was developed by a psychologist named Icek Ajzen in the late 1980s. This theory suggests that a person's behaviour is determined by their intention to perform the behaviour, which in turn is influenced by three main factors: their attitudes, subjective norms, and perceived behavioural control. Attitude refers to how a person feels about the behaviour they are considering. It includes their positive or negative evaluation of performing the behaviour. For example, if someone thinks that exercising regularly is beneficial because it improves health and mood, they have a positive attitude towards exercising. Subjective norms involve the social pressure that a person feels about whether or not to engage in a behaviour. This is about the influence of

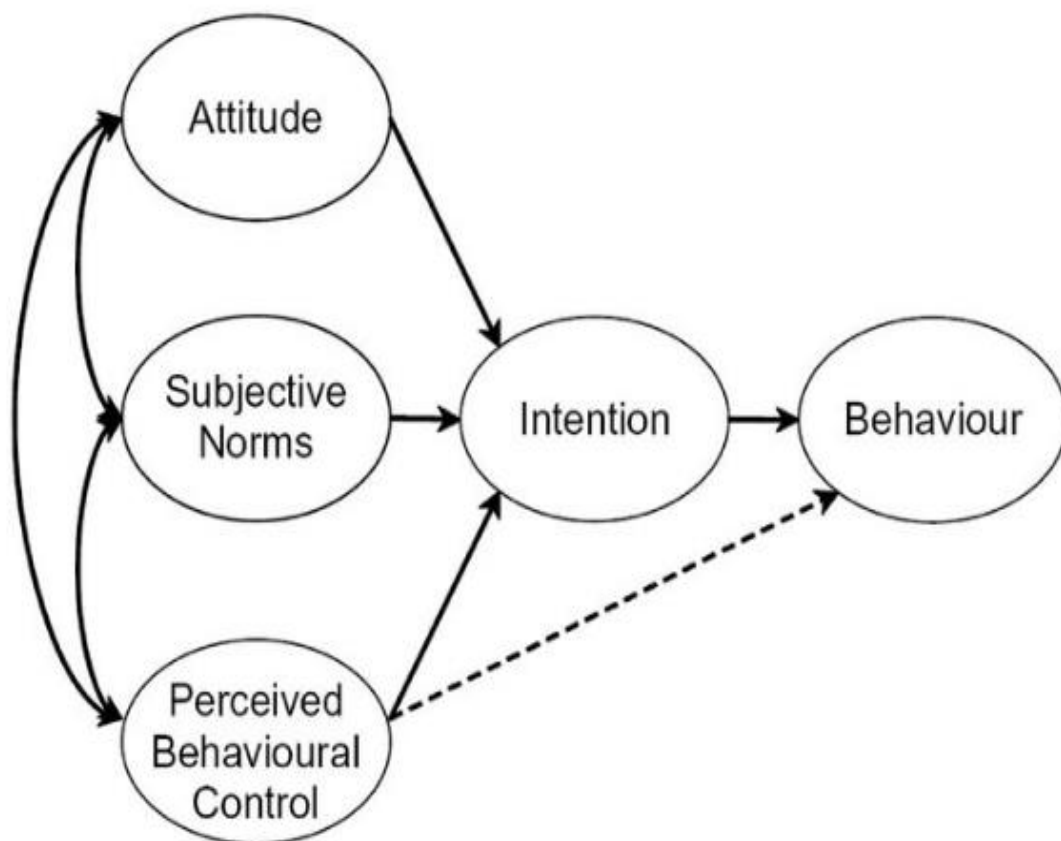
other people's opinions. If a person believes that their family and friends think they should exercise, they are more likely to feel motivated to do so. It's the idea of what do people think I should do that. Perceived behavioural control refers to how easy or difficult a person thinks it will be to perform the behaviour. This is about the person's confidence in their ability to carry out the behaviour, considering the resources and opportunities available. For instance, if someone believes they have the time, energy, and access to a gym, they are more likely to think they can exercise regularly. It's all related to behaviour.

According to the Theory of Planned Behaviour, if a individual has a encouraging attitude towards a behaviour, believes that important people around them support the behaviour, and feels self-confident in their ability to achieve it, they will form a strong intention to do it. This intention is the key predictor of whether they will actually carry out the behaviour. The Theory of Planned Behaviour uses to understand and forecast a different behaviour. It is often used in health psychology to promote healthy behaviours like exercising, quitting smoking, or adopting a healthy diet. It is also applied in other areas such as marketing, where companies want to understand consumer behaviour, or in organizational settings to improve employee practices. By identifying the factors that influence intentions, interventions can be designed to change attitudes, influence social norms, and enhance perceived control, thereby encouraging desired behaviours. Theory of Planned Behaviour helps explain why people decide to do things and what influences those decisions. It highlights the importance of attitudes, the influence of others, and the confidence people have in their ability to perform behaviours, making it a useful tool for predicting and changing behaviour.

Here entrepreneurial competencies alone cannot be effective; a robust intention, both mentally and physically, is crucial for their application (Abbasi et al., 2011; Krueger et al., 2000; Ozaralli & Rivenburgh, 2016). Researchers in entrepreneurship have identified numerous determinants influencing individual entrepreneurial intention. According to the definition by Thompson and Ranga, Entrepreneurial Intention is an person's belief in aspiration to establish a business project and actively work towards realizing this goal in the future (Ranga, Jain, et al., 2019; Ranga, Reddy, et al., 2019; Thompson, 2009). Various studies have examined diverse models of entrepreneurial intention in diverse contexts. Intentionality as a predictor and explanatory factor in entrepreneurial phenomena was introduced by Bird in 1988 (Bird B, 1995; Boyd & Vozikis, 1994; Krueger et al., 2000).

Ajzen's theory in 1991 - The theory of planned behaviour, emphasizes the assumption that intention is the reliable predictor of behaviour (Ajzen, 1991; Arafat et al., 2020; Ranga, Reddy et al., 2019; Širola, 2020; Towler & Shepherd, 1991). In his theory of planned behaviour, Ajzen introduced the terms perceived behavioural control (PBC), subjective norms (SN), and attitude towards the business (ATB), with all variables considered independent (Ajzen, 1991).

Figure No. 1.1: Theoretical Framework of Theory of Planned Behavioural



(Source: Theory of Planned Behavioural, Ajzen, 1991)

1.2.1 ATTITUDE TOWARDS BUSINESS

Attitude towards Business (ATB), a psychological construct, reflects an individual's evaluative stance or feelings toward engaging in entrepreneurial actions. The study understanding entrepreneurs' attitudes towards their business endeavours is pivotal. Positive attitudes are often linked to higher levels of motivation and perseverance,

influencing the intention to persist and ultimately contributing to enhanced firm performance. Attitude towards the business (ATB) refers to how entrepreneurs feel about starting or running a business. It encompasses their overall evaluation whether positive or negative of the entrepreneurial venture they are considering or already engaged in. In simpler terms, ATB reflects the entrepreneur's thoughts, feelings, and beliefs about their business idea. This attitude is crucial because it influences their motive, decisions, and persistence in pursuing their entrepreneurial goals (Kim-Soon et al., 2020; Ozaralli & Rivenburgh, 2016; Ranga, Jain, et al., 2019). The entrepreneur's attitude has some behaviour for a specific idea, object, person, or particular situation. Here the consequences are known to the entrepreneur, but firstly he will evaluate the consequences. A positive attitude will help the entrepreneur run a successful business (Hussain Aroona; Gilani, Misbah, 2018; Kim-Soon et al., 2020). By delving into the nuances of ATB within the MSME sector in Gujarat, the study aims to unravel how these attitudes shape the entrepreneurial landscape and influence the trajectory of businesses.

1.2.2 PERCEIVED BEHAVIOURAL CONTROL

Perceived Behavioural Control (PBC) pertains self-confidence in their capability to convey out a specific behaviour, specifically entrepreneurial actions in this context. Elevated PBC levels signify a robust sense of self-efficacy and command over one's actions. Perceived behavioural control (PBC) shows an entrepreneur's trust in their capability to successfully start and manage a business. It encompasses their confidence in the skills, resources, and external factors that may influence their ability to achieve their business goals (M.-A. Enoch, 2011; Flowers et al., 2017; Liñán et al., 2011). In simpler terms, PBC reflects how much control entrepreneurs believe they have over their actions and the outcomes related to their business venture. This perception plays a decisive part in shaping their intentions, decision creation process, and overall persistence in pursuing entrepreneurial endeavours. Perceived Behavioural Control (PBC) relates to an individual, specifically the entrepreneur, and involves their personal considerations regarding whether they have the capability to execute a particular task or activity. It encompasses the entrepreneur's introspective evaluation of their skill to perform a given activity (Heuer & Liñán, 2013; Heydari et al., 2020; Širola, 2020). If the decision is easy to take, the entrepreneur will directly execute it, or if it may not be easy, he may not implement it. Delving into PBC within the MSME landscape in Gujarat offers a comprehensive insight into how

entrepreneurs' perceptions of control shape their commitment to persist. The research aims to unveil the intricate interplay among PBC, intention, and firm performance, shedding light on the motivational and strategic factors that impact entrepreneurial outcomes.

1.2.3 SUBJECTIVE NORMS

Subjective Norms (SN) encapsulate the perceived social pressure or influence exerted by significant others when it comes to participating in entrepreneurial activities. Entrepreneurs often navigate their ventures under the influence of societal expectations, family opinions, and peer pressure. Subjective norms (SN) refer to the perceived social pressures or expectations that influence an entrepreneur's decision to start or run a business. These norms are based on beliefs about what important people in their life think they should do regarding entrepreneurship (Badr et al., 2018; Byabashaija & Katono, 2011; Damayanti et al., 2020; Velástegui & Chacón, 2021). In simpler terms, subjective norms reflect how much influence friends, family, mentors, and other significant individuals have on an entrepreneur's decision-making process. These perceptions can either encourage or discourage entrepreneurial activities based on their support or scepticism towards the business venture. Subjective norms (SN) refer to a set of shared beliefs. Here the influences of social belongings affect the decision of entrepreneurs. The experiences of family, friends, and others in a given situation will affect the behaviour of entrepreneurs (Ajzen, 1991; Christina, 2017; Su et al., 2021; Velástegui & Chacón, 2021). Investigating SN within the MSME sector in Gujarat offers insights into the social dynamics shaping entrepreneurial decisions. By examining the interplay between subjective norms, intention to persist, and firm performance, the study aims to capture the social fabric influencing entrepreneurial pursuits in the region.

1.3 PERSONAL NORMS

Personal norms refer to an individual's internal standards and values that guide their behaviour. These norms are deeply ingrained beliefs about what is right or wrong, appropriate or inappropriate, and they influence how people act in various situations. Unlike social norms, which are influenced by the expectations of others, personal norms are self-imposed and arise from one's own moral and ethical convictions. Personal norms

are based on values that individuals hold. These values are often shaped by personal experiences, culture, education, and upbringing. For instance, someone who values honesty will have a strong personal norm against lying. Personal norms are closely tied to an individual's sense of morality and ethics. These norms dictate what a person feels morally obligated to do or refrain from doing. For example, a person who believes in environmental conservation will feel a strong personal obligation to recycle and reduce waste.

Personal norms play a significant role in decision-making and behaviour. When faced with a choice, individuals often refer to their personal norms to decide the right course of action. If someone has a personal norm of helping others in need, they are more likely to engage in charitable activities or offer assistance when they see someone in distress. Personal norms are consistent with an individual's self-identity. Acting in accordance with these norms helps people maintain a sense of integrity and self-respect. For instance, a person who sees themselves as compassionate will strive to act in ways that reflect compassion, such as volunteering or being kind to others. Examples of personal norms includes in various ways such as feeling a personal obligation to conserve water, reduce plastic use, and support sustainable practices because of a belief in protecting the environment. Maintaining a personal standard of truthfulness in all interactions because of a value placed on integrity. Feeling a strong personal duty to share resources and help those less fortunate because of a belief in kindness and empathy. Following a personal routine of exercise and healthy eating because of a belief in the importance of maintaining good health. While personal norms are about an individual's internal standards, social norms are about the expectations and behaviours accepted by a group or society. Social norms can influence personal norms, but the key difference is that personal norms are self-imposed. For example: Social Norm: Most people in a community might participate in a neighbourhood clean-up because it is expected by the community (external influence). Personal Norm: An individual might participate in the clean-up because they personally believe in keeping their environment clean and feel it is the right thing to do (internal motivation).

Personal norms can significantly impact behaviour, sometimes even overriding social norms. When personal norms are strong, individuals may act against social expectations if those expectations conflict with their internal standards. For instance, a person might choose to speak out against an unjust practice at work, even if it goes against the social

norm of remaining silent, because their personal norm values justice and fairness. Personal norms are an individual's internal guidelines that dictate how they believe they should behave based on their values and moral principles. These norms are powerful motivators that influence behaviour, decision-making, and a person's sense of identity and integrity.

Here personal norms can also act as one of the variables that make the intention, and then the actual behaviour is taken into action (Ajzen, 1991). Ajzen, in his theory, has discussed the PBC, SN, and ATB; there is still one thing that needs to be added: Personal Norms (PN), which refers to norms that a person belongs with his personality. Personal Norms (PN) represent an individual's internalized sense of what is morally and ethically right concerning entrepreneurial actions. The theory includes following rules and regulations, moral principles, ethics, and discipline. Furthermore, these norms are internalized beliefs and values that combine to perform a person's inner standards for behaviour, such as self-belief to complete the task effectively, timely, and efficiently, a sense of self-ethical obligation to act, and a sense of responsibility for implementing specific actions personal Norms.

Personal norms are like inner rules that guide behaviour, especially in starting or running a business. They're based on what is considered right or wrong and what holds importance. For entrepreneurs, these norms influence decision-making and set goals for their business. Imagine starting a business with a strong belief in fair treatment of employees and honesty with customers. These beliefs are personal norms shaping how the business is operated. They lead to prioritizing ethical practices, such as using environmentally friendly materials or supporting the local community (Arkorful, 2022; Jansson et al., 2011b; Sasana et al., 2022; Wang et al., 2015). Personal norms also impact long-term planning for entrepreneurs. Rather than focusing only on short-term gains, those with strong personal norms consider how today's decisions affect their business and community in the future. They prioritize building a good reputation and gaining trust from customers and investors.

At times, entrepreneurs face tough decisions where they must balance profit-making with adhering to personal norms. For instance, they might choose between cutting corners to save money or staying true to their values despite challenges. These choices illustrate how personal norms guide entrepreneurs through difficulties and help build businesses that reflect their beliefs. Personal norms shape entrepreneurial intentions by guiding ethical

choices, planning for the future, and establishing businesses that make a positive impact on society. Entrepreneurs driven by strong personal norms are likely to make decisions aligned with their ethical principles. Within the Gujarat MSME landscape, exploring how personal norms influence the intention to persist sheds light on the ethical considerations guiding entrepreneurial endeavours. The study goals to unravel the ethical scopes of entrepreneurial decisions, offering a nuanced perspective on the role of personal norms in shaping the business environment. In MSMEs, risk resilience is crucial following intention, as it enables entrepreneurs to effectively navigate uncertainties and setbacks inherent in the business landscape. By cultivating risk resilience alongside intention, MSMEs can adapt to challenges, learn from failures, and persistently pursue their entrepreneurial objectives, ultimately fostering sustainable growth and success.

1.4 INTENTION TO PERSIST

Beginning and managing a business is a significant choice that moulds the entrepreneurial terrain. It reflects the aspiration and determination of individuals to venture into the complex world of commerce. Intention to business involves a multifaceted process encompassing idea generation, market analysis, resource mobilization, and risk assessment. Entrepreneurs with a strong intention to business exhibit a remarkable ability to identify opportunities, overcome challenges, and drive innovation. This intention serves as the foundation upon which successful enterprises are built, contributing not only to individual prosperity but also to economic growth and job creation. While initiating a business is a significant achievement, the ability to persist and thrive in the competitive business environment is equally crucial. Intention to persist in business encapsulates an entrepreneur's commitment to weathering storms, adapting to changing market dynamics, and continually seeking growth opportunities. It reflects resilience in the face of difficulty, a forward-thinking attitude, and a relentless pursuit of excellence (Damayanti et al., 2020; Jansson et al., 2011b; Neupert et al., 2004). Entrepreneurs with a strong intention to persist demonstrate the capacity to learn from failures, pivot when necessary, and sustain their businesses over the long term. This enduring commitment not only ensures the survival of enterprises but also contributes to the development of vibrant, sustainable economies.

Intentions are essential to those involved in the establishment of new businesses. Entrepreneurship is a mindset that places a premium on possibilities over risks because identifying opportunities is intentional, one should pay close attention to entrepreneurial aspirations (Worrell & Hale, 2001). Intention also provide a way to explain better and predict entrepreneurship (Ruzzier et al., 2020). Entrepreneurial intention research has much potential, which helps to understand the entrepreneurial decision-making process personally, especially when it comes to mental prototypes or cognitive scripts in people's heads (Liñán et al., 2011; Ozaralli & Rivenburgh, 2016). Certainly, when it comes to activities that are uncommon, challenging to monitor, or involve unpredictable time lags, intentions emerge as the most reliable predictor of planned conduct (Kaya, 2019; Santos et al., 2020). The process of developing new businesses is time-consuming and necessitates thorough preparation. Entrepreneurs, as well as those involved in their education and training, benefit from a clear understanding of their motivations. Intentions serve as a valuable lens through which entrepreneurs can comprehend the rationale behind their decisions in shaping their new business visions. Additionally, individuals equipped with an implementation intention, featuring a detailed plan specifying where, when, and how the desired behaviour will be executed, demonstrate a higher likelihood of following through on their plans (Adarsh & Jayashree, 2020; Barber, 2015; Mungule & Van Vuuren, 2016). Many empirical investigations have been conducted in the recent decade to establish the relevance and effectiveness of implementation intention theory.

The theory of planned behaviour, formulated by Ajzen in 1991, posits that the best analyst of any planned behaviour is the intention to complete that behaviour. This intention is influenced by three key factors: attitudes, social norms, and self-efficacy (Ajzen, 1991; Širola, 2020). Numerous scholars contend that entrepreneurship, being a behaviour, can be most accurately predicted by entrepreneurial intention (Berko Obeng Damoah, 2018; Heuer & Liñán, 2013; Munir et al., 2019; Ranga, Reddy, et al., 2019; Towler & Shepherd, 1991). According to Ajzen's theory, the intention to become an entrepreneur is influenced by three key factors: attitude towards entrepreneurship, subjective norms about entrepreneurship, and entrepreneurial perceived behavioural control. These elements collectively shape an individual's intention to engage in entrepreneurial activities. Additionally, the introduction of the variable of personal norms is observed, adding another layer to the understanding of intention formation. The relationship between

personal norms and intentions has been explored by numerous researchers. Personal norms, reflecting an individual's internalized standards and values, contribute to the decision-making process. How a person perceives the alignment of their actions with their personal norms can impact their intention to pursue entrepreneurial endeavours. This multidimensional approach enriches the understanding of the factors influencing entrepreneurial intentions (Jansson et al., 2011a; Jansson & Dorrepaal, 2015; Krueger et al., 2000).

1.5 RISK-RESILIENCE

Risk is like taking a chance or facing the possibility of something going wrong or not working out as expected. It's about the uncertainty and potential downside that comes with making decisions or taking actions. For example, starting a new business involves risks such as not getting enough customers or losing money on investments. Resilience is the skill to spring back or recover from challenges, setbacks, or difficult situations. It's like being able to stay strong and keep going even when things don't go as planned. Resilient people or businesses find ways to adapt, learn from mistakes, and keep moving forward. Risk-resilience is about how well someone or something can handle risks and bounce back from them. It's like having the courage to take calculated risks while also being strong enough to recover and thrive even if things don't go smoothly at first. When it comes to businesses, risk-resilience means understanding the potential risks involved in decisions like investing in new products or expanding into new markets. It's about being prepared for challenges that may come up and having plans in place to overcome them. For example, a business that is risk-resilient might have savings set aside to cover unexpected costs or backup plans if sales are slower than expected.

According to Thomas Hedner, Resilient is a word that refers to the ability to recover (Hedner et al., 2011). Resilience is the capability to recover to a stable state after exposure to a disruptive situation. A physical object can restore its previous shape or position after bending, stretching, compression, or deformation (Drechsler et al., 2019). Resilient people can overcome failures in their life and work goals. The ability to recover quickly and easily from setbacks is referred to as "resilience" when applied to a person. Resilience is an essential characteristic of an entrepreneur (Tam et al., 2021). Entrepreneurial resilience can be

enhanced by strengthening networking and developing a professional network of coaches and mentors, accepting change as a natural part of life, and not perceiving crises as impossible challenges (Lammerts van Bueren et al., 2018; Tam et al., 2021).

The term also describes a growing movement among businesses, communities, and governments to improve their ability to respond to and recover from disasters (Jancenelle et al., 2018). When it comes to resilience, the main concerns are organizational vulnerability, disruptions, and complexities, as these are the main challenges that affect the system's resilience (Friend & Moench, 2013; Rai et al., 2021; Song et al., 2006). Disruptions are inevitable, influenced by a myriad of internal and external factors impacting companies. Given the constant challenges encountered by business owners, a propensity for risk-taking becomes a vital trait in entrepreneurship (Alves et al., 2020; Jancenelle et al., 2018; Munir et al., 2019).

According to the study, entrepreneurs classified based on their risk aversion and performance over years of volatility suggest that risk-seeking entrepreneurs are more aptly characterized as gamblers (Munir et al., 2019; Olbrich et al., 2011). The most successful entrepreneurs, in contrast, exhibited risk-averse tendencies, a strong commercial focus, and talents, coupled with adeptness in managing substantial levels of debt (Marchi et al., 2014; Zaefarian et al., 2016). These individuals align more closely with the comprehensive definition of an entrepreneur, displaying an encouraging attitude towards change and the ability to positively adapt to evolving surroundings. Additionally, the literature underscores the uncertainty of returns for entrepreneurs, emphasizing that the likelihood of achieving positive returns hinges on favourable business prospects (Marchi et al., 2014; Shadbolt & Olubode-Awosola, 2016). For a business owner contemplating the initiation of a new company, the incentive is crucial, given the unpredictable outcomes of success or failure for any new venture (Meißner & Grote, 2017; Tam et al., 2021). According to this theory, a key personal characteristic defining an entrepreneur is the inclination towards risk-taking when making the decision to venture into entrepreneurship. Consequently, the willingness to take risks becomes a determining factor in an entrepreneur's ability to thrive or face challenges (Shadbolt & Olubode-Awosola, 2016; Todorov, 2014, 2015).

Risk Resilience (RR) epitomizes the adaptive prowess of entrepreneurs and their enterprises to navigate uncertainties, setbacks, and challenges. It extends beyond

conventional risk management, encapsulating the capacity to rebound, learn, and potentially flourish in the midst of adversity. In the context of my research, comprehending the significance of Risk Resilience is paramount, particularly within the distinctive landscape of Gujarat's MSME sector. Entrepreneurs operating in the MSME landscape encounter a myriad of risks, ranging from economic fluctuations to market uncertainties. Risk Resilience becomes a critical factor in determining how well these businesses can withstand and recover from unforeseen disruptions. It involves not just risk aversion but also the strategic ability to turn challenges into opportunities and build adaptive capacities.

Exploring Risk Resilience in Gujarat's MSMEs offers insights into the coping mechanisms employed by entrepreneurs in a quickly altering business situation. The study aims to dissect the components of Risk Resilience, shedding light on how these elements contribute to sustained business performance. By unravelling the intricacies of Risk Resilience, the research seeks to provide actionable knowledge that can empower entrepreneurs and policymakers in fostering a more robust and resilient MSME ecosystem in Gujarat. Following risk resilience, firm performance stands as a crucial outcome, reflecting the culmination of entrepreneurial efforts and strategies. In MSMEs, a strong emphasis on risk resilience often translates into improved firm performance, as businesses adept at managing uncertainties and leveraging opportunities tend to achieve better financial results, market competitiveness, and long-term sustainability. By prioritizing risk resilience and its integration into business operations, MSMEs can enhance their overall performance, driving growth and success in dynamic market environments.

1.6 FIRM PERFORMANCE

Firm performance refers to how well a company is doing in achieving its goals and objectives. It's like measuring the overall success of a business in terms of making money, growing, and staying competitive in its industry. When we talk about firm performance, we're looking at several key factors that show how well the business is doing overall. One important aspect of firm performance is financial performance. This includes how much profit the company makes, how efficiently it manages expenses, and whether it's able to generate enough revenue to cover costs and investments. For example, a successful firm

consistently increases its profits year after year, showing that it manages its finances well and grows financially.

Another aspect is market performance, which looks at how well the company's products or services are received in the market. This includes factors like market share (how much of the market the company controls), customer satisfaction, and brand reputation. A firm with good market performance has a strong customer base that trusts its products or services and prefers them over competitors'. Operational performance is crucial too. This involves how efficiently the business operates day-to-day. It includes factors like production efficiency (how quickly and cost-effectively goods are produced), distribution efficiency (how well products are delivered to customers), and overall operational costs. For instance, a firm with high operational performance has streamlined processes that minimize waste and maximize productivity. Innovation and growth are also key aspects of firm performance. Companies that innovate develop new products or improve existing ones to meet changing customer needs and stay ahead of competitors. Growth involves expanding into new markets, acquiring other businesses, or diversifying products and services. A firm that shows strong innovation and growth is seen as dynamic and forward-thinking.

Employee satisfaction and organizational culture play a role too. Happy and motivated employees tend to be more productive and creative, which can positively impact a company's overall performance. A positive organizational culture fosters teamwork, collaboration, and innovation, creating a supportive environment where employees thrive. Sustainability and corporate social responsibility (CSR) are increasingly important in firm performance. Companies that prioritize sustainability reduce their environmental impact, promote ethical practices, and contribute positively to society. This enhances their reputation and attracts socially conscious customers and investors who value responsible business practices. Firm performance or success has long been a central theme in business studies and is a top priority for all countries. No one hypothesis can account for SMEs' success (Cho & Saki, 2021; Shin & Cho, 2020). A variety of factors influences the victory or disappointment of a business. On the one hand, SMEs must contend with rivals and big businesses while working to satisfy their clients' changing and increasing demands. The chronic lack of technical expertise, experience, entrepreneurial skills, knowledge, and abilities; the lack of enterprise management competencies; the attitude and ability to manage the finances of their organizations professionally; and the absence of marketing

competencies are just a few of the numerous internal challenges they must contend with (Al Mamun et al., 2016; Hardin-Fanning & Ricks, 2017; Shin & Cho, 2020; Vinet & Zhedanov, 2011; Wulani et al., 2019).

Entrepreneurs with practical Competencies interact well with other individuals, enhancing their relationships and getting the business. Firm performance will increase the revenue and turnover of the firm. Thus the firm performance will be managed (Abbasi et al., 2011; Smutny et al., 2016). Further, leadership and entrepreneurship skills are mainly observed through listening, reading, writing, and speaking, which enhance the entrepreneur's inner potential and directly impact firm performance (Abbasi et al., 2011). Entrepreneurial guidance is based on the leader's characteristic attributes and qualities that focus on their specific leadership behaviour, roles, and skills, which helps the firm regain their business from losses. Firm performance can be maintained (Bagheri & Harrison, 2020). Competencies and intention are the most critical parts of entrepreneurial success. Innovation and opportunity recognition is entrepreneurs' main objective or agenda, specifically in highly complex, confused, and uncertain environments (Freeston et al., 2020; Lackéus, 2014). The best entrepreneurial competencies and intentions are those who produce inventive ideas to overcome the challenge of their organization, which may further refer to risk resilience and help the employees or team achieve business success. Firm Performance (FP) serves as the ultimate barometer of an enterprise's success, encompassing various metrics that gauge its efficiency, profitability, and overall achievement of business objectives. In the context of my research, delving into the intricacies of firm performance within the Micro, Small, and Medium Enterprises (MSMEs) sector in Gujarat is crucial. FP is a multidimensional construct that extends beyond mere financial indicators, including aspects like innovation, customer satisfaction, and market share.

Analysing firm performance in the Gujarat MSME landscape provides a holistic understanding of how entrepreneurial competencies, intention to persist, and other influencing factors collectively contribute to organizational success. This investigation goes beyond conventional financial metrics to uncover the nuanced dynamics that shape the competitive advantage and sustainability of businesses in the region. The study aims to explore the key drivers that propel or impede firm performance, offering insights into the unique challenges and opportunities faced by MSMEs in Gujarat. By considering a

comprehensive set of performance indicators, the research aims to contribute valuable knowledge to the existing literature, informing policymakers, business leaders, and stakeholders about the factors influencing the overall health and sustainability of MSMEs in the vibrant entrepreneurial ecosystem of Gujarat.

1.7 OVERVIEW OF GUJARAT ECONOMY

Gujarat, a state in western India, is known for its vibrant culture, rich history, and significant contributions to India's economic growth. With a population of over 60 million people, Gujarat is the sixth-largest state in India by area and one of the most industrially developed regions in the country. Gujarat is situated on the western coast of India, bordered by the Arabian Sea to the west and the states of Rajasthan to the north, Madhya Pradesh to the east, and Maharashtra to the south. The state's geography varies from the dry arid regions of Kutch in the west to the fertile plains of the central and southern parts. The climate ranges from tropical along the coast to arid and semi-arid in the interior regions (Srivastava, 2020).

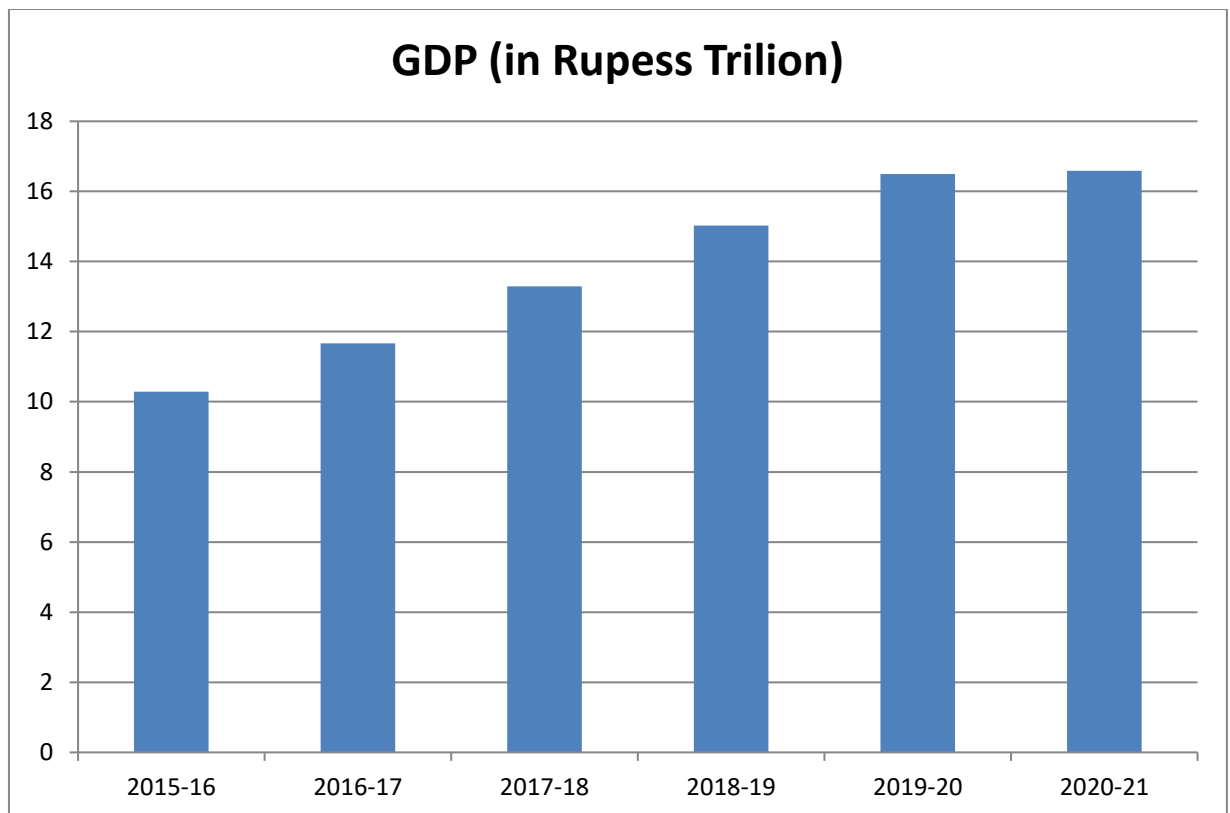
Gujarat has a rich history dating back thousands of years. It was home to the ancient Indus Valley Civilization and has been ruled by various dynasties including the Mauryas, Guptas, Chalukyas, Solankis, Mughals, and eventually the British. The state played a pivotal role in India's struggle for independence, being the birthplace of leaders like Mahatma Gandhi and Sardar Patel. The culture of Gujarat is diverse and colourful, known for its folk dances like Garba and Bhavai, traditional attire such as the colourful Bandani sarees and turbans, and mouth-watering cuisine including dishes like Dhokla, Khandvi, and Thepla. Festivals like Navratri, Diwali, and Uttarayan are celebrated with great enthusiasm throughout the state (Srivastava, 2020). Gujarat ranks first in business, as per the report of Ease to do business (2015) and Business reform action plan (2020). The state is a leader in various sectors including petrochemicals, pharmaceuticals, textiles, engineering, and agriculture. It is home to major industrial cities like Ahmedabad, Surat, Vadodara, and Rajkot.

The industrial evolution of Gujarat can be accredited to several factors such as its strategic geographical location, well-developed infrastructure including ports and roads, a proactive government with business-friendly policies, and a skilled workforce. The state has

attracted significant investment both domestically and internationally, contributing significantly to India's GDP. Gujarat's industrial success is prominently seen in sectors like petrochemicals and refining. The state houses India's largest petrochemical complex at Reliance Industries' refinery in Jamnagar, which is also one of the world's largest refining hubs. The Gujarat International Finance Tec-City (GIFT City) near Ahmedabad aims to be a global financial and IT services hub. In textiles, Surat is known as the "Silk City of India" for its vibrant textile industry producing fabrics, sarees, and dress materials. Ahmedabad, the largest city in Gujarat, is a center for pharmaceuticals and biotechnology with numerous multinational companies having their manufacturing units here.

Gujarat boasts well-developed infrastructure that supports its industrial and economic activities. The state has several major ports including Kandla, Mundra, and Dahej, which handle a significant portion of India's international trade. It has an extensive network of highways and railway lines connecting it to major cities across India. Agriculture remains an important sector in Gujarat's economy, contributing significantly to food production in India. The state is a leading producer of cotton, groundnut, and fruits like mangoes and bananas. The Sardar Sarovar Dam on the Narmada River has facilitated irrigation and helped in harnessing water resources for agriculture. Gujarat is known for its business-friendly environment with proactive policies aimed at attracting investment and promoting entrepreneurship. The state government offers incentives and subsidies to industries, facilitates ease of doing business, and supports infrastructure development. This conducive environment has made Gujarat a preferred destination for both Indian and multinational companies looking to establish or expand their operations. Micro, Small, and Medium-Sized Enterprises (MSMEs) acts as substantial part in the development of the state. Their notable contributions to entrepreneurship growth and job creation have significantly impacted the state's economy. Across various sectors such as engineering, textile, chemical products, plastic, food processing, ceramic, pharmaceuticals, and more, MSMEs in Gujarat are pivotal in generating opportunities and employment. According to the MSME report, Gujarat boasted 33.16 lakh enterprises in the fiscal year 2020-21. Furthermore, the contribution of Gujarat MSME to GDP is as follows:

Figure No. 1.2: Contribution of Gujarat's MSME in GDP



(Source: IBEF Report, Ministry of Commerce and Industry 2021)

It is observed that individuals from Gujarat, commonly referred to as Gujjus, are renowned as some of the most successful and astute businessmen, both within India and globally. Starting and thriving in business holds a distinct preference for them. Many Gujaratis have the advantage of growing up in business-oriented families, where discussions about business operations are commonplace, offering them a profound understanding of how companies' function. Coming from a lineage of entrepreneurs, Gujaratis have ingrained business acumen. They possess a keen awareness of the risks inherent in the pursuit of their objectives. This community is known for its entrepreneurial spirit, venturing into diverse business opportunities even in far-reaching corners of the world. What sets them apart is their resilience, allowing them to navigate challenges and stay focused on their work despite potential threats and distractions.

Gujaratis know how to make the best of a situation. They will gladly execute work or a project if they believe it would bring them financial benefits. Whatever they undertake, they do it with pride and complete dedication to the task at hand. They have something to teach everyone. Gujaratis have always followed the fashion. Every generation has

developed its business following the times. Whether keeping up with the current textile trends or upgrading their business with the latest technical breakthroughs, entrepreneurs always look for ways to improve. That is how they have kept their business going and passed it down to the next generation. Here the intention is measured and was very high in them before Covid-19. The gap is observed in the intention of the people to start their business. Many businesses have stopped working during covid-19.

1.8 PROBLEM STATEMENT

The dynamic landscape of global economies has witnessed a burgeoning interest in entrepreneurship as a pivotal driver of economic growth and development. Entrepreneurship, predominantly catalysed by Micro, Small, and Medium Enterprises (MSMEs), plays a crucial role in fostering innovation, job creation, and sustainable economic advancement. The entrepreneurial field in India has gained more attention from various parties, especially the government. India still needs to build up more entrepreneurs due to its growing economic climate that can provide the facilities and a favourable environment for the purpose. The occurrence of entrepreneurs should be seen as a mediator for the state's economic growth because the government single-handedly cannot create new wealth and business opportunities. Through the entrepreneurs' input, innovative job opportunities will be created for the people and can assist the competition and productivity and create new industry growth. Therefore, people must be aware that with no entrepreneur, the nation's economy cannot expand rapidly and move forward.

In this context, the state of Gujarat, India, presents a unique environment, boasting a significant presence of MSMEs, yet with potential areas of improvement to maximize their contributions to the state and the nation's economy. While Gujarat ranks impressively as the 8th state in terms of MSME registrations, there is an essential need to delve deeper into the factors that can enhance the performance and sustainability of these enterprises. The Global Entrepreneurship Monitor (GEM) Report (2021) highlighted the varying levels of entrepreneurial activity across different regions of India, underlining the need for in-depth investigations into the role of entrepreneurial competencies, intention to persist, and risk resilience in fostering the performance of MSMEs, a knowledge gap that this study aims to address. As per the report of the Centre for Monitoring Indian Economics, the rate of

unemployment has increased in the past years. Gujarat's unemployment rate increased by 12.0 percentage, rising to 18.7% in April 2020. Though it is known that there are fewer opportunities for jobs, still the entrepreneurial intention of the individual is less. As per the global entrepreneurship monitor, the intention which shows that how to start a new venture is decrease.

Table No. 1.1: Entrepreneur Report as per GEM

Particulars	2018-19	2019-20	2020-21
Know someone who has started a new business	7	64.4	61.9
Good opportunities to start a business in my area	49.8	83.1	82.5
It is easy to start a business	7	80	78.5
Personally have the skills and knowledge	52.2	85.2	81.7
Fear of failure (opportunity)	50.1	62.4	56.8
Entrepreneurial intentions	20.6	33.3	20.3
Job Expectations	1.6	1.6	0.9

(Source: GEM Report 2019, 2020 and 2021)

As per the report of the Global Entrepreneur Monitor, it is observed that Entrepreneurial Intention has declined from 33.3 in 2019-20 to 20.3 in 2020-21 among adults. Though there is a decline in fear of failure, that is, opportunities, the intention is less. As per the GEM report, the competencies which the entrepreneur required are less compared to both years. There is a decline of 3.5% among adults for the competencies such as skill and knowledge. The specific problem lies in comprehending how entrepreneurial competencies, encompassing skills, knowledge, and personality traits, interplay with the intention to persist and risk resilience, ultimately influencing firm performance within the unique context of Gujarat's MSME sector. This research problem becomes further pronounced given the need to explore the mediating effects - attitude towards business, perceived behavioural control, personal norms, and subjective norms with relationship between entrepreneurial competencies and intention to persist.

Moreover, the moderating role of risk resilience in the connection between entrepreneurial competencies and firm performance necessitates investigation. While Gujarat has emerged as a hub for MSMEs, the lack of comprehensive studies linking these vital constructs

leaves a void in understanding the dynamics shaping the state's entrepreneurial landscape. In light of the GEM Report's observations and the burgeoning importance of MSMEs in Gujarat, there is an imminent need to embark on a thorough investigation. This research seeks to bridge the existing knowledge gaps and offer valuable insights that can guide policymakers, entrepreneurs, and stakeholders in enhancing the vibrancy, sustainability, and contribution of MSMEs to Gujarat's economy and, consequently, the nation's progress.

1.9 RESEARCH QUESTIONS

The study works on these questions:

- Do entrepreneurial competencies affect intention to persist?
- Do Entrepreneurial Competencies affect Firm performance?
- Does Intention to Persist affect the Firm performance?
- Is there any role of personal norms in deriving intention to persist?
- Does risk-resilience affect the relationship between entrepreneurial competencies and firm performance?
- Does intention act as a mediator between Entrepreneur Competencies and Firm Performance?

1.10 NOVELTY OF THE THESIS

The thesis titled "Measuring the Relationship of Entrepreneurial Competencies, Intention to Persist, Risk Resilience, and Firm Performance through an Extended Theory of Planned Behaviour: A study of MSMEs in Gujarat" brings several unique and original contributions to the field of entrepreneurship research, especially within the context of Micro, Small, and Medium Enterprises (MSMEs) in Gujarat, India. This study stands out for various reasons that highlight its novelty and significance.

One of the primary aspects of the thesis's novelty lies in its focus on the MSME sector in Gujarat. While many studies have examined entrepreneurial competencies and their effects on business performance, few have concentrated specifically on this region. Gujarat has a vibrant and diverse MSME landscape, contributing significantly to the state's economy. By

focusing on this region, the study provides context-specific insights that can help policymakers and consultants better know the unique challenges and opportunities faced by entrepreneurs in Gujarat. Another innovative element of this thesis is the application and extension of the Theory of Planned Behaviour (TPB). The TPB is a well-established psychological framework used to predict and understand human behaviour. This thesis extends the TPB by incorporating additional factor such as personal norms, offering a more comprehensive model to analyse entrepreneurial activities. This extended framework allows for a deeper exploration of how various psychological and related factors influence entrepreneurial intentions and outcomes, providing a richer understanding of the entrepreneurial process.

The study examines the interplay between several critical factors: entrepreneurial competencies, intention to persist, risk resilience, and firm performance. This holistic approach is relatively novel as it does not just look at these factors in isolation but explores how they interact with each other. For instance, understanding how entrepreneurial competencies impact the intention to persist and how this intention, in turn, affects firm performance provides a more detailed and nuanced picture of entrepreneurship. A unique aspect of the research is its investigation into mediating and moderating effects. The study explores how attitudes towards business, perceived behavioural control, personal norms, and subjective norms mediate the relationship between entrepreneurial competencies and the intention to persist. Additionally, it examines the moderating role of risk resilience in the association between entrepreneurial competencies and firm performance. These analyses add depth to the findings by revealing the underlying mechanisms and contextual conditions that influence these relationships.

The thesis contributes original empirical evidence from Gujarat, which is valuable given the region's economic importance. The findings provide specific data on the demographic and educational backgrounds of entrepreneurs, sectoral compositions of MSMEs, and the age distribution of firms. This detailed empirical data can help as a reference point for upcoming studies and help tailor policies and support programs to the actual needs of the MSME sector in Gujarat. The practical implications derived from this study also add to its novelty. By identifying the key competencies that drive entrepreneurial success and the reasons that care or delay the intention to persist, the research offers actionable insights for various stakeholders, including policymakers, educational institutions, and entrepreneurs

themselves. These insights can help in designing targeted interventions, training programs, and policies that foster a more supportive environment for MSMEs in Gujarat.

Finally, the thesis makes a significant contribution to the existing body of literature on entrepreneurship. By integrating multiple factors and employing an extended version of the TPB, the study offers new perspectives and theoretical advancements. The insights gained from this research can inspire further studies and encourage scholars to explore similar models in different contexts or regions. In conclusion, the novelty of this thesis lies in its region-specific focus, comprehensive analytical framework, integration of mediating and moderating factors, and the practical and theoretical contributions it makes to the field of entrepreneurship research. These elements collectively enhance the understanding of MSME dynamics in Gujarat and provide valuable insights that can drive future research and policy-making.

1.11 STRUCTURE OF THESIS

The thesis is divided into following seven chapters:

Chapter 1 - Introduction

This chapter lays the foundation of the study by introducing key concepts such as Entrepreneurial Competencies, Theory of Planned Behaviour, Personal Norms, Intention to Persist, Risk Resilience, and Firm Performance. It provides an overview of Gujarat's economic landscape, which serves as the contextual backdrop for the research. The problem statement outlines the core issues the study seeks to address, followed by the research questions that guide the investigation. The chapter also highlights the novelty of the thesis, explaining its unique contributions to the field, and concludes with an outline of the structure of the thesis.

Chapter 2 - Review of Literature

The literature review explores existing research on Entrepreneurial Competencies and conducts a bibliometric analysis to understand trends and gaps. It delves into various aspects such as Entrepreneurial Intention, Intention to Persist, Risk Resilience, and Firm

Performance. The chapter culminates with the development of hypotheses, building a theoretical framework to test the relationships between the studied variables.

Chapter 3 - Research Methodology

This chapter details the objectives of the study and presents a conceptual framework built on the literature review. It describes the research design, including the development of measurement scales and data collection methods. The chapter identifies research gaps that the study aims to fill and outlines the contribution of the study to theoretical knowledge and practical applications.

Chapter 4 - Measurement and Validity

The chapter focuses on the evaluation of measurement models and validity of the data. It discusses data normality, the Variance Inflation Factor (VIF) to check multicollinearity, and Discriminant Validity to ensure that constructs are distinct. Content Validity Index and Reliability Tests are performed to assess the robustness of the scales. The chapter also includes an analysis of the importance-performance map and provides demographic details of the respondents.

Chapter 5 - Relationship amongst Entrepreneurial Competencies, Intention to Persist, and Firm Performance

This chapter analyses the conceptual framework to understand the relationships between Entrepreneurial Competencies (EC), Intention to Persist (IP), and Firm Performance (FP). It examines the direct effects of Entrepreneurial Competencies, Intention to Persist on Firm Performance, and the impact of Intention to Persist on Firm Performance. The findings from these analyses provide insights into how entrepreneurial competencies influence intention to persist and firm performance.

Chapter 6 - Moderation and Mediation Analysis

The chapter explores the mediating role of Attitude towards Business (ATB), Perceived Behavioural Control (PBC), Personal Norms (PN), and Subjective Norms (SN) in the relationship between Entrepreneurial Competencies (EC) and Intention to Persist (IP). It also examines the moderation effect of Risk-Resilience (RR) on the relationship between Entrepreneurial competencies (EC) and Firm Performance (FP). These analyses help to

understand the complex interactions between various factors influencing entrepreneurial success.

Chapter 7 - Findings, Implications, and Recommendations

This chapter presents the key findings of the study, highlighting the significant relationships and insights derived from the data analysis. It discusses the implications of these findings for policymakers, educators, and practitioners in the field of entrepreneurship. The chapter also outlines the unique contributions of the study to the existing body of knowledge, emphasizing its theoretical and practical significance. Furthermore, the chapter summarizes the main conclusions drawn from the study, offering recommendations based on the findings to enhance entrepreneurial success. It acknowledges the limitations of the study, providing a critical assessment of its scope and constraints. Finally, the chapter concludes with suggestions for future research directions, encouraging further exploration and validation of the study's findings.

CHAPTER - 2

REVIEW OF LITERATURE

Entrepreneurship refers to the procedure of making, developing, and handling a new business venture to make a profit or achieve some other goal (Bazan et al., 2020; DiVito & Bohnsack, 2017; Schaltegger, Lüdeke-Freund, et al., 2016). An entrepreneur is someone who recognizes a need, creates a product or service to meet that need, and then takes on the risk and responsibility of bringing that product or service to market (Balmer et al., 2011; Bazan et al., 2020; Emami & Khajeheian, 2018; Gümüşay & Bohné, 2018). Entrepreneurship involves a variety of skills and activities, including identifying market opportunities, developing a business plan, securing funding, building a team, developing and marketing a product or service, and managing financial and operational aspects of the business (Coaffee, 2008; Gladstone et al., 2006; Gundry et al., 2016; Katsikis & Kyrgidou, 2007). Successful entrepreneurs must also be able to familiarize to moving market situations and overcome challenges and setbacks (Gray et al., 2014; Russell, 2005). Entrepreneurship plays an vital role in driving innovation, forming jobs, and contributing to economic progress (Botha et al., 2019).

Furthermore, Entrepreneurship involves the process that requires the intervention of the entrepreneur who as the owner of the enterprise carries the risk of investing his resources and efforts (Doran & Larsen, 2016; Gladstone et al., 2006; Lim et al., 2021; Tam et al., 2021). The creation of small businesses is often referred to as entrepreneurship and in the case of small businesses, an entrepreneur is at the center stage; organizing men, materials, and resources for the formation and successively of a business venture (Krueger et al., 2000; Minai et al., 2018). So it largely remains a one-man show and the entrepreneur is the star of the show holding multiple responsibilities while carrying operations of the business after its launch. She/he is the sole human force behind the creation of the venture, thus assuming the burden of shaping the fortunes of an enterprise (Arafat et al., 2020; Kibler et al., 2015; Mamabolo & Myres, 2020; Verster et al., 2011). This process requires some capabilities on the part of the entrepreneur competencies (Darnall et al., 2008; Sarstedt et al., 2014).

Entrepreneurs and entrepreneurial competencies are closely related, as competencies are the skills, the knowledge, and the personal qualities that empower entrepreneurs to identify, evaluate, and pursue business opportunities (Afifi et al., 2016; Bolzani & Luppi, 2021; Gladstone et al., 2006; Ibrahim & Abdullahi, 2014). Entrepreneurs must have a

combination of competencies to successfully create and grow a business (Rasmussen & Wright, 2015; Shadbolt & Olubode-Awosola, 2016; Širola, 2020; Willis & DeKay, 2007). Entrepreneurial competencies enable entrepreneurs to identify opportunities in the market and develop ideas for new products or services (Dean & McMullen, 2007; Guritno et al., 2019; Windapo, 2018; Woolthuis, 2010). They also enable entrepreneurs to assess and manage risks associated with starting and running a business, as well as manage finances and make sound financial decisions (Jansson et al., 2011b; Zhao et al., 2010). Moreover, entrepreneurial competencies enable entrepreneurs to develop and execute a long-term business strategy, including setting goals and making plans to achieve them (Frangopol & Soliman, 2016a; Lonsdorf & Merz, 2017; Mikami & Hinshaw, 2006). They also help entrepreneurs to motivate and inspire others, build teams, and create a positive work culture (Doran & Larsen, 2016; Hussain & Norashidah, 2015; Makhura, 2011; Poolsawat, 2021).

Additionally, entrepreneurial competencies enable entrepreneurs to adapt to changing market conditions and make adjustments to business strategies as needed (Aparicio et al., 2019; Castro & G, 2020; Fazal et al., 2019). They also help entrepreneurs to stay focused on long-term goals, work through challenges, and persevere in the face of obstacles (Amini et al., 2018; De Clercq et al., 2007; Fazal et al., 2019; Nasr & Boujelbene, 2014). Overall, entrepreneurial competencies are essential for success in entrepreneurship, as they enable entrepreneurs to identify opportunities, manage risks, and build sustainable businesses (Fazal et al., 2019; Sirelkhatim & Gangi, 2015; Tam et al., 2021). While not all entrepreneurs possess all of these competencies, with hard work, dedication, and a willingness to learn, entrepreneurs can develop the competencies they need to build successful businesses (Krueger et al., 2000; Rich et al., 2019).

2.1 ENTREPRENEURIAL COMPETENCIES:

In the previous days, achievement and intelligence are the two measures to know job success but nowadays it is a set of competencies that requires performing the given job effectively (Rich et al., 2019). Competency is progressively being used to ensure excellent performance in the fields of business. Boyatzis (1982) popularised the term "competency" after conducting a comprehensive study with 2000 managers which recognized and

evaluated over 100 potential competencies (Boyatzis, 2008). Drawing from Boyatzis (1982), entrepreneurial competencies explain inherent characteristics possessed by individuals that contribute to the construction, survival, and growth of novel projects. These characteristics encompass a range of elements, including common and detailed knowledge, traits, motives, social roles, self-images, and skills, some of which may be known or unknown to the individual (Aparicio et al., 2019; Boyatzis, 2008; Fazal et al., 2019). Entrepreneurial competencies are viewed as an elevated characteristic that integrates personality traits, skills, and knowledge. Consequently, they represent the framework of the entrepreneur to effectively fulfil a job role (Afifi et al., 2016; Ibrahim & Abdullahi, 2014; Lonsdorf & Merz, 2017).

A crucial aspect of competencies lies in their observability through specific behaviours exhibited by individuals while undertaking particular tasks. For instance, the capabilities demonstrated by a teacher during teaching, a sportsman in their profession, and similarly, by an entrepreneur in the entrepreneurial process can serve as tangible examples (Guritno et al., 2019; Krueger et al., 2000; Mikami & Hinshaw, 2006). Competency is relatively novel in management and entrepreneurship literature, often leading to confusion with skills and knowledge, and at times lacking a precise definition (Bamiatzi et al., 2015; Mitchelmore & Rowley, 2010, 2013). It becomes imperative to fully conceptualize this concept, particularly in the context of entrepreneurship, which is the primary focus here. Entrepreneurial competencies, as highlighted by Bird (1995), are embodied by entrepreneurs who play a central role in the discourse, bearing the responsibility for the success or failure of organizations (Bird, n.d.; M.-A. Enoch, 2006; Krueger et al., 2000). Consequently, entrepreneurial competencies hold significant importance for underlying features that includes general and specific knowledge, motives, personalities, self-images, social roles, and skills which outcome for the venture as birth, survival, and/or growth (Boyd & Vozikis, 1994; Krueger et al., 2000).

According to the definition provided by Man (2002), entrepreneurial competencies denote the capability of an entrepreneur to positively execute a given occupation (Man et al., 2002). Bird (1995), in his definition, emphasizes that competencies are essential for the existence and development of a business (Krueger et al., 2000). As outlined by Man (2001), possessing competencies alone doesn't inherently make an individual competent

instead, competence is manifested through one's behaviours and actions. This underscores an action-based perspective on an individual's characteristics. Man (2002) regards competencies as higher-level characteristics that are skills, knowledge, and personality traits (Frangopol & Soliman, 2016a; Makhura, 2011). Within the realm of entrepreneurship and MSMEs, competencies are intricately linked to the inception, sustainability, and expansion of a firm (M.-A. Enoch, 2011). Just as managerial competencies exist, entrepreneurial competencies are also identified and categorized into skills, knowledge, and personality traits.

2.1.1 ENTREPRENEURIAL SKILLS

Entrepreneurial skills are a specific set of competencies necessary for starting, managing, growing a successful business (Hussain Aroona; Gilani, Misbah, 2018; Ibrahim & Abdullahi, 2014; Phong et al., 2020; Taatila, 2010). These skills include innovation and creativity (Bolzani & Luppi, 2021; Gundry et al., 2016; Mamun & Fazal, 2018), risk-taking (Brockhaus Sr., 1980; Mamun & Fazal, 2018; Ozaralli & Rivenburgh, 2016; Shadbolt & Olubode-Awosola, 2016), business management (Frangopol & Soliman, 2016a; Hosseininia & Ramezani, 2016; Jansson et al., 2011b; Mamabolo & Myres, 2020; Sánchez, 2013), leadership (Bagheri & Pihie, 2011; Obschonka et al., 2017; RezaeiZadeh et al., 2017; Wani & Butt, 2017; Winn et al., 2011), persistence (Guritno et al., 2019; Makhura, 2011; Mikami & Hinshaw, 2006), etc. All these terms are used by various investigators in their studies and explained differently. The term Innovation and Creativity states that entrepreneurs need new and unique concepts that can set their business apart from competitors. This needs a high level of imagination and skill to reflect external the box (Bolzani & Luppi, 2021; Gundry et al., 2016; Mamun & Fazal, 2018). Risk-Taking shows how every entrepreneur before starting a business involves a certain amount of risk. Entrepreneurs need to be able to take calculated risks and be comfortable with the possibility of failure (Brockhaus Sr., 1980; Escamilla-Fajardo et al., 2021; Koe, 2016; Mamun & Fazal, 2018).

Moreover, Business Management literature underscores that entrepreneurs must possess a solid grasp of business principles, encompassing areas such as accounting, finance, and marketing. Additionally, effective people management is crucial, involving adept handling

of employees, customers, and suppliers (Breuer et al., 2018; Frangopol & Soliman, 2016a; Rodgers, 2010; Tur-Porcar et al., 2018). The term Leadership further emphasizes the need for entrepreneurs to inspire and motivate their teams towards shared objectives. This necessitates robust leadership skills, including effective communication, task delegation, and the capability to make tough decisions (Bagheri & Pihie, 2011; RezaeiZadeh et al., 2017; Wani & Butt, 2017; Winn et al., 2011). Adaptability states that business environments can change rapidly, and entrepreneurs need to adapt new situations quickly. This requires a high degree of flexibility and the ability to pivot when necessary. Apart from this, Networking reflects the entrepreneur's need to be able to build relationships with a change of people, including potential customers, suppliers, and investors (Guritno et al., 2019; Hedner et al., 2011; Igwe et al., 2020). Achieving these demands robust networking skills and the ability to communicate effectively with diverse individuals. Furthermore, Persistence plays a crucial role, highlighting that initiating a business is a challenging endeavour, requiring entrepreneurs to persevere in the face of obstacles and setbacks (Guritno et al., 2019; Makhura, 2011; Mikami & Hinshaw, 2006). Entrepreneurs must maintain focus on their goals and exert sustained effort to achieve them. By possessing a diverse set of entrepreneurial skills, individuals enhance their likelihood of initiating and cultivating a successful business (Anjum et al., 2021; Botha & Taljaard, 2019; Choe et al., 2013; Konys, 2019; Omar, 2021).

2.1.2 ENTREPRENEURIAL KNOWLEDGE

Entrepreneurial knowledge discusses to the understanding of concepts and principles related to entrepreneurship and starting a business (Hussain Aroona; Gilani, Misbah, 2018; Konys, 2019; Mojab et al., 2011; Silajdžić et al., 2015). This includes knowledge of Business Fundamentals which helps entrepreneurs to have a solid understanding of business fundamentals such as market research, marketing, financial planning, and business law (Frangopol & Soliman, 2016a). Industry-Specific Knowledge that helps entrepreneurs to get deep understanding of industry, including trends, competition, and consumer behaviour (Cho & Saki, 2021; Klewitz & Hansen, 2014; Rasmussen et al., 2011). This knowledge can help them identify opportunities and make informed business decisions (Gladstone et al., 2006; Johnson & Schaltegger, 2020; Krueger et al., 2000; Kuckertz & Wagner, 2010; Sarango-Lalangui et al., 2018). Product or Service Knowledge

helps entrepreneurs to have a comprehensive understanding of their product or service, including how it works, how it's made, and what sets it apart from competitors (Jansson et al., 2011b). Financial Management reflects that entrepreneurs have a strong understanding of financial management, including financial planning, accounting, and budgeting (Afifi et al., 2016; Rizvi et al., 2012; Santoso, 2021). They also need to be able to manage cash flow, understand financial statements, and make informed investment decisions

Further, the Legal and Regulatory Issues help to have a basic understanding of legal and regulatory issues related to initializing and running a business. This includes issues related to business registration, intellectual property, contracts, and liability. Furthermore, Human Resource Management helps entrepreneurs to have an understanding of how to recruit, manage, and motivate employees. They also need to be able to create a positive workplace that fosters productivity and innovation (Khatun et al., 2021). Indeed, having a robust base of entrepreneurial knowledge enhances individuals' prospects of success in initiating and managing a business. Continuous learning and staying abreast of the latest industry trends and developments are crucial for sustained success (Afifi et al., 2016; Mikami & Hinshaw, 2006; Pierce et al., 2017; Russell, 2005; Shadbolt & Olubode-Awosola, 2016; Windapo, 2018).

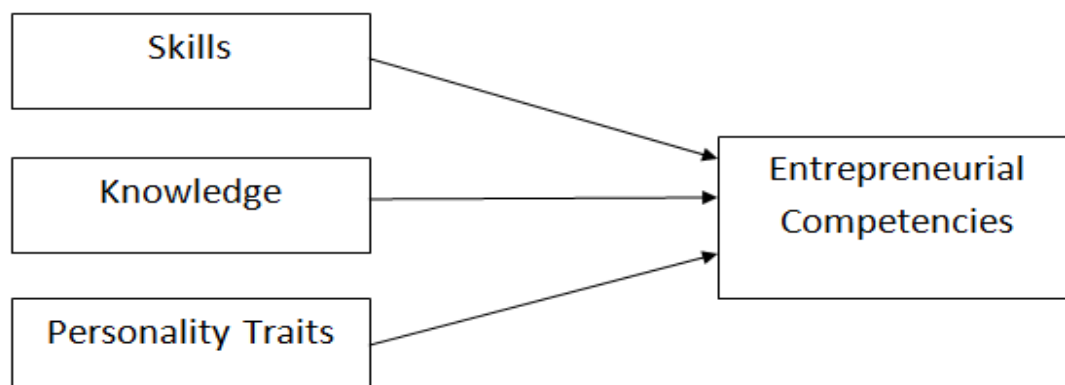
2.1.3 ENTREPRENEURIAL PERSONALITY TRAITS

Entrepreneurial personality traits denotes the set of characteristics that are commonly found in successful entrepreneurs (Afifi et al., 2016; Cao et al., 2022; Kerr et al., 2018; Kusumawijaya & Astuti, 2021). The traits may include Creativity which makes successful entrepreneurs too often creative thinkers who can come up with new and innovative ideas (Bolzani & Luppi, 2021; Gundry et al., 2016; Ozaralli & Rivenburgh, 2016). Passion and Drive are also important which helps entrepreneurs to be typically determined by a strong wisdom of passion and motivation for their efforts (Anjum et al., 2021). Entrepreneurs exhibit a willingness to exert significant effort and make sacrifices in pursuit of their objectives. Their liking for Risk-Taking is evident as they are often inclined to take calculated risks and are comfortable with the prospect of failure (Bolton & Lane, 2012; Koe, 2016; Mamun & Fazal, 2018). Entrepreneurs view obstacles and setbacks as opportunities for learning and growth. Additionally, Resilience plays a vital role, enabling

entrepreneurs to rebound from setbacks and failures, displaying an unwavering determination. They maintain a positive attitude and remain attentive on their goals (Gladstone et al., 2006; Hockerts & Wüstenhagen, 2010; Johnson & Schaltegger, 2020; Krueger et al., 2000; Pacheco et al., 2010).

Further, Adaptability helps entrepreneurs too often able to familiarize to changing conditions to their business strategy when necessary. They are flexible and able to adjust their approach as needed to succeed. Furthermore, Vision and Goal-Orientation help successful entrepreneurs have a strong vision to achieve and set specific, measurable goals (Anbarasan & Sushil, 2018; Boyd & Vozikis, 1994; Krueger et al., 2000). They can stay focused and motivated to achieve their goals. Some other personality traits such as Initiative help entrepreneurs to often self-starters who take the initiative to make things happen finally Networking helps successful entrepreneurs to often be skilled at building relationships with a variety of people, including customers, investors, and other entrepreneurs (Doran & Larsen, 2016; Hussain & Norashidah, 2015; Makhura, 2011; Nabil, 2021). They can communicate effectively and build trust with others. These personality traits are not the only factors that contribute to success as an entrepreneur, but they are commonly found in successful entrepreneurs (Frangopol & Soliman, 2016a; Jansson et al., 2011b). By emerging these traits, individuals can rise their probabilities of success when starting and running a business (Afifi et al., 2016; Kyndt & Baert, 2015; Zhao et al., 2010).

Figure No. 2.1: The Theory of Entrepreneurial Competencies



(Source: The theory of Entrepreneurial competencies, Man 2008)

Bolton (2012) in his study established a measurement instrument assessing individual entrepreneurial orientation (IEO), which encompasses key competencies such as risk-taking propensity, innovativeness, proactiveness, and autonomy (Bolton & Lane, 2012; Langkamp et al., 2012). It highlighted the importance of IEO in driving entrepreneurial behaviours and outcomes. Obschonka (2010) in his study examined the relationship between early entrepreneurial competence, as assessed during adolescence, and venture creation success later in life. It highlighted the role of competencies developed during the early stages in predicting entrepreneurial outcomes (Goethner et al., 2012; Obschonka et al., 2011, 2017). Rauch (2009) in his study has done a comprehensive review study synthesized existing literature on entrepreneurial orientation (EO) and business performance.

2.2 BIBLIOMETRIC ANALYSIS OF ENTREPRENEURIAL COMPETENCIES

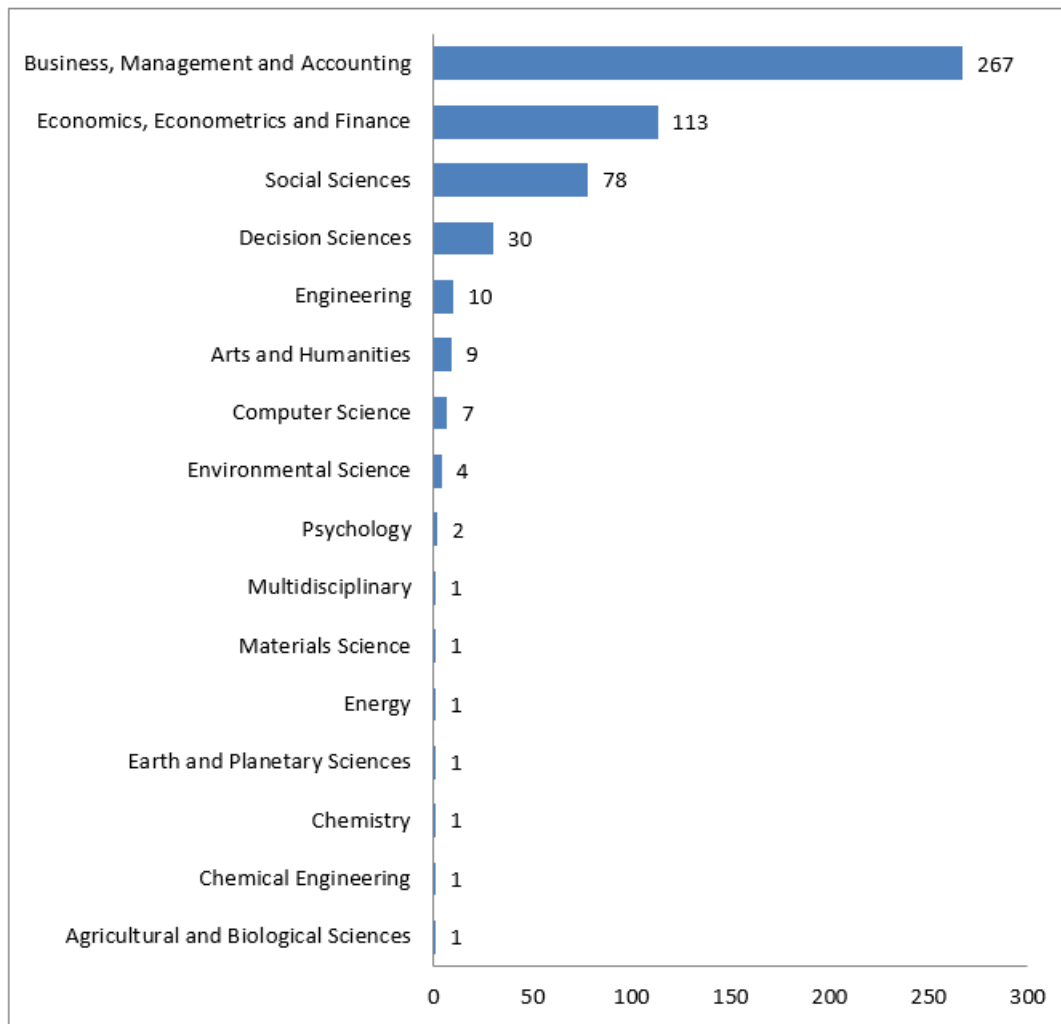
2.2.1 JOURNALS WITH MAXIMUM PUBLICATIONS:

The entirety of the 437 studies encompassed within this research is attributed to their respective 135 journals. The ensuing table presents a compilation of the leading twenty journals, each of which has exhibited the highest publication volume with regards to studies concerning Entrepreneurial Competencies. The preeminent contributor is the "Education and Training" journal, boasting a notable 12 studies. Moreover, the journal of entrepreneurship education and the journal of small business and enterprise development have made significant contributions, accounting for 9 and 8 studies respectively.

2.2.2 SUBJECT AREA:

The majority of studies, totalling 267, are concentrated within the field of Management and Accounting. Additionally, Economics and Social Science have 113 and 78 studies, respectively. Decision Science accounts for 30 studies, while Engineering is represented by 10 studies.

Figure No. 2.2: Subject Area



(Source: Scopus Data Base)

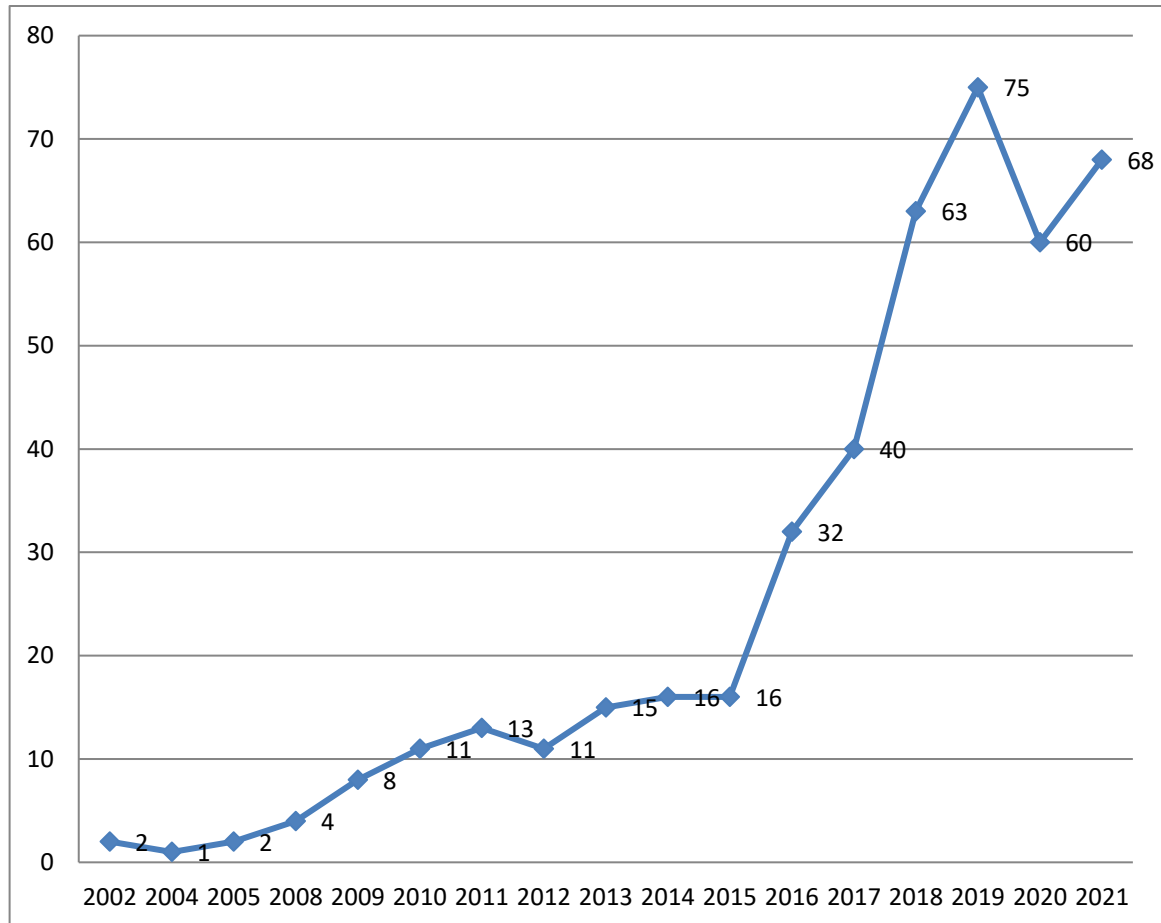
2.2.3 YEAR WISE PUBLICATION:

This table offers a summary of the quantity of studies released from 2000 to 2021, illustrating a noticeable expansion in research focused on entrepreneurial competencies. Remarkably, there is a scarcity of published studies from 2000 to 2014. Following this period, there is a significant surge in research output observed from 2014 to 2019, with the number of studies rising from 16 to 75.

Furthermore, a discernible pattern emerges in the distribution of studies, with the majority being concentrated within the last five years. The trajectory of growth is strikingly evident, as the number of studies surged from 32 in 2016 to 68 in 2021. The pinnacle of research output was witnessed in 2019, which saw a publication count of 75 studies. This

unmistakably underscores the exponential rise in researchers' interest within this domain, particularly in recent times.

Figure No. 2.3: Year-wise Publications



(Source: Scopus Data Base)

2.2.4 MOST CITED PAPER:

The paper authored by Man and Chan stands out as the most cited, garnering 572 citations. In this study, the authors developed a conceptual model that establishes a connection between the attributes of owner-managers for small and medium-sized businesses (SMEs) and the performance of their companies. The model comprises four pivotal constructs. They are Competitive scope, organizational capabilities, entrepreneurial talents, and performance. (Man et al., 2002). The paper titled "Entrepreneurial competencies: A literature review and development agenda," authored by Mitchelmore and Rowley, holds the second-highest citation count with 328 citations. It includes comprehensive overview of contributions related to entrepreneurial competencies from diverse authors across

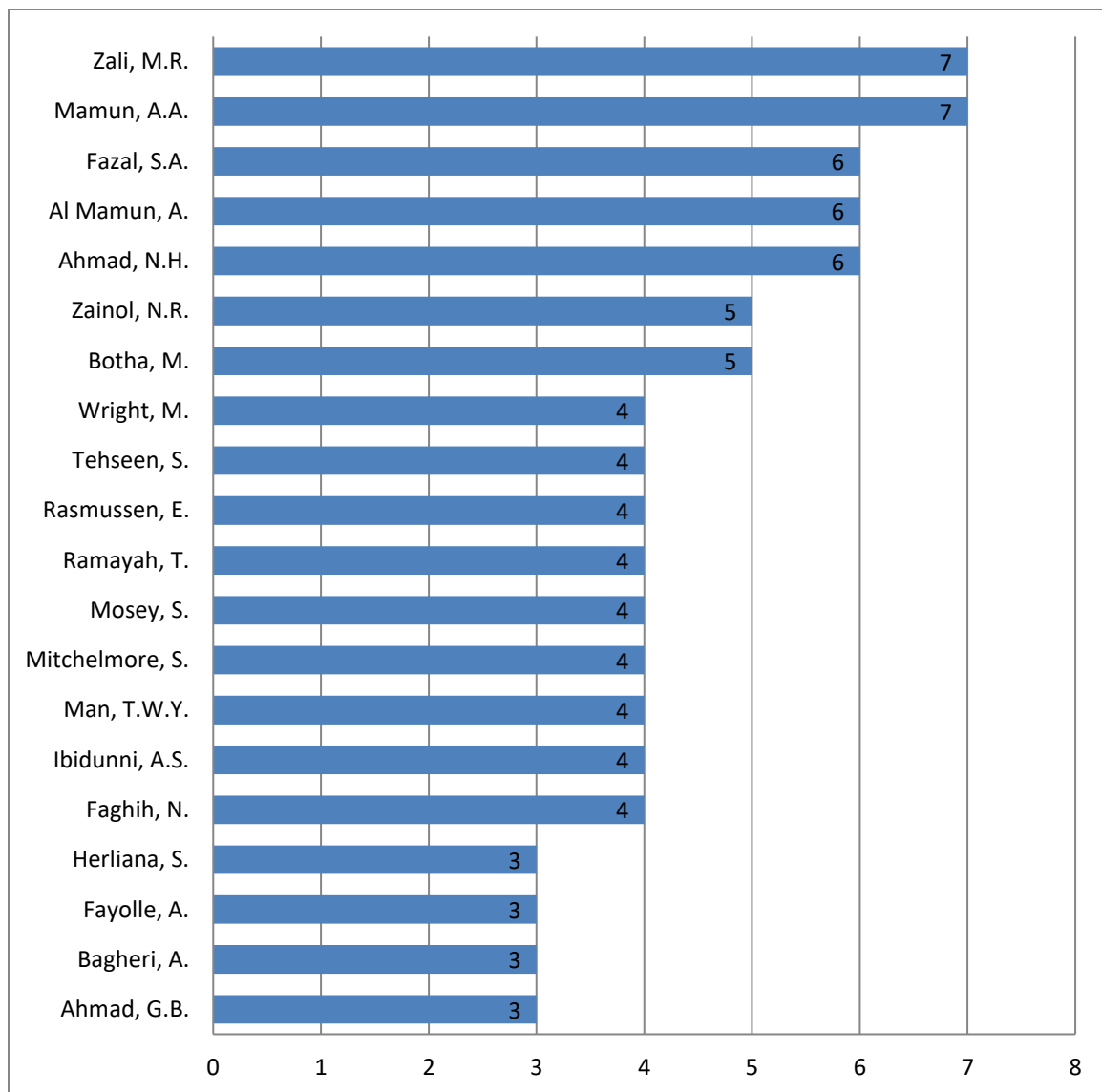
different countries, industries, and time periods. Additionally, it outlines a roadmap for future research and practical applications realm of entrepreneurial competencies (Mitchelmore & Rowley, 2010).

Ranked third in citations with 267, the paper "The Evolution of Entrepreneurial Competencies: A Longitudinal Study of University Spin-Off Venture Emergence" by Rasmussen, Mosey, and Wright. delves into the expansion of entrepreneurial skills in non-commercial academic environments, specifically to aid the emergence of new ventures. The authors adopt an evolutionary perspective, exploring the sources of resources within this unique context. (Rasmussen et al., 2011). Securing the fourth position in citations with 246, the paper "A competency-based perspective on entrepreneurship education: Conceptual and empirical insights" authored by Morris, Webb, and Singhal. explores the competencies essential for entrepreneurial endeavours. The study perceives these competencies as outcomes of learning scripts developed through interactions between individuals and their environment, rooted in structuration theory. Additionally, it styles a notable difference between managerial and entrepreneurial skills, underscoring the significance of the latter in entrepreneurship education (Morris et al., 2013).

2.2.5 MOST PROLIFIC AUTHORS:

The compilation showcases the twenty authors who have displayed exceptional prolificacy. Among the 437 studies, they collectively belong to 159 distinct authors. Following meticulous scrutiny of the comprehensive list of the top twenty authors, distinguished by their extensive publication record, was formulated. Notably, the duo of Mamun, A. A., and Zali, M. R. emerges as the most prolific authors within the entrepreneurial competencies' realm, having contributed seven studies each. Accompanying them, Ahmad, N. H., Al Mamun, A., and Fazal, S. A., have each authored six studies. Additionally, noteworthy contributions are made by Botha, M., and Zainol, N. R., who have each authored five studies (Al Mamun & Fazal, 2018; Botha et al., 2019; Botha & Taljaard, 2019), as indicated by their publications.

Figure No. 2.4: Most Prolific Author

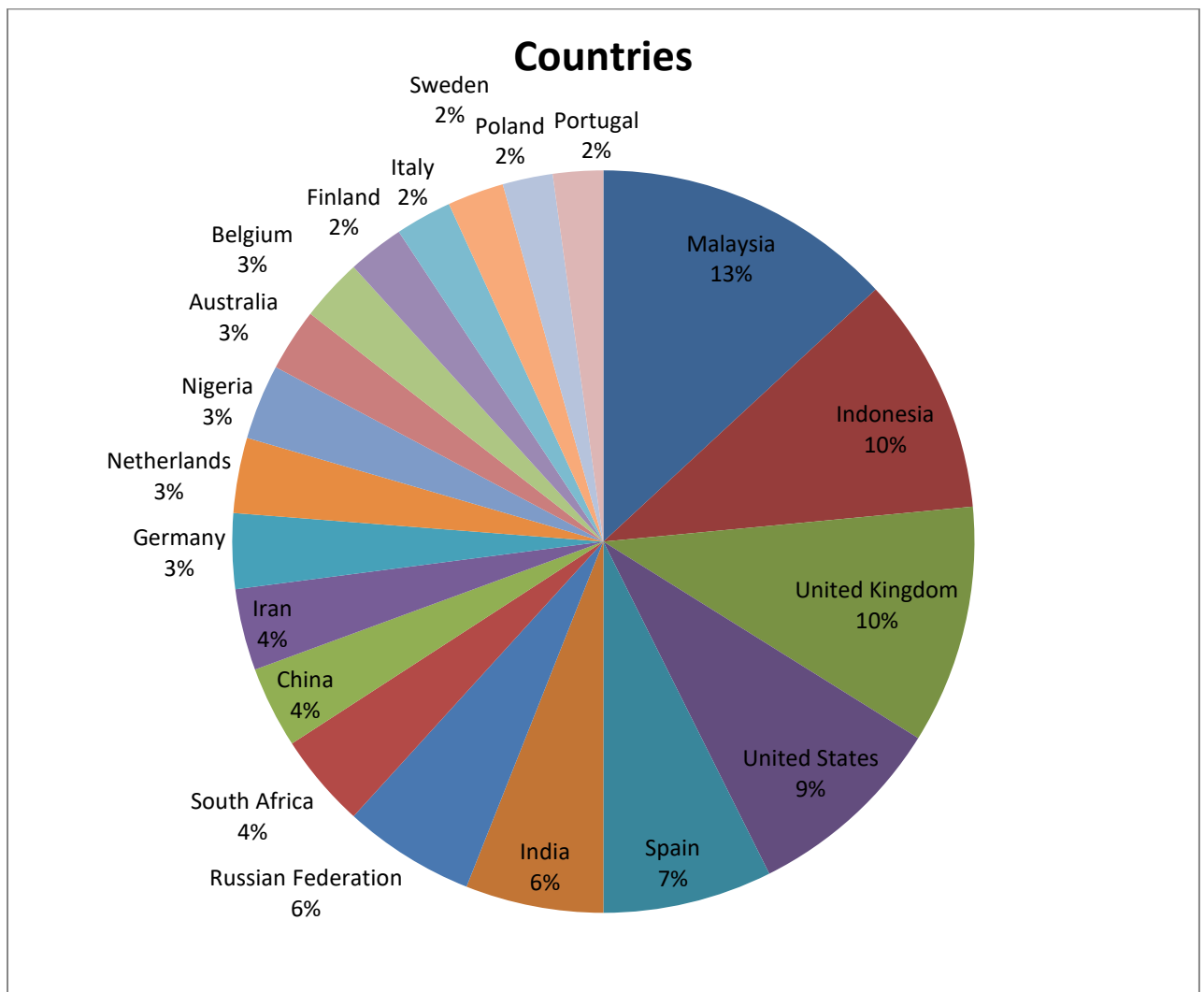


(Source: Scopus Data Base)

2.2.6 MOST PROLIFIC COUNTRIES:

The collective body of studies aligns with the efforts of authors from over 80 diverse countries. Within this panorama, the manuscript highlights the top twenty nations that have demonstrated a notable contribution in terms of studies pertaining to entrepreneurial competencies. Topping this list is Malaysia, boasting a substantial count of 48 studies. Following closely, the United Kingdom and Indonesia both share an impressive publication record of 38 studies each. In addition, Spain and India have each contributed 27 and 22 studies, respectively, further accentuating their significance within this domain.

Figure No. 2.5: Most Prolific countries

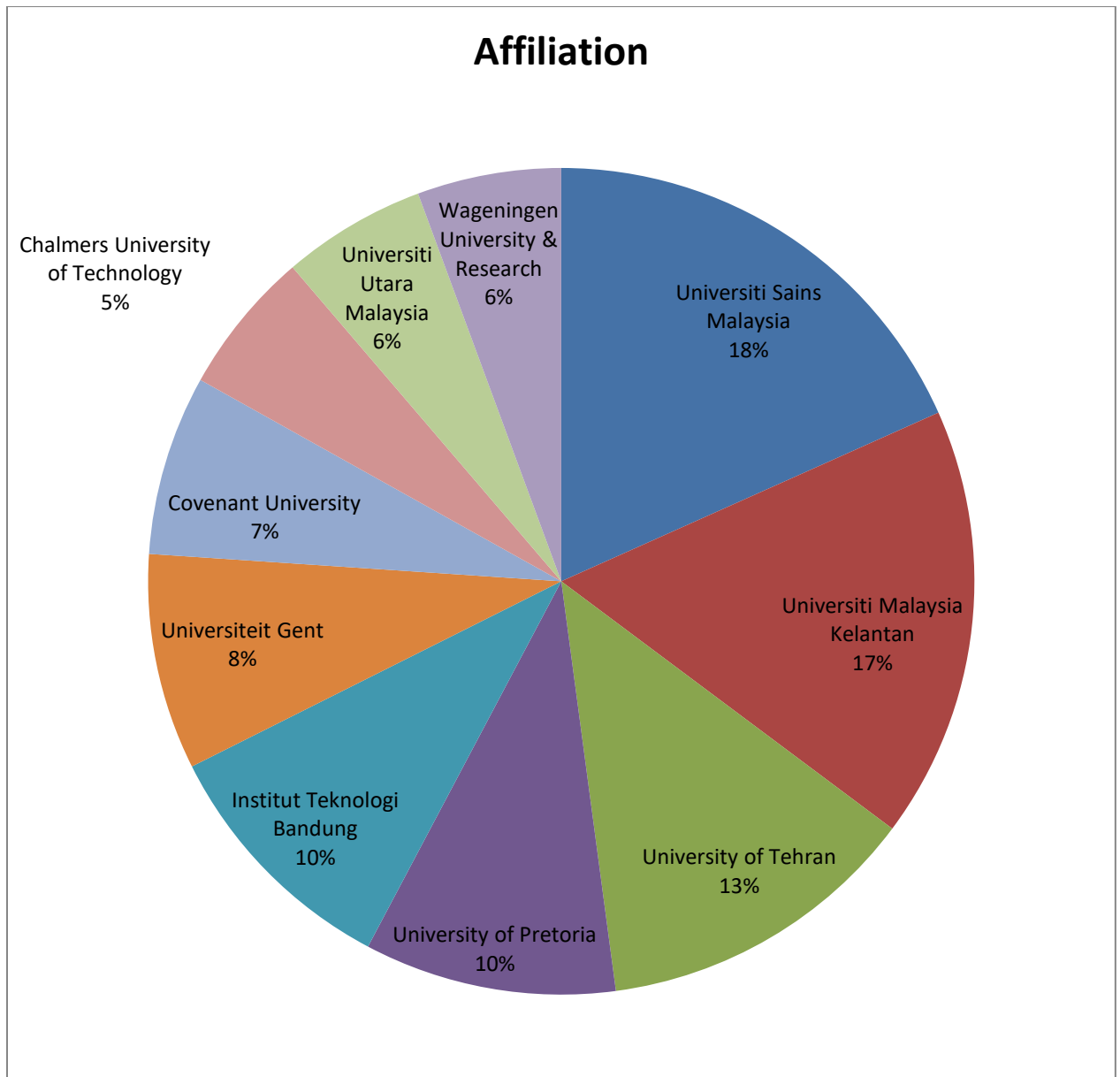


(Source: Scopus Data Base)

2.2.7 AFFLICTION OF AUTHORS

The depicted figure illustrates the affiliations of authors, revealing prominent institutions to which they are associated. A notable observation is the prevalence of authors affiliated with the University Sains Malaysia, with a substantial count of 13 individuals. In the second position, the University Malaysia Kelantan is affiliated with 12 authors. Meanwhile, the University of Tehran boasts affiliations with 9 authors. Additionally, the University of Pretoria and the Institute Technology Bandung both have 7 authors affiliated with their institutions.

Figure No. 2.6: Affiliation of Authors

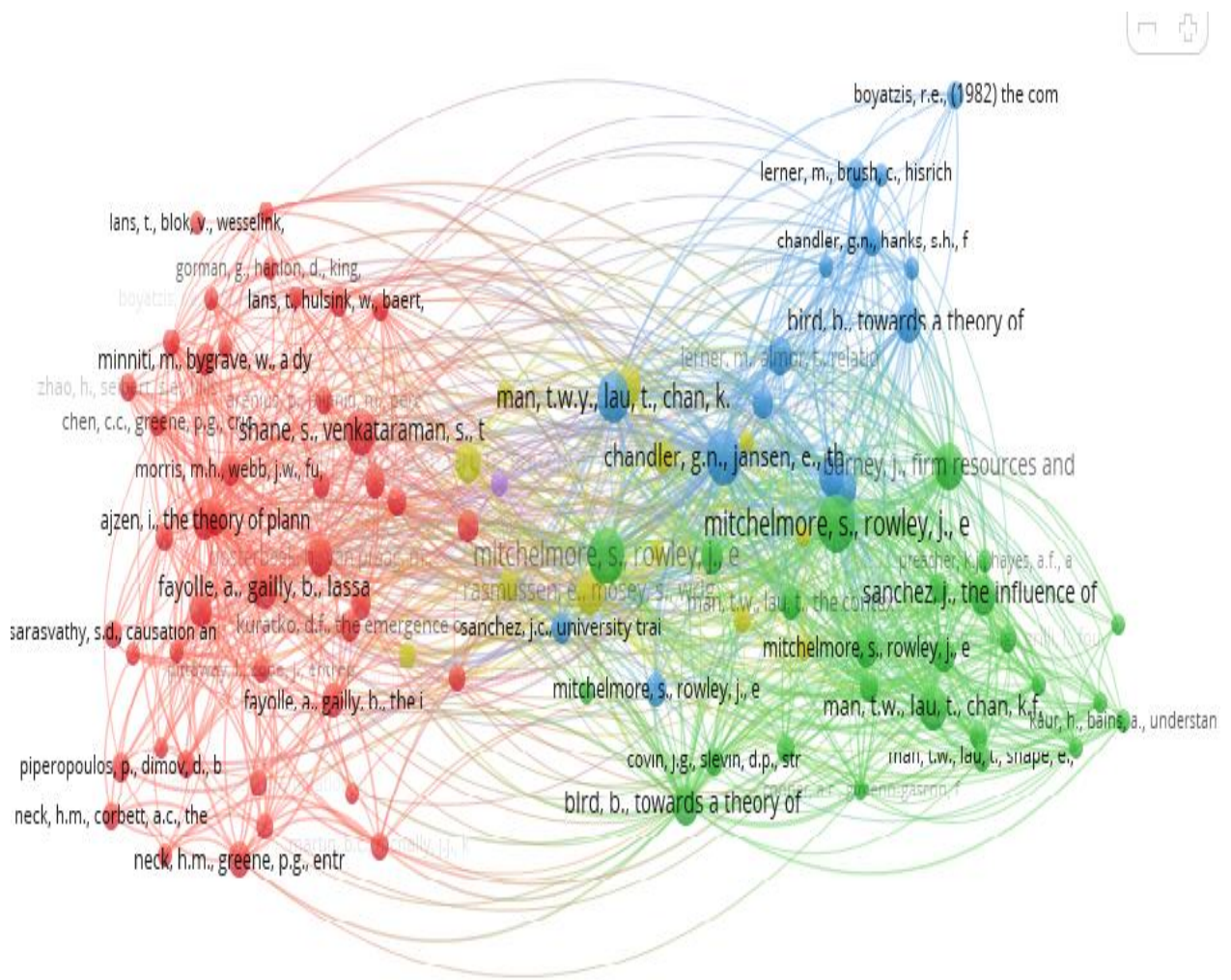


(Source: Scopus Data Base)

2.2.8 CO-AUTHORSHIP NETWORK MAPPING:

The depicted figure illustrates a co-authorship network map created using VOS viewer software. Within this visual representation, it will be seen that various circles, some larger than others, interconnected by lines. The size of these circles corresponds to the number of co-authors an author has collaborated with, and their names are visibly labelled. Specifically, the figure highlights the top 96 authors who have engaged in the most extensive collaborations with other authors in the dataset.

Figure No. 2.7: Co-authorship Network Mapping



(Source: VOS viewer)

After developing entrepreneurial competencies, entrepreneurial intention is also required to continue successful business (Obschonka et al., 2017; Reyes et al., 2018; Sánchez, 2013). Entrepreneurial competencies provide the necessary knowledge of business, skills related to business, and abilities to continue a business effectively, while entrepreneurial intention is the driving force that motivates individuals to take action and move their ideas forward. Entrepreneurial competencies alone may not be enough to run business successfully (Rezaei, n.d.; Rezaei Sajad, 2015; RezaeiZadeh et al., 2017). Without entrepreneurial intention, individuals may lack the motivation to take the necessary steps to turn their ideas into reality. They may also be additional to give up in the appearance of challenges or

delays (Adarsh & Jayashree, 2020; Aparicio et al., 2019; Damayanti et al., 2020; Gorgievski et al., 2018).

Entrepreneurial intention, on the other hand, provides the motivation and commitment necessary to turn entrepreneurial competencies into action (Çera, 2020; Damayanti et al., 2020; Hussain Aroona; Gilani, Misbah, 2018; Krithika & Venkatachalam, 2014). It is the desire and determination to create something new and take on the risks and challenges associated with starting and running a business. Without this intention, individuals may lack the drive and commitment necessary to pursue their entrepreneurial goals (Cao et al., 2022; Ibrahim & Abdullahi, 2014; Souitaris et al., 2007). Many researchers have shown that there is a positive relationship between entrepreneurial competencies and entrepreneurial intention (Botha & Taljaard, 2019; Velástegui & Chacón, 2021). In other words, individuals who possess the necessary skills and abilities are more likely to have the intention to start and run a successful business. Developing entrepreneurial competencies can therefore be an important step in increasing entrepreneurial intention and ultimately achieving success as an entrepreneur (Bamiatzi et al., 2015; Obschonka et al., 2017; Wu & Wu, 2008).

2.3 ENTREPRENEURIAL INTENTION:

Entrepreneurial intention explains individual's feeling or motivation to start a innovative business (Adarsh & Jayashree, 2020; Aparicio et al., 2019; Damayanti et al., 2020; T. Gupta, 2009). It is the desire and commitment to create something new and take on the risks and challenges associated with entrepreneurship (Afifi et al., 2016; Heydari et al., 2020; Pacheco et al., 2010). Entrepreneurial intention is an important factor in the process of starting and running a successful business. It is a critical first step in the entrepreneurial journey and a strong predictor of whether an individual will start and run a business (Awotoye & Singh, 2017; Frangopol & Soliman, 2016a; Krueger et al., 2000; Opdam et al., 2005; Tur-Porcar et al., 2018). Several factors influence entrepreneurial intention, including personal characteristics, social and cultural factors, and economic conditions (Adarsh & Jayashree, 2020; Chien-Chi et al., 2020; Eroglu & Picak, 2011; Jansson et al., 2011b; Krithika & Venkatachalam, 2014). Personal characteristics such as self-efficacy (Damayanti et al., 2020; Swain et al., 2014), locus of control (Ajzen, 2002, 2020; Kerr et al., 2018), and propensity are often associated with higher levels of entrepreneurial

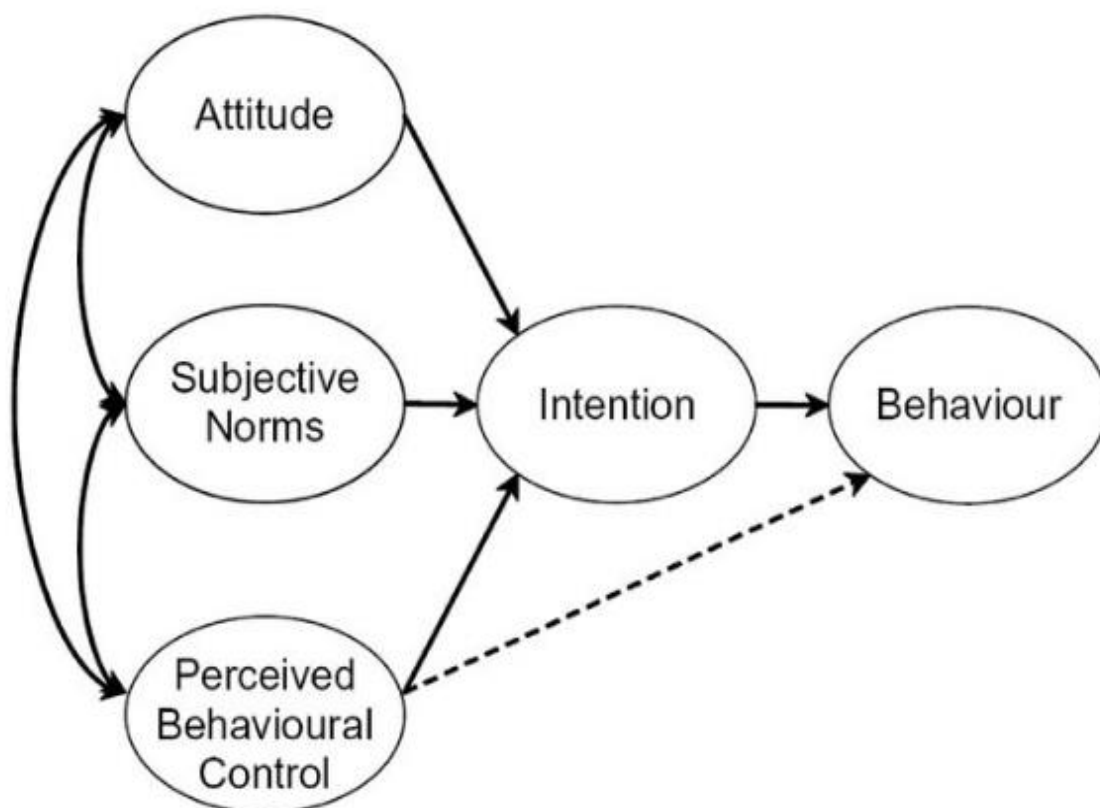
intention (Koe, 2016; Mamun & Fazal, 2018; Shadbolt & Olubode-Awosola, 2016). Social and cultural factors can also play a role in influencing entrepreneurial intention (Goel et al., 2007; Jansson et al., 2011b; Ozkazanc-Pan, 2009). For example, individuals who have family members or friends who are entrepreneurs may be more likely to have a positive attitude toward entrepreneurship and a higher level of entrepreneurial intention. Similarly, cultural factors such as a society's attitude towards entrepreneurship and risk-taking can influence the level of entrepreneurial intention in that society (Gümüşay & Bohné, 2018; RezaeiZadeh et al., 2017).

Economic conditions can also influence entrepreneurial intention (Ozaralli & Rivenburgh, 2016; Winn et al., 2011). For example, a strong economy and favourable market conditions can provide individuals with the confidence and resources to pursue entrepreneurial opportunities. Entrepreneurial intention is a critical factor in the process of starting and running a successful business. It is the driving force that motivates individuals to take action and move their ideas forward. Understanding the factors that influence entrepreneurial intention can help individuals to develop and strengthen their entrepreneurial intentions, and ultimately increase their chances of success in the entrepreneurial journey (Bota-Avram, 2022; Frangopol & Soliman, 2016a; Makhura, 2011; Willis & DeKay, 2007). Intention represents a person's level of commitment and desire to start and grow a business, and this commitment is a key driver of entrepreneurial action (Afifi et al., 2016; P. R. Cohen & Levesque, 1990; Khojasteh, 2021; Makhura, 2011).

There are several reasons why intention is important in entrepreneurship - Intention is a critical first step in starting a business. Without a strong desire and commitment to starting a business, individuals may lack the motivation to take the necessary actions to move their ideas forward (Ã, 2007; Afifi et al., 2016; Anjum et al., 2021). Intention can help entrepreneurs to overcome obstacles and setbacks (Hedner et al., 2011). When individuals have a strong desire and commitment to their goals, they are more likely to persist in the face of challenges and setbacks (Doran & Larsen, 2016; Frangopol & Soliman, 2016a; Kumar, 2020; Rich et al., 2019). A strong entrepreneurial intention can help entrepreneurs to attract resources, including capital, talent, and support from their networks (Anjum et al., 2021; Doanh & Bernat, 2019; Krueger et al., 2000).

When individuals are passionate and committed to their goals, they are more likely to inspire others to join them on their journey. Individuals with strong entrepreneurial intentions are more likely to engage in planning and decision-making. This can help them to identify potential obstacles and develop strategies to overcome them, which can improve their chances of success (Frangopol et al., 2017a; Frangopol & Soliman, 2016a; Ivanov & Dolgui, 2020; Windapo, 2018). Research has shown that entrepreneurial intention is a strong predictor of whether a person will start and run a business. By having a strong intention to start and grow a business, entrepreneurs are more likely to take the necessary actions to succeed (Doran & Larsen, 2016; Jansson et al., 2011b; Rueda et al., 2015). The Entrepreneurial Intention (EI) theory of Ajzen is a widely recognized and validated model that explains the issues that effect a person's intention to start and run a new business. This theory is based on the Theory of Planned Behaviour (TPB), which suggests that an individual's behaviour is determined by their intentions (Ajzen, 1991).

Figure No. 2.8: The theory of planned behaviour



(Source: Theory of Planned behaviour, Ajzen 1991)

2.3.1 ATTITUDE TOWARDS BEHAVIOUR

The Theory of Planned Behaviour informs the attitude towards behaviour encompasses an assessment of the behaviour, considering both its perceived advantages and disadvantages. In the context of entrepreneurship, an person's attitude towards initiating and managing a business plays pivotal role for influencing their entrepreneurial intention (Doran & Larsen, 2016; Rueda et al., 2015). Attitudes towards behaviour are formed by beliefs about the behaviour, and these beliefs are formed through a process of subjective evaluation. In the case of entrepreneurship, an individual's attitude towards starting and running a business can be influences by a variety of features, with their perception of the benefits and risks associated with entrepreneurship (Širola, 2020; Vuorio et al., 2018).

Some common opinions that may influence an person's attitude towards entrepreneurship include - The potential financial rewards of starting and running a business, The potential for personal growth and fulfilment through entrepreneurship, The dangers and challenges related with entrepreneurship, such as financial uncertainty and the need for a strong work ethic, The societal value of entrepreneurship includes creating jobs and contribution to economic growth (Ajzen, 2020; Jansson et al., 2011b; Swain et al., 2014). The Theory of Planned Behaviour (TPB) posits that the stronger an individual's positive attitude towards entrepreneurship, the more likely they are to own a high level of entrepreneurial intention. Conversely, a negative attitude towards entrepreneurship can act as a deterrent, discouraging individuals from pursuing entrepreneurial opportunities (Ajzen, 1991; Krueger et al., 2000; Rueda et al., 2015; Usman & Yennita, 2019).

2.3.2 PERCEIVED BEHAVIOURAL CONTROL

Perceived behavioural control constitutes a vital element within Ajzen's Theory of Planned Behaviour, referring to a person's perception of the comfort or struggle associated with executing a specific behaviour. (Ajzen, 1991; M.-A. Enoch, 2011; Gladstone et al., 2006; Su et al., 2021; Turra & Melinda, 2021). Perceived behavioural control extends to a person's perception of the feasibility and resources required to initiate and operate a new business. According to the theory, individuals are more motivated to engage in a behaviour if they believe they have control over it and can overcome potential obstacles. Therefore,

perceived behavioural control plays a pivotal part in influencing their entrepreneurial intention (Draksler & Sirec, 2021; Krueger et al., 2000; Rueda et al., 2015; Swain et al., 2014; Usman & Yennita, 2019). Perceived behavioural control can be shaped by various factors, and among them are skills and knowledge. An individual's perception of their own skills and knowledge significantly impacts their perceived behavioural control. Additionally, the availability of financial and other resources essential for initiating and sustaining a business plays a vital role in shaping a perceived behavioural control. The presence of adequate resources may contribute to a heightened perception of control over the entrepreneurial process. (Arafat et al., 2020; M.-A. Enoch, 2011; Heydari et al., 2020; Širola, 2020).

Indeed, some of the external factors like market conditions, regulatory environment, and competition can exert a substantial influence on an individual's perceived behavioural control. When the external issues are favourable, individuals may perceive a greater sense of control over the entrepreneurial process. Furthermore, individuals possessing substantial financial resources are likely to perceive an enhanced level of control over the process. This underscores the intricate interplay between internal and external factors in shaping perceived behavioural control. (B. Cohen & Winn, 2007; Krueger et al., 2000; Schaltegger & Wagner, 2011; Winn et al., 2011). Theory of Planned Behaviour, an individual's intention to initiate and operate a business is influenced collectively by perceived behavioural control, attitude, and subjective norms. According to this framework, if a person perceives a high level of control over the process of starting and managing a business, it is more likely to lead to an increased level of entrepreneurial intention. The interaction of these factors illustrates the comprehensive nature of Ajzen's TPB in comprehending and predicting entrepreneurial behaviour (Adarsh & Jayashree, 2020; DINC & BUDIC, 2016; Ibrahim & Abdullahi, 2014; Jansson et al., 2011b; Koe, 2016).

2.3.3 SUBJECTIVE NORMS

Subjective norms constitute a crucial element within Ajzen's Theory of Planned Behaviour (TPB). This refers to the impact of others' opinions and expectations on an individual's behaviour (Ajzen, 1991; Krueger et al., 2000). In the realm of entrepreneurship, the subjective norms pertain to an person's perception of the societal pressure to initiate and

manage a business (Damayanti et al., 2020; Karimi & Makreel, 2020). According to TPB, these subjective norms are shaped by social environment in which an individual operates, encompassing the norms and expectations of family, friends, colleagues, and other significant reference groups (Krueger et al., 2000; Omar, 2021; Peng et al., 2012; Suomi, 2006). These reference groups can wield influence over an individual's beliefs regarding the appropriateness of starting and managing a business, consequently impacting their entrepreneurial intention (Bai & Bai, 2020; Krueger et al., 2000; Omar, 2021).

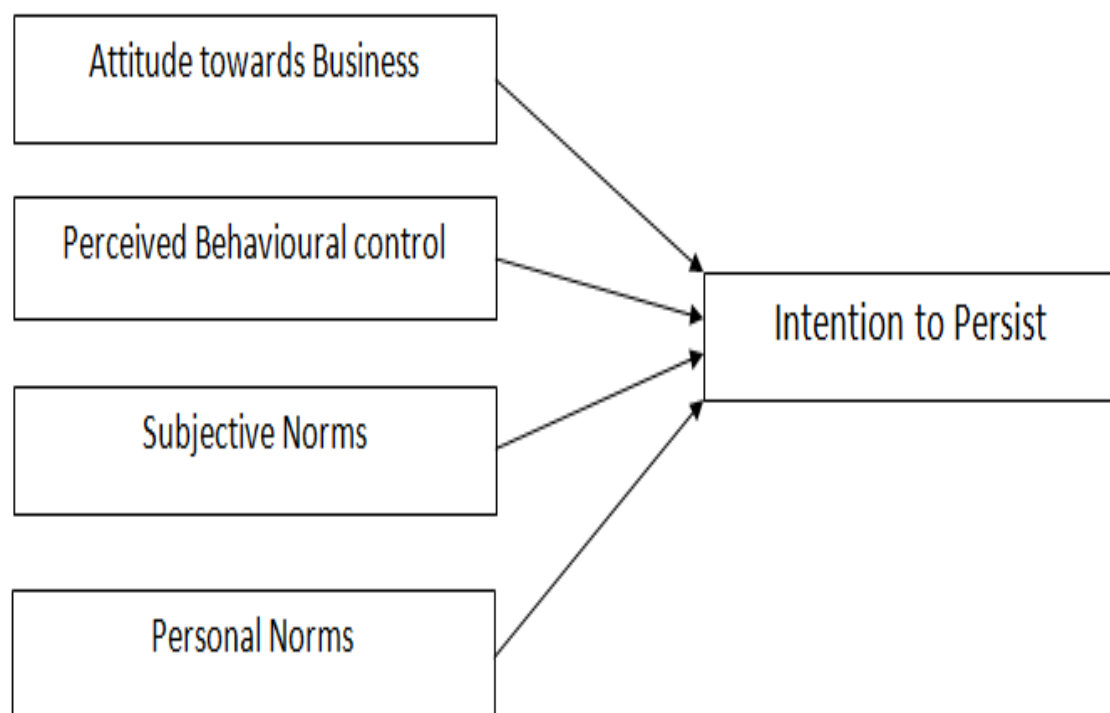
Subjective norms explains several features, such as cultural and social values: The cultural and social values of a community or society can influence an person's subjective norms regarding entrepreneurship (Damayanti et al., 2020; Santoso, 2021; Wahyuni et al., 2019). For example, in some societies, starting a business may be seen as risky or inappropriate, while in others, it may be viewed as a desirable and admirable pursuit. Family and friends: The opinions and expectations of family and friends can significantly influence an individual's subjective norms regarding entrepreneurship. For example, if an individual's family and friends are supportive of their entrepreneurial aspirations, this may increase their subjective norms in favour of business (Afifi et al., 2016; Gladstone et al., 2006; Jansson et al., 2011b). Role models and mentors can play significant part in determining an individual's subjective norms regarding entrepreneurship. Positive role models and mentors who have successfully started and run businesses can increase an individual's perceived social support for entrepreneurship and inspire them to pursue related opportunities (Hedner et al., 2011; Lim et al., 2021; Mikami & Hinshaw, 2006). Ajzen's TPB suggests that subjective norms, along with attitude and perceived behavioural control, collectively determine an aim to start and run a business (Badr et al., 2018; Damayanti et al., 2020; Rueda et al., 2015; Širola, 2020). Therefore, if an individual perceives high levels of social support and positive subjective norms regarding entrepreneurship, they are more likely to have a high level of entrepreneurial intention (Velástegui & Chacón, 2021).

2.3.4 PERSONAL NORMS:

Personal norms are the person's beliefs about what is right and wrong, and what behaviours are appropriate in various situations (Gladstone et al., 2006; Krueger et al., 2000; Rueda et al., 2015). The norms are often shaped by an individual's upbringing, cultural background,

and personal experiences. Personal norms can influence the decisions people make and the actions they take in various aspects of their lives. Personal norms can have a important influence on an individual's entrepreneurial intention (DINC & BUDIC, 2016; Gladstone et al., 2006; Groot & Steg, 2010; Jansson & Dorrepaal, 2015; Rueda et al., 2015). Entrepreneurial intention means individual's willingness (Doran & Larsen, 2016; Jansson et al., 2011b) and motivation (Ã, 2007; Afifi et al., 2016; Anjum et al., 2021; Doran & Larsen, 2016; Hamedì & Mehdiabadi, 2020) to start a business.

Figure No. 2.9: The Extended theory of planned behaviour



(Source: Author's Creation)

People who have strong personal norms around independence, innovation, risk-taking, and self-determination are more probable to have a confident attitude toward entrepreneurship and to pursue entrepreneurial actions (Groot & Steg, 2010; Jansson & Dorrepaal, 2015; Krueger et al., 2000; Ranga, Reddy, et al., 2019; Shah et al., 2020). For instance, a person who believes that starting a business is an appropriate and desirable way to achieve financial success, independence, and autonomy is more likely to have a positive attitude toward entrepreneurship and a advanced intention to start business (Bocken, 2015; Kraus

et al., 2018) Absolutely, personal norms formatives how entrepreneurs navigate ethical considerations in their businesses. Entrepreneurs with robust personal norms concerning ethical behaviour and social responsibility are more inclined to prioritize these values in their business practices. Conversely, those with weaker personal norms in these areas may be more prone to engaging in unethical behaviour. The strength of an entrepreneur's personal norms serves as a guiding force, influencing their ethical decision-making and the overall ethical orientation of their business. (Balmer et al., 2011; Gladstone et al., 2006; Jansson et al., 2011b).

Therefore, understanding personal norms for potential entrepreneurs can help policymakers and business educators to develop interventions and strategies that can increase entrepreneurial intention and promote ethical entrepreneurship (Hörisch, 2015; Kuckertz & Wagner, 2010; Winn et al., 2011). Certainly, entrepreneurship education programs can play a crucial role in shaping personal norms aligned with entrepreneurship. These programs can be intentionally designed to cultivate values such as risk-taking and innovation, instilling them as personal norms among aspiring entrepreneurs. Moreover, such education initiatives can also emphasize and promote ethical and socially responsible business practices. By integrating these principles into the curriculum, education programs contribute to shaping the ethical foundation and values of future entrepreneurs, fostering a more responsible and sustainable approach to business. (Ozaralli & Rivenburgh, 2016; Song et al., 2006).

2.4 INTENTION TO PERSIST

Intention refers to an individual's deliberate decision and willingness to participate in a specific behaviour or accomplish a particular goal (Doran & Larsen, 2016; Dr.Palmarudi Mappigau & Prof. Dr.Haris Maupa, 2013; Jansson et al., 2011b). Intention serves as the precursor to action, reflecting an individual's motivation and commitment to undertake a specific course of action. In the context of persistence, intention to persist, or persistence intention, pertains to an individual's determination and commitment to continue pursuing a goal or behaviour over time, even in the face of challenges, setbacks, or obstacles (Afifi et al., 2016; M.-A. Enoch et al., 2010; Farhangmehr et al., 2016; Hanohov & Baldacchino, 2018; Schwartz, 2012). Intention to persist signifies an individual's unwavering

commitment and determination to persist in entrepreneurial activities, even when confronted with challenges, setbacks, and uncertainties. This aspect underscores a profound desire to persevere in the face of obstacles, showcasing the resilience and determination essential for achieving success in entrepreneurship (Adarsh & Jayashree, 2020; Damayanti et al., 2020; Jansson et al., 2011b).

Entrepreneurship is a demanding journey that frequently entails encountering various obstacles, setbacks, and failures (Irimia-Diéguez et al., 2023; Rich et al., 2019; Swain et al., 2014; Wilkin, 2015). The intention to persist plays a crucial role in helping entrepreneurs maintain their focus, determination, and motivation when confronted with adversity. This mindset empowers them to rebound from failures, extract lessons from mistakes, and continue progressing toward their entrepreneurial objectives (Damayanti et al., 2020). Given the inherent ups and downs in entrepreneurship, resilience is a vital trait. The intention to persist signifies an entrepreneur's capacity to remain resilient, adapt to evolving circumstances, and persevere even in the midst of challenges. It serves as a pivotal factor in sustaining momentum and unwavering commitment to the entrepreneurial journey (Bec et al., 2018; Hamed & Mehdiabadi, 2020; Hedner et al., 2011; Miceli et al., 2021; Mikami & Hinshaw, 2006; Song et al., 2006; Winn et al., 2011).

Starting and growing a successful business takes time and effort. Intention to persist ensures that entrepreneurs remain committed to their long-term goals and are willing to put in the necessary hard work, dedication, and perseverance (Damayanti et al., 2020; Lüdeke-Freund, 2020; Windapo, 2018). It helps entrepreneurs sustain their efforts, iterate on their strategies, and keep moving forward, ultimately increasing the likelihood of achieving success (Afifi et al., 2016; Doran & Larsen, 2016; Frangopol & Soliman, 2016a; Jiang & Tornikoski, 2019; Khatun et al., 2021). Investors, partners, and other stakeholders are more likely to support entrepreneurs who demonstrate a strong intention to persist. When potential stakeholders see an entrepreneur's commitment and determination, they are more willing to invest resources, provide support, and offer opportunities that can fuel the growth and success of the business (Bocken, 2015; Damayanti et al., 2020; Rasmussen et al., 2011; Rs & Rs, n.d.).

Measuring intention to persist as a variable allows researchers and practitioners to understand the mindset and determination of entrepreneurs and its impact on firm

performance. By examining the level of intention to persist, it becomes possible to identify potential barriers or challenges that may hinder persistence and develop strategies to enhance entrepreneurial persistence and drive firm performance (Jansson et al., 2011b; Omar, 2021; Sharaf et al., 2018). It is important to note that measuring intention to persist alone may not fully capture the complexity of firm performance. Other variables such as entrepreneurial competencies, market conditions, financial indicators, and external factors should also be considered to gain a comprehensive understanding of firm performance. Overall, intention to persist serves as a critical variable that captures an entrepreneur's motivation, determination, and commitment to persist in the face of adversity, which ultimately contributes to improved firm performance and long-term success (Adarsh & Jayashree, 2020; Bloemer et al., 2013; Gundry et al., 2016; Kerr et al., 2018; Mitchelmore & Rowley, 2013; Morris et al., 2013; Sirelkhatim & Gangi, 2015).

2.5 RISK-RESILIENCE

Risk refers to the possibility of an uncertain or unexpected event or outcome that could harm a person or organization's goals, plans, or operations (Altig et al., 2020; Hardin-Fanning & Ricks, 2017; Lonsdorf & Merz, 2017). In the context of business, risk can take many forms, including financial risk (Afifi et al., 2016; Bocken, 2015; Hoogendoorn et al., 2019; Santoso, 2021), operational risk (Hummels & Argyrou, 2021; Man et al., 2008; Rauch et al., 2009), reputational risk (Crals & Vereeck, 2005; Goethner et al., 2012), and strategic risk (Criado-Gomis et al., 2017; Khatun et al., 2021). Risk resilience refers to the ability of an individual or organization to adapt and respond effectively to risks and the unexpected events or outcomes that arise from them. It involves the ability to absorb and recover from negative impacts caused by risks and to learn from those experiences to improve future risk management strategies (M.-A. Enoch et al., 2010; M. A. Enoch, 2012; Frangopol et al., 2017a; Gee & Casey, 2015). Risk resilience is important because risks are an inherent part of any business or entrepreneurial venture, and it is impossible to eliminate them (Belsky & Pluess, 2013; M.-A. Enoch et al., 2010; Escamilla-Fajardo et al., 2021; Frangopol et al., 2017a). However, by building risk resilience, individuals and organizations can minimize the negative impacts of risks and use them as opportunities for growth and improvement. Some examples of risk resilience in practice include having a contingency plan in place for unexpected events, developing strong relationships with

stakeholders, diversifying business operations and revenue streams, and continuously monitoring and evaluating risks and risk management strategies (M. A. Enoch, 2012; Escamilla-Fajardo et al., 2021; Game et al., 2008; Gee & Casey, 2015; Russell, 2005).

Overall, risk resilience is a crucial aspect of entrepreneurship and business success. By being prepared for and adaptable to risks and unexpected events, entrepreneurs and businesses can build a strong foundation for long-term growth and success (Lonsdorf & Merz, 2017; Winn et al., 2011). Risk resilience is a critical skill for entrepreneurs to develop, as they face many risks and uncertainties when starting and growing a business. Entrepreneurs who are risk-resilient are better able to navigate challenges and setbacks, adapt to changing circumstances, and bounce back from failure (M.-A. Enoch et al., 2010; Frangopol et al., 2017a; Frangopol & Soliman, 2016a; Groot & Steg, 2010). One way that entrepreneurs can develop risk resilience is by embracing a growth mindset. A growth mindset is the belief that challenges and setbacks are opportunities for learning and growth, rather than indications of failure (Bocken, 2015; Coaffee, 2008; Ibrahim & Abdullahi, 2014).

By adopting a growth mindset, entrepreneurs are better able to overcome obstacles and setbacks and use them as opportunities to learn and improve (Abbas et al., 2021; Jansson et al., 2011b; Mamun & Fazal, 2018). Another important aspect of risk resilience for entrepreneurs is the ability to manage and mitigate risk effectively. This involves conducting thorough risk assessments, developing risk management strategies, and being prepared for unexpected events (Hamed & Mehdiabadi, 2020; Hedner et al., 2011; Miceli et al., 2021; Shadbolt & Olubode-Awosola, 2016). Entrepreneurs who can effectively manage and mitigate risks are better able to protect their business and their stakeholders from negative impacts (Balmer et al., 2011; Crals & Vereeck, 2005; Pulka et al., 2021). Additionally, building a strong support network can also help entrepreneurs to develop risk resilience. This can include mentors, advisors, peers, and other stakeholders who can provide guidance and support during challenging times (Jansson et al., 2011b; Krueger et al., 2000; Ozaralli & Rivenburgh, 2016). Overall, developing risk resilience is crucial for entrepreneurs who want to succeed in the highly uncertain and unpredictable world of business (Krueger et al., 2000; Swain et al., 2014). By being prepared for risks, adapting to changing circumstances, and continuously learning and growing, entrepreneurs can build a

strong foundation for long-term success (Gladstone et al., 2006; Sirelkhatim & Gangi, 2015; Winn et al., 2011).

The bibliometric analysis for risk resilience shows the following results:

2.5.1 SUBJECT AREA:

It has been observed that maximum studies are written in the subject area of Social Science with 139 studies. Furthermore, the subject area such as Medicine and Social Science also has 92 and 76 studies respectively. There are 53 studies in Environmental Science and 43 in Engineering.

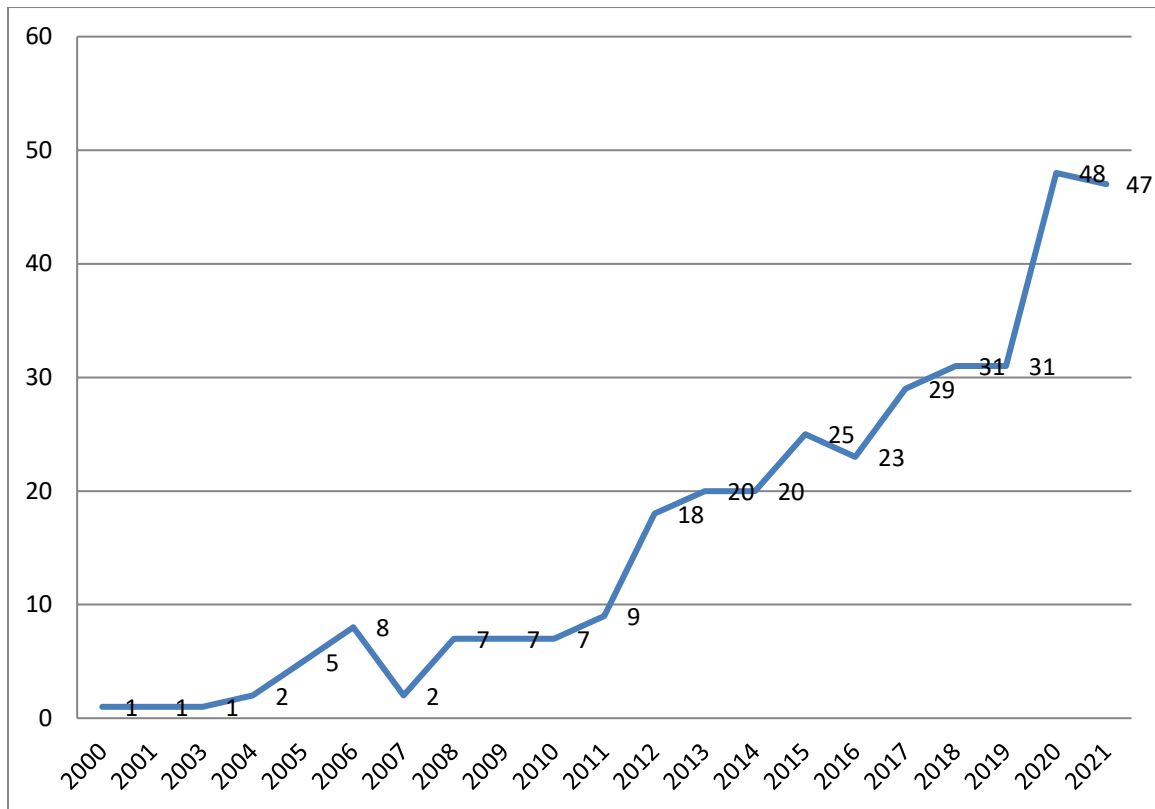
2.5.2 JOURNALS WITH MAXIMUM PUBLICATIONS:

The entirety of the 342 studies within this research aligns with their respective 136 journals. Presented below is a table featuring the top twenty journals, distinguished by their extensive publication of studies pertaining to Entrepreneurial Competencies. The highest number of studies finds its place in the "Journal of Early Adolescence," accounting for an impressive 12 studies. Additionally, the journals "Sustainability Switzerland," "Structure of Infrastructure Engineering," and "International Journal of Disaster Risk Science" each contribute 5 studies, further reinforcing their significance in this field.

2.5.3 YEAR-WISE PUBLICATIONS:

This table provides a visual representation of the quantity of studies published between the years 2000 and 2021, underscoring the escalating interest in research focused on risk resilience. Notably, the number of published studies remained quite modest during the period spanning from 2000 to 2012. Subsequently, a noteworthy surge in research output is observed from 2014 through 2021, with the study count surging from 20 to 47. Furthermore, a distinct pattern emerges in the temporal distribution of studies, with a concentrated surge in the past five years. The trajectory of growth is especially evident, as the number of studies rose from 31 in 2019 to 47 in 2021. The pinnacle of research activity was observed in 2020, which witnessed the publication of 48 studies. This unequivocally indicates a substantial spike in research enthusiasm within this field, particularly in recent times.

Figure No. 2.10: Year wise Publications



(Source: Scopus Data Base)

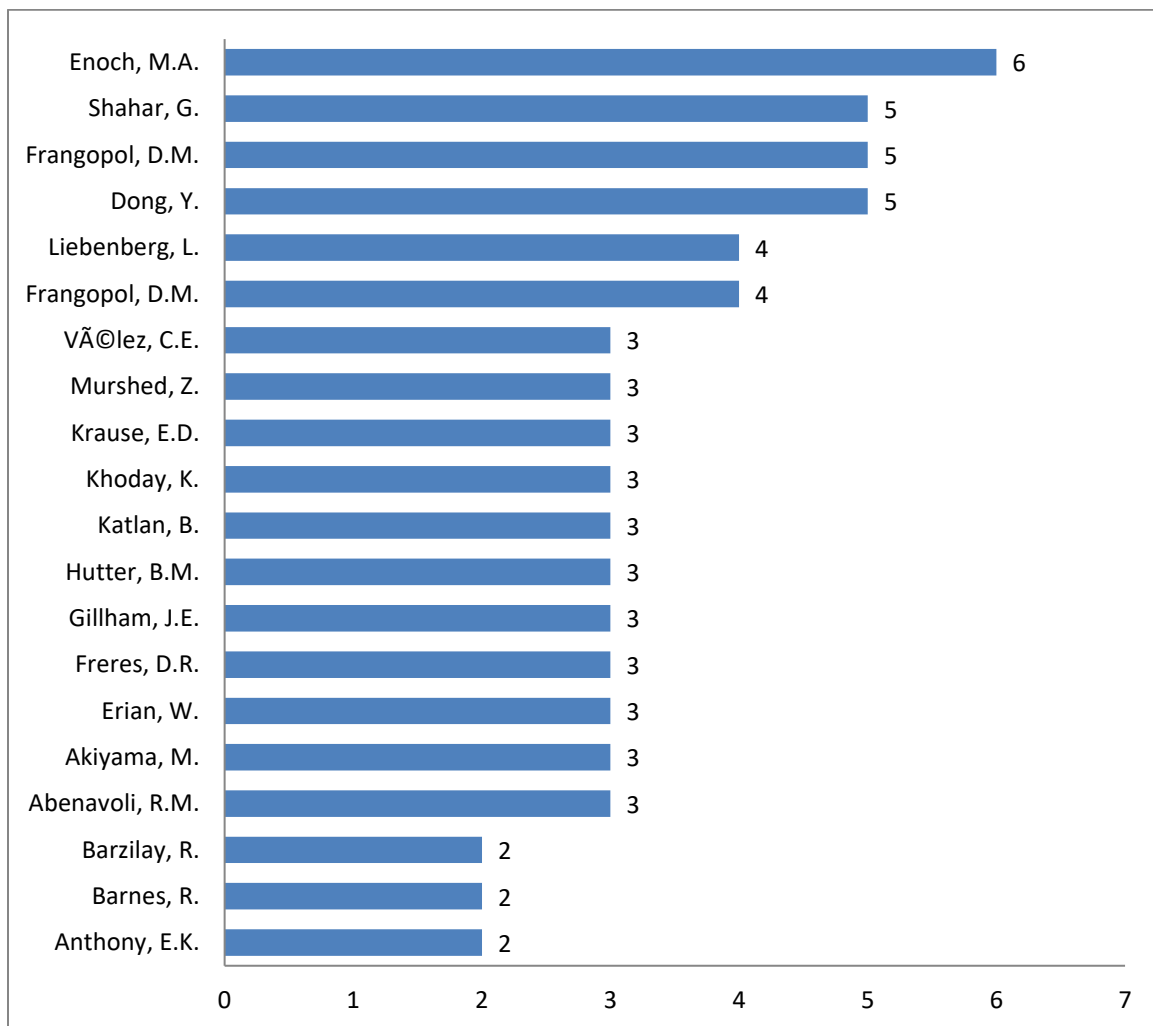
2.5.4 MOST CITED STUDIES:

In the Scopus content, the table presented showcases a list of the twenty most frequently cited studies. The paper with highest citations is 372, titled "The role of early life stress as a predictor for alcohol and drug dependence," authored by Enoch, M.-A. Following closely with 209 citations is the paper titled "Beyond risk, resilience, and dysregulation: Phenotypic plasticity and human development," written by Belsky, J., and Pluess, M. (Belsky & Pluess, 2013). Continuing with the list, the third most cited paper, which has gathered an impressive 202 citations, is titled "Risk, resilience, and gene x environment interactions in rhesus monkeys," authored by Suomi, S.J. Moving on to the fourth most cited paper, which has accrued a substantial 179 citations, it is titled "Risk-resilient heuristics and genetic algorithms for security-assured grid job scheduling," and it is credited to Song, S., Hwang, K., and Kwok, Y.-K (Song et al., 2006).

2.5.5 MOST PROLIFIC AUTHORS:

The provided information highlights the top twenty most prolific authors in a dataset consisting of 342 studies contributed by a total of 159 authors. After analyzing the data, a list of the highest twenty authors with the uppermost number of publications was compiled. Notably, Enoch, M.A. emerges as the most prolific author in the field of risk resilience, having authored a remarkable six studies on the topic. Following closely behind are Shahar, G., Frangopol, D.M., and Dong, Y., each of whom has published five studies. Additionally, Botha, M. and Zainol, N.R. have also contributed five studies to this body of work.(Botha & Taljaard, 2019; Rizvi et al., 2012)(M. A. Enoch, 2006; M. A. Enoch et al., 2010; Frangopol et al., 2017b; Frangopol & Soliman, 2016b; Phong et al., 2020; Rizvi et al., 2012) (Ghorbani, S., Khodayari, A., & Mohammadi, 2014; Vinet & Zhedanov, 2011).

Figure No. 2.11: Most Prolific author

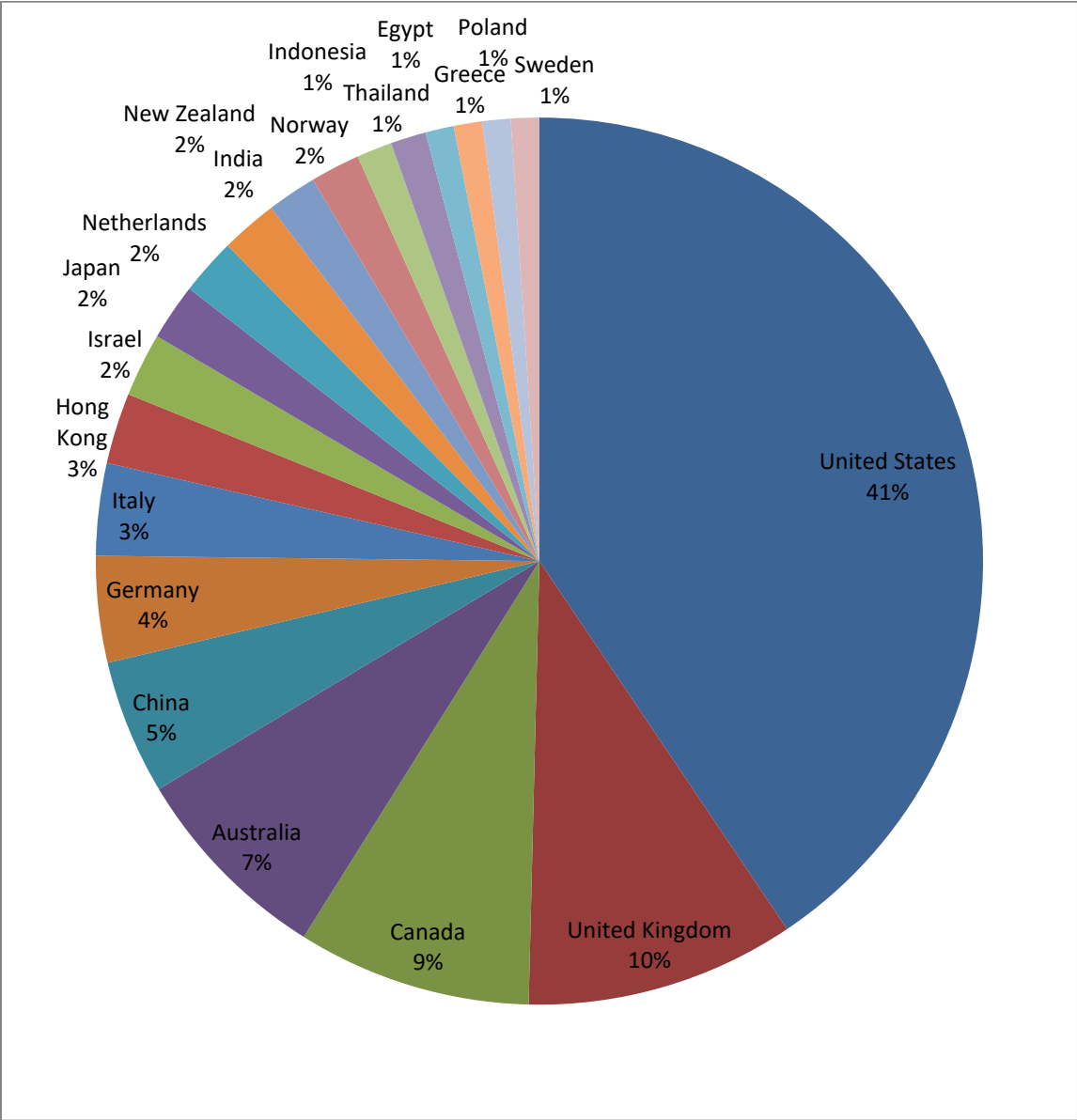


(Source: Scopus Data Base)

2.5.6 MOST PROLIFIC COUNTRIES:

The comprehensive collection of studies is the combined effort of authors from over 55 diverse countries. The paper highlights the top twenty nations contributing significantly to research on risk resilience. Leading this list is the United States, contributing a noteworthy 41% of the total studies. Following suit, the United Kingdom and Canada each contribute 10% and 9% of the studies, respectively. Moreover, Australia and China each account for 7% and 5% of the studies, underscoring their substantial involvement within this domain.

Figure No. 2.12: Most Prolific Countries

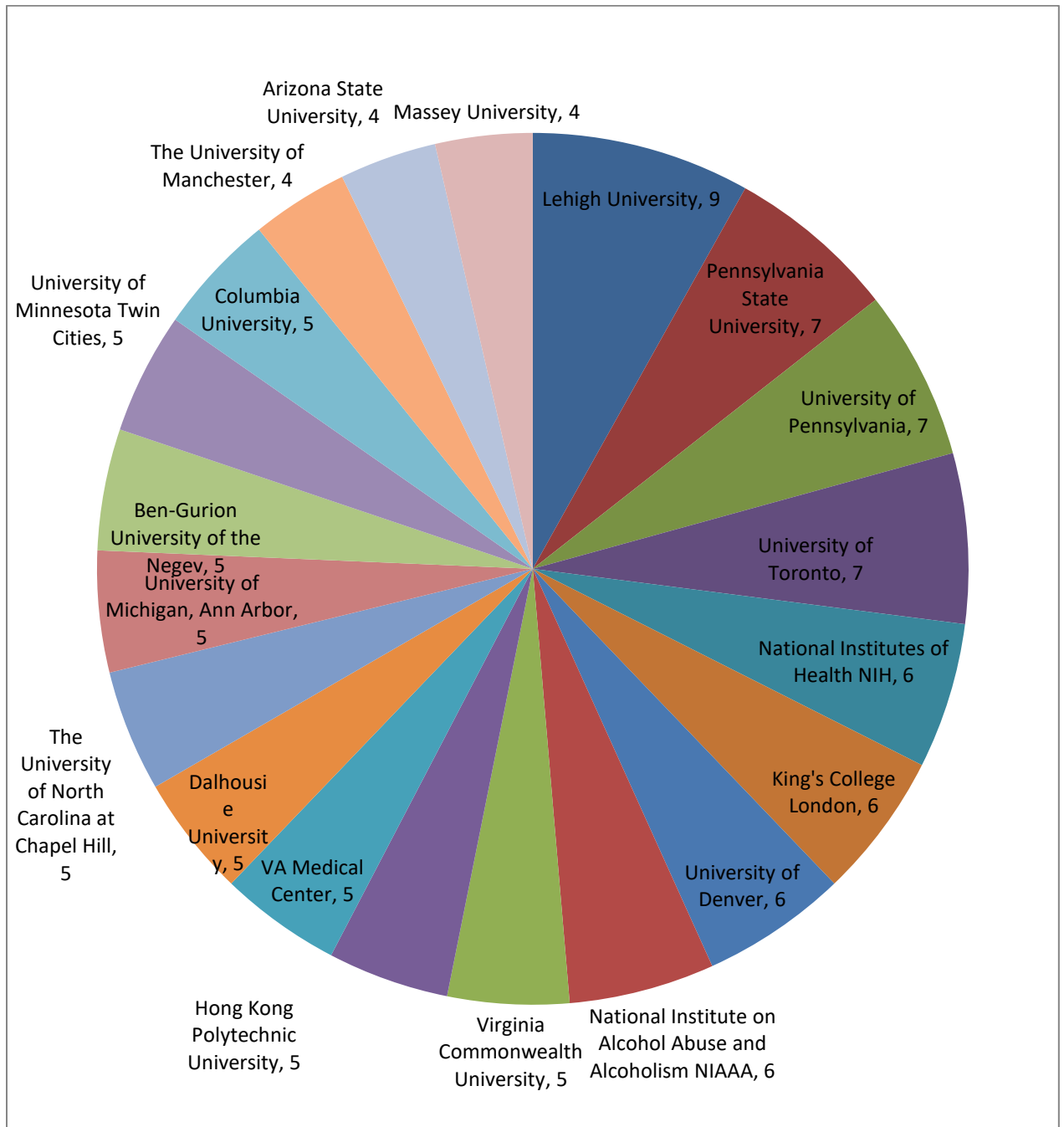


(Source: Scopus Data Base)

2.5.7 AFFLICTION OF AUTHORS

The figure shows the affiliation of authors. It has been observed that maximum authors are afflicted to Lehigh University with 9 in numbers and secondly from Pennsylvania State university, University of Pennsylvania and University of Toronto have 7 each.

Figure No. 2.13: Affliction of authors

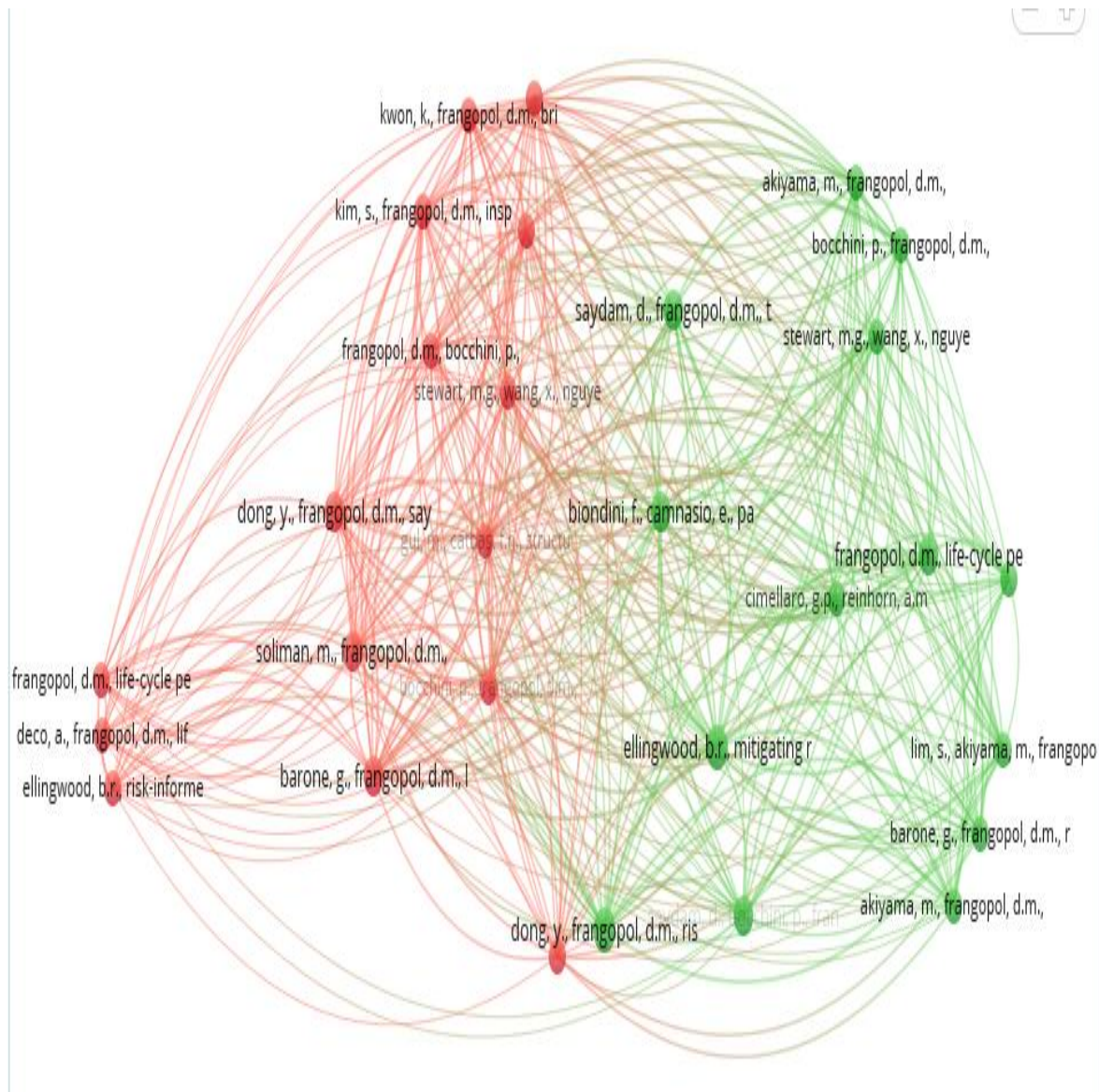


(Source: Scopus Data Base)

2.5.8 CO-AUTHORSHIP NETWORK MAPPING:

The figure depicted represents a co-authorship network map generated using the VOS viewer software. In this visual representation, you can observe both large and small circles interconnected by numerous lines. The size of these circles corresponds to the number of authors with whom an author has collaborated, and their names are clearly labelled. Specifically, the figure highlights the top 29 authors who have engaged in the most extensive collaborations with other authors within the dataset.

Figure No. 2.14: Co-authorship Network Mapping



(Source: VOS viewer)

2.6 FIRM PERFORMANCE

Firm performance refers to the evaluation of how well a company or organization is achieving its objectives and goals. It encompasses various dimensions such as financial performance, market share, growth rate, profitability, productivity, customer satisfaction, and overall business success (Anbarasan & Sushil, 2018; Dean & McMullen, 2007; Djupdal & Westhead, 2015; Woolthuis, 2010). The firm performance serves as an indicator of the effectiveness and efficiency with which a firm utilizes its resources and generates desired outcomes. Strong firm performance is an essential component of sustaining and growing a business over time. It reflects the ability of an entrepreneurial venture to generate profits, attract and retain customers, and adapt to changing market conditions (Awotoye & Singh, 2017; Business & Commons, 2009; Davis et al., 2010; Gundry et al., 2016; Kerr et al., 2018; Mitchelmore & Rowley, 2013; Tat et al., 2007).

Firm performance is closely linked to a company's competitive advantage. High-performing firms are often more capable of outperforming competitors, establishing market dominance, and creating barriers to entry for potential rivals (Konys, 2019; Meutia & Ismail, 2012; Tehseen & Ramayah, 2015; Winn et al., 2011; Wu & Wu, 2008). Firm performance impacts the value created for various stakeholders, including shareholders, employees, customers, suppliers, and the community. Positive firm performance enhances shareholder value, job security, customer satisfaction, and overall societal welfare (Balmer et al., 2011; Crals & Vereeck, 2005; Krueger et al., 2000; Pulka et al., 2021). Firm performance influences the availability and allocation of resources. Successful firms with strong performance are more likely to attract investments, secure favourable financing terms, and access resources needed for growth and innovation (Abeysekara et al., 2019; Awotoye & Singh, 2017; Cho & Saki, 2021; Kerr et al., 2018). High-performing firms build a positive reputation within the entrepreneurial ecosystem. This reputation can attract talented employees, strategic partners, and new business opportunities, enhancing the entrepreneur's ability to pursue future ventures (Cao et al., 2022; Gundry et al., 2016; Khatib et al., 2021; Windapo, 2018).

Measuring firm performance allows entrepreneurs, investors, stakeholders, and researchers to assess the effectiveness of entrepreneurial activities and strategies. It provides valuable

insights into the strengths, weaknesses, and areas for improvement within a company (Boyatzis, 2008; Lonsdorf & Merz, 2017; Mikami & Hinshaw, 2006; Young & Tilley, 2006). Furthermore, firm performance metrics can help guide decision-making, resource allocation, and the formulation of growth strategies (Afifi et al., 2016; Frangopol & Soliman, 2016a). It is important to note that firm performance is multidimensional and can vary across industries, business models, and organizational goals (Frangopol & Soliman, 2016a; Hahn et al., 2018; Joensuu-Salo et al., 2021). Different performance indicators may be more relevant in specific contexts. Therefore, it is essential to select appropriate performance measures that align with the goals and objectives of the entrepreneurial venture (Abeysekara et al., 2019; Capital, 2017; Firoozi et al., 2017; Javed et al., 2023; Omar, 2021; Windapo, 2018). Overall, firm performance serves as a critical measure of entrepreneurial success, providing a holistic assessment of a company's ability to achieve its objectives, create value for stakeholders, and thrive in a competitive business environment. Monitoring and improving firm performance is crucial for sustaining and expanding entrepreneurial ventures, driving economic growth, and fostering innovation (Botha & Taljaard, 2019; Choe et al., 2013; Joensuu-Salo et al., 2021; Konys, 2019; Kraus et al., 2018; Man et al., 2008; Obschonka et al., 2011; Rasmussen & Wright, 2015; Tehseen & Ramayah, 2015; Woolthuis, 2010).

2.7 HYPOTHESIS DEVELOPMENT

The conclusion of the comprehensive literature review underscores the need to explore the potential relationship between the variables under investigation such as entrepreneurial competencies, intention to persist, risk resilience and firm performance. The review revealed a series of patterns, discrepancies, and gaps in the existing knowledge, which has led to the formulation of a testable hypothesis. Drawing from the amalgamation of theoretical frameworks, empirical studies, and expert insights, this hypothesis seeks to extend the current understanding by proposing a clear prediction about the expected relationship between the identified variables entrepreneurial competencies, intention to persist, risk resilience and firm performance.

The hypothesis posits a favourable construction between entrepreneurial competencies and attitudes toward business, perceived behavioural control, subjective norms, and personal

norms. It is vital to scrutinize and articulate the dimensions of entrepreneurial competencies and attitudes toward business, including perceived behavioural control, subjective norms, and personal norms, to understand this relationship better. Entrepreneurial competencies encompass the skills, knowledge, and abilities of individuals, empowering them to recognize opportunities, innovate, embrace risks, and adeptly oversee the development and expansion of a business venture (Barazandeh et al., 2015; Morris et al., 2013; Sánchez, 2013; Sirelkhatim & Gangi, 2015; Wulani et al., 2019). These competencies contain creativity, problem-solving, opportunity recognition, strategic thinking, decision-making, leadership, communication, and networking skills (Bagheri & Pihie, 2011; Mitchelmore & Rowley, 2013; Rasmussen et al., 2014).

H1: There is a significant relationship between entrepreneurial competencies and attitude towards business, perceived behavioural control, subjective norms, and personal norms.

Attitude toward business shows individual mindset, beliefs, and feelings toward engaging in entrepreneurial activities and the business environment. It encompasses enthusiasm, motivation, passion, perseverance, optimism, and a willingness to embrace challenges and uncertainty (Jansson et al., 2011b; Mikami & Hinshaw, 2006; Su et al., 2021). The hypothesis suggests that individuals who have higher entrepreneurial competencies are likelier to exhibit a positive attitude toward business. Entrepreneurial competencies provide individuals with the required skills and knowledge that navigate the complexities of the business world (Gladstone et al., 2006; Lonsdorf & Merz, 2017; Wagnild, 2009). A foundation in problem-solving and strategic thinking competencies, individuals are better equipped to handle challenges and uncertainties (Bolzani & Luppi, 2021; Makhura, 2011). This enhanced ability to overcome obstacles fosters a positive attitude toward business, as individuals perceive themselves as capable of addressing and capitalizing on opportunities.

Individuals with a favourable mindset and motivation are likelier to invest time and effort in acquiring and refining their skills (Anjum et al., 2021; Bai & Bai, 2020; M.-A. Enoch et al., 2010). A positive attitude towards business encourages individuals to continuously learn, seek new experiences, take calculated risks, and persist in the aspect of setbacks, all of which contribute to the growth of their entrepreneurial competencies (Crals & Vereeck, 2005; Davis et al., 2010; Jansson et al., 2011b). Entrepreneurial competencies

and attitudes toward business can cyclically reinforce each other. As individuals acquire and improve their competencies, they gain a deeper understanding of the business landscape, build confidence in their abilities, and develop a more optimistic attitude toward business (Phong et al., 2020; Windapo, 2018). Simultaneously, a positive attitude towards business can drive individuals to enhance their competencies further as they actively seek opportunities to apply their skills and expand their entrepreneurial ventures.

H1a: There is a significant relationship between entrepreneurial competencies and attitude towards business.

The Theory of Planned Behaviour drives perceived behavioural control (Ajzen, 1991; Jansson et al., 2011b) means individual's subjective belief or perception which helps their skill to achieve a definite behaviour successfully (Mitchelmore & Rowley, 2013). Entrepreneurship reflects a person's confidence and trust in their capacity to engage in entrepreneurial activities and effectively control their actions and outcomes. The hypothesis suggests that individuals with higher entrepreneurial competencies exhibit greater perceived behavioural control (Abraham et al., 2014). Entrepreneurial competencies equip with the essential skills and knowledge to pilot the complexities of the entrepreneurial procedure. By having a broad range of competencies, individuals sense more capable and self-assured in their ability to control their actions and achieve desired outcomes (Gladstone et al., 2006; Hussain Aroona; Gilani, Misbah, 2018; Shah et al., 2020). The heightened sense of competence plays a pivotal role in elevating perceived behavioural control within entrepreneurial contexts. Entrepreneurial competencies, including problem-solving, opportunity recognition, and decision-making skills, empower individuals to make well-informed and effective choices in the entrepreneurial realm (Makhura, 2011). A robust foundation of competencies equips individuals with greater control over their decision-making processes. This confidence in decision-making, in turn, results in an augmented sense of perceived behavioural control, as individuals feel empowered to make and implement decisions that significantly influence their entrepreneurial outcomes (Frangopol & Soliman, 2016a; Russell, 2005; Širola, 2020; Willis & DeKay, 2007).

Entrepreneurship often involves overcoming challenges and obstacles. Individuals with advanced levels of entrepreneurial competencies possess a more extraordinary repertoire of problem-solving and resilience skills. Entrepreneurs enhance their belief in their ability to overcome obstacles, thereby increasing their perceived behavioural control. They view tasks as opportunities for development and are more likely to persist in their entrepreneurial pursuits, even in the face of setbacks (Ibrahim & Abdullahi, 2014; Kumar, 2020). Entrepreneurial competencies play a vital role in shaping self-efficacy, which is an individual's confidence in their ability to successfully carry out specific tasks or behaviours. As individuals acquire and enhance their competencies, their belief in their capacity to perform entrepreneurial activities strengthens. This heightened self-efficacy, in turn, contributes to elevated levels of perceived behavioural control, as individuals perceive they possess the requisite skills and resources to accomplish entrepreneurial goals. (Adarsh & Jayashree, 2020; Damayanti et al., 2020).

Recognizing the connection between entrepreneurial competencies and perceived behavioural control carries practical implications for entrepreneurship education, training initiatives, and support systems. Nurturing the development of entrepreneurial competencies can empower individuals to augment their perceived behavioural control, subsequently positively impacting their entrepreneurial decision-making, persistence, and overall success (Botha & Taljaard, 2019; Gladstone et al., 2006; Koe, 2016; Ozaralli & Rivenburgh, 2016). Linen's study underscores a notable correlation between entrepreneurial competencies, particularly self-confidence and risk-taking propensity, and perceived behavioural control. Individuals possessing heightened entrepreneurial competencies demonstrate increased confidence in their capability to engage in behaviours. The research emphasizes the pivotal role of entrepreneurial competencies in shaping individuals' perceived behavioural control and their intentions to pursue entrepreneurial activities. It highlights that these competencies are instrumental in influencing individuals' confidence and determination to undertake entrepreneurial endeavours (Fayolle & Liñán, 2014; Heuer & Liñán, 2013; Liñán & Fayolle, 2015; Rueda et al., 2015).

H1b: There is a significant relationship between entrepreneurial competencies and perceived behavioural control

Subjective norms derive from the Theory of Planned Behaviour. They reflect person's insight of the community pressure or influence by such as family, friends, colleagues, and society, regarding their engagement in a specific behaviour (Damayanti et al., 2020). In entrepreneurship, subjective norms represent an individual's beliefs about whether others vital to them support or discourage entrepreneurial activities. The hypothesis suggests that individuals with higher entrepreneurial competencies are likelier to experience more favourable subjective norms toward entrepreneurship (Badr et al., 2018; Damayanti et al., 2020; Doanh & Bernat, 2019).

Entrepreneurial competencies enable individuals to demonstrate their entrepreneurial knowledge and skills in various contexts. When individuals exhibit a more of competencies, they will be recognized and respected by their social network. This recognition can lead to more positive subjective norms, as individuals perceive more significant support and encouragement from their social circle for engaging in entrepreneurial activities (Gladstone et al., 2006; Phong et al., 2020). Entrepreneurial competencies often develop through learning and interaction with others, including successful entrepreneurs and mentors. When individuals possess strong entrepreneurial competencies, they will establish connections with role models and influential individuals in the entrepreneurial community. These connections can shape subjective norms as individuals are exposed to positive entrepreneurial role models and receive encouragement and support from influential individuals, reinforcing their positive attitudes toward entrepreneurship (Damayanti et al., 2020; Velástegui & Chacón, 2021).

Entrepreneurial competencies contribute to an individual's credibility as an entrepreneur. When individuals possess strong competencies, they are more likely to be perceived as capable and knowledgeable in the entrepreneurial domain by others. This enhanced credibility can influence subjective norms, as individuals will receive positive feedback, endorsement, and social network support, reinforcing their positive attitudes and intentions toward entrepreneurship (Igwe et al., 2020; Most et al., 2018; Swain et al., 2014). Individuals with high entrepreneurial competencies often pursue entrepreneurial ventures, and their successes can influence subjective norms. When others witness the accomplishments and achievements of competent entrepreneurs, it can positively impact their perceptions of entrepreneurship. Social validation and acceptance of entrepreneurship

as a viable and desirable career path can lead to more positive subjective norms, as individuals feel that entrepreneurship is supported and valued by their social environment (Bec et al., 2018; B. Cohen & Winn, 2007; Katsikis & Kyrgidou, 2007; Klewitz & Hansen, 2014). Comprehending the interplay between entrepreneurial competencies and subjective norms holds significant importance for policymakers, educators, and support organizations dedicated to nurturing an entrepreneurial ecosystem. Fostering the growth of entrepreneurial competencies and establishing an environment that nurtures positive subjective norms becomes instrumental. Through such initiatives, stakeholders can actively promote a shift in individuals' perceptions, making entrepreneurship a more appealing and viable career choice. This, in turn, not only contributes to individual entrepreneurial success but also fuels overall economic growth (Afifi et al., 2016; Botha & Taljaard, 2019; Mikami & Hinshaw, 2006; Russell, 2005).

H1c: There is a significant relationship between entrepreneurial competencies and subjective norms.

Personal norms represent an individual's internalized values, beliefs, and principles guiding behaviour and decision-making. They reflect individuals' moral and ethical standards, influencing their choices and actions (Schwartz, 2012). In entrepreneurship, personal norms are the subjective standards individuals set for themselves regarding their entrepreneurial behaviour and conduct. The hypothesis suggests that individuals with higher entrepreneurial competencies are likelier to adhere to and exhibit stronger personal norms aligned with entrepreneurship. Entrepreneurial competencies link to the values and principles that underpin entrepreneurship, such as autonomy, innovation, an opportunity-driven mindset, and a willingness to take risks. When individuals possess high entrepreneurial competencies, they are more likely to internalize these values and align them with their norms. They believe in and uphold the importance of entrepreneurial behaviour, leading to a more substantial commitment to entrepreneurial principles in their decision-making and actions (Bloemer et al., 2013; Morris et al., 2013; RezaeiZadeh et al., 2017; Taatila, 2010; Wulani et al., 2019).

Entrepreneurial competencies, including ethical awareness and decision-making skills, influence individuals' ability to navigate complex ethical dilemmas in entrepreneurship. Individuals with a solid ethical foundation are more likely to consider the moral

implications of their decisions and actions (Gladstone et al., 2006). This adherence to ethical standards becomes part of their norms, guiding their behaviour and promoting responsible and ethical entrepreneurship. Entrepreneurial competencies enhance individuals' ability to translate their intentions into actual entrepreneurial behaviour. High levels of competencies will have more intentions, as they own the necessary skills and resources to execute their entrepreneurial plans. This consistency between intention and behaviour strengthens personal norms as individuals experience congruence between their desired entrepreneurial conduct and actual actions, reinforcing their commitment to entrepreneurial norms (Flowers et al., 2017; Širola, 2020; Towler & Shepherd, 1991). Entrepreneurial competencies contribute to an individual's self-perception as an entrepreneur. When individuals possess robust competencies, they perceive themselves as capable and skilled entrepreneurs. This self-perception influences personal norms as individuals strive to align their behaviour with their entrepreneurial identity. They are motivated to uphold their standards and norms in line with their competencies, fostering a positive feedback loop between their entrepreneurial competencies and personal norms (Bloemer et al., 2013; Morris et al., 2013; Sirelkhatim & Gangi, 2015; Taatila, 2010).

H1d: There is a significant relationship between entrepreneurial competencies and personal norms.

Intention to persist represents an individual's commitment and determination to pursue their entrepreneurial goals despite challenges, setbacks, and uncertainties. It reflects an individual's mindset and willingness to persistently invest time, effort, and resources into their entrepreneurial ventures, even when faced with obstacles and failures.

H2: There is a significant relationship between attitude towards business, perceived behavioural control, subjective and personal norms, and intention to persist.

The hypothesis suggests a positive relationship exists between attitude towards business and intention to persist. In this relationship, it is vital to define and examine both components: attitude towards business and intention to persist. Attitude towards business explains an individual's overall evaluation, beliefs, and feelings towards engaging in business activities and entrepreneurship. It encompasses an individual's perception of business ventures' desirability, attractiveness, and potential rewards (Hussain Aroona; Gilani, Misbah, 2018; Ozaralli & Rivenburgh, 2016). A positive attitude towards business

often stems from a genuine interest and passion for entrepreneurship. Individuals with a positive attitude view business activity as exciting, fulfilling, and aligned with their interests and goals. This motivation and passion serve as driving forces behind their intention to persist. They derive satisfaction and fulfilment from their entrepreneurial pursuits, fuelling their determination to work towards their goals persistently (Hussain Aroona; Gilani, Misbah, 2018; Poolsawat, 2021).

A positive attitude towards business is often related with an individual's belief in the potential rewards and assistances of engaging in entrepreneurial activities. Individuals with a positive attitude perceive entrepreneurship as a path to financial success, autonomy, flexibility, and personal growth (Afifi et al., 2016; Khatib et al., 2021). This positive perception of rewards and benefits enhances their intention to persist, as they are motivated by the anticipated positive outcomes and are willing to invest effort and overcome challenges to attain them. A positive attitude towards business is thoroughly related to resilience and optimism (Song et al., 2006). Individuals with a positive attitude tend to maintain an optimistic outlook, even in adversity. They believe in overcoming obstacles, learning from failures, and adapting strategies. This resilience and optimism contribute to a stronger intention to persist, as they approach setbacks as temporary roadblocks rather than insurmountable barriers. They remain committed to their entrepreneurial goals and persistently work towards them with a positive mindset (Pierce et al., 2017; Song et al., 2006; Swain et al., 2014).

A positive attitude towards business often attracts social support and validation from others. Individuals with a positive attitude are more likely to receive encouragement, advice, and resources from their social network, including family, friends, mentors, and colleagues. This social support strengthens their intention to persist, as they feel supported, valued, and affirmed in their entrepreneurial pursuits (Arafat et al., 2020; Jansson et al., 2011b; Russell, 2005). The positive reinforcement from others reinforces their commitment and determination to persist despite challenges. Understanding the relationship between attitude towards business and intention to persist is crucial for aspiring entrepreneurs, educators, and policymakers. By promoting a positive attitude towards business and providing support and resources to foster persistence, stakeholders can inspire more people to pursue entrepreneurial ventures, rise the probability of

entrepreneurial success, and subsidize to economic growth and novelty (Arafat et al., 2020; Hussain & Norashidah, 2015; Jansson et al., 2011b; Russell, 2005).

H2a: There is a significant relationship between attitude towards business and intention to persist

The hypothesis posits a positive correlation between perceived behavioural control and the intention to persist. In examining this relationship, it is essential to elucidate and scrutinize both elements: perceived behavioural control and the intention to persist. Perceived behavioural control refers to a person's subjective belief in their capability to execute a specific behaviour or attain a particular goal. It encompasses an person's perception of control over the factors influencing their behaviour and the extent to which they believe they can positively carry out the intended behaviour (M.-A. Enoch, 2011; Heuer & Liñán, 2013; Ranga, Reddy, et al., 2019). Perceived behavioural control is closely linked to an individual's self-efficacy, which is defined as the trust in one's capability to successfully execute a particular task or behaviour. When individuals perceive a heightened level of behavioural control, it instils greater confidence in their capacity to overcome challenges, adapt to evolving circumstances, and achieve their entrepreneurial objectives. This self-efficacy, combined with enhanced confidence, contributes to a strengthened intention to persist. Individuals, buoyed by the belief in their ability to overcome obstacles, are more inclined to stay committed to their entrepreneurial goals. (M.-A. Enoch, 2011; Heuer & Liñán, 2013; Ranga, Reddy, et al., 2019; Turra & Melinda, 2021).

Perceived behavioural control plays a crucial role in initiating and maintaining goal-directed behaviour. Individuals who perceive high control over their behaviour tend to set clear goals, develop action plans, and persistently work towards their objectives. Their belief in their ability to control their behaviour empowers them to take consistent and focused actions, leading to a stronger intention to persist in their entrepreneurial endeavours (Russell, 2005; Swain et al., 2014). Perceived behavioural control influences individuals' problem-solving abilities and resourcefulness. When individuals perceive a high level of control over their behaviour, they will adopt a proactive style to problem-solving and seek out resources and support when needed. This problem-solving orientation and resourcefulness contribute to a stronger intention to persist, as individuals feel

equipped to overcome challenges and find solutions to obstacles they encounter along their entrepreneurial journey (Adarsh & Jayashree, 2020; Damayanti et al., 2020).

Perceived behavioural control also influences individuals' perception of the controllability of outcomes. When individuals perceive high control over their behaviour, they are likelier to believe that their actions and efforts can lead to desired outcomes and success. This perception of controllability motivates individuals to persist, as they feel a sense of agency and responsibility for the outcomes they achieve (Afifi et al., 2016; Mikami & Hinshaw, 2006; Russell, 2005). Understanding the relationship between perceived behavioural control and intention to persist is crucial for supporting aspiring entrepreneurs and fostering entrepreneurial success. By enhancing individuals' perceived behavioural control through training, education, and support, stakeholders can empower entrepreneurs to persist in the aspect of challenges, increase their likelihood of achieving their goals, and contribute to long-term entrepreneurial success (Arafat et al., 2020; M.-A. Enoch, 2011; Heuer & Liñán, 2013; Ranga, Reddy, et al., 2019).

H2b: There is a significant relationship between perceived behavioural control and the intention to persist

The hypothesis suggests that a positive relationship exists between subjective norms and the intention to persist. In this relationship, it is essential to define and examine subjective norms and intention to persist. Subjective norms refer to an individual's perception of social expectations and pressures regarding a particular behaviour. It reflects the influence of social norms, opinions, and approval/disapproval from significant others or reference groups on an individual's decision-making and behaviour (Damayanti et al., 2020; Doanh & Bernat, 2019). Subjective norms influence individuals' perception of social approval and support for their entrepreneurial endeavours. When individuals perceive that their social network, including family, friends, mentors, or colleagues, supports and values persistence in entrepreneurship, they will develop a positive attitude toward persistence. This perception of social approval and support contributes to a stronger intention to persist, as individuals feel encouraged, validated, and motivated by the positive reinforcement from their social circle (Damayanti et al., 2020; Jansson et al., 2011b; Loan et al., 2021).

Subjective norms are shaped by role modelling and reference groups. Individuals often look up to successful entrepreneurs or influential figures as role models. When individuals perceive that successful entrepreneur or those, they admire have persisted in facing challenges and achieved their goals, they are more likely to adopt positive subjective norms toward persistence. These role models and reference groups inspire and set the standard for perseverance, reinforcing individuals' intentions to persist (Afifi et al., 2016; Frangopol et al., 2017a; Winn et al., 2011). Subjective norms influence individuals' perception of normative expectations and social pressure to persist in entrepreneurship. When individuals perceive that their social environment expects them to persist and views persistence as the norm in the entrepreneurial context, they will conform to these expectations. The perceived social pressure and conformity to norms contribute to a stronger intention to persist as individuals strive to meet the perceived social expectations and avoid social disapproval or criticism (Afifi et al., 2016; Omar, 2021; Silajdžić et al., 2015).

Subjective norms are influenced by the collective entrepreneurship culture within a community, region, or society. When individuals are part of an environment that promotes and values persistence in entrepreneurship, such as through supportive policies, networks, and entrepreneurial ecosystems, they are more likely to adopt positive subjective norms toward persistence (M.-A. Enoch et al., 2010; Gray et al., 2014; Winn et al., 2011). The presence of a collective entrepreneurship culture reinforces individuals' intention to persist as they align their behaviour with the prevailing cultural norms and values. Understanding the relationship between subjective norms and the intention to persist is vital for supporting aspiring entrepreneurs and creating an enabling environment for entrepreneurial success. By fostering positive subjective norms through awareness campaigns, role modelling, mentorship, and supportive networks, stakeholders can enhance individuals' intention to persist, promote entrepreneurship as a viable career path, and contribute to the growth of entrepreneurial ecosystems (Hedner et al., 2011; Mikami & Hinshaw, 2006; Sciences, 2021).

H2c: There is a significant relationship between subjective norms and the intention to persist

The hypothesis suggests that a positive relationship exists between personal norms and the intention to persist. Defining and examining personal norms and intentions to persist in this relationship is crucial. Personal norms refer to an individual's internalized standards, values, and beliefs that guide their behaviour. They represent a sense of personal obligation or responsibility to act according to one's moral or ethical principles and adhere to self-imposed standards of behaviour (Schwartz, 2012). Personal norms tie to an individual's values and intrinsic motivation. When individuals have personal norms that prioritize persistence, they perceive persistence as a fundamental value or principle in their entrepreneurial journey. This alignment between personal values and persistence enhances individuals' intrinsic motivation to persist, as they view persistence as an integral part of their identity and purpose—the internal desire to uphold their norms and remain committed to their entrepreneurial goals (Ranga, Reddy, et al., 2019; Rueda et al., 2015; Schwartz, 2012).

Personal norms contribute to individuals' sense of integrity and congruence in their entrepreneurial pursuits. When individuals have personal norms emphasizing persistence, they strive for consistency between their beliefs and actions. They perceive persistence as essential for maintaining integrity and aligning their behaviour with norms. This sense of integrity and congruence strengthens their intention to persist, as they are motivated to act following their deeply held beliefs and values (Abraham et al., 2014). Personal norms often encompass ethical considerations and a sense of moral obligation. Individuals with personal norms prioritizing persistence in entrepreneurship may perceive persistence as an ethical imperative. They believe that persisting in their entrepreneurial endeavours benefits their success and aligns with their responsibility towards stakeholders, such as employees, customers, or the broader community. This ethical perspective enhances their intention to persist, as they are motivated by a sense of duty and social responsibility (Abraham et al., 2014; P. R. Cohen & Levesque, 1990; Eriksson et al., 2008).

Personal norms influence individuals' long-term vision and commitment to their entrepreneurial goals. Individuals with personal norms emphasizing persistence are more likely to have a long-term perspective and commitment to their entrepreneurial ventures. They recognize that success in entrepreneurship requires perseverance and a steadfast commitment to their goals (Crals & Vereeck, 2005; Makhura, 2011). This long-term vision

and commitment contribute to a stronger intention to persist, as individuals to invest the time, effort, and resources to achieve their entrepreneurial aspirations. Understanding the relationship between personal norms and the intention to persist is essential for supporting and nurturing the entrepreneurial mindset. By promoting personal norms that emphasize persistence and align with ethical and moral considerations, stakeholders can foster individuals' intention to persist, encourage responsible entrepreneurship, and contribute to developing resilient and committed entrepreneurs (Afifi et al., 2016; Banha et al., 2022; Crals & Vereeck, 2005; Makhura, 2011).

H2d: There is a significant relationship between personal norms and the intention to persist

The hypothesis suggests a positive relationship exists between entrepreneurial competencies and intention to persist. In this relationship, it is essential to define and examine entrepreneurial competencies and intention to persist. Entrepreneurial competencies refer to individuals' skills, knowledge, and abilities that enable them to recognize opportunities, innovate, risks, and effectively manage and grow a business venture. These competencies include but are not limited to creativity, problem-solving, opportunity recognition, strategic thinking, decision-making, leadership, communication, and networking skills (Bloemer et al., 2013; Botha et al., 2019; Morris et al., 2013; Sirelkhatim & Gangi, 2015; Taatila, 2010). Intention to persist represents an individual's commitment and determination to pursue their entrepreneurial goals despite challenges, setbacks, and uncertainties (Damayanti et al., 2020; Loan et al., 2021). It reflects an individual's mindset and willingness to persistently invest time, effort, and resources into their entrepreneurial ventures, even when faced with obstacles and failures. Entrepreneurship often involves facing numerous challenges and obstacles. Individuals with higher levels of entrepreneurial competencies possess a range of problem-solving, resilience, and adaptability skills that help them navigate these challenges (Adarsh & Jayashree, 2020; Damayanti et al., 2020; Loan et al., 2021). Their competencies enable them to develop effective strategies, identify alternative solutions, and learn from failures. This ability to overcome obstacles and persevere contributes to a stronger intention to persist in their entrepreneurial pursuits (Gee & Casey, 2015; Guritno et al., 2019; Mikami & Hinshaw, 2006).

Entrepreneurial competencies enhance individuals' confidence and self-efficacy in their entrepreneurial abilities. When individuals have more competencies, they believe in their capacity to successfully execute entrepreneurial tasks and projects. This confidence and self-efficacy translate into a stronger belief in their ability to persist and overcome challenges. They view setbacks as learning opportunities and remain determined to pursue their goals, reinforcing their intention to persist (Bloemer et al., 2013; Kusumawijaya & Astuti, 2021; Morris et al., 2013; Reyes et al., 2018; Taatila, 2010). Entrepreneurial competencies often develop in tandem with a strong passion for entrepreneurship. When individuals possess high competencies and engage in entrepreneurial activities aligned with their interests and values, they are likelier to experience intrinsic motivation. This passion and motivation fuel their intention to persist as they derive enjoyment and fulfilment from their entrepreneurial pursuits. Their competencies enable them to channel their passion into tangible actions, further strengthening their intention to persist (Damayanti et al., 2020; Hussain Aroona; Gilani, Misbah, 2018; Jansson et al., 2011b).

Entrepreneurial competencies contribute to individuals' goal clarity and commitment. When individuals possess robust competencies, they are equipped to define and refine their entrepreneurial goals, creating a clear vision for their ventures. This goal of clarity and commitment serves as a driving force behind their intention to persist. They deeply understand the value and potential of their entrepreneurial pursuits, which fuels their determination to work towards their goals persistently (Bagheri & Pihie, 2011; Draksler & Širec, 2018; Morris et al., 2013; RezaeiZadeh et al., 2017). Understanding the relationship between entrepreneurial competencies and the intention to persist is essential for supporting aspiring entrepreneurs and fostering entrepreneurial success. By promoting the development of entrepreneurial competencies and creating an environment that encourages and nurtures persistence, stakeholders can enhance the likelihood of entrepreneurial ventures flourishing and achieving long-term success (Al Mamun et al., 2016; Botha & Taljaard, 2019; Kusumawijaya & Astuti, 2021; Kyguolienė & Švipas, 2019; Reyes et al., 2018; Rezaei, n.d.).

Krueger's in his research compares competing models of entrepreneurial intentions and their relationship with entrepreneurial competencies. It finds that entrepreneurial competencies significantly influence individuals' intention to persist in entrepreneurship,

suggesting that individuals with higher competencies are likelier to express stronger intentions. The study emphasizes the position of entrepreneurial competencies in shaping individuals' intention to persist in entrepreneurship, emphasizing the need for fostering these competencies to promote entrepreneurial persistence (Chien-Chi et al., 2020; M.-A. Enoch et al., 2010; Guerrero et al., 2008; Igwe et al., 2020; Krueger et al., 2000). In Engle's study, Ajzen's planned behaviour model is assessed for its ability to predict entrepreneurial intent across twelve countries. The findings reveal a significant impact of entrepreneurial competencies on individuals' intentions to persist in entrepreneurship. This indicates that individuals with higher competencies are more likely to possess stronger intentions to persist. The study highlights the crucial role of entrepreneurial competencies in shaping individuals' intentions to persist in entrepreneurship. It suggests that educational interventions and policy initiatives should prioritize the development of these competencies to foster entrepreneurial persistence on a global scale (Bryan et al., 1995; Doran & Larsen, 2016; Lonsdorf & Merz, 2017).

In Linen's (2011) study, the investigation into factors influencing entrepreneurial intentions, including the impact of education and entrepreneurial competencies, reveals a positive association. Entrepreneurial competencies are found to have a positive influence on individuals' intentions to persist in entrepreneurship. This implies that individuals with higher competencies are more inclined to possess stronger intentions to persist. The study emphasizes the crucial role of entrepreneurial competencies in shaping individuals' intentions to persist in entrepreneurship, advocating for educational programs to prioritize the development of these competencies to enhance entrepreneurial persistence (Fayolle & Liñán, 2014; Heuer & Liñán, 2013; Liñán & Fayolle, 2015; Rueda et al., 2015).

In Peterman's (2013) study, the examination enterprise education on students' perceptions of taking entrepreneurship, including the intention to persist, reveals a significant influence of entrepreneurial competencies. The study indicates that individuals with higher competencies possess stronger intentions to persist in entrepreneurship. This underscores the importance of entrepreneurial competencies in shaping individuals' intentions to persist in entrepreneurship. The study recommends that enterprise education should prioritize the development of these competencies to foster entrepreneurial persistence among students (Gladstone et al., 2006; Rasmussen & Wright, 2015; Sirelkhatim & Gangi, 2015; Taatila,

2010). In Schlaegel's research, a meta-analytic test and addition of competing models are conducted to determine the determinants of entrepreneurial intent, including the intention to persist. The results reveal that entrepreneurial competencies show an important role in influencing individuals' intention to persist. Individuals with higher competencies are more likely to express stronger intentions to persist in entrepreneurship. The study underscores the importance of entrepreneurial competencies in shaping individuals' intentions to persist in entrepreneurship. It suggests that efforts should be directed towards enhancing these competencies to foster entrepreneurial persistence (Adarsh & Jayashree, 2020; Aparicio et al., 2019; Damayanti et al., 2020; Hussain Aroona; Gilani, Misbah, 2018).

In Luthra's research, the investigation explores entrepreneurial competencies in fostering intention among individuals in India. The findings disclose that entrepreneurial competencies show a noteworthy role in influencing individuals' intention to persist. Individuals with higher competencies express stronger intentions to persist in entrepreneurship. The study emphasizes the significance of entrepreneurial competencies in shaping individuals' intention to persist in entrepreneurship. It underscores the need for policy initiatives and educational programs that foster the development of these competencies to promote entrepreneurial persistence in India (Balmer et al., 2011; Bazan et al., 2020; Breuer et al., 2018; DiVito & Bohnsack, 2017; Klewitz & Hansen, 2014; Sharaf et al., 2018). In Hattab's research, the investigation delves into the predictive entrepreneurial competencies in entrepreneurial intentions among university students. The findings demonstrate that entrepreneurial competencies significantly influence individuals' intention to persist. Individuals with higher competencies are more likely to express stronger intentions to persist in entrepreneurship. The study underscores the importance of entrepreneurial competencies in shaping individuals' intention to persist in entrepreneurship. It suggests that efforts should be directed towards developing and enhancing these competencies to promote entrepreneurial persistence among university students (Amini et al., 2018; Kusumawijaya & Astuti, 2021; Lackéus, 2014; Wulani et al., 2019).

H3: There is a significant relationship between entrepreneurial competencies and the intention to persist

The hypothesis suggests a positive correlation between entrepreneurial competencies and firm performance. To thoroughly understand this relationship, it is imperative to delineate

and scrutinize both components: entrepreneurial competencies, and firm performance. Entrepreneurial competencies encompass skills, knowledge, and abilities which empower individuals to recognize opportunities, innovate, take risks, and adeptly manage and expand a business venture. These competencies encompass a broad spectrum, including but not limited to creativity, problem-solving, opportunity recognition, strategic thinking, decision-making, leadership, communication, and networking skills (Barazandeh et al., 2015; Bloemer et al., 2013; Kusumawijaya & Astuti, 2021; Morris et al., 2013; Sirelkhatim & Gangi, 2015; Taatila, 2010).

Firm performance encompasses various indicators and metrics that assess a business's success, growth, and profitability. It includes financial performance measures such as revenue, profitability, customer satisfaction, and innovation. The theory suggests that companies with higher entrepreneurial competencies are more likely to achieve better performance outcomes. Entrepreneurial competencies are closely associated with innovation and the ability to seize opportunities (Botha & Taljaard, 2019). Firms with high competencies are more likely to develop and implement innovative ideas, products, and processes that give them a competitive edge in the market. This innovation-driven competitive advantage contributes to improved firm performance by attracting customers, increasing market share, and enhancing profitability (Abeysekara et al., 2019; Business & Commons, 2009; Gundry et al., 2016; A. K. Gupta, 2021; Kerr et al., 2018; Mitchelmore & Rowley, 2013; Tat et al., 2007).

Entrepreneurial competencies, such as strategic thinking and decision-making skills, enable firms to make informed choices and adopt proactive strategies. Firms with high competencies are better equipped to identify and evaluate growth opportunities, assess risks, and make effective strategic decisions. This strategic orientation positively impacts firm performance, as it helps firms allocate resources efficiently, familiarize to changing market conditions, and capitalize on emerging trends. Entrepreneurial competencies foster adaptability and resilience in firms (Business & Commons, 2009; Man et al., 2008; Minai et al., 2018; Mitchelmore & Rowley, 2013). Firms must be agile and responsive to changes in today's dynamic and unpredictable business environment. Competency-rich firms are more flexible in adjusting their strategies, operations, and products/services to meet evolving client needs and market demands. This adaptability and resilience enable firms to

sustain performance even in challenging times and navigate disruptions more effectively (Escamilla-Fajardo et al., 2021; Katsikis & Kyrgidou, 2007; Miceli et al., 2021; Shadbolt & Olubode-Awosola, 2016).

Entrepreneurial competencies are closely intertwined with an entrepreneurial orientation, characterized by a proactive, risk-taking, and opportunity-seeking mindset. Firms that embody a strong entrepreneurial orientation often exhibit traits such as innovation, customer-centric approaches, and a commitment to growth. This orientation significantly contributes to enhanced firm performance by fostering a culture of continuous improvement, venturing into new markets, and developing unique capabilities. Recognizing the connection between entrepreneurial competencies and firm performance is crucial for policymakers, investors, and entrepreneurs. Stakeholders can play a pivotal role in elevating firm performance, driving economic growth, and creating a conducive environment for sustainable business success by actively promoting entrepreneurial competencies and offering for entrepreneurial activities. This understanding can inform strategic decisions and initiatives aimed at fostering a thriving entrepreneurial ecosystem (Cao et al., 2022; Shadbolt & Olubode-Awosola, 2016).

Rauch's study comprehensively evaluates previous research on entrepreneurial orientation, a critical aspect of entrepreneurial competencies, and its influence on business performance. The results reveal a positive correlation between entrepreneurial orientation and firm performance, indicating that companies with heightened entrepreneurial competencies tend to outperform their competitors. The study emphasizes the conclusion that nurturing and promoting entrepreneurial competencies, such as advanced thinking, proactiveness, and risk-taking, is essential for achieving superior firm performance. This insight underscores the strategic importance of fostering an entrepreneurial mindset within organizations to enhance overall business outcomes (Rauch et al., 2009).

In Wiklund's study, a configurational approach is utilized entrepreneurial orientation (associated with entrepreneurial competencies) and small business performance. The study identifies three distinct configurations of entrepreneurial orientation. Significantly, one particular configuration stands out, considered by high levels of innovativeness, proactiveness, and risk-taking, showcasing the strongest association with superior

performance outcomes. This nuanced approach offers valuable visions into the intricate interplay between entrepreneurial competencies, entrepreneurial orientation, and small business performance (H. L. Chen & Hsu, 2013; Jansson et al., 2011b; Ozaralli & Rivenburgh, 2016). The study highlights the importance of aligning entrepreneurial competencies to achieve optimal firm performance, as reflected in entrepreneurial orientation (Rauch et al., 2009).

Rauch's research provides cumulative empirical evidence regarding the connection between entrepreneurial orientation (associated with entrepreneurial competencies) and business performance. The findings reveal a positive and significant relationship between entrepreneurial orientation and firm performance, indicating that companies with elevated entrepreneurial competencies tend to outperform their competitors (H. L. Chen & Hsu, 2013; Davis et al., 2010; Tat et al., 2007). The study concludes that entrepreneurial competencies, as reflected in entrepreneurial orientation, are critical for achieving superior firm performance, highlighting the need for organizations to foster and develop these competencies (Rauch et al., 2009).

H4: There is a significant relationship between entrepreneurial competencies and firm performance

The hypothesis suggests a positive relationship exists between the intention to persist and firm performance. In this relationship, defining and examining both components is crucial: intention to persist and firm performance. Intention to persist represents an individual's commitment and determination to pursue their entrepreneurial goals despite challenges, setbacks, and uncertainties. It reflects an individual's mindset and willingness to persistently invest time, effort, and resources into their entrepreneurial ventures, even when faced with obstacles and failures (Gee & Casey, 2015; Guritno et al., 2019; Makhura, 2011; Mikami & Hinshaw, 2006).

Firm performance encompasses a business entity's overall effectiveness and success in attaining its objectives, incorporating elements like monetary performance, growth, market share, purchaser satisfaction, innovation, and sustainability. On the other hand, intention to persist signifies an individual's resilience and determination in confronting challenges and setbacks (Diandra & Azmy, 2020; Schaltegger, Hansen, et al., 2016; Su et al., 2021).

Entrepreneurs with a solid intention to persist are more likely to overcome obstacles, adapt to changing circumstances, and maintain their efforts toward achieving their entrepreneurial goals. This resilience and perseverance positively impact firm performance as it enables entrepreneurs to navigate difficult situations, learn from failures, and implement necessary adjustments to improve business outcomes (Business & Commons, 2009; Choe et al., 2013; Gundry et al., 2016; A. K. Gupta, 2021; Kerr et al., 2018; Kharub & Sharma, 2018; Mitchelmore & Rowley, 2013).

Intention to persist is associated with a long-term orientation towards business success. Entrepreneurs with a high level of intention to persist have a vision for their business and are committed to its long-term growth and sustainability. Entrepreneurs will invest time, resources, and effort for building a solid foundation and achieve sustained success. This long-term orientation positively influences firm performance by fostering strategic decision-making, resource allocation, and continuous improvement—the intention to persist links to motivation and effort in pursuing business goals (M.-A. Enoch et al., 2010). Entrepreneurs with a solid intention to persist are highly motivated and dedicated to the success of their ventures. Entrepreneurs will put in the extra effort to achieve exceptional results. This high motivation and effort contribute to improved firm performance as entrepreneurs actively seek opportunities, innovate, and deliver superior products or services to their customers (Adarsh & Jayashree, 2020; Damayanti et al., 2020).

Intention to persist encourages entrepreneurs to continuously learn and adapt their strategies based on feedback and market dynamics. Entrepreneurs with a solid intention to persist are open to ideas, feedback, and willing to make necessary changes to improve their business performance. This learning and adaptation positively impact firm performance by enhancing competitiveness, responsiveness, and the ability to seize emerging opportunities (Afifi et al., 2016; H. L. Chen & Hsu, 2013; Swain et al., 2014). Understanding the relationship between the intention to persist and firm performance is crucial for entrepreneurs, investors, and policymakers. By fostering an intention to persist and supporting entrepreneurs in their long-term commitment, stakeholders can contribute to improved firm performance, economic growth, and job creation. Additionally, it can guide the expansion of policies and interventions to nurture a persistent entrepreneurial mindset

and create an enabling environment for sustainable business success (Bento et al., 2019; Bocken, 2015; Katsikis & Kyrgidou, 2007; Phelan & Sharpley, 2012). Simon, in his study, examined 500 MSMEs in Gauteng province, South Africa. Here the significance level of different variables suggests that entrepreneurial intention is top secret as the most vital interpreter of business performance. The studies show the magnitude of the business environment and confirm the positive impact of entrepreneurial intention on business performance (Bazan et al., 2020; Rasmussen et al., 2011, 2014, 2015).

H5: There is a significant relationship between the intention to persist, and firm performance

The hypothesis suggests that the combined mediation of attitude towards business, perceived behavioural control, subjective norms, and personal norms contributes to the connection between entrepreneurial competencies and the intention to persist. Entrepreneurial competencies, in this context, involve the skills, knowledge, and abilities that individuals possess to actively participate in entrepreneurial activities. These competencies encompass various aspects, including creativity, opportunity recognition, risk-taking propensity, problem-solving skills, networking abilities, and expertise in business management (Obschonka et al., 2017; Ozaralli & Rivenburgh, 2016; Silajdžić et al., 2015).

Attitude towards business signifies an individual's overall assessment, beliefs, and sentiments regarding entrepreneurial activities. It indicates an person's positive or negative orientation towards entrepreneurship, reflecting the perceived desirability and attractiveness of engaging in entrepreneurial endeavours (Hussain Aroona; Gilani, Misbah, 2018; Ozaralli & Rivenburgh, 2016; Poolsawat, 2021; Ranga, Jain, et al., 2019; Rizvi et al., 2012). Perceived behavioural control relates to a person's perception of their ability to successfully execute a specific behaviour. It encompasses the perceived comfort or trouble of performing particular actions, the individual's confidence in their abilities, and their perceived control over external factors influencing their behaviour (Arafat et al., 2020; M.-A. Enoch, 2011; Heuer & Liñán, 2013; Ranga, Reddy, et al., 2019).

Subjective norms encompass an person's perception of social norms, opportunities, and pressures related to a specific behaviour. They reflect the influence of social factors,

opinions, and the approval or disapproval from significant others or reference groups on an individual's decision-making and behaviour (Badr et al., 2018; Damayanti et al., 2020; Doanh & Bernat, 2019; Flowers et al., 2017). Personal norms, on the other hand, refer to an person's internalized standards, values, and beliefs that guide their behaviour. They represent a sense of personal obligation or responsibility to act in accordance with one's moral or ethical principles and adhere to self-imposed standards of behaviour (Gladstone et al., 2006; Ranga, Reddy, et al., 2019; Russell, 2005; Schwartz, 2012; Swain et al., 2014).

The hypothesis posits that the relationship between entrepreneurial competencies and the intention to persist is mediated by attitudes toward business, perceived behavioural control, subjective norms, and personal norms. Attitude toward business acts as a mediator by influencing how individuals perceive and evaluate their entrepreneurial competencies. Positive attitudes enhance confidence in entrepreneurial abilities, increasing the likelihood of persistence in entrepreneurial pursuits. Perceived behavioural control also mediates this relationship by shaping individuals' beliefs in their capacity to effectively deploy their competencies. Perceived behavioural control boosts the chances of persistence, as persons believe they possess the essential assistances and resources to overcome challenges and achieve their entrepreneurial goals.

Subjective norms mediate, entrepreneurial competencies and the intention to persist by influencing individuals' perception of social expectations and approval/disapproval regarding persistence in entrepreneurship. Positive subjective norms create a helpful social environment that encourages individuals to persist in their entrepreneurial endeavours, reinforcing their intention to persist. Personal norms mediate between entrepreneurial competencies and intention to persist by aligning individuals' internal values and ethical considerations with their competencies. When individuals have personal norms prioritizing persistence in entrepreneurship, their competencies become integrated with their values, strengthening their intention to persist.

In Fayolle's research, an in-depth examination of the literature on entrepreneurial intentions reveals attitudes toward business, perceived behavioural control, subjective norms, and personal norms as pivotal factors influencing individuals' intentions to persist in entrepreneurship. The study underlines the consequence of these elements in shaping

persons' determination to persist in entrepreneurial endeavours. Fayolle advocates for additional research to delve deeper into these relationships, emphasizing the need to enhance our understanding of their dynamics and implications in the context of entrepreneurship (Fayolle & Liñán, 2014; Liñán & Fayolle, 2015).

H6: There is a significant relationship between attitude towards business, perceived behavioural control, subjective norms, and personal norms as a mediator between entrepreneurial competencies and intention to persist

The hypothesis proposes that the relationship between entrepreneurial competencies and firm performance is moderated by risk resilience. Entrepreneurial competencies encompass the skills, knowledge, and abilities that individuals possess to successfully engage in entrepreneurial activities, spanning aspects like creativity, opportunity recognition, risk-taking propensity, problem-solving skills, networking abilities, and expertise in business management. The moderation by risk resilience suggests that an individual's capacity to spring back from setbacks and navigate uncertainties plays a crucial role in prompting how entrepreneurial competencies impact overall firm performance (Fagadar et al., 2021; Fazal et al., 2019; Morris et al., 2013; Rasmussen et al., 2011; Sirelkhatim & Gangi, 2015; Taatila, 2010; Wulani et al., 2019).

Risk resilience reflects an individual's capacity to successfully navigate and recover from risks, uncertainties, and setbacks in the entrepreneurial context. It represents the ability to adapt, learn, and bounce back from challenges and failures while focusing on long-term success (Abeysekara et al., 2019; M. A. Enoch, 2012; Gee & Casey, 2015; Petzold et al., 2020; Worrell & Hale, 2001). Firm performance refers to a business entity's overall effectiveness and success in achieving its objectives and generating positive outcomes. It includes various aspects such as monetary performance, growth, market share, customer satisfaction, innovation, and sustainability (Business & Commons, 2009; Gundry et al., 2016; Kerr et al., 2018; Minai et al., 2018; Mitchelmore & Rowley, 2013; Yang & Ishtiaq, n.d.). The hypothesis suggests that the connection between entrepreneurial competencies and firm performance is influenced by risk resilience. A positive correlation is evident when examining entrepreneurial competencies and firm performance. Entrepreneurs with elevated competencies to showcase superior business performance, possessing the

necessary knowledge, skills, and abilities to identify opportunities, make effective decisions, and implement strategies that yield positive outcomes.

Likewise, a positive relationship exists between risk resilience and firm performance. Entrepreneurs who display high levels of risk resilience are well-equipped to navigate and rebound from challenges, setbacks, and uncertainties. Their remarkable ability to adapt strategies, learn from failures, and make informed decisions in dynamic and unpredictable business environments contributes to enhanced firm performance. The interplay of entrepreneurial competencies and risk resilience provides valuable insights into how these factors collectively influence overall business success (Abeysekara et al., 2019). Risk resilience moderates the relationship between entrepreneurial competencies and firm performance. The impact of entrepreneurial competencies on firm performance is contingent upon the level of risk resilience the entrepreneur possesses. Entrepreneurs with higher levels of risk resilience may be better able to leverage their competencies to achieve higher firm performance than those with lower risk resilience levels (Mikami & Hinshaw, 2006).

The interaction effect occurs when high-risk resilience levels amplify entrepreneurial competencies' positive influence on firm performance. In other words, risk resilience enhances the effectiveness and utilization of entrepreneurial competencies, leading to even more excellent firm performance outcomes. This interaction effect indicates that risk-resilient entrepreneurs can effectively navigate risks and capitalize on opportunities, translating their competencies into tangible business success.

Understanding the moderating role of risk resilience in the relationship between entrepreneurial competencies and firm performance can inform the development of strategies and interventions to foster risk resilience among entrepreneurs. It highlights the reputation of cultivating resilience as a critical attribute for achieving and sustaining business success in facing challenges and uncertainties (Abbas et al., 2021; Jansson et al., 2011b; Mamun & Fazal, 2018; Pramono et al., 2021; Swanson & DeVereaux, 2017). Wulani's study delves entrepreneurial competencies, including risk resilience, on firm performance. The findings indicate that risk resilience serves as a moderator in the relationship between entrepreneurial competencies and firm performance. Firms displaying higher competencies and robust risk resilience exhibit superior performance. The study

underscores the significance of risk resilience as a crucial moderator, suggesting that organizations should prioritize its development alongside other competencies to enhance overall performance (Winn et al., 2011; Wulani et al., 2019, 2020).

Ucbasaran's exploration of the procedure and significances of business failure for entrepreneurs' sheds light on the role of risk resilience as an entrepreneurial competency. It plays a pivotal role in assisting entrepreneurs in coping with failure, learning from experiences, and bouncing back to achieve future success. The study highlights the status of risk resilience in the entrepreneurial journey, particularly in the face of failure. Entrepreneurs with higher risk resilience recovers and perform better in subsequent ventures, showcasing its crucial role in entrepreneurial success performance (Abeysekara et al., 2019; Awotoye & Singh, 2017; Bolton & Lane, 2012; Business & Commons, 2009; Davis et al., 2010; Escamilla-Fajardo et al., 2021; Kerr et al., 2018; Mamun & Fazal, 2018; Ozaralli & Rivenburgh, 2016)

Ehrhardt's research delves into latent profiles of entrepreneurial orientation and firm performance while exploring the moderating influence of risk resilience. The findings reveal that risk resilience acts as a strengthener in the positive relationship between an aggressive entrepreneurial orientation and firm performance. The study underscores the pivotal role of risk resilience as a moderator, augmenting the favourable association between entrepreneurial orientation and firm performance. It proposes that organizations should prioritize the development of risk resilience alongside fostering an aggressive entrepreneurial orientation to optimize performance outcomes. This approach highlights the importance of balancing entrepreneurial traits with resilience in achieving overall success (da Silva Veiga et al., 2017; Escamilla-Fajardo et al., 2021; Schaltegger & Wagner, 2011; Silajdžić et al., 2015).

Zhang's (2019) research scrutinizes the interplay between entrepreneurial competencies, risk-taking, risk resilience, and firm performance. The results reveal that risk resilience plays a moderating with entrepreneurial competencies and firm performance, while risk-taking acts as a mediator in this connection. Firms with heightened competencies, under the moderation of risk resilience, exhibit improved performance by engaging in increased risk-taking activities. The study underscores the significance of risk resilience as a crucial

moderator and risk-taking as a vital mediator in shaping the relationship between entrepreneurial competencies and firm performance. It suggests that organizations should concentrate on developing risk resilience to amplify the positive impact of competencies on overall performance (Abeysekara et al., 2019; Awotoye & Singh, 2017; Bolton & Lane, 2012; Business & Commons, 2009; Davis et al., 2010; Escamilla-Fajardo et al., 2021; Kerr et al., 2018; Mamun & Fazal, 2018; Ozaralli & Rivenburgh, 2016).

H7: There is a significant relationship between risk resilience as a moderator between entrepreneurial competencies and firm performance

CHAPTER - 3

RESEARCH

METHODOLOGY

The research methodology chapter serves as the backbone of this study, providing a blueprint for the systematic exploration of the intricate relationships between entrepreneurial competencies, intention to persist, risk resilience, and firm performance in the dynamic context of Gujarat. With the objectives of this study the aim is to embark on a journey to unearth the underlying mechanisms that drive entrepreneurial success. In this chapter, includes research design, data collection methods, analytical techniques, and the rationale behind the topic. By adhering to robust research methodologies, the aim is to ensure the rigor and validity of findings, paving the way for valuable insights and contributions to the field of entrepreneurship. This chapter covers about the 3.1 - objectives of the study, 3.2 conceptual framework, 3.3 Research design, hypothesis, scale development and other details which are explained in depth.

3.1 OBJECTIVES OF THE STUDY

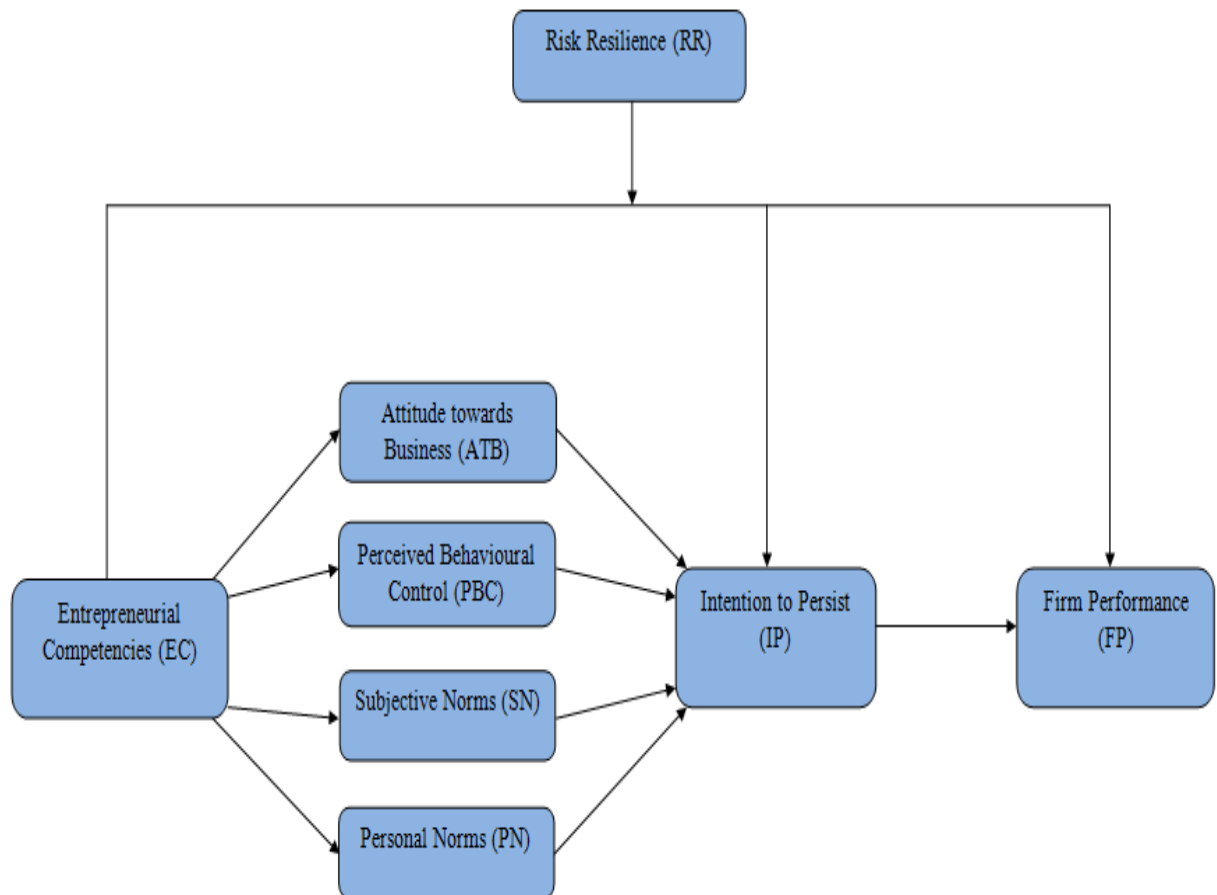
Her research is guided by five interrelated objectives that collectively drive the investigation. These objectives encompass exploring impact of entrepreneurial competencies with intention to persist, delving into the mediating role of psychological factors in shaping these relationships, and investigating the moderating influence of risk resilience with connection between competencies and firm performance. Each objective contributes a distinct dimension to the understanding of entrepreneurial dynamics in Gujarat, providing a complete view of the challenges and opportunities faced by entrepreneurs in this region.

Thus, following are the five objectives of the study:

1. To examine the effect of Entrepreneurial Competencies (EC) on Intention to Persist (IP)
2. To study the effect of Entrepreneurial Competencies (EC) on Firm performance (FP)
3. To analyze the effect of Intention to Persist (IP) on Firm performance (FP)
4. To measure the mediating effect of Attitude towards Business (ATB), Perceived Behavioral Control (PBC), Personal Norms (PN) and Subjective Norms (SN) in the relationship of Entrepreneurial Competencies (EC) and Intention to Persist (IP).
5. To examine the moderating role of Risk-resilience (RR) on the relation of Entrepreneurial Competencies (EC) and Firm Performance (FP).

3.2 CONCEPTUAL FRAMEWORK BASED ON THE LITERATURE REVIEW

Figure No. 3.1: Conceptual Framework



(Source: Author's Creation)

3.2.1 MODEL EXPLANATION:

The study involves a comprehensive model with multiple variables and relationships. Here is the small explanation of variables. The conceptual framework outlines the key constructs and their interrelationships in the study:

3.2.1.1 ENTREPRENEURIAL COMPETENCIES (EC): This includes the skills, knowledge, and personality traits possessed by an entrepreneur. Skills encompass communication, negotiation, creative and analytical thinking, leadership, decision-making, and resilience. Knowledge involves awareness of business-related aspects such as legal requirements, pricing strategies, the business environment, and government schemes. Personality traits include inherent characteristics like self-confidence, integrity, honesty, optimism, enthusiasm, cooperativeness, and commitment.

3.2.1.2 ATTITUDE TOWARDS BUSINESS (ATB): This represents the entrepreneur's positive or negative evaluation of winning in entrepreneurial actions. It reflects their principles about the attractiveness and viability of entrepreneurship, considering the consequences of running a business.

3.2.1.3 PERCEIVED BEHAVIOURAL CONTROL (PBC): This reflects the entrepreneur's perception of their capability to control the outcomes of their activities. It is a key element in theory of planned behaviour and influences the intention to persist. PBC includes the perception of the individual's own ability to perform specific entrepreneurial behaviours.

3.2.1.4 SUBJECTIVE NORMS (SN): Subjective norms reflect the perceived social pressure to engage in behaviour. These norms are have impact by the opinions of family, friends, and society regarding entrepreneurship, shaping the entrepreneur's decisions.

3.2.1.5 PERSONAL NORMS (PN): Personal norms represent an individual's internalized standards, including adherence to rules and regulations, moral and ethical principles, and discipline. These norms guide the entrepreneur's behaviour.

3.2.1.6 INTENTION TO PERSIST (IP): This represents the entrepreneur's commitment to continue pursuing their venture despite challenges or setbacks. It reflects the motivation and determination to persist in entrepreneurial activities.

3.2.1.7 RISK-RESILIENCE (RR): Risk resilience is the capability of businesspersons to withstand and improve from challenges and uncertainties. It is proposed to moderate the

relationship between entrepreneurial competencies and firm performance, highlighting the role of resilience in navigating risks.

3.2.1.8 FIRM PERFORMANCE (FP): Firm performance measures the outcomes of the entrepreneurial venture, including financial success, growth, and market impact. It provides an overall assessment of the business's ability to generate profits and create value.

The conceptual framework forms the basis for understanding how entrepreneurial competencies, attitudes, perceived control, social norms, personal norms, and risk resilience collectively influence entrepreneurial intentions and firm performance. It recognizes the intricate interplay of psychological factors and external challenges in shaping entrepreneurial outcomes, particularly in the context of Gujarat.

3.2.2 RELATIONSHIPS AMONG VARIABLES:

3.2.2.1 EFFECT OF ENTREPRENEURIAL COMPETENCIES ON INTENTION TO PERSIST:

This objective aims to explore how the entrepreneurial competencies possessed by an entrepreneur influence their intention to persist. This involves assessing the direct impact of skills, knowledge, and personality traits on the commitment to continue the venture.

3.2.2.2 EFFECT OF ENTREPRENEURIAL COMPETENCIES ON FIRM PERFORMANCE:

This objective examines how entrepreneurial competencies affect firm performance. It delves into whether the skills, knowledge, and personality traits of an entrepreneur directly contribute to the success of the venture.

3.2.2.3 EFFECT OF INTENTION TO PERSIST ON FIRM PERFORMANCE:

This objective focuses on the relationship between intention to persist and firm performance. It aims to determine whether an entrepreneur's commitment and determination translate into tangible business outcomes.

3.2.2.4 MEDIATING EFFECT OF ATTITUDE TOWARDS BUSINESS, PERCEIVED CONTROL BEHAVIOUR, SUBJECTIVE NORMS AND PERSONAL NORMS:

This objective introduces mediators that potentially explain how entrepreneurial competencies lead to intention to persist. It investigates whether attitudes, perceived control, subjective norms and personal norms act as intermediaries in this relationship.

3.2.2.5 MODERATING ROLE OF RISK RESILIENCE ON ENTREPRENEURIAL COMPETENCIES AND FIRM PERFORMANCE:

The objective states risk resilience as moderator between entrepreneurial competencies and firm performance. It seeks to uncover whether entrepreneurs' ability to manage and bounce back from risks enhances the impact of their competencies on business outcomes.

3.2.3 OVERALL FRAMEWORK:

The model begins with the foundational aspect of entrepreneurial competencies, which influences both intentions to persist and firm performance. The mediating variables (ATB, PBC, PN, and SN) help explain how competencies translate into commitment to persist in the entrepreneurial journey. Additionally, the moderating role of risk resilience introduces a contextual element that influences the relationship between competencies and firm performance. By examining these relationships and interactions, the study provides a holistic understanding of how competencies, motivation, and resilience collectively shape entrepreneurial success. The incorporation of mediation and moderation analyses adds depth to the exploration, allowing for a more nuanced comprehension of the mechanisms at play within the Gujarat entrepreneurial landscape.

3.3 RESEARCH DETAILS

Research methodology is a critical component of any research study, serving as a systematic plan that guides the entire research process. It encompasses the methods, procedures, and techniques employed to collect, analyse, and interpret data in order to

address the research questions and achieve the study's objectives. The methodology acts as a blueprint, outlining the steps and strategies used to conduct the research, ensuring rigor, reliability, and validity in the findings. In essence, it provides a structured framework for the systematic investigation of a topic, helping researchers gather evidence, draw meaningful conclusions, and contribute to the existing body of knowledge (Crnogaj et al., 2014; Farhangmehr et al., 2016; Mitchelmore & Rowley, 2013; Pulka et al., 2021). The research study on "Measuring the Relationship of Entrepreneurial Competencies, Intention to Persist, Risk Resilience, and Firm Performance through an Extended Theory of Planned Behaviour: A study of MSME's in Gujarat" is methodologically designed based on key considerations for validity and reliability. The methodology incorporates elements such as study type, population and sample, data collection methods, data analysis techniques, and ethical considerations.

3.3.1 RESEARCH DESIGN

The research methodology employed for "Measuring the Relationship of Entrepreneurial Competencies, Intention to Persist, Risk Resilience, and Firm Performance through an Extended Theory of Planned Behaviour: A study of MSME's in Gujarat" adopts a descriptive study design. Descriptive studies are characterized by their focus on systematically describing and documenting the characteristics, behaviours, and phenomena of a specific population or subject. In this study, a quantitative approach is utilized to observe, measure, and analyse data with the aim of developing hypotheses and theories related to the studied phenomena. The research seeks to explore and report on the current state of affairs, assess the prevalence of variables, and document specific features within the context of MSMEs in Gujarat.

3.3.2 SAMPLE UNIT

In the research methodology, the sample unit for the study on "Measuring the Relationship of Entrepreneurial Competencies, Intention to Persist, Risk Resilience, and Firm Performance through an Extended Theory of Planned Behaviour: A study of MSME's in Gujarat" is defined as individual entrepreneurs within Micro, Small, and Medium

Enterprises (MSMEs) in Gujarat. The entrepreneurs selected for the study are those with decision-making authority within their respective organizations. The study aims to analyse the entrepreneurial competencies, intention to persist, risk resilience, and their impact on firm performance. The target population for the study consists of registered MSMEs in Gujarat. As of December 31, 2020, there were a total of 33.16 lakh registered MSMEs in Gujarat, according to the MSME Annual Report for the year 2020-21. The research focuses on this population to draw insights and make inferences about the larger MSME community in Gujarat.

3.3.3 SAMPLE SIZE

In research methodology, sample size refers to the number of individuals or entities included in a sample for a research study. It represents the size of the subset of the population that will be studied to draw conclusions about the larger population. Determining an appropriate sample size is crucial because it affects the reliability of the study findings. The sample size should be sufficient to provide reliable estimates and statistical power while considering practical constraints such as time, resources, and the complexity of the research (Emami & Khajeheian, 2018; Hair et al., 2019; Willis & DeKay, 2007).

The study measuring the Relationship of Entrepreneurial Competencies, Intention to Persist, Risk Resilience and Firm Performance through an Extended Theory of Planned Behaviour: A study of MSME's in Gujarat determines the sample size with the help of following sample size formula. Determining the proper sample size for a survey involves considering three crucial factors, as outlined by Burns & Bush (1995). These factors are also acknowledged in various studies (Afifi et al., 2016; Frangopol et al., 2017a; Lonsdorf & Merz, 2017; Winn et al., 2011): Variability in the Population: The extent of variability believed to be present in the population is a key consideration when determining the sample size. Higher variability typically requires a larger sample size to accurately represent the diversity within the population.

Desired Accuracy: The level of accuracy desired in the survey results influences the sample size. A higher degree of accuracy necessitates a larger sample size to safeguard that

the findings are representative and consistent. Level of Confidence: The level of confidence required in the estimates of population values is an essential factor. Common confidence levels include 95% or 99%, and the choice of confidence level affects the precision of the estimates. Higher confidence levels often result in larger sample size requirements. By carefully addressing these three factors, researchers can determine an appropriate sample size that balances the need for accuracy, confidence, and the variability inherent in the population being studied.

$$S = Z^2 \times P \times \frac{(1 - P)}{M^2}$$

$$= (1.96 \times 1.96 \times 0.5 \times 0.5) / (.05 \times .05)$$

$$= 384$$

Hence, the desire sample size has to be at least 385 for this research. The target samples size was 500 respondents. The actual sampled collected from Gujarat state is 352.

3.3.4 SAMPLING METHOD

For the purpose of data collection, study has 20 districts out of total 33 districts (*Refer table 1*) of Gujarat base on total employment and total investment (*Gujarat MSME Report, 2020*) The quota from each selected district is fixed (*Refer table 1*). Quota is determined on the basis of following criterion-

Quota = (Total number of MSMEs registered of a selected district / Total MSMEs registered of all selected districts) *100

Further, study uses Purposive Sampling Method to select the respondents from each selected district. They were approached through emails, common media platforms such as LinkedIn and WhatsApp etc.

Table No. 3.1: List of 20 Districts of Gujarat

Sr. No	Districts	Total Employment	Total Investment (Rs. Lakh)	Number of MSMEs Registered	Quota	Actual	Sampling Method
1	Surat	15,92,837	53,44,341	308219	109	81	Purposive
2	Ahmedabad	10,35,984	30,08,421	188278	66	126	Purposive
3	Rajkot	3,95,811	14,91,294	81338	29	7	Purposive
4	Vadodara	3,53,730	9,82,435	49716	18	21	Purposive
5	Bhavnagar	1,18,976	3,34,536	18933	7	5	Purposive
6	Valsad	1,64,519	5,47,084	15456	5	12	Purposive
7	Gandhinagar	1,06,451	4,35,738	12989	5	9	Purposive
8	Bharuch	1,24,662	5,18,688	12782	5	6	Purposive
9	Jamnagar	78,356	2,47,668	11356	4	12	Purposive
10	Kutch (bhuj)	81,876	3,15,779	10825	4	2	Purposive
11	Porbandar	10313	38144	1663	48	29	Purposive
12	Botad	9112	29387	1384	40	10	Purposive
13	Tapi	13487	21529	1226	35	4	Purposive
14	Devbhoomo Dwarka	7286	26173	1110	32	3	Purposive
15	Chhotaudepur	3456	12916	971	28	4	Purposive
16	Arvalli	7505	44020	943	27	7	Purposive

17	Dahod	4135	18848	526	15	5	Purposive
18	Narmada	3008	9883	449	13	3	Purposive
19	Mahisagar	4055	7934	399	11	4	Purposive
20	Dang	428	714	65	2	2	Purposive

(Source: Gujarat MSME Report, 2020)

3.3.5 DATA COLLECTION METHOD

The study has meticulously outlined the data collection methodology, a critical aspect of any research endeavour. A key component of this methodology is the design of a comprehensive questionnaire tailored to the study's objectives. In this process, the study drew upon the valuable insights of various esteemed authors and researchers in the field. These insights served as the foundational elements upon which the study is built a unique and robust scale that aligns perfectly with the research objectives. One noteworthy aspect of the questionnaire is that it has been registered with the Copyright Office of the Indian Government. This registration adds a layer of protection to the questionnaire, safeguarding it as intellectual property. It ensures that the scale the study has meticulously crafted remains exclusive creation, preventing any unauthorized use or reproduction.

By employing this carefully designed questionnaire, the aim to collect data that is not only academically rigorous but also tailored specifically to the research's objectives. This approach not only enhances the study's credibility but also reflects a commitment to contributing novel insights to the chosen field of research. The registration of the questionnaire with the Copyright Office underscores the dedication to preserving the originality and integrity of the research instrument.

Responses would be collected from the individuals using a seven-point Likert scale, where; 1= Strongly Disagree, 2-Disagree, 3-Somewhat Disagree, 4-Neutral, 5-Somewhat Agree, 6-Agree, and 7-Strongly Agree.

Table No. 3.2: List of variables

Variables/Constructs	Scales Used
Entrepreneurial Competence	Man (2001)
Attitude Towards Business (ATB), Perceived Behavioural Control (PBC), and Subjective Norms (SN)	Ajzen (1991)
Risk Resilience	Conner- Davidson (2021)
Intention to persist	Linan & Chen (2009)
Firm Performance	Li Xiang (2009)

(Source: Literature papers)

3.3.6 DATA ANALYSIS TECHNIQUES

Descriptive statistics provide a foundational understanding of variables. This calculates measures of central tendency (mean) to describe the typical value, as well as measures of dispersion (variance, standard deviation) to assess the variability within the data. Skewness and kurtosis also help to identify the distribution shape and whether it deviates from a normal distribution. Checking for normality is important for many statistical tests. The use of graphical methods and statistical tests are used to determine whether the data follows a normal distribution. This assumption is particularly relevant for structural equation modelling (SEM). Construct validity ensures that the measurements accurately represent the underlying theoretical constructs. This will assess through convergent validity (the degree to which different measurements of the similar construct correlate) and discriminant validity (the degree to which measurements of dissimilar constructs don't strongly correlate). Reliability checks the consistency and stability of the measurement instruments. Common measures include Cronbach's alpha for internal consistency and test-retest reliability for stability over time.

PLS SEM is a powerful technique for assessing complex relationships among variables. It involves two main components: Measurement Model (Confirmatory Factor Analysis): This

step evaluates the measurement validity of latent variables (constructs) by testing how well observed variables (indicators) load onto them. Confirmatory Factor Analysis (CFA) examines whether the observed variables adequately represent the underlying constructs. Fit indices - Standardized Root Mean Square Residual (SRMR) is used to measure the goodness-of-fit of the model. Structural Model: The structural model examines the relationships between constructs. It assesses how the latent variables (like EC, IP, RR) are connected and how they influence one another. Path coefficients represent the strength and direction of these relationships. The study examines the relationships between EC and IP, IP and FP, as well as EC and FP (moderated by RR). Fit indices and the significance of path coefficients are key indicators of model validity and relationships' significance.

The planned data analysis techniques represent a thorough and systematic approach to investigating the complex relationships in the study. By employing a combination of descriptive statistics, assessing data normality, examining construct validity and reliability, and conducting advanced statistical techniques such as SEM, the study is able to provide robust and insightful findings that contribute to the understanding of how entrepreneurial competencies, intention to persist, risk resilience, and firm performance interact in the context of the Gujarat state.

- Descriptive Statistics: Measure of Central Tendency, Dispersion, Skewness, and Kurtosis
- Data Normality
- Construct Validity - Convergent validity and Discriminant validity
- Reliability
- Partial least square -Structural equation modeling (PLS-SEM)
 - Measurement Model (Confirmatory Factor Analysis)
 - Structural Model

3.3.7 HYPOTHESIS OF THE STUDY

H1: There is a significant relationship between entrepreneurial competencies and attitude towards business, perceived behavioural control, subjective norms, and personal norms.

H1a: There is a significant relationship between entrepreneurial competencies and attitude towards business.

H1b: There is a significant relationship between entrepreneurial competencies and perceived behavioural control

H1c: There is a significant relationship between entrepreneurial competencies and subjective norms.

H1d: There is a significant relationship between entrepreneurial competencies and personal norms.

H2: There is a significant relationship between attitude towards business, perceived behavioural control, subjective and personal norms, and intention to persist.

H2a: There is a significant relationship between attitude towards business and intention to persist

H2b: There is a significant relationship between perceived behavioural control and the intention to persist

H2c: There is a significant relationship between subjective norms and the intention to persist

H2d: There is a significant relationship between personal norms and the intention to persist

H3: There is a significant relationship between entrepreneurial competencies and the intention to persist

H4: There is a significant relationship between entrepreneurial competencies and firm performance

H5: There is a significant relationship between the intention to persist and firm performance

H6: There is a significant relationship between attitude towards business, perceived behavioural control, subjective norms, and personal norms as a mediator between entrepreneurial competencies and intention to persist

H7: There is a significant relationship between risk resilience as a moderator between entrepreneurial competencies and firm performance

3.4 SCALE DEVELOPMENT

The development of a research instrument, which often involves the creation of scales, is a crucial step in the research process. A scale is a tool used to measure and quantify abstract concepts or variables in a standardized and consistent manner. The Likert scale is a widely used rating scale that measures respondents' attitudes or perceptions on a set of items. It typically consists of a series of statements or questions to which participants indicate their level of agreement or disagreement on a scale, often ranging from 1 (Strongly Disagree) to 7 (Strongly Agree) in the case. The Likert scale provides a structured and standardized way to collect quantitative data on subjective constructs like attitudes, opinions, and behaviours. It allows for the quantification of responses, making it easier to analyse and draw conclusions from the data. The development of Likert scales involves a systematic process that starts with a thorough literature review, followed by adaptation and refinement to fit the specific objectives of the study. This process ensures that the scales are valid, reliable, and tailored to the research context. The steps followed in the Development of Research Instruments and Scales are:

The process typically begins with an extensive literature review. This is a common and valuable approach. A thorough review of existing scales in the literature helps to identify established measurement items and concepts related to the variables. After identifying relevant scales from the literature, it requires modifications to align them with the specific research context and objectives. This adaptation process is essential because variables may need to be tailored to the unique characteristics of the study, such as the Gujarat context. Before developing the Likert scale items, it's crucial to clearly define the constructs that intend to measure. This involves specifying the meaning and boundaries of each variable. For example, in the case of "entrepreneurial competencies," it would need a clear and comprehensive definition that guides the development of scale items. Based on the construct definitions potential scale items were generated. These items reflect the key aspects of each construct.

After the development of scale, it's a good practice to involve subject matter experts or researchers familiar with the field to validate the scale items. They can provide feedback on the clarity, relevance, and comprehensiveness of the items. Before administering the scales in study, conducted a pilot test with a small group of participants to identify any issues with item wording, comprehension, or response format. This helps ensure that the scales are well-received and understood by the target population. Finalization: Based on response from professionals and the pilot test, the necessary revisions to the scale items were made. After this the data collection for the study was done. In the present study the questionnaire is used to gather the information from the entrepreneurs. The demographic details were gathered of the entrepreneurs such as age, gender, and company name and email id. Further, the details on entrepreneurial competencies, intention to persist, risk resilience and firm performance were measured through the Likert scale of 7 point.

3.4.1 ENTREPRENEURIAL COMPETENCIES:

As per the theory of Man, entrepreneurial competencies include skills, knowledge and personality traits. The statements were formed to measure the skills, knowledge and personality traits of entrepreneurial. Entrepreneur skills such as Communication, Negotiation, Creative & analytical thinking, Leadership, Decision-making, and Resilience are vital for promoting innovation, business growth, and competitiveness. Knowledge includes Familiarity or awareness of something such as business law, legal requirements, pricing strategies, Business environment, product/services, government schemes, and subsidies and lastly, Personality Traits includes the characteristics by birth in entrepreneurs like self-confidence, Integrity, Honesty, optimism, enthusiasm, co-operative and commitment.

Table No. 3.3: Scale for Entrepreneurial Competencies

Construct	Items	SD	D	SD	N	SA	A	SA
ECS	I believe that I speak in a certain order and logic							
	When I talk to someone, I convince them							

	The Person with whom I talk wants to collaborate with me							
	I can deal with any hardship that comes my way							
	I enjoy trying to find new solutions to the problems							
	I always encourage my team to work towards the same goal							
	I allow team members complete freedom in their work							
	I feel very anxious when I need to make a decision.							
	When making a decision, I consider various options in terms of specific goals.							
ECK	I am aware of the various products/services offered in the market which are similar to my product							
	I often change my strategies after looking at my competitor's action.							
	I am deeply involved in the process that I follow for my business							
	I always keep track of progress toward goals of my business							
	I constantly look for new business opportunities to further expand business.							
	Before taking major decisions, I conduct detailed research for understanding the situation in a better way							
ECPT	I always feel energetic to work							
	When I face difficulties in business, I stay positive and believe for good things to happen							

	I first plan things carefully and then carry it out.							
	I prefer to focus on my ideologies rather than what others are thinking.							
	I keep working until it's done.							
	I evaluate my performance on continual basis to expand my business overseas							

(Source: Author's creation)

3.4.2 RISK RESILIENCE:

Risk resilience measures the capability of entrepreneur to run business in any of the risky or worst situation and come back to its actual business position soon. The risk resilience of the entrepreneurs is measured through the 7-point Likert scale.

Table No. 3.4: Scale for Risk Resilience

Construct	Items	SD	D	SD	N	SA	A	SA
RR	I could handle the issues well that raised during Covid-19							
	I take action for new opportunities even in the unfavourable circumstances							
	I believe risk should be taken to achieve business targets.							
	I don't need much time to recover from a stressful event.							
	When I encounter setbacks and difficulties, I always confront myself with “winner” attitude							
	I could rely on myself more than on others in difficult times.							

(Source: Author's creation)

3.4.3 ENTREPRENEURIAL INTENTION:

As per the theory of Ajzen, entrepreneurial intention is measured through three variables. They are attitude towards business, perceived behavioural control and subjective norms. Attitude towards Business refers to running a business, checking for the consequences and then evaluating the consequences of it. Perceived behavioural control involves the perception of the individual's own ability to perform the behaviour. It is the extent to which a person believes behaviour is under his or her active control. Subjective norms are set of shared believes around the entrepreneurs, which includes believe of family, friends and society. Here an additional variable is added through the literature support that is personal norms. Personal Norms are set of Norms that entrepreneurs follow such as rules and regulation, Moral and ethical principles, Discipline etc.

Table No. 3.5: Scale for ATB, PBC, SN and PN

Construct	Items	SD	D	SD	N	SA	A	SA
ATB	A career as an entrepreneur is charming for me.							
	I like to do work on challenging projects.							
	It is difficult to survive in the market due to stiff competition							
	I usually do not mind doing other people's work to get a job done on time.							
	I think it is important to have a 'keep going' attitude to survive in a difficult time.							
PBC	I can easily handle uncertain business situations.							
	I always seek solution to the problem that is in the best interest of all related parties.							
	I always stick to my decisions even if others disagree with me.							
	I admit it immediately if I am unaware about something							
	I usually change my opinion if others oppose my point of view.							

SN	My family and friends believe that starting own business is preferable than working for someone else.							
	I am confident that my friends will fund/invest in business whenever I require fund							
	My family and friends have encouraged and supported me in starting a business.							
	Most of the people who are important to me, think that I can run my business successfully							
	I always wanted to be an entrepreneur because my friends have started their business							
PN	It feels good for the conscience to act in a ethical way.							
	There are some occasions when I have taken advantage of other people to achieve my goals.							
	I feel personally responsible for all my actions.							
	I have a moral responsibility to work for the betterment of society and the environment.							
	I get a bad conscience when not acting in ethical way.							

(Source: Author's creation)

3.4.4 INTENTION TO PERSIST:

Intention to persist refers to the continuity of business even in the worst situation. Here the entrepreneurial wants to continue the business for longer time duration in any of the situation. The intention to persist is measured through the 7-point Likert scale.

Table No. 3.6: Scale for Intention to Persist

Construct	Items	SD	D	SD	N	SA	A	SA
IP	I am glad to be an entrepreneur							
	I am willing to accept challenges to sustain my business							
	I will make every effort to maintain my business for longer period							
	I consider myself more committed than others							
	I successfully survived my business during Covid-19							

(Source: Author's creation)

3.4.5 FIRM PERFORMANCE:

The firm performance measured the development of the business. The development in terms of the gross profit, net profit, cash flow sales ratio etc. The firm performance is measured in the 7-point Likert scale.

Table No. 3.7: Scale for Firm Performance

Construct	Items	SD	D	SD	N	SA	A	SA
FP	Over the past five years, the target of average annual sales growth has been attained.							
	My firm's average gross profit margin has crossed the standard set for the past five years.							
	The target of net profit from operations has been met throughout the last five years.							

	During last five years, the cash outflow of my firm is lower than the cash inflow.							
	The profit to sales ratio of my firm during the last five years has been satisfactory.							

(Source: Author's creation)

3.4.6 DESCRIPTION OF SCALE:

The below are the details for each scale:

Skills (9 items): This scale assesses various skills that entrepreneurs possess, ranging from technical and managerial skills to leadership and problem-solving abilities. It covers a wide spectrum of competencies essential for entrepreneurial success. Respondents rate their level of agreement with each item, which allows you to quantify their perceived skill levels.

Knowledge (6 items): Knowledge is a fundamental component of entrepreneurial competencies. This scale evaluates respondents' knowledge related to entrepreneurship, including market trends, industry-specific information, and business management principles. It provides insights into the depth of their knowledge in these areas.

Personality Traits (6 items): Entrepreneurial success often hinges on personality traits like risk-taking propensity, innovativeness, and proactiveness. This scale gauges respondents' self-perceived personality traits in relation to entrepreneurship. It helps in understanding how their personality influences their entrepreneurial endeavours.

Attitude towards Business (5 items): Attitudes play a significant role in shaping intentions. This scale assesses respondents' attitudes toward starting and running a business. It's crucial for understanding whether a positive attitude toward entrepreneurship influences their intention to engage in entrepreneurial activities.

Perceived Behavioural Control (5 items): Perceived control over one's actions is a key determinant of intention. This scale evaluates respondents' perceptions of their ability to control the behaviours required for entrepreneurship. It sheds light on their perceived self-efficacy in pursuing entrepreneurial endeavours.

Subjective Norms (5 items): Subjective norms refer to perceived social pressures or expectations related to entrepreneurship. This scale measures respondents' perceptions of how others view their involvement in entrepreneurial activities. It helps

uncover the influence of social factors on their intentions. Personal Norms (5 items): Personal norms represent individuals internalized moral and ethical standards regarding entrepreneurship. This scale explores the extent to which respondents feel a personal obligation or duty to engage in entrepreneurial activities.

Intention to Persist (5 items): This scale assesses respondents' intentions to persist in their entrepreneurial pursuits despite challenges and setbacks. It reflects their determination and commitment to their business ventures, providing insights into their long-term entrepreneurial goals. Risk Resilience (6 items): Risk resilience is a critical factor in entrepreneurship, given the inherent uncertainties and challenges. This scale examines respondents' perceived ability to bounce back from failures, adapt to changing circumstances, and handle risks effectively. It offers valuable insights into their resilience in the face of adversity. Firm Performance (5 items): Firm performance is a key outcome of entrepreneurship. This scale evaluates various aspects of firm performance, such as profitability, growth, and customer satisfaction. It helps gauge the overall success and impact of entrepreneurial ventures.

3.5 RESEARCH GAP

The research focuses on the complex relationships between entrepreneurial competencies, intention to persist, risk resilience, and firm performance, with explicit context of Gujarat state. The aims highlight a comprehensive exploration of these variables and their interplay. Here are the needs and the identified gap in the study:

3.5.1 NEED OF STUDY:

- **Understanding Entrepreneurial Success Factors:** The study goals to delve into the issues that contribute to entrepreneurial success, focusing on competencies that entrepreneurs possess. This is vital for informing policies, interventions, and training programs aimed at fostering entrepreneurship in Gujarat and beyond.
- **Enhancing Firm Performance:** By investigating relationship for entrepreneurial competencies, and firm performance could provide insights into how entrepreneurs'

skills can lead to better business outcomes, potentially contributing to economic development and job construction.

- **Exploring Intention and Persistence:** Understanding the factors influencing entrepreneurs' intentions to persist in their ventures is essential. Such insights can guide strategies for enhancing entrepreneurs' motivation and commitment to their businesses, leading to increased longevity and impact.
- **Separating Mediation Mechanisms:** The study's examination of mediating factors like attitude, perceived behavioral control, personal norms, and subjective norms can help identify pathways through which entrepreneurial competencies influence intention to persist. This deeper understanding can guide interventions to enhance these mediating factors, leading to stronger intentions.
- **Examine Risk-Resilience Dynamics:** The exploration of risk resilience as a moderator highlights the importance of entrepreneurial ability to navigate the challenges. This can provide valuable guidance on how to equip entrepreneurs with skills and strategies to handle adversity effectively.

3.5.2 IDENTIFIED GAP:

- Current literature extensively focuses on entrepreneurial intentions with various factors but its relationship with firm performance remains underexplored. There is a necessity to investigate whether the entrepreneurial intention to persist translates to firm performance or if risk resilience effects this relationship.
- TPB provides a robust framework for understanding entrepreneurial behavior, yet its application to the relationship between competencies, intention to persist, and firm performance needs further empirical investigation. Integrating TPB with competency could provide deeper insights into how attitudes, subjective norms, and perceived behavioral control interact with competencies to influence persistence and performance.
- Moreover, while MSMEs constitute a vital segment of Gujarat's economy, contributing substantially to employment and GDP, there is a paucity of region-specific research that addresses the unique challenges and dynamics faced by these enterprises. This study search for to fill this gap by extending the TPB framework

to include entrepreneurial competencies and risk resilience, thereby providing a more complete understanding of the factors influencing the intention to persist and overall firm performance.

- The role of risk resilience in entrepreneurial decision-making has not been extensively studied, leaving a significant gap in understanding how entrepreneurs manage uncertainty and potential setbacks. Investigating risk resilience as a moderating factor could provide valuable insights into its influence on entrepreneurial intention and overall firm performance.

In summary, the study addresses a substantial need by exploring the complex interrelations among entrepreneurial competencies, intention to persist, risk resilience, and firm performance in the specific context of Gujarat. The identified gap emphasizes the distinctive contribution the study can provide to the current literature by illuminating unexplored dynamics within this particular context.

3.6 CONTRIBUTION OF THE STUDY:

- This research underwrites to the present literature in several ways. It provides insights into the motivations behind individuals' decisions to pursue entrepreneurship or not. Furthermore, it elucidates various entrepreneurial competencies. Additionally, the study delves into intentional aspects, specifically the backgrounds of the theory of planned behavior, showcasing the extended applicability of the Theory of Planned Behavior to entrepreneurial intentions.
- The study investigates variables of entrepreneurial intent that have yet to investigate before in developing states like Gujarat. The study on the intention to continue in business will help the state governments develop plans to benefit unemployed educated young and new entrepreneurs. Some agencies and institutions are creating awareness to become entrepreneurs among new and unemployed entrepreneurs.
- The study also used the variable Risk Resilience, which will help entrepreneurs make decisions in their organization during risk or pandemic situations.

Furthermore, the study also compared the pre and post covid effects, which will help the organization to compare the organization's growth after covid.

- Future researchers also can increase significance from this study. It may assist as their guidance to gather information on Risk resilience as a moderator between entrepreneurial intention and firm performance. Further, they have also gathered information on Entrepreneurial Intention between Entrepreneurial Competence and Firm performance.

CHAPTER - 4

MEASUREMENT AND VALIDITY

This chapter includes the data analysis such as 4.1 - data normality, 4.2 - Variance Inflation Factor, 4.3 - discriminant validity, 4.4 - Content validity index, 4.5 - reliability test, 4.6 - Importance-Performance map, 4.7 - demographically details, 4.8 – Evaluation of measurement model, which further includes Model Fitness R square and adjusted R square and Objectives calculation.

4.1 DATA NORMALITY

Data normality refers to the distribution of data points in a dataset following a normal or Gaussian distribution (Hair et al., 2011b). In a normal distribution, data is symmetrically distributed around the mean, and most values cluster close to the mean with fewer values in the tails. Assessing data normality is important because many statistical analyses, such as hypothesis testing and regression, assume that the data is normally distributed. Deviations from normality can impact the validity of these analyses (Jannoo et al., 2014). The mean is a fundamental measure of central tendency that represents the average value of a dataset. In a normally distributed dataset, the mean is typically located at the centre of the distribution, where values are symmetrically distributed around it. Standard deviation is a statistical measure that quantifies the amount of variation or dispersion in a set of data points. It provides information about how individual data points deviate from the mean (average) of the dataset.

A higher standard deviation indicates greater variability, while a lower standard deviation suggests less variability. Kurtosis measures the tails of the distribution, indicating whether data points are concentrated in the tails or near the mean. Excess kurtosis is the standard kurtosis value minus 3. Positive excess kurtosis indicates heavier tails compared to a normal distribution, while negative excess kurtosis indicates lighter tails. Skewness quantifies the asymmetry of the distribution. A positive skewness indicates that the distribution is skewed to the right, with a longer tail on the right side. A negative skewness indicates that the distribution is skewed to the left, with a longer tail on the left side. The details of each scale with the respective mean, standard deviation, excess kurtosis and skewness is mention below:

Table No. 4.1: Data Normality and VIF

Name	Mean	Standard deviation	Excess kurtosis	Skewness	VIF
ECS1	5.858	1.093	1.947	-0.959	1.757
ECS2	5.804	0.835	3.958	-1.47	1.807
ECS3	5.773	0.941	0.992	-0.641	1.401
ECS4	5.744	0.906	0.393	-0.531	1.384
ECS5	5.713	0.956	1.873	-0.827	1.418
ECS6	5.741	1.005	1.956	-1.032	1.492
ECS7	5.679	0.975	1.036	-0.723	1.567
ECS8	5.619	1.07	1.977	-1.054	1.231
ECS9	5.741	0.894	1.193	-0.689	1.502
ECK1	5.662	1.024	2.463	-1.025	1.534
ECK2	5.599	1.114	3.085	-1.293	1.367
ECK3	5.716	0.999	2.763	-1.155	1.661
ECK4	5.759	0.942	1.775	-0.811	1.683
ECK5	5.787	1.001	1.073	-0.858	1.664
ECK6	5.815	0.906	1.535	-0.823	1.497
ECPT1	5.83	0.892	1.202	-0.697	1.531
ECPT2	5.798	0.933	2.056	-0.83	1.58
ECPT3	5.801	0.889	2.196	-0.769	1.422
ECPT4	5.733	0.893	1.468	-0.745	1.54
ECPT5	5.77	0.93	1.571	-0.804	1.696
ECPT6	5.832	0.961	1.533	-0.855	1.639

ATB1	5.943	1.013	1.332	-0.892	1.238
ATB2	5.855	0.878	4.44	-1.38	1.106
ATB3	5.756	1.109	2.427	-1.187	1.507
ATB4	5.705	0.999	2.91	-1.201	1.207
ATB5	5.77	0.918	0.976	-0.591	1.541
PBC1	5.744	0.934	1.816	-0.857	1.204
PBC2	5.77	0.939	2.554	-0.973	1.139
PBC3	5.673	0.976	2.155	-1.037	1.18
PBC4	5.676	0.955	2.533	-1.12	1.305
PBC5	5.562	1.2	3.229	-1.457	1.292
SN1	5.642	0.961	1.923	-0.988	1.206
SN2	5.665	0.975	1.631	-0.839	1.146
SN3	5.673	0.932	1.287	-0.683	1.198
SN4	5.759	0.867	2.507	-0.904	1.189
SN5	5.58	1.068	2.962	-1.163	1.14
PN1	5.668	0.98	1.398	-0.803	1.37
PN2	5.622	1.119	3.759	-1.524	1.35
PN3	5.719	0.874	1.475	-0.674	1.112
PN4	5.767	0.952	2.714	-0.988	1.2
PN5	5.713	0.953	2.317	-0.998	1.263
IP1	5.866	1.018	3.131	-1.125	1.348
IP2	5.847	0.91	4.31	-1.393	1.391
IP3	5.943	0.987	0.515	-0.776	1.283
IP4	5.872	0.91	1.832	-0.995	1.543

IP5	5.727	0.901	0.151	-0.37	1.534
RR1	5.835	0.992	1.429	-0.646	1.107
RR2	5.838	0.815	4.514	-1.465	1.212
RR3	5.903	1.023	2.098	-1.051	1.186
RR4	5.798	0.896	1.291	-0.734	1.221
RR5	5.795	0.913	1.288	-0.709	1.201
RR6	5.812	0.891	2.754	-1.025	1.149
FP1	5.849	0.987	1.699	-0.744	1.305
FP2	5.869	0.798	2.161	-0.84	1.14
FP3	5.815	0.958	-0.207	-0.46	1.548
FP4	5.193	1.347	0.884	-1.035	1.139
FP5	5.631	0.92	2.12	-0.872	1.612
SD	0.847	0.231	4.895	1.997	
Age	3.497	0.914	0.077	-0.586	
Education	3.239	0.754	0.288	-0.786	
Enterprise Type	2.759	1.168	-1.393	-0.326	
Place of Enterprise	1.455	0.498	-1.978	0.183	
Are you first generation entrepreneur?	1.375	0.484	-1.741	0.519	

(Source: PLS SEM Software)

4.2 VARIANCE INFLATION FACTOR (VIF)

With reference to table 4.1, Variance Inflation Factor (VIF) analysis is used to check if there are problems with multicollinearity in a statistical model. Multicollinearity happens

when predictor variables in a regression model are highly correlated, which means they provide redundant information. This can make it difficult to determine the individual effect of each predictor on the outcome variable. Essentially, VIF tells us how much a variable is inflated due to its correlation with other variables in the model. In simple terms, VIF values help determine if the predictors in a model are too closely related to each other. High VIF values indicate that a predictor variable has a high level of correlation with other predictor variables, which can skew the results of the model. The general rule of thumb is that a VIF value above 5 indicates significant multicollinearity, while values above 10 suggest severe multicollinearity. Looking at the VIF values for different variables related to entrepreneurial competencies (EC), attitudes towards business (ATB), perceived behavioural control (PBC), subjective norms (SN), personal norms (PN), intention to persist (IP), risk resilience (RR), and firm performance (FP), it is clear that all values are below 5. This suggests that there is no serious multicollinearity among the variables in this study.

For example, the VIF values for entrepreneurial competencies (ECS1 to ECS9) range from 1.231 to 1.807. These values indicate that the level of correlation between these variables is low and should not significantly affect the reliability of the regression model. Similarly, the VIF values for entrepreneurial knowledge (ECK1 to ECK6) range from 1.367 to 1.683, which is also well within acceptable limits. The VIF values for the attitude towards business variables (ATB1 to ATB5) range from 1.106 to 1.541. This range suggests that the variables related to attitudes towards business are not highly correlated with each other, reducing concerns about multicollinearity. The VIF values for perceived behavioural control (PBC1 to PBC5) range from 1.139 to 1.305, indicating low multicollinearity. This means that the perceived behavioural control variables provide unique and valuable information to the model without significant overlap with other variables. Subjective norms (SN1 to SN5) have VIF values ranging from 1.140 to 1.206. These low values suggest that subjective norms variables are not highly correlated with other predictors in the model. Personal norms (PN1 to PN5) have VIF values ranging from 1.112 to 1.37, again indicating low multicollinearity. This shows that personal norms variables provide distinct information to the model. The intention to persist variables (IP1 to IP5) have VIF values ranging from 1.283 to 1.543. These values are within acceptable limits, suggesting that the intention to persist variables do not suffer from high multicollinearity. Risk

resilience variables (RR1 to RR6) have VIF values ranging from 1.107 to 1.221. This indicates that the risk resilience variables are not highly correlated with other variables, ensuring that they provide unique information to the model. Lastly, firm performance variables (FP1 to FP5) have VIF values ranging from 1.139 to 1.612. These values suggest that the firm performance variables do not suffer from significant multicollinearity, ensuring that they add distinct value to the model. The VIF analysis for this study shows that all variables have VIF values well below 5, indicating that there is no serious issue with multicollinearity. This means that each variable contributes unique information to the model, and the results of the regression analysis can be interpreted with confidence.

4.3 DISCRIMINANT VALIDITY

The study focuses solely on discriminant validity to ensure that the constructs being measured are distinct and not overlapping. Discriminant validity is crucial for this research because it guarantees that the different dimensions of entrepreneurial competencies, intention to persist, and firm performance are truly separate constructs. By focusing on discriminant validity, the study aims to demonstrate that each construct is unique and captures different aspects of the entrepreneurial process. This distinction is essential for accurately assessing the relationships between these constructs and understanding how specific competencies influence persistence and performance in a clear and non-redundant manner. Emphasizing discriminant validity helps to provide robust evidence that the measures used in the thesis are well-defined and independent, thereby strengthening the overall validity of the research findings.

Discriminant validity ensures that each construct in a study measures a unique aspect and is distinct from other constructs. The provided matrix of correlations among different constructs in this study helps to verify that the constructs are sufficiently distinct. The matrix is assessed using the PLS-SEM approach, which stands for Partial Least Square, and values indicate relationships among various constructs.

Figure no. 4.2: Discriminant validity

	ATB	EC	FP	IP	PBC	PN	RR	SN	RR x EC
ATB									
EC	0.661								
FP	0.782	0.719							
IP	0.634	0.763	0.737						
PBC	0.685	0.759	0.752	0.585					
PN	0.671	0.705	0.712	0.448	0.673				
RR	0.688	0.752	0.652	0.762	0.678	0.629			
SN	0.741	0.652	0.512	0.781	0.632	0.674	0.523		
RR x EC	0.334	0.564	0.386	0.501	0.486	0.366	0.609	0.555	

(Source: PLS SEM Software)

The EC column shows its correlations with other constructs, such as 0.719 with Firm Performance (FP) and 0.763 with Intention to Persist (IP). These values suggest that EC is strongly related to both FP and IP, reinforcing the idea that entrepreneurial skills significantly impact business success and persistence. However, the values are not perfect correlations (i.e., not close to 1), demonstrating that EC remains a distinct concept. ATB's correlations with other constructs show that it is distinct from other variables. For instance, the correlation between ATB and Entrepreneurial Competencies (EC) is 0.661, indicating a moderate relationship but not so high that they are indistinguishable. This means that while a positive attitude towards business is related to having strong entrepreneurial skills, they are still separate concepts. PBC's values, such as 0.685 with ATB and 0.759 with EC, show moderate to high correlations. These values suggest that perceived control over behaviour is moderately related to a positive business attitude and entrepreneurial skills, but they are distinct constructs. The highest correlation for PBC is 0.678 with Risk Resilience (RR), which implies a strong but not indistinguishable relationship.

SN has moderate correlations with several constructs, such as 0.741 with ATB and 0.781 with IP. These values indicate that subjective norms are strongly related to attitudes

towards business and the intention to persist, but they are distinct constructs. The lowest correlation for SN is with Firm Performance (0.512), suggesting that subjective norms have a moderate but clear distinction from firm performance. PN's values, like 0.671 with ATB and 0.705 with EC, indicate moderate correlations. These relationships suggest that personal norms are moderately related to a positive business attitude and entrepreneurial skills. However, PN's distinctiveness is maintained, as indicated by the moderate correlations with other constructs.

IP shows strong relationships with FP (0.737) and EC (0.763), indicating that the intention to continue with entrepreneurial activities is significantly influenced by both business performance and entrepreneurial skills. Again, while these relationships are strong, they are not perfectly correlated, supporting the discriminant validity of IP. RR's correlations, such as 0.752 with EC and 0.762 with IP, are relatively high, indicating that resilience to risk is closely linked with both entrepreneurial competencies and the intention to persist. These values suggest that while RR is a critical aspect of entrepreneurship, it is measured as a distinct construct. The interaction term (RR x EC) has lower correlations compared to other constructs, like 0.609 with RR and 0.564 with EC. This lower correlation is beneficial as it demonstrates that the interaction effect is distinct and captures unique variance beyond the individual constructs of RR and EC.

The correlations of FP with ATB (0.782) and EC (0.719) are strong, indicating significant relationships. These values suggest that a positive attitude towards business and strong entrepreneurial skills are closely linked to better firm performance. However, the distinctiveness of FP as a separate construct is maintained due to the less-than-perfect correlations. The discriminant validity analysis using the PLS-SEM model helps ensure that each construct in the study measures a unique aspect of the entrepreneurial environment. Moderate to high correlations indicate significant relationships among the constructs, but they are not so high as to suggest that the constructs are indistinguishable from each other. Overall, this detailed examination of discriminant validity confirms that while there are strong relationships among several constructs, they are sufficiently distinct, enabling accurate measurement and analysis in the study of entrepreneurial competencies, intentions, and performance.

4.4 CONTENT VALIDITY INDEX

Content validity is a crucial concept in research, particularly in the development and evaluation of measurement instruments such as surveys, questionnaires, and tests. This show items or questions within an instrument adequately represent the entire content domain it is intended to measure. In simpler terms, it assesses whether the items in the instrument are relevant, comprehensive, and appropriate for measuring the construct or variable of interest. When assessing content validity, it is often seeking the input of experts or subject matter specialists in the field. The experts evaluate each item in the instrument based on two key dimensions:

Relevance Score: This dimension assesses whether each item is relevant to the construct being measured. Experts consider whether the item directly and meaningfully relates to the construct in question. They rate items on a scale that typically ranges from "not relevant" to "highly relevant." **Clarity Score:** Clarity refers to how clearly and understandably an item is worded. Experts assess whether the item is phrased in easy way for respondents to know. Items that are vague, ambiguous, or unclear may receive lower clarity scores.

In this study, the CVI with the input of 12 individuals, including 3 from industrial backgrounds and the remainder from academic backgrounds is taken. This approach is commendable as it provides a diverse perspective that can contribute to a more comprehensive assessment of the research instrument's content validity. **Incorporating Diverse Expertise:** The inclusion of experts from both industrial and academic backgrounds is a wise choice. Individuals from industrial backgrounds bring practical experience and insights, which are invaluable when designing a research instrument intended to measure real-world constructs. On the other hand, academic experts provide theoretical knowledge and methodological rigor, which ensures that the instrument aligns with existing research paradigms and is theoretically sound.

Personalized Data Collection: Visiting each expert personally to collect their input demonstrates a high level of dedication to the content validity assessment process. This approach allows for in-depth discussions and clarifications, ensuring that the experts' feedback is accurately understood and incorporated. It also demonstrates the commitment to obtaining the most accurate and meaningful feedback. **High CVI Scores:** The CVI scores are generally high, indicating strong agreement among the experts regarding the relevance

and clarity of the items in the research instrument. This high level of agreement is a positive sign, suggesting that the items are well-constructed and align with the constructs to measure. The particularly high relevance and clarity scores for some constructs, such as Personal Norms and Firm Performance, further reinforce the robustness of the instrument. Enhancing Content Validity: It includes a diverse panel of experts. Conducting face-to-face discussions enhances the content validity. It ensures that the instrument comprehensively represents the constructs under investigation and is clear and meaningful to potential respondents. The questionnaire is circulated manually to each respondent and their suggestions and comments were taken into consideration. The result of content validity index is mentioned below:

Table No. 4.3: Content Validity Index

Content Validity Index (CVI)		
Variable Name	Relevance Score	Clarity Score
ECS	0.87	0.81
ECK	0.82	0.89
ECPT	0.85	0.88
ATB	0.92	0.90
PBC	0.89	0.93
SN	0.83	0.93
PN	0.92	0.95
IP	0.85	0.90
RR	0.88	0.89
FP	0.96	0.98

(Source: Values Calculated on PLS SEM)

The table presents the results of a Content Validity Index (CVI) assessment for various variables in the research instrument. CVI is a critical measure of the quality and appropriateness of the items or questions included in the research tool. It typically assesses two aspects: the relevance and clarity of each item. Here's a straightforward analysis of the

table: Relevance Score: Relevance score measures how well each item or question in the research instrument aligns with the construct it intends to measure. Higher relevance scores, such as those above 0.80, indicate that the items are seen as highly relevant by experts in the field. In the table, most variables have relevance scores ranging from 0.82 to 0.96, which suggests that the items are considered highly relevant for measuring their respective constructs. This high relevance score across variables is a positive sign, indicating that the items effectively capture the intended constructs of the study.

Clarity Score: Clarity score assesses how clearly each item or question is written, ensuring that it is easily understood by respondents. Higher clarity scores, such as those above 0.80, indicate that the items are seen as highly clear and comprehensible. In the table, most variables have clarity scores ranging from 0.81 to 0.98, which suggests that the items are perceived as very clear by the experts. This high clarity score indicates that the items are well-constructed and can be easily understood by the respondents, reducing the likelihood of misinterpretation. Overall, the table demonstrates that the items in the research instrument have received high relevance and clarity scores. This indicates that the instrument is well-constructed and aligns effectively with the constructs that it aims to measure. The high scores are reassuring and suggest that the instrument is likely to produce valid and reliable data when used in the research study.

4.5 RELIABILITY TEST

Reliability testing is a critical aspect of research and assessment, and it assesses the consistency and stability of a measurement instrument or tool over time and across different situations or conditions. It essentially examines whether the instrument produces consistent and dependable results. One common method for assessing reliability is Cronbach's alpha, which measures the internal consistency of a scale or questionnaire. Cronbach's alpha ranges from 0 to 1, with higher values indicating higher levels of internal consistency. A value of 0 indicates no internal consistency, while a value of 1 indicates perfect internal consistency. Here's an analysis of the reliability data: From the calculation of the Cronbach's alpha, it is observed that the highest Cronbach alpha is for entrepreneurial competencies, which is 0.897. This variable has a high Cronbach's Alpha value, suggesting that the items or dimensions within the variable (such as problem-solving,

innovation, communication, leadership etc) are strongly correlated and reliably measure the construct of entrepreneurial competencies. It indicates good internal consistency.

Table No. 4.4: Reliability Test - Cronbach Alpha

Variable	Cronbach's Alpha
Entrepreneurial Competencies	0.897
Attitude towards business	0.652
Perceived behavioural control	0.643
Subjective Norms	0.608
Personal Norms	0.658
Risk Resilience	0.578
Intention to persist	0.757
Firm Performance	0.692

(Source: Values Calculated on PLS SEM)

The second highest value for cronbach is of Intention to persist that 0.757. It suggests that the items or dimensions related to Intention to persist are consistently measuring the construct. It is considered a reliable variable. Furthermore, the values for Attitude towards business the Cronbach's Alpha are 0.652, Perceived behavioural control the Cronbach's Alpha is 0.643, Subjective Norms the Cronbach's Alpha is 0.608 and Personal Norms the Cronbach's Alpha is 0.658. These variables indicate the moderate Cronbach's Alpha value which refers to reasonably good internal consistency. The risk resilience has Cronbach's Alpha value of 0.578 and firm performance cronbach alpha value is 0.692. These values are moderate, suggesting some variability or inconsistency in the measurement of this construct.

4.6 ANALYSIS OF THE IMPORTANCE-PERFORMANCE MAP

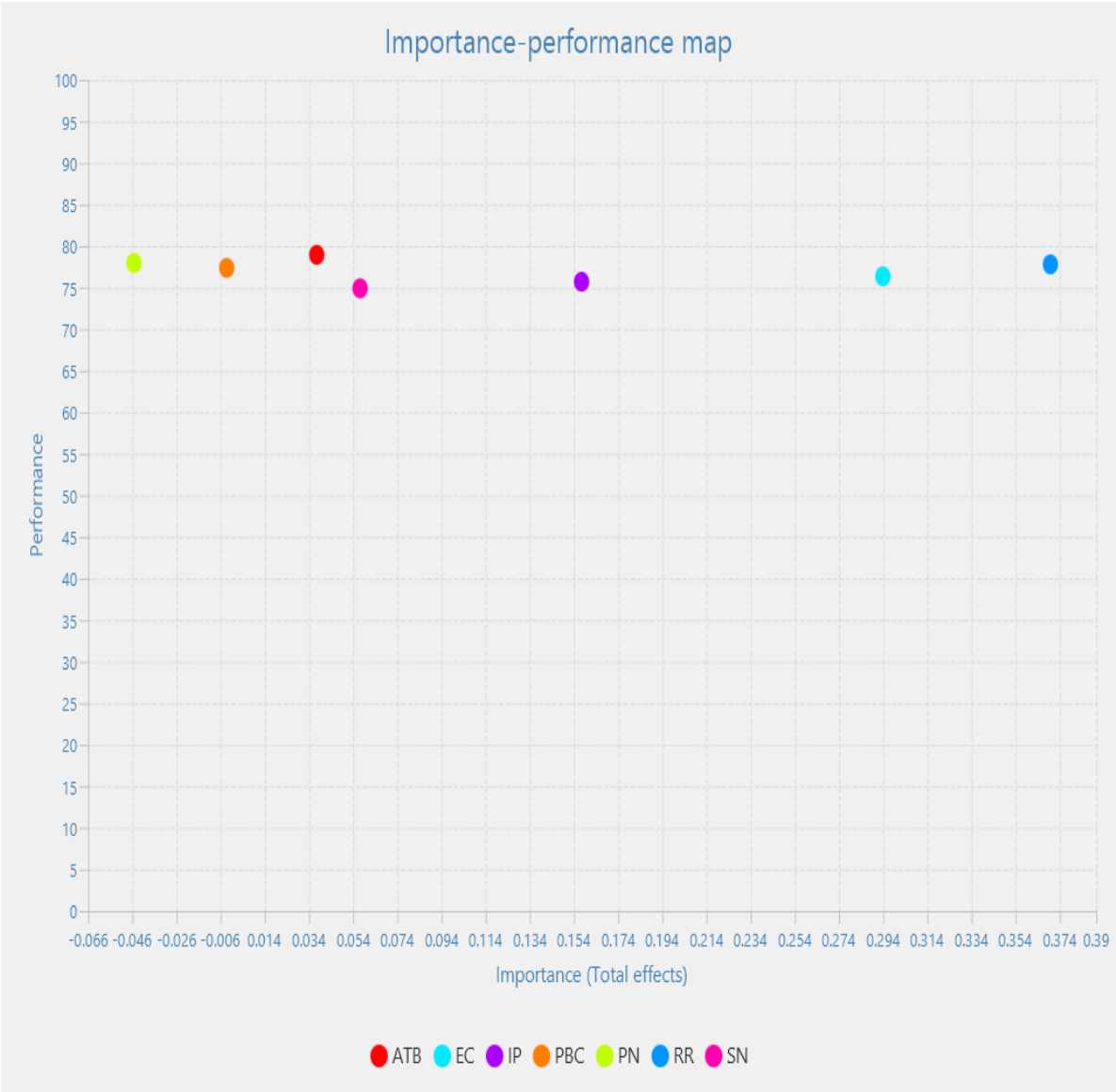
The Importance-Performance map provides a clear visual representation of various factors, showing their relative importance and how well they are currently performing. This analysis aims to explain these findings in simple terms. Risk Resilience (RR - Blue): The position of Risk Resilience on the map shows that it is both very important and performing well. This means that the ability to handle risks is a crucial factor, and currently, it is being managed effectively. Maintaining this high level of performance in risk resilience is essential for achieving desired outcomes. Perceived Behavioural Control (PBC - Green) and Personal Norms (PN - Orange): These factors are performing well but are not as critical. Perceived Behavioural Control reflects how individuals feel they have over the actions, and Personal Norms represent the personal standards and principles people hold. Despite their good performance, these factors are not the main drivers of success. It might be beneficial to consider shifting some focus and resources from these areas to those that are more critical.

Attitude Toward Behaviour (ATB - Red), Subjective Norms (SN - Pink), Entrepreneurial Competencies (EC - Cyan), and Intention to Purchase (IP - Purple): These factors are both less important and performing at lower levels. This suggests that people's attitudes towards their behaviour, the influence of others on their decisions, their entrepreneurial skills, and their intention to make a purchase are not major concerns at the moment. However, these areas might need improvement if their importance increases in the future.

Entrepreneurial Competencies are crucial skills and abilities required for entrepreneurial success. Despite being less important and performing at a lower level, these competencies do not currently demand immediate improvement efforts. However, enhancing these skills could be beneficial if their importance increases over time. Attitude Toward behaviour is both less important and performing poorly. This factor represents individuals' positive or negative evaluations of their behaviour. Given its lower importance and performance, this area does not require immediate attention. However, monitoring this factor and preparing for potential improvements if its importance rises could be beneficial. Perceived Behavioural Control, despite being well-managed, is not a critical factor. This reflects that while individuals feel confident in their ability to control their actions, this confidence is not a key determinant of success in the current context. Given its good performance, it

might be prudent to maintain the current level of focus on this area, without necessarily prioritizing it for additional resources or improvement initiatives.

Figure No. 4.1: Importance-performance map



(Source: PLS SEM Software)

Subjective Norms, which reflect the influence of others on an individual's behaviour, are also positioned in the low importance and low performance quadrant. This indicates that the social pressure or expectations from others are not significantly impacting outcomes at present. As with Attitude Toward behaviour, this area does not need urgent attention but should be monitored for any changes in its relevance. Personal Norms are also performing well but are not of high importance.

Personal Norms represent the internal standards and values that guide individual behaviour. While these norms are upheld effectively, they do not play a significant role in driving success. Similar to Perceived Behavioural Control, maintaining the current performance levels without significant additional focus might be a suitable approach. Intention to Purchase represents individuals' readiness to buy a product or service. Its position on the map indicates that it is not a significant driver of success and is performing poorly. Like the other factors in the low importance and low performance quadrant, it does not require immediate action but should be observed for any shifts in its importance. Risk Resilience is positioned in the high importance and high-performance quadrant of the map. This indicates that the ability to manage and bounce back from risks is crucial and is currently being handled effectively. Ensuring that this factor continues to perform well is vital for ongoing success. Efforts should be made to sustain and possibly enhance the strategies that contribute to high-risk resilience.

The Importance-Performance map is a valuable tool for guiding strategic decisions. By understanding which factors are most important and how well they are performing, resources can be allocated more effectively. High-performing, critical factors like Risk Resilience should be maintained, while less critical but well-performing factors like Perceived Behavioural Control and Personal Norms can be deprioritized. Factors with low importance and performance, such as Attitude Toward behaviour and Subjective Norms, do not need immediate focus but should be monitored for future changes in their relevance.

4.7 DEMOGRAPHIC DETAILS:

Demographic details refer to specific characteristics and information about a population or group of individuals. These details provide a snapshot of the composition, characteristics, and attributes of a particular group, helping researchers, organizations, and policymakers understand the people they are studying or interacting with. Demographic information typically includes various factors that describe the characteristics of individuals within a population. The common demographic details include age, gender, ethnicity, education, income, occupation, marital status, geographic location, family size, religion, etc (Jansson et al., 2011b; Krueger et al., 2000; Paul, 2020; Sandhu et al., 2019). To generalise the options given by respondents on entrepreneurial competencies, Risk Resilience, Intention

to Persist and firm Performance frequency distribution is done. The data analysing is based on the demographic details.

Table No. 4.5: Sample and data available for analysis

Particulars	Samples
Target samples	500
Actual Samples receive	416
Samples of other cities / Wrong data / sample information (Standard Deviation less than 0.50)	64
Actual samples available for Data Analysis	352

(Source: Author's creation)

The target samples were 500 from the MSME of Gujarat. The actual data receive is 416 samples i.e. 83.20% of target data. When the data was analysed, it is observed that 64 responses were of no use as they were part of other cities of Gujarat, no details were mentioned and same responses were filled in questionnaire. Standard deviation is calculated to know the changes in the response of each variable and thus scale that has less than 0.50 as standard deviation has been remove. Thus, the final analysis is done with the 352 responses that are 70% of actual data.

Table No. 4.6: Frequency Distribution of Responses

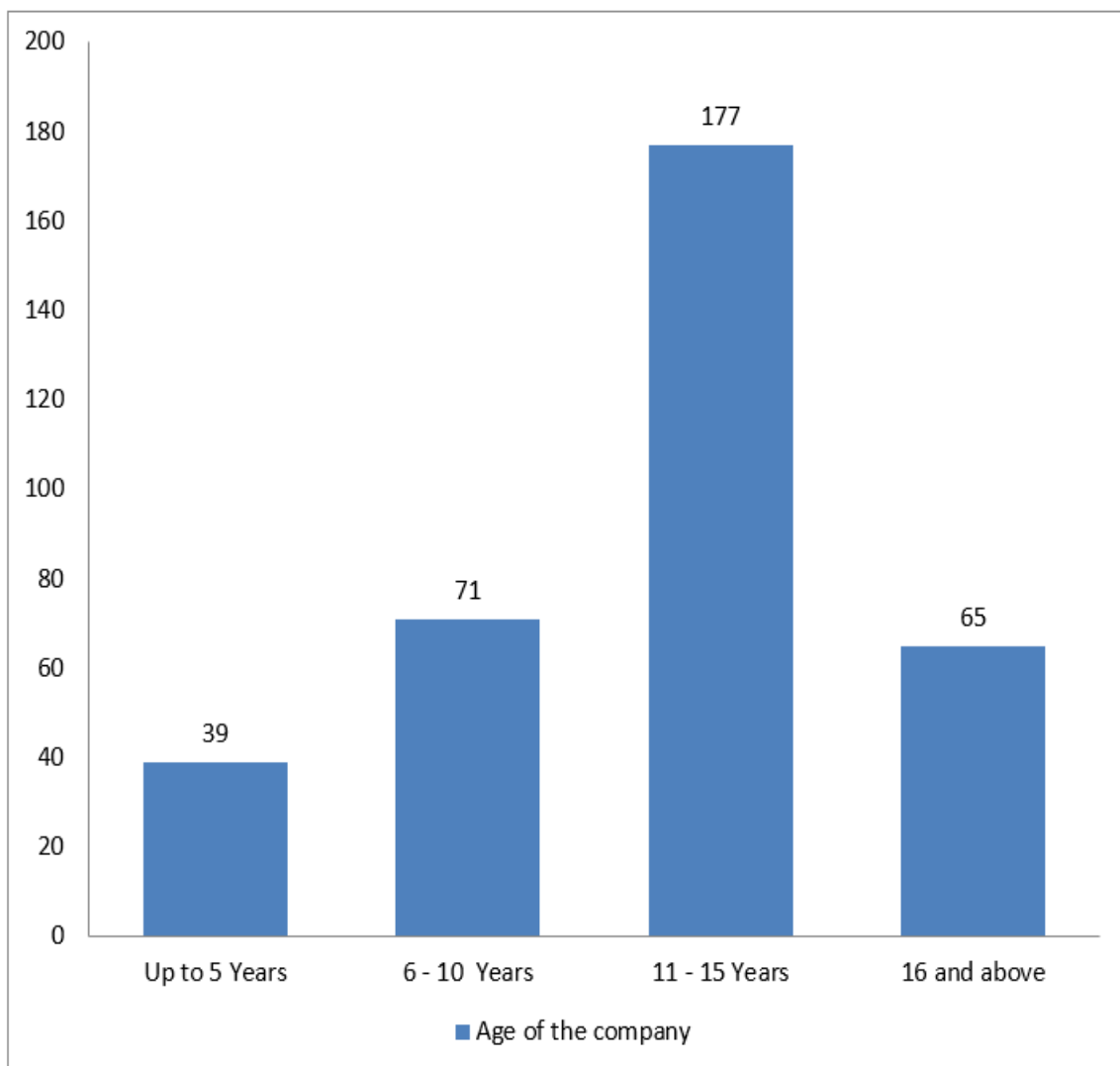
Profile Variable	Particulars	Frequency	Percentage
Age of the company	Up to 5 Years	39	11.08
	6 - 10 Years	71	20.17
	11 - 15 Years	177	50.28
	16 and above	65	18.47
	Total	352	100
Age of Entrepreneurs	Less than 25	9	2.56
	26-35	42	11.93
	36-45	100	28.41
	46-55	167	47.44
	Above 56	34	9.66
	Total	352	100
Education	Primary/ Secondary Level	9	2.56
	Higher Secondary	41	11.65
	Graduate	159	45.17
	Professional	143	40.63
	Total	352	100
Enterprise Type	Manufacturing	75	21.31
	Wholesaling	68	19.32
	Retailing	76	21.59
	Service	133	37.78
	Total	352	100
Place of Enterprises	Urban	192	54.55
	Rural	160	45.45
	Total	352	100
First Generation Entrepreneur	Yes	220	62.5
	No	132	37.5
	Total	352	100

(Source: Author's creation)

4.7.1 AGE OF THE COMPANY:

To know the duration of the company, the age of the company was asked to the respondents. The duration gap was made of 5 years i.e. up to 5 years, 6-10 years, 11-15 years and 16 and above years. The highest number of companies is of the 11 - 15 years category, with 177 companies, comprising approximately 50.28% of the total. The lowest number of companies is of the Up to 5 year's category, with 39 companies, representing approximately 11.08% of the total. The 6 - 10 years category follows closely behind the 11 - 15 years category, with 71 companies, accounting for approximately 20.17% of the total. The 16 and above category has 65 companies, making up around 18.47% of the total.

Figure No. 4.2: Age of Company

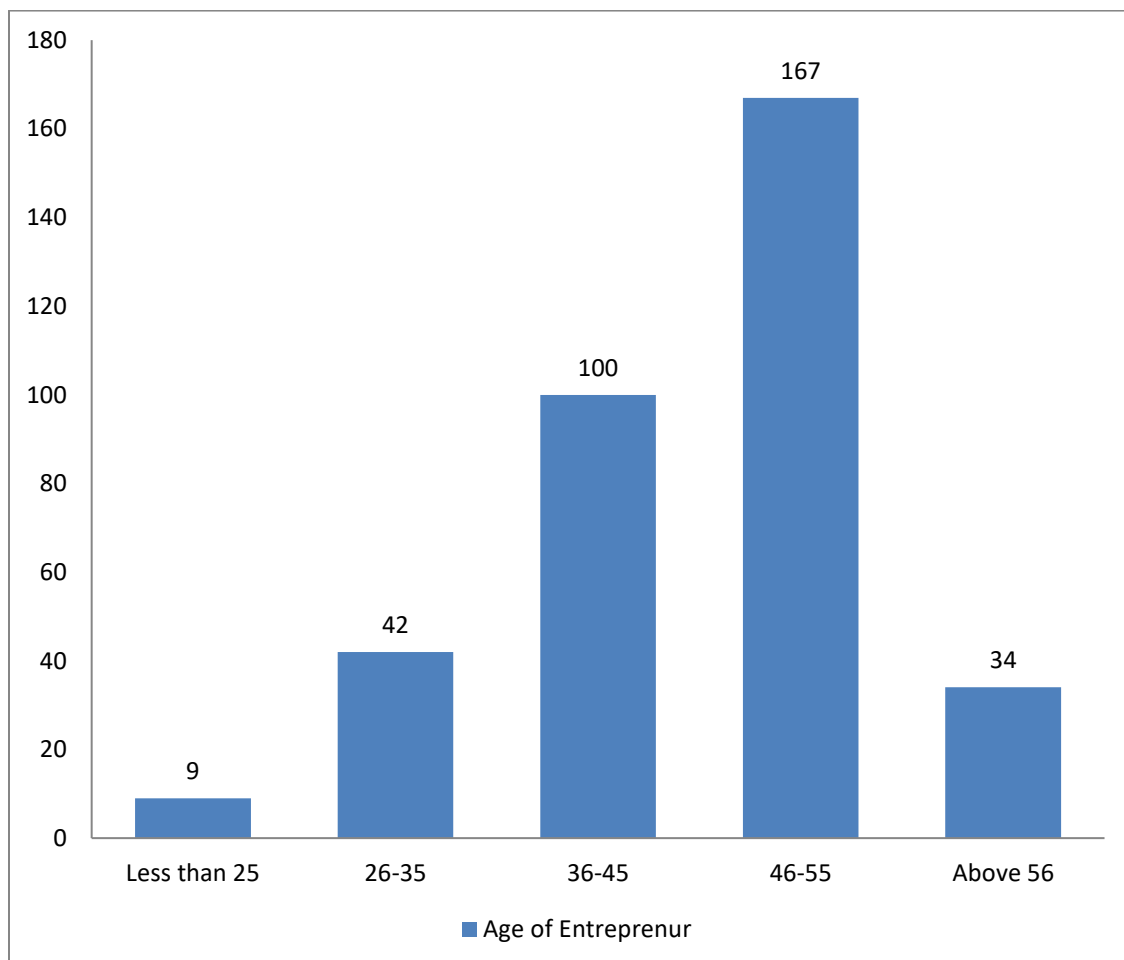


(Source: Author's creation)

4.7.2 AGE OF ENTREPRENEUR:

The age of the individual entrepreneurs were asked to know the age criteria. The duration gap was made of 5 years i.e. less than 5 years, 26-35, 36-45, and 46-55 and above 56 years. The highest number of individuals is in the 46-55 age group, 167 individuals, comprising approximately 47.44% of the total. The lowest number of individuals is in the Less than 25 age group, with only 9 individuals, representing approximately 2.56% of the total. The 36-45 age group follows closely behind the 46-55 age group, with 100 individuals, accounting for approximately 28.41% of the total. The 26-35 age group has 42 individuals, making up around 11.93% of the total. The Above 56 age group has 34 individuals, representing approximately 9.66% of the total.

Figure No. 4.3: Age of Entrepreneur

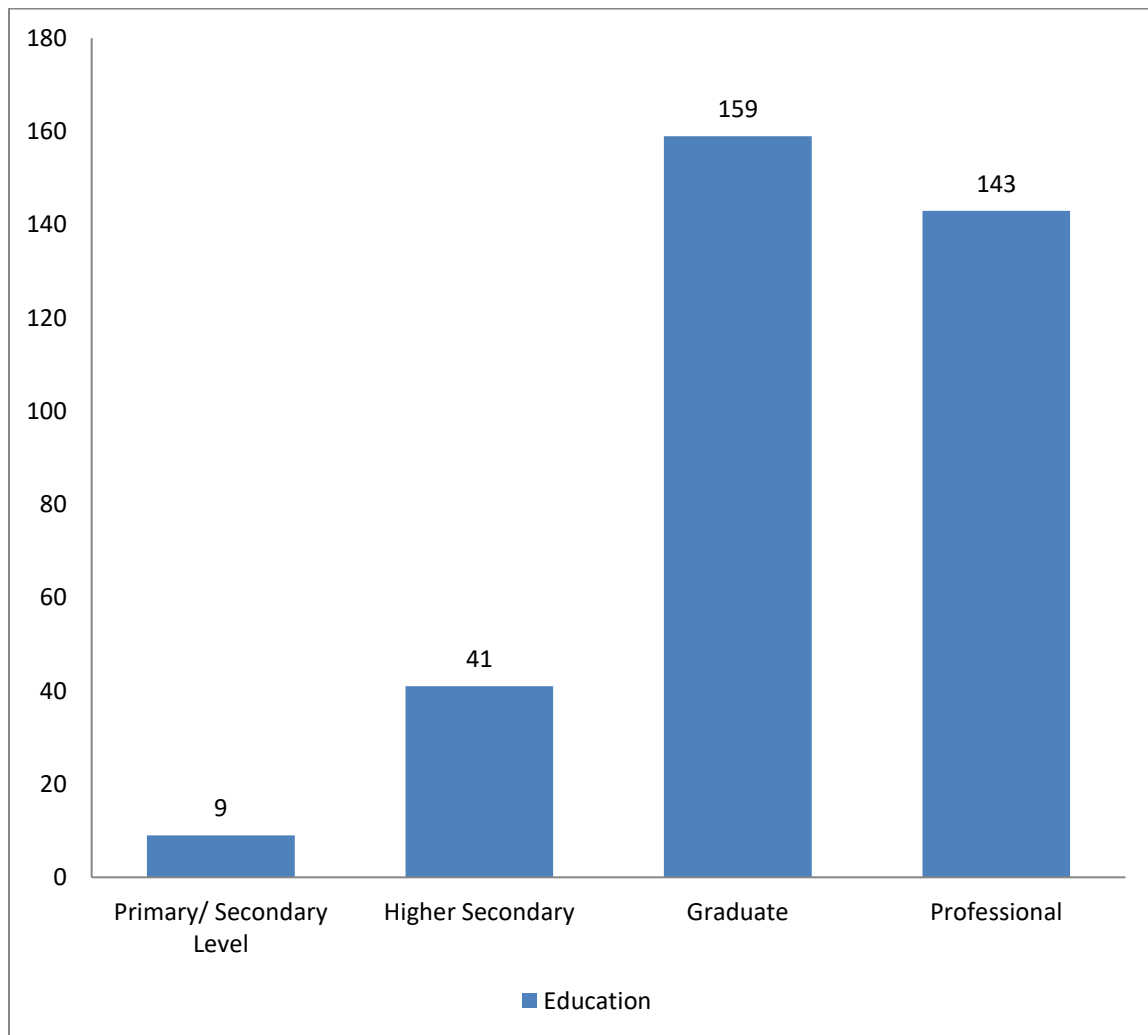


(Source: Author's creation)

4.7.3 EDUCATION:

To know the literacy rate among the entrepreneurs, the education details were asked to them. The education details were asked as Primary or secondary level, Higher secondary, Graduate and Professional level. The education level with the highest number of individuals is the Graduate category, with 159 individuals, comprising approximately 45.17% of the total. The education level with the lowest number of individuals is the Primary/Secondary Level category, with only 9 individuals, representing approximately 2.56% of the total. The Professional category follows closely behind the Graduate category, with 143 individuals, accounting for approximately 40.63% of the total. The Higher Secondary category has 41 individuals, making up around 11.65% of the total.

Figure No. 4.4: Education

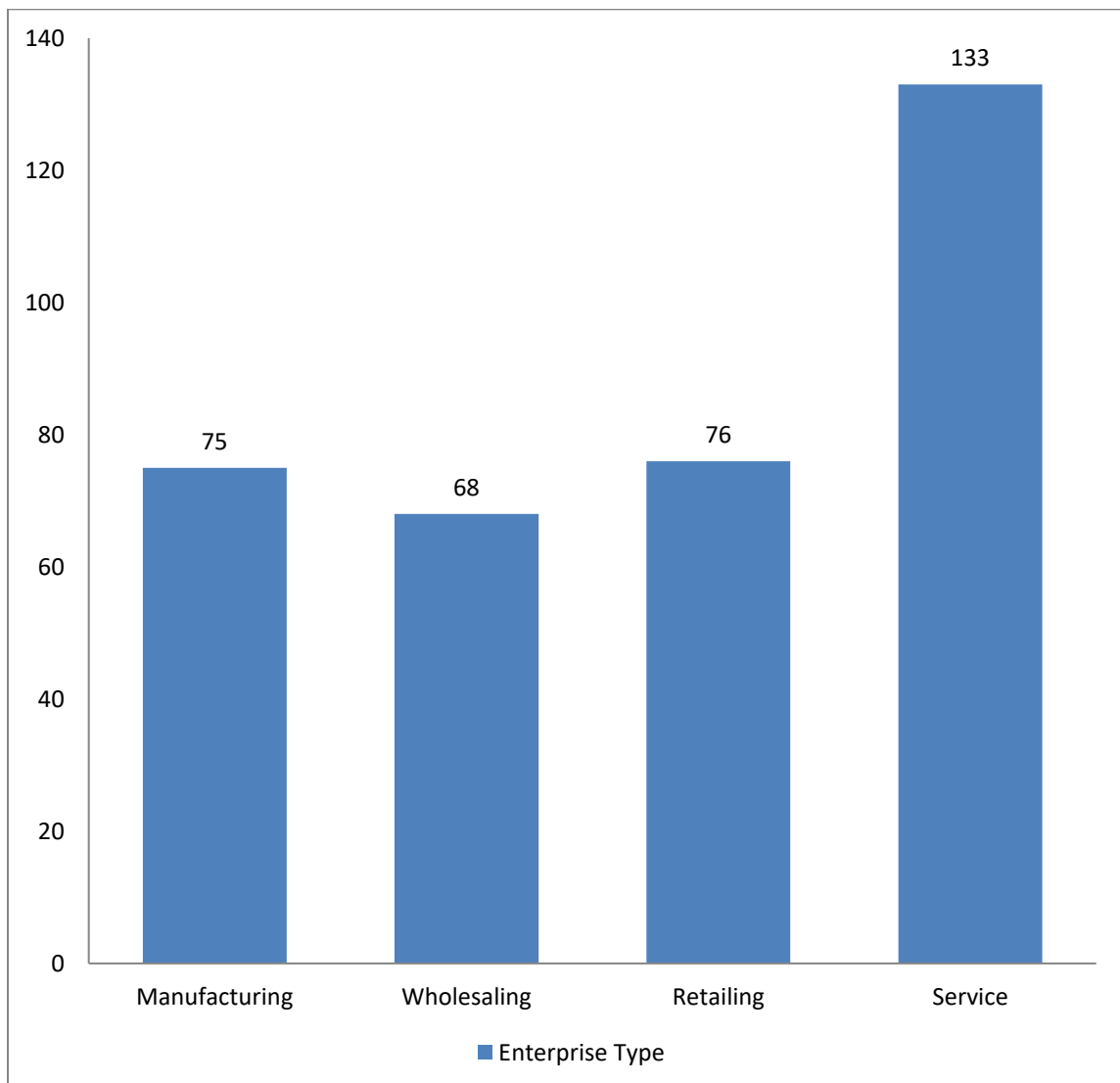


(Source: Author's creation)

4.7.4 ENTERPRISE TYPE:

To know the type of MSME the details were asked to entrepreneurs, that whether the company comes in manufacturing, wholesaling, retailing and service industry. On the review of the samples, it is observed that the sector with the highest number of enterprises is the service sector, with 133 enterprises, comprising approximately 37.78% of the total. The sectors with the next highest number of enterprises are retailing and manufacturing, with 76 and 75 enterprises respectively, accounting for approximately 21.59% and 21.31% of the total. The wholesaling sector has 68 enterprises, making up around 19.32% of the total.

Figure No. 4.5: Enterprise Type

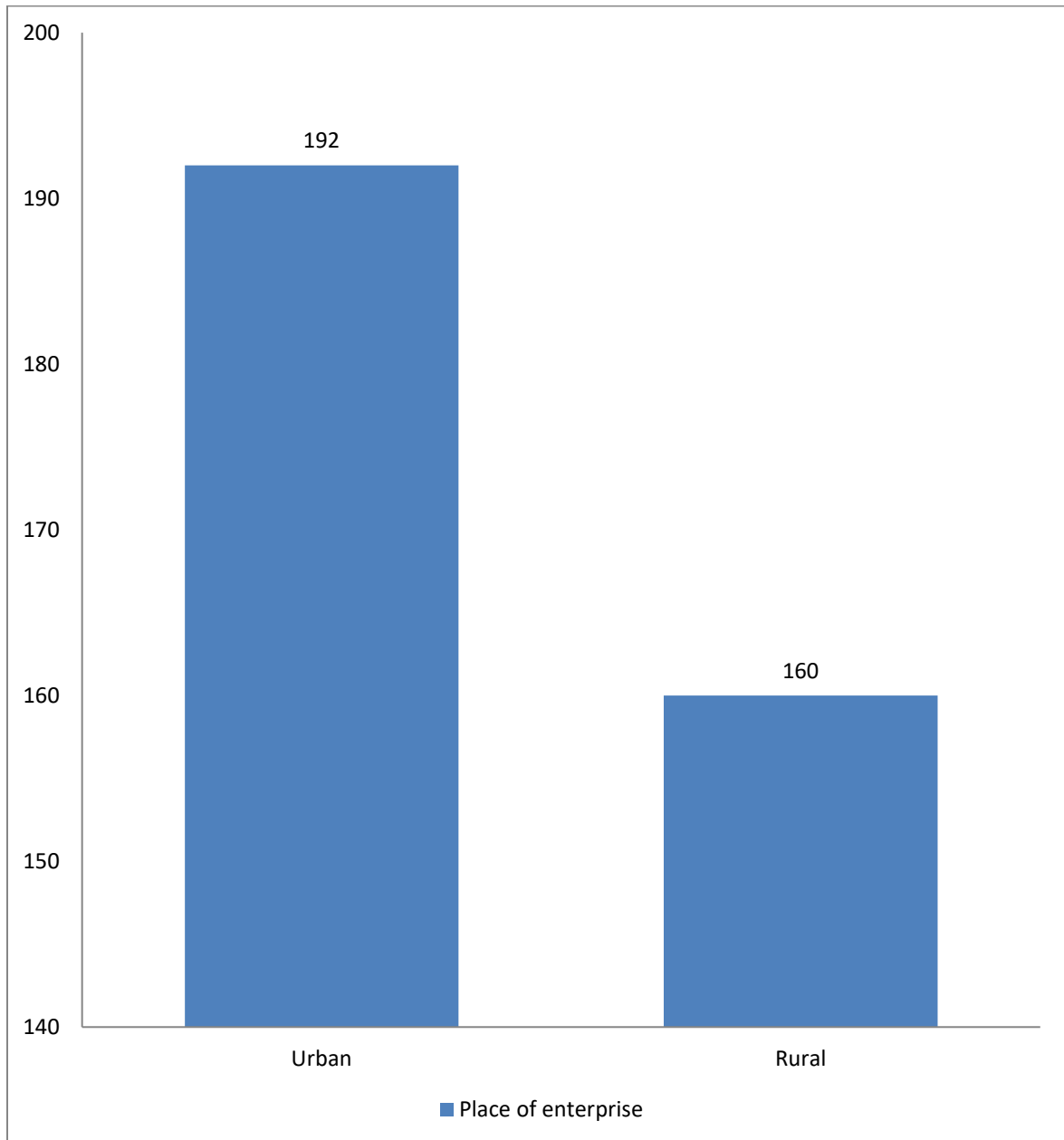


(Source: Author's creation)

4.7.5 PLACE OF ENTERPRISE:

To the MSME location, the area of location i.e. Urban or Rural was asked to entrepreneurs. The urban areas have the highest number of enterprises, with 192 businesses, comprising approximately 54.55% of the total. The rural areas have a slightly lower number of enterprises, with 160 businesses, accounting for approximately 45.45% of the total.

Figure No. 4.6: Place of Enterprise

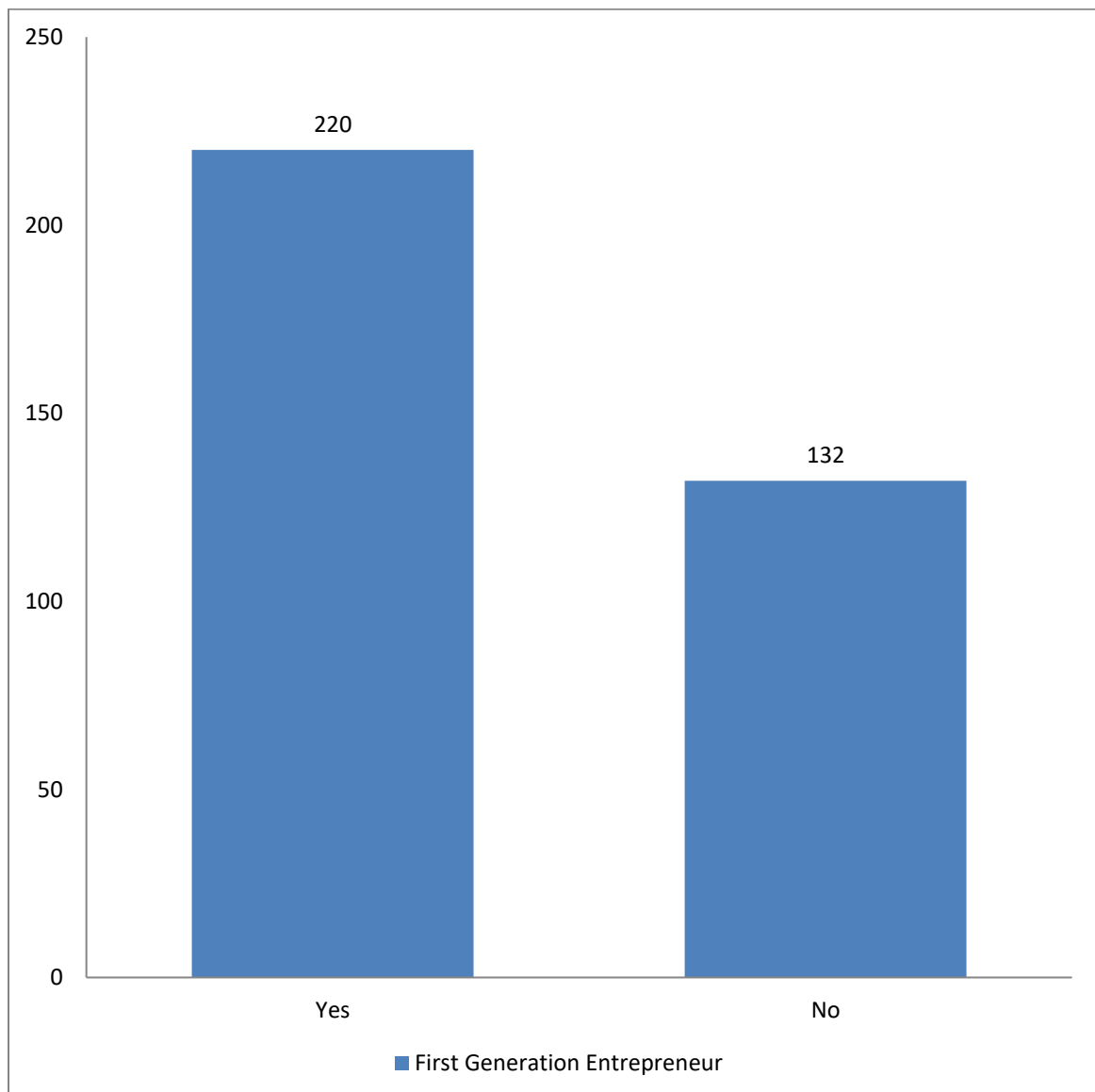


(Source: Author's creation)

4.7.6 FIRST GENERATION ENTREPRENEURS:

There is some of business man who is continuing their family business and there are some new business developers i.e. entrepreneurs. To know this the first-generation entrepreneur's question was asked to entrepreneurs. The majority of the entrepreneurs in the sample, accounting for 62.5%, are categorized as first-generation entrepreneurs. The remaining 37.5% of entrepreneurs are classified as non-first-generation entrepreneurs.

Figure No. 4.7: First Generation Entrepreneurs

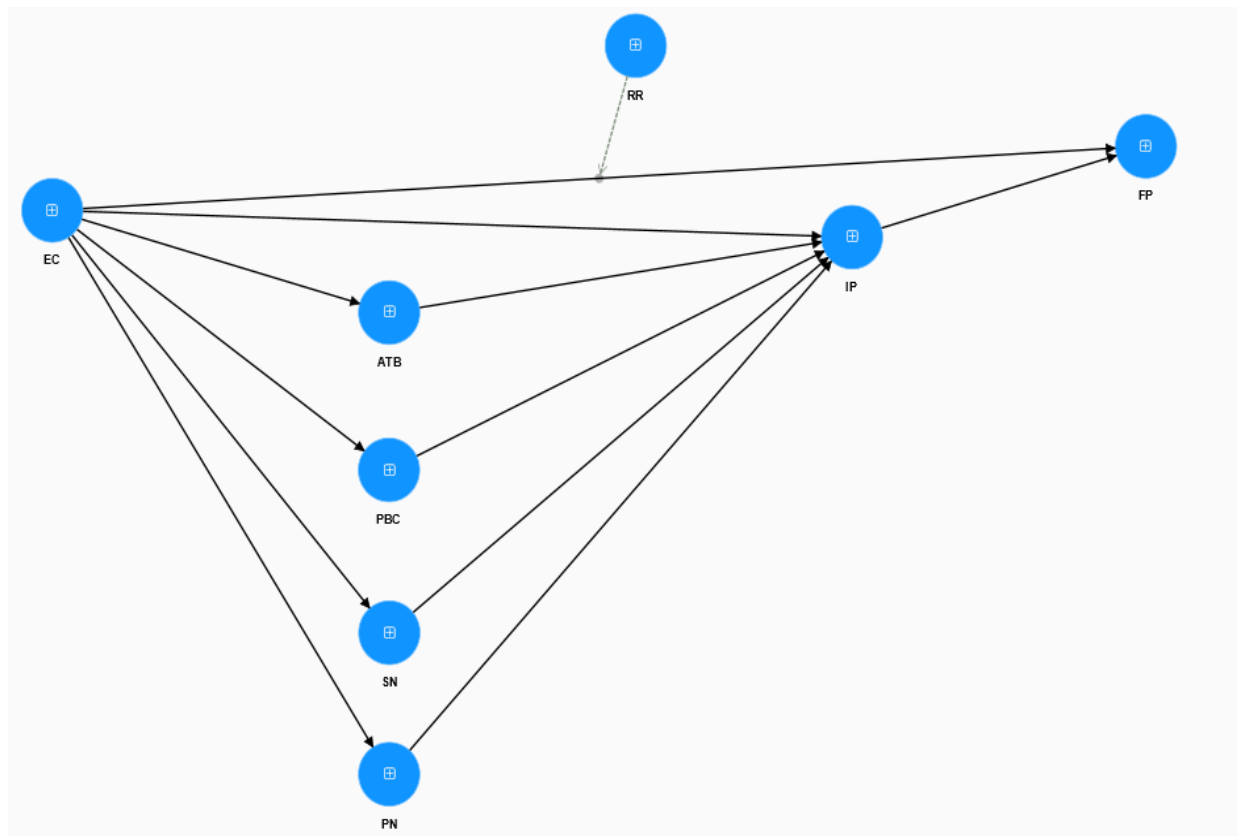


(Source: Author's creation)

4.8 EVALUATION OF MEASUREMENT MODEL

The conceptual framework is made on PLS SEM software and then the analysis is performed. The below mention image is generated after the creation of model in PLS-SEM.

Figure No. 4.8: Conceptual framework in PLS-SEM



(Source: PLS SEM Software)

4.8.1 MODEL FITNESS:

Model fitness, also known as model fit or goodness of fit - to the degree to which a statistical or mathematical model precisely characterizes the observed data. In other words, it assesses how well a model fits the real-world data it was constructed to explain or predict. Model fitness is a critical concept in various fields such as management, accounting, statistics, econometrics, psychology, and social sciences.

A well-fitting model should strike a balance between being complex enough to capture important relationships in the data while avoiding over fitting, which happens when a

model fits random fluctuations in the data rather than the underlying patterns (Botha & Taljaard, 2019; Flowers et al., 2017; Hair et al., 2019; Nkongolo-Bakenda et al., 2006; Ploum et al., 2018). Model fit indices measure a statistical model fits the observed data. In partial least squares structural equation modelling, several fit indices are commonly used to measure the goodness of fit of the estimated model.

Table No. 4.7: Model Fitness

	Saturated model	Estimated model
SRMR	0.062	0.085
NFI	0.604	0.544

(Source: PLS SEM Software)

Standardized Root Mean Square Residual (SRMR): It is a goodness-of-fit index used to evaluate the variance between the observed covariance matrix and the model-implied covariance matrix in structural equation modelling (SEM) and related analyses. It measures the average standardized change between the observed and predicted covariances, standardized by the overall level of variability in the observed covariances. Lower SRMR values indicate better model fit.

According to Hu and Bentler (1999), SRMR values less than or equal to 0.08 are generally considered indicative of good model fit. Values between 0.08 and 0.10 are considered acceptable in many cases, suggesting a reasonable fit. Values above 0.10 may indicate poor model fit (Hu & Bentler, 1999).

Normed Fit Index (NFI): The Normed Fit Index (NFI) is a goodness-of-fit index used in SEM that compares the fit of the proposed model to the fit of a baseline model (typically an independence model or a saturated model). NFI ranges from 0 to 1, with higher values indicating better model fit compared to the baseline model. Bentler and Bonett (1980) proposed a guideline where NFI values greater than 0.90 are indicative of good fit, although this is a somewhat lenient criterion. Values closer to 1 suggest better model fit compared to the baseline model (Bentler & Bonett, 1980).

Hair et al. (2016) in the book "A Primer on Partial Least Squares Structural Equation Modelling (PLS-SEM)" discusses PLS-SEM and its fit indices. While SRMR is not as commonly used in PLS-SEM, NFI's concept of comparing fit to a baseline model is relevant (Hair et al., 2011b, 2011a, 2019; Jansson et al., 2011b; Jr et al., 2017; *PLS-SEM: INDEED A SILVER BULLET* Author (s): Joe F . Hair , Christian M . Ringle and Marko Sarstedt *Issue on the Use of Partial Least Squares (PLS) to Address Marketing Management Topics REFERENCES Linked References Are Available on JSTOR for This Art*, 2011; Sandhu et al., 2019).

4.8.2 R SQUARE VALUE:

R-squared (R^2) and adjusted R-squared (R^2 adjusted) are statistical measures used to assess the proportion of variance explained by a regression model. In PLS-SEM, these measures indicate the amount of variance in the dependent variable that is accounted for by the independent variables in the model. Analysing the R-squared and adjusted R-squared values reveals the following insights:

Table No. 4.8: R Square Value

Variable	R-square	R-square adjusted
Attitude towards business	0.358	0.356
Perceived behavioural control	0.347	0.345
Subjective Norms	0.258	0.256
Personal Norms	0.300	0.298
Intention to persist	0.707	0.703
Firm Performance	0.694	0.685

(Source: PLS SEM Software)

The interpretation of R-squared and adjusted R-squared values in the literature can vary dependent on the field of study, research context, and the complexity of the models being analysed. The presented table displays the R-squared (R^2) and adjusted R-squared values

for various variables in the model. These values are crucial indicators of the model's goodness of fit and its ability to explain the variability observed in the dependent variable. The table demonstrates the relationships between the independent and dependent variables, shedding light on the extent to which the model captures the variance in each variable (M.-A. Enoch et al., 2010; Sandhu et al., 2019).

Attitude towards Business: The model accounts for approximately 35.8% of the variance in Attitude towards Business. The adjusted R-squared, which takes into account the number of forecasters in the model, remains quite similar at 35.6%. This indicates that the model provides a moderate level of explanation for the variability in this variable. **Perceived Behavioural Control:** The model explains around 34.7% of the variance in Perceived Behavioural Control. The adjusted R-squared of 34.5% advises that the model's explanatory power is consistent even when considering the complexity of the model's predictors.

Subjective Norms: The model captures approximately 25.8% of the variance in Subjective Norms. The adjusted R-squared of 25.6% indicates that the model's explanatory power remains relatively stable when adjusting for the number of predictors. **Personal Norms:** The model accounts for around 30% of the variance in Personal Norms. The adjusted R-squared of 29.8% suggests that the model's explanatory control is similar, considering the model's complexity.

Intention to Persist: The model demonstrates a strong ability to explain the variability in Intention to Persist, with an R^2 value of 70.7%. The adjusted R-squared of 70.3% indicates that this explanatory power is not solely driven by the number of predictors but represents a substantial relationship. **Firm Performance:** The model is notably successful in explaining the variability in Firm Performance, with an R^2 value of 69.4%. The adjusted R-squared of 68.5% confirms that the model's explanatory strength remains high even after accounting for predictor complexity.

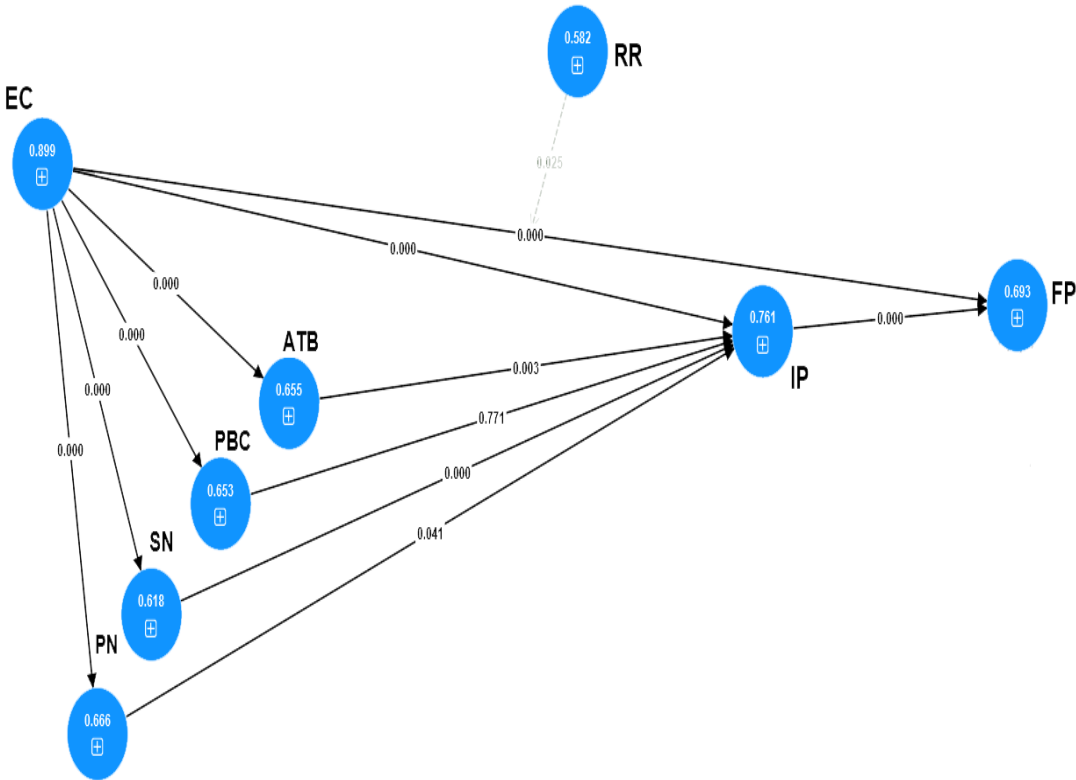
Overall, the R^2 and adjusted R^2 values reflect the model's fit to the data and its ability to explain the variance in the dependent variables. The relatively high values for Intention to Persist and Firm Performance underscore the strong relationships between these variables and the predictors in the model. While the other variables demonstrate moderate to substantial explanatory power, it's important to consider the contextual significance of

these relationships within the research domain and theoretical framework. The results suggest that the model is capturing meaningful associations between the variables, contributing to the understanding of the relationships being examined.

4.8.3 ANALYSIS WITH PLS-SEM:

The full model analysis represents a comprehensive evaluation of the relationships and interactions within a complex research framework. This analysis delves into the various hypotheses tested and the resulting outcomes, shedding light on the statistical significance and magnitude of the effects between endogenous and exogenous variables. The subsequent table, labelled as "Images and Tables" encapsulates the culmination of these efforts, presenting a succinct overview of the findings.

Figure No. 4.9: P-Value Chart



(Source: PLS SEM Software)

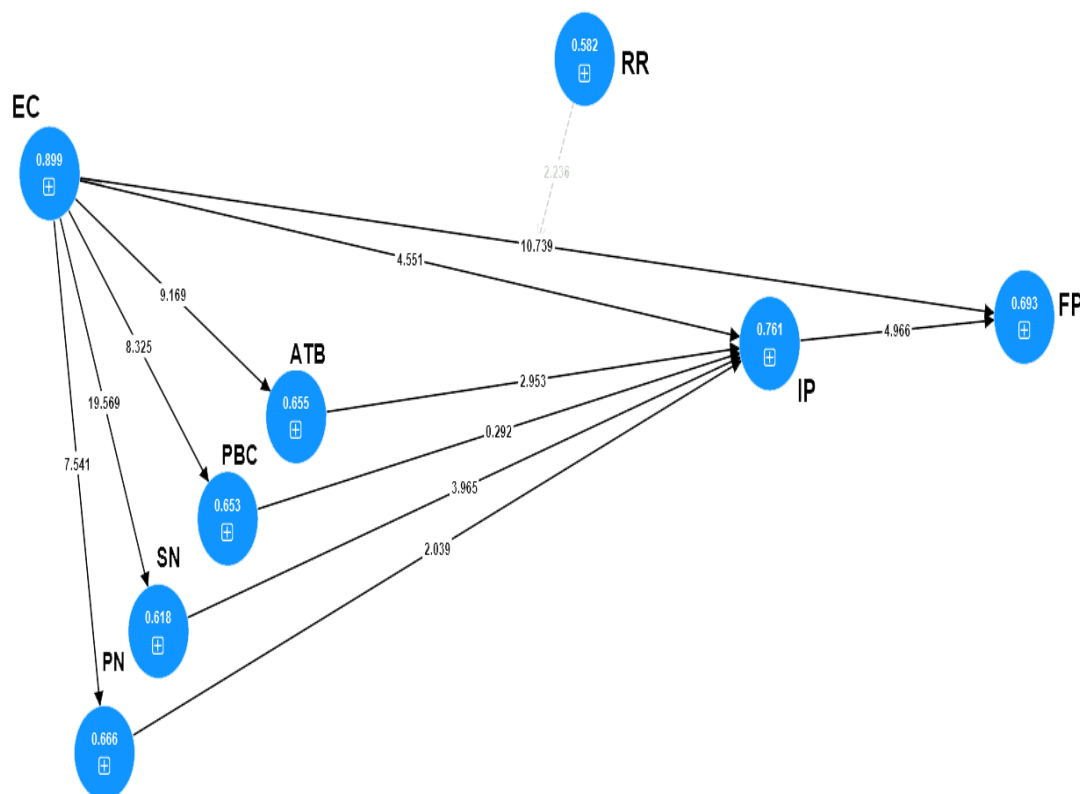
The analysis of Entrepreneurial Competencies (EC) and various factors using p-values provides clear insights into the significance of these relationships. A p-value helps determine the statistical significance of the observed effects. In this study, p-values lower

than 0.05 indicate significant relationships, while higher p-values suggest no significant effect. In this study, the p-values for the relationships between EC and Attitude Towards Business (ATB), Perceived Behavioural Control (PBC), Subjective Norms (SN), Personal Norms (PN), Intention to Persist (IP), and Firm Performance (FP) were all below 0.05, except for PBC's influence on IP, which was 0.771. The low p-values (0.000) for the relationships between EC and ATB, PBC, SN, PN, IP, and FP indicate strong evidence to support the hypotheses that EC positively influences these factors. The exception is the relationship between PBC and IP, where the high p-value of 0.771 indicates no significant effect, suggesting that perceived behavioural control does not significantly impact the intention to persist in business operations. For other relationships, such as ATB to IP (p-value = 0.003), SN to IP (p-value = 0.000), PN to IP (p-value = 0.041), IP to FP (p-value = 0.000), and the moderating effect of Risk Resilience (RR) with EC and FP (p-value = 0.025), the low p-values confirm significant findings. These results indicate that positive attitudes towards business, subjective norms, and personal norms significantly influence the intention to persist, which in turn impacts firm performance. Additionally, the significant p-value for the moderating effect of RR suggests that risk resilience enhances the impact of entrepreneurial competencies on firm performance. These findings highlight the importance of fostering entrepreneurial skills and creating a supportive business environment to enhance persistence and overall business success.

The T-value in statistical analysis helps determine whether the relationships between variables are statistically significant. In this study, a T-value greater than 1.96 indicates a significant relationship, while a T-value less than 1.96 suggests that the relationship is not significant. Analysing the T-values for Entrepreneurial Competencies (EC) and various factors provides a clear understanding of their significance. The T-values for the relationships between EC and Attitude Towards Business (ATB), Perceived Behavioural Control (PBC), Subjective Norms (SN), Personal Norms (PN), Intention to Persist (IP), and Firm Performance (FP) were all greater than 1.96, except for PBC's influence on IP, which had a T-value of 0.292. High T-values (e.g., 9.169 for EC to ATB, 8.325 for EC to PBC, 19.569 for EC to SN, 7.541 for EC to PN, 4.551 for EC to IP, and 10.739 for EC to FP) indicate strong evidence to support the hypotheses that EC positively influences these factors. The low T-value of 0.292 for the relationship between PBC and IP indicates no significant effect, suggesting that perceived behavioural control does not significantly

impact the intention to persist in business operations. For other relationships, such as ATB to IP (T-value = 2.953), SN to IP (T-value = 3.965), PN to IP (T-value = 2.039), IP to FP (T-value = 4.966), and the moderating effect of Risk Resilience (RR) with EC and FP (T-value = 2.236), the high T-values confirm significant findings. These results indicate that positive attitudes towards business, subjective norms, and personal norms significantly influence the intention to persist, which in turn impacts firm performance. Additionally, the significant T-value for the moderating effect of RR suggests that risk resilience enhances the impact of entrepreneurial competencies on firm performance. These findings emphasize the importance of fostering entrepreneurial skills and creating a supportive business environment to enhance persistence and overall business success.

Figure No. 4.10: T Value

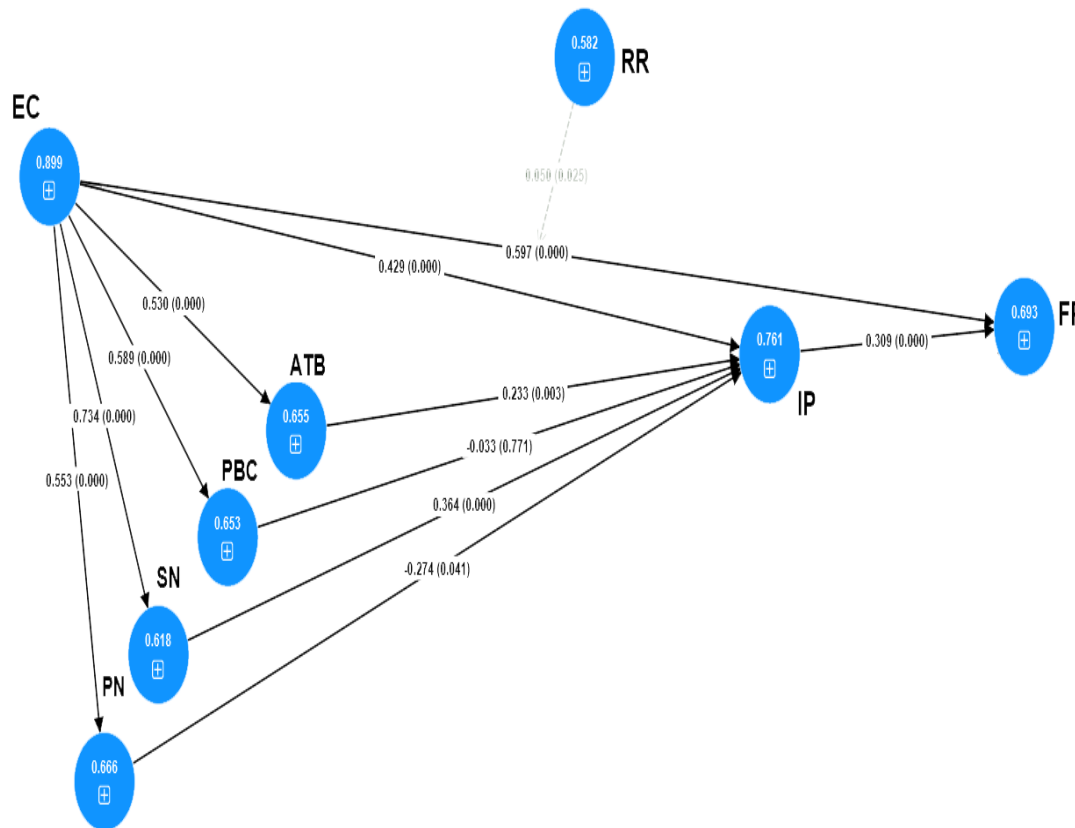


(Source: PLS SEM Software)

The image provided represents a detailed analysis using partial least squares structural equation modeling, which helps in understanding the relationships between various factors influencing business outcomes. The analysis includes variables like Entrepreneurial

Competencies (EC), Attitude Towards Business (ATB), Perceived Behavioural Control (PBC), Subjective Norms (SN), Personal Norms (PN), Intention to Persist (IP), Risk Resilience (RR), and Firm Performance (FP).

Figure No. 4.11: Path coefficient and correlation



(Source: PLS SEM Software)

Entrepreneurial Competencies (EC) show significant positive effects on several other factors. For example, EC has a strong positive impact on Attitude Towards Business (ATB) with a path coefficient of 0.530 and a t-statistic of 9.169. This means that better entrepreneurial skills are associated with a more positive attitude towards business. Similarly, EC positively influences Perceived Behavioural Control (PBC) with a path coefficient of 0.589 and a t-statistic of 8.325, indicating that higher entrepreneurial competencies increase individuals' confidence in their ability to perform entrepreneurial tasks. EC also has a strong impact on Subjective Norms (SN), with a path coefficient of 0.734 and a t-statistic of 19.569, suggesting that enhanced entrepreneurial skills align with societal expectations and norms related to business. Additionally, EC affects Personal

Norms (PN) with a path coefficient of 0.553 and a t-statistic of 7.541, reflecting that stronger entrepreneurial skills are aligned with personal beliefs and values about business. EC significantly influences both Intention to Persist (IP) with a path coefficient of 0.427 and a t-statistic of 4.551, and Firm Performance (FP) with a path coefficient of 0.602 and a t-statistic of 10.739, implying that better entrepreneurial skills lead to a stronger intention to continue in business and improved overall business performance.

Attitude Towards Business (ATB) also positively affects Intention to Persist (IP) with a path coefficient of 0.233 and a t-statistic of 2.953, indicating that a more positive business attitude enhances the likelihood of sticking with entrepreneurial endeavours. However, Perceived Behavioural Control (PBC) does not show a significant impact on IP (path coefficient of -0.033 and t-statistic of 0.292), suggesting that confidence in abilities might not directly influence the decision to persist in business. Subjective Norms (SN) have a significant positive effect on IP, with a path coefficient of 0.364 and a t-statistic of 3.965, indicating that societal expectations and pressures positively encourage persistence in business. On the other hand, Personal Norms (PN) have a negative but significant impact on IP (path coefficient of -0.274 and t-statistic of 2.039), which might imply that personal beliefs and values can sometimes discourage continued business engagement.

The Intention to Persist (IP) has a strong positive effect on Firm Performance (FP) with a path coefficient of 0.299 and a t-statistic of 4.966, suggesting that the more determined the entrepreneurs are to continue their business, the better the business outcomes. Furthermore, Risk Resilience (RR) plays a crucial role in this context. The interaction between Risk Resilience and Entrepreneurial Competencies (RR x EC) indicates that resilience in facing risks enhances the constructive impact of entrepreneurial skills on firm performance, even if this effect is relatively modest, with a path coefficient of 0.054 and a t-statistic of 2.236. In summary, the PLS-SEM analysis highlights the critical role of entrepreneurial skills in shaping various business attitudes, norms, and outcomes. Entrepreneurial competencies significantly drive a positive business outlook, societal and personal norms, and ultimately the intention to continue business activities, all of which contribute to better firm performance. Additionally, risk resilience strengthens the beneficial effects of entrepreneurial skills on business success. This comprehensive analysis underscores the importance of fostering strong entrepreneurial skills and resilience to achieve sustainable business growth and success.

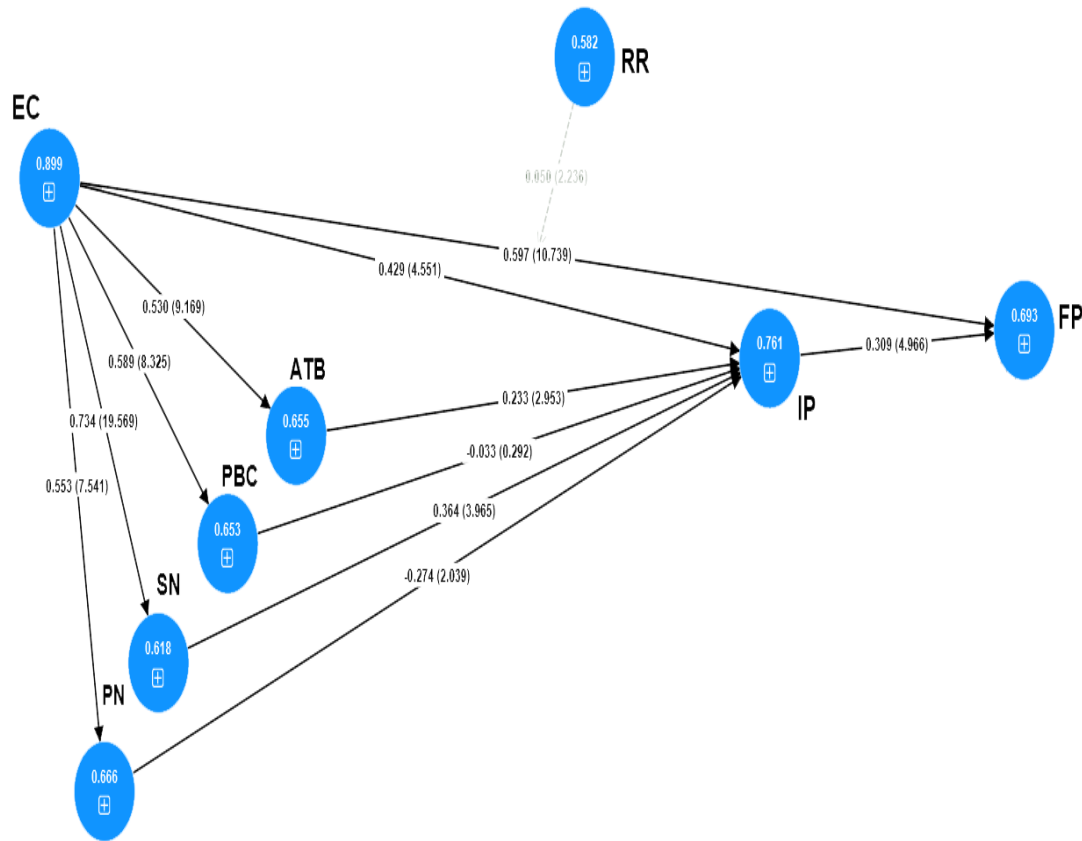
The image illustrates the relationships between various factors using partial least squares structural equation model. Each arrow represents a path between variables, with associated path coefficients and T-values, which help in understanding the strength and significance of these relationships.

Entrepreneurial Competencies (EC) significantly influence several variables. EC positively affects Attitude Towards Business (ATB) with a path coefficient of 0.530 and a T-value of 9.169, indicating a strong and significant relationship. This suggests that better entrepreneurial skills lead to a more positive attitude towards business. EC also positively impacts Perceived Behavioural Control (PBC) with a path coefficient of 0.589 and a T-value of 8.325, showing that higher entrepreneurial competencies enhance confidence in handling business tasks.

Additionally, EC has a significant positive effect on Subjective Norms (SN), with a path coefficient of 0.734 and a T-value of 19.569, implying that entrepreneurial skills align well with societal expectations regarding business. The relationship between EC and Personal Norms (PN) is also positive and significant, with a path coefficient of 0.553 and a T-value of 7.541, indicating that entrepreneurial competencies are in sync with personal beliefs and values about business. Furthermore, EC influences Intention to Persist (IP) with a path coefficient of 0.429 and a T-value of 4.551, and Firm Performance (FP) with a path coefficient of 0.597 and a T-value of 10.739, suggesting that better entrepreneurial skills lead to a stronger intention to continue in business and better overall business performance.

The influence of Attitude Towards Business (ATB) on Intention to Persist (IP) is also significant, with a path coefficient of 0.233 and a T-value of 2.953, indicating that a positive attitude towards business enhances the likelihood of persisting in entrepreneurial activities. However, Perceived Behavioural Control (PBC) does not have a significant impact on IP, with a path coefficient of -0.033 and a T-value of 0.292, suggesting that confidence in abilities does not directly influence the decision to continue business activities.

Figure No. 4.12: Path coefficient and T value



(Source: PLS SEM Software)

Subjective Norms (SN) significantly influence IP, with a path coefficient of 0.364 and a T-value of 3.965, showing that societal expectations positively impact the persistence in business. Personal Norms (PN), however, have a negative yet significant impact on IP, with a path coefficient of -0.274 and a T-value of 2.039, indicating that personal beliefs and values may sometimes discourage ongoing business efforts. Intention to Persist (IP) has a significant positive effect on Firm Performance (FP), with a path coefficient of 0.309 and a T-value of 4.966, demonstrating that a strong determination to continue in business leads to improved business outcomes. Additionally, Risk Resilience (RR) moderates the relationship between Entrepreneurial Competencies (EC) and Firm Performance (FP). The interaction term (RR x EC) has a path coefficient of 0.054 and a T-value of 2.236, indicating that resilience in facing risks enhances the positive impact of entrepreneurial skills on business performance, although the effect is relatively modest. Overall, the PLS-SEM model highlights the vital role of entrepreneurial competencies in shaping business

attitudes, norms, intentions, and outcomes. Entrepreneurial skills significantly drive positive business attitudes, align with societal and personal norms, and foster persistence and success in business activities. Risk resilience further strengthens the beneficial effects of entrepreneurial competencies on business performance, underscoring the importance of fostering strong entrepreneurial skills and resilience for sustainable business growth and success.

CHAPTER - 5

RELATIONSHIP AMONGST

ENTREPRENEURIAL

COMPETENCIES,

INTENTION TO PERSIST

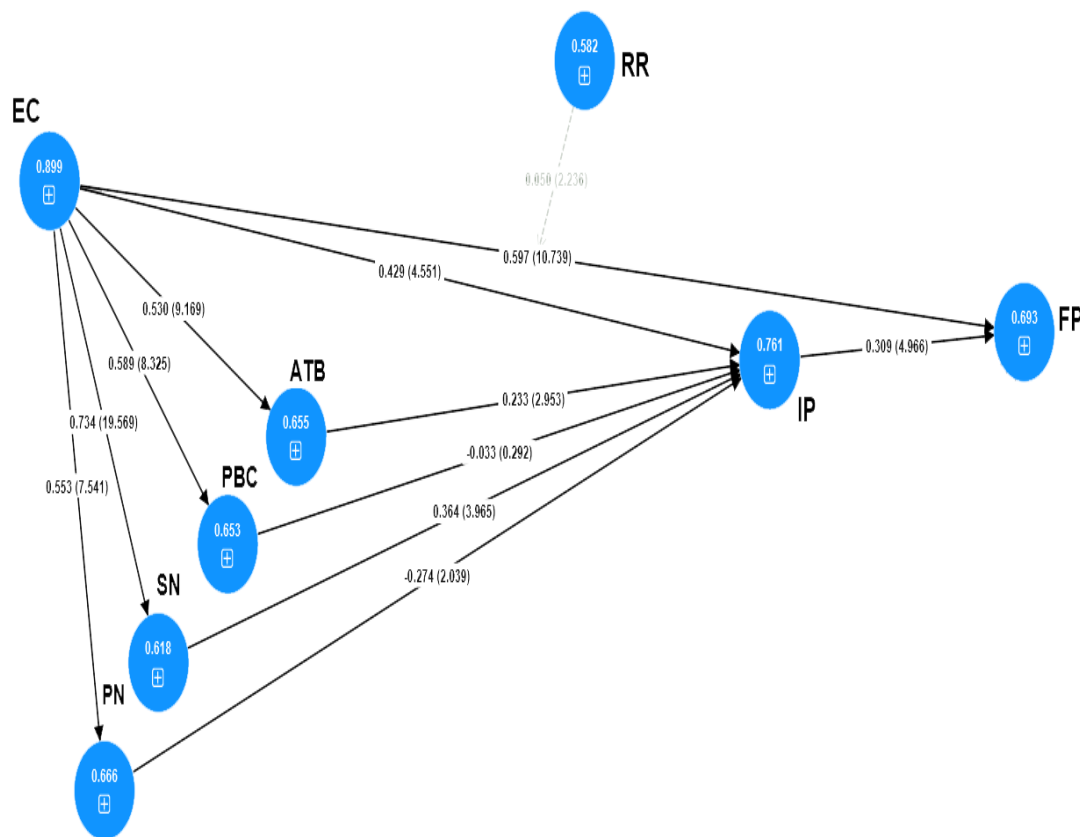
AND FIRM PERFORMANCE

This chapter includes the 5.1 - conceptual framework analysis along with the hypothesis results. Furthermore, this includes the objectives that shows the relationship of three variables such as entrepreneurial competencies, Intention to persist and firm performance. This covers topic 5.2, 5.3 and 5.4.

5.1 Conceptual frame work analysis

The conceptual framework generated on PLS-SEM shows the below mentioned image result. Here all the hypothesis result are supported. The only relation that is not supported is perceived behavioural control on intention to persist.

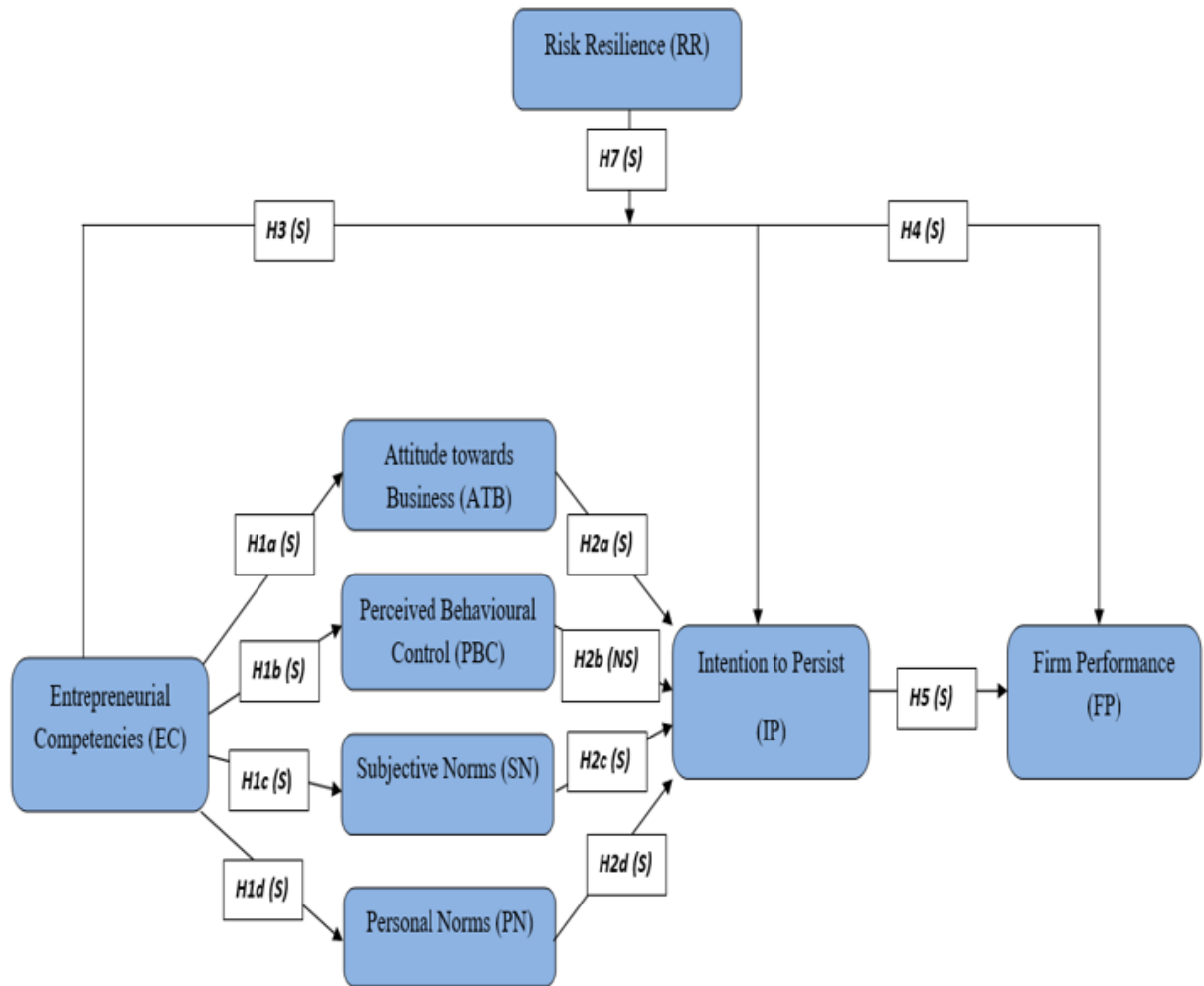
Figure No. 5.1: Conceptual framework analysis



(Source: PLS SEM Software)

For the better understanding, the conceptual framework added along with the hypothesis results on the lines. This will help to understand the hypothesis along with the support and not supported results.

Figure No. 5.2: Hypothesis result



(Source: Author's creation)

H1: There is a significant relationship between entrepreneurial competencies and attitude towards business, perceived behavioural control, subjective norms, and personal norms.

H1a: There is a significant relationship between entrepreneurial competencies and attitude towards business. – Supported

H1b: There is a significant relationship between entrepreneurial competencies and perceived behavioural control – Supported

H1c: There is a significant relationship between entrepreneurial competencies and subjective norms. – Supported

H1d: There is a significant relationship between entrepreneurial competencies and personal norms. – Supported

H2: There is a significant relationship between attitude towards business, perceived behavioural control, subjective and personal norms, and intention to persist.

H2a: There is a significant relationship between attitude towards business and intention to persist. – Supported

H2b: There is a significant relationship between perceived behavioural control and the intention to persist. – Not Supported

H2c: There is a significant relationship between subjective norms and the intention to persist. – Supported

H2d: There is a significant relationship between personal norms and the intention to persist. – Supported

H3: There is a significant relationship between entrepreneurial competencies and the intention to persist- Supported

H4: There is a significant relationship between entrepreneurial competencies and firm performance – Supported

H5: There is a significant relationship between the intention to persist and firm performance – Supported

H6: There is a significant relationship between attitude towards business, perceived behavioural control, subjective norms, and personal norms as a mediator between entrepreneurial competencies and intention to persist – Supported

H7: There is a significant relationship between risk resilience as a moderator between entrepreneurial competencies and firm performance – Supported

Table No. 5.1 Hypothesis results

Hypothesis	Endogenous	Exogenous	Path Coefficient	Standard Error	T statistics	P values	Remark
EC -> ATB	ATB	EC	0.538	0.058	9.169	0	Supported
EC -> PBC	PBC	EC	0.59	0.071	8.325	0	Supported
EC -> SN	SN	EC	0.735	0.038	19.569	0	Supported
EC -> PN	PN	EC	0.558	0.073	7.541	0	Supported
EC -> IP	IP	EC	0.427	0.094	4.551	0	Supported
EC -> FP	FP	EC	0.602	0.056	10.739	0	Supported
ATB -> IP	IP	ATB	0.224	0.079	2.953	0.003	Supported
PBC -> IP	IP	PBC	-0.041	0.114	0.292	0.771	Not Supported
SN -> IP	IP	SN	0.375	0.092	3.965	0	Supported
PN -> IP	IP	PN	-0.262	0.134	2.039	0.041	Supported
IP -> FP	FP	IP	0.299	0.062	4.966	0	Supported
RR x EC -> FP	FP	RR	0.054	0.022	2.236	0.025	Supported

(Source: PLS SEM Software)

The hypotheses are systematically presented, each accompanied by key information that unravels the underlying dynamics of the model. The "Endogenous" and "Exogenous"

variables provide insight into the nature of the relationships under study, while the "Path Coefficient" underscores the strength of these connections. Accompanying the path coefficient, the "Standard Error" signifies the precision of the estimate, providing a measure of the reliability of the result. Crucially, the "T statistics" and "P values" play a pivotal role in determining the statistical significance of each relationship.

These values offer a window into whether the observed effects are likely to have occurred due to random chance or if they hold broader meaning within the research context. The "Remark" column offers a concise interpretation of the results, offering a preliminary indication of the findings' significance. Furthermore, here is the analysis result of each hypothesis. The Figure No: 30 represents each hypothesis along with its result. This table stands as an essential moment in the analysis; summarize the details of the model and translating the data into meaningful insights. It serves as a foundational reference point for researchers and readers alike, providing an accessible snapshot of the relationships explored and the conclusions drawn from the comprehensive full model analysis.

The Full Model Analysis based on the PLS SEM output is as follow. The path coefficient (0.538) for Entrepreneurial Competencies (EC) and Attitude towards Business (ATB) is statistically significant ($p < 0.05$). This recommends that higher levels of EC are associated with a positive and significant impact on an entrepreneur's Attitude towards Business. The path coefficient (0.59) for the relationship between EC and Perceived Behavioural Control (PBC) is statistically significant. This indicates that higher levels of EC are positively and significantly associated with increased Perceived Behavioural Control. The path coefficient (0.735) for the relationship between EC and Subjective Norms (SN) is statistically significant. This implies that higher EC levels have a strong positive impact on Subjective Norms. The path coefficient (0.558) for the relationship between EC and Personal Norms (PN) is statistically significant. This suggests that EC positively influences Personal Norms. The path coefficient (0.427) for the relationship between EC and Intention to Persist (IP) is statistically significant. This indicates that EC positively affects an entrepreneur's Intention to Persist. The path coefficient (0.602) for the relationship between EC and Firm Performance (FP) is statistically significant. This suggests that higher EC levels contribute to improve Firm Performance. The path coefficient (0.224) for the relationship between ATB and IP is statistically significant. This implies that a positive attitude towards business positively affects an entrepreneur's Intention to Persist. The path

coefficient (-0.041) for the relationship between PBC and IP is not statistically significant. This indicates that Perceived Behavioural Control does not significantly impact Intention to Persist. The path coefficient (0.375) for the relationship between SN and IP is statistically significant. This suggests that Subjective Norms positively influence an entrepreneur's Intention to Persist. The path coefficient (-0.262) for the relationship between PN and IP is statistically significant. This indicates that Personal Norms negatively impact Intention to Persist. The path coefficient (0.299) for the relationship between IP and FP is statistically significant. This suggests that a higher Intention to Persist is associated with improved Firm Performance. The path coefficient (0.054) for the interaction between Risk-resilience (RR) and Entrepreneurial Competencies (EC) in predicting FP is statistically significant. This indicates that Risk-resilience moderates the relationship between EC and FP. The table shows the results of the Full Model Analysis using PLS SEM. The analysis demonstrates significant relationships between Entrepreneurial Competencies, mediators (ATB, PBC, SN, and PN), Intention to Persist, and Firm Performance. Moreover, the moderating role of Risk-resilience on the relationship between EC and FP is also significant. These findings contribute to a comprehensive understanding of the complex relationships in the model, shedding light on how various factors influence an entrepreneur's intention and firm performance. The following are the objectives of the study along with the analysis:

5.2 Effect of Entrepreneurial Competencies (EC) on Intention to Persist (IP)

Entrepreneurial competencies (EC) refer to the skills, knowledge, and abilities that entrepreneurs possess, which enable them to effectively manage and grow their businesses. These competencies include a range of attributes such as innovation, risk-taking, strategic planning, and leadership. The intention to persist (IP) in entrepreneurship is the determination and commitment of entrepreneurs to continue operating and growing their businesses despite challenges. Understanding the relationship between EC and IP is crucial for developing strategies to support entrepreneurs and enhance business sustainability.

H_{a1}: There is a significant relationship between Entrepreneurial competencies and Intention to persist.

Table No. 5.2: Entrepreneurial Competencies (EC) and Intention to Persist (IP)

Hypothesis	Endogenous	Exogenous	Path Coefficient	Standard Error	T statistics	P values	Remark
Entrepreneurial Competencies -> Intention to Persist	Intention to Persist	Entrepreneurial Competencies	0.427	0.094	4.551	0.000	Supported

(Source: PLS SEM Software)

The analysis revealed a significant positive relationship between entrepreneurial competencies and the intention to persist. The path coefficient of 0.427, with a standard error of 0.094 and a T statistic of 4.551, indicates a strong and statistically significant impact (P value = 0.000) of entrepreneurial competencies on the intention to persist. This suggests that entrepreneurs who possess higher levels of competencies are more likely to continue their entrepreneurial endeavours over the long term. Entrepreneurial competencies equip individuals with advanced problem-solving skills. Entrepreneurs who are adept at identifying and addressing business challenges are more likely to maintain their determination to persist. These skills enable them to navigate obstacles effectively, thereby reinforcing their commitment to the business. Possessing entrepreneurial competencies boosts an entrepreneur's confidence and self-efficacy. When entrepreneurs believe in their abilities to succeed, they are more likely to stay committed to their ventures. This confidence acts as a buffer against setbacks and motivates them to persist in their efforts. Entrepreneurs with strong competencies often have a clear strategic vision and effective planning abilities. They can foresee potential challenges and opportunities, allowing them to prepare accordingly. This forward-thinking approach helps sustain their intention to persist as they have a roadmap for achieving their business goals.

Entrepreneurial competencies include adaptability and flexibility, which are crucial for business sustainability. Entrepreneurs who can adapt to changing market conditions and

pivot their strategies when necessary are more likely to persist. This adaptability ensures that they can handle unforeseen challenges and continue to operate successfully. Effective resource management is a key component of entrepreneurial competencies. Entrepreneurs who can efficiently allocate and utilize resources such as time, money, and personnel are better positioned to sustain their businesses. Proper resource management helps maintain operational stability, which supports the intention to persist. Innovation is a critical entrepreneurial competency that drives business growth and competitiveness. Entrepreneurs who consistently seek innovative solutions and improvements are more likely to persist, as innovation keeps the business relevant and competitive in the market. This continuous pursuit of innovation fosters a long-term commitment to the business.

The analysis underscores the crucial role of entrepreneurial competencies in fostering the intention to persist among entrepreneurs. By enhancing skills such as problem-solving, confidence, strategic planning, adaptability, resource management, and innovation, entrepreneurs are better positioned to sustain their businesses over the long term. The positive relationship between EC and IP highlights the importance of investing in initiatives that develop these competencies, thereby supporting the growth and sustainability of entrepreneurial ventures. The findings align with existing literature, reinforcing the notion that entrepreneurial competencies are vital for business success and longevity. By focusing on developing these competencies, stakeholders can create an environment that nurtures resilient, confident, and innovative entrepreneurs, ultimately contributing to economic growth and development.

5.3 Effect of Entrepreneurial Competencies (EC) on Firm performance (FP)

Entrepreneurial competencies (EC) are the blend of skills, knowledge, and abilities that entrepreneurs need to successfully launch and manage their businesses. These competencies include strategic thinking, problem-solving, leadership, innovation, and effective resource management. Firm performance (FP), on the other hand, refers to how well a company achieves its goals and objectives, often measured through financial metrics, market share, and growth rates. Understanding how entrepreneurial competencies influence firm performance is vital for identifying strategies to enhance business success.

H_{a2}: There is a significant relationship between Entrepreneurial competencies and Firm Performance.

Table No. 5.3: Entrepreneurial competencies and Firm Performance

Hypothesis	Endogenous	Exogenous	Path Coefficient	Standard Error	T statistics	P values	Remark
Entrepreneurial Competencies -> Firm Performance	Firm Performance	Entrepreneurial Competencies	0.602	0.056	10.739	0.000	Supported

(Source: PLS SEM Software)

The examination exposed a significant positive relationship between entrepreneurial competencies and firm performance. The path coefficient of 0.602, with a standard error of 0.056 and a T statistic of 10.739, indicates a strong and statistically significant impact (P value = 0.000) of entrepreneurial competencies on firm performance. This finding suggests that firms led by entrepreneurs with higher levels of competencies tend to perform better. Entrepreneurs with strong competencies often have a clear strategic vision and effective planning abilities. This strategic foresight allows them to set achievable goals, devise effective strategies, and anticipate potential challenges, leading to improved firm performance. Strategic planning ensures that resources are allocated efficiently and efforts are directed towards the most impactful areas. Innovation is a critical aspect of entrepreneurial competencies that drives firm performance. Entrepreneurs who stand-in a culture of novelty within their firms can introduce new products, services, and processes that differentiate them from competitors. This competitive edge often translates into increased market share, customer satisfaction, and profitability.

Leadership is a core entrepreneurial competency that directly influences firm performance. Entrepreneurs with strong leadership skills can inspire and motivate their teams, fostering a productive and committed workforce. Effective leadership also involves making informed decisions, managing conflicts, and guiding the organization towards its strategic

objectives. Entrepreneurs who excel in resource management can optimize the use of financial, human, and technological resources. Efficient resource management minimizes waste, reduces costs, and enhances productivity, all of which contribute to better firm performance. These entrepreneurs are adept at securing funding, managing budgets, and deploying resources where they are most needed. A market-oriented approach is another entrepreneurial competency that positively impacts firm performance. Entrepreneurs who understand their market and customers can tailor their products and services to meet demand more effectively. This market responsiveness helps firms stay relevant and competitive, leading to sustained performance and growth.

Entrepreneurs with high adaptability and resilience can navigate the dynamic business environment more effectively. These competencies enable firms to adjust their strategies in response to market changes, economic fluctuations, and unforeseen challenges. Adaptable and resilient entrepreneurs can maintain firm performance even in adverse conditions. The analysis underscores the crucial role of entrepreneurial competencies in enhancing firm performance. By fostering skills such as strategic vision, innovative thinking, effective leadership, resource management, market orientation, and adaptability, entrepreneurs can significantly improve their firms' performance. The positive relationship between EC and FP highlights the importance of investing in initiatives that develop these competencies, ultimately contributing to business success and economic growth.

5.4 Effect of Intention to Persist (IP) on Firm performance (FP)

Intention to persist (IP) in the context of entrepreneurship refers to an entrepreneur's commitment and determination to continue running and growing their business despite challenges and obstacles. This steadfast determination can significantly influence firm performance (FP), which encompasses various measures such as profitability, market share, growth rate, and success of the business. Analysing how an entrepreneur's intention to persist impacts firm performance can provide valuable insights into the factors that drive business success and sustainability.

H_{a3}: There is a significant relationship between Intention to Persist and Firm Performance.

Table No. 5.4: Intention to Persist (IP) on Firm performance (FP)

Hypothesis	Endogenous	Exogenous	Path Coefficient	Standard Error	T statistics	P values	Remark
Intention to Persist -> Firm Performance	Firm Performance	Intention to Persist	0.299	0.062	4.966	0	Supported

(Source: PLS SEM Software)

The analysis demonstrates a significant positive relationship between intention to persist and firm performance. The path coefficient of 0.299, with a standard error of 0.062 and a T statistic of 4.966, indicates a substantial and statistically significant effect (P value = 0.000) of intention to persist on firm performance. This suggests that entrepreneurs who are more committed to persisting in their entrepreneurial ventures tend to achieve better performance outcomes. Entrepreneurs with a strong intention to persist are more resilient in the face of business challenges. Resilience allows them to navigate obstacles such as financial difficulties, market competition, and operational setbacks without losing their drive or focus. This resilience is crucial for maintaining and improving firm performance, as it enables entrepreneurs to find solutions and adapt to changing circumstances. A high intention to persist often correlates with a long-term vision for the business. Entrepreneurs who are committed to staying in business for the long haul are likely to engage in strategic planning and set long-term goals. This foresight and planning contribute to sustainable business practices, resource allocation, and strategic investments that enhance firm performance over time.

Persistent entrepreneurs are typically committed to continually improving their products, services, and business processes. This commitment to quality and ongoing improvement can lead to increased customer satisfaction, repeat business, and positive word-of-mouth, all of which contribute to better firm performance. Consistent efforts to enhance business

operations and offerings can create a competitive advantage in the market. Entrepreneurs who intend to persist are likely to invest in building and maintaining strong relationships with customers, suppliers, and other stakeholders. These relationships are essential for securing loyal customers, reliable suppliers, and supportive business networks. Strong relationships can provide the support and resources needed to sustain and grow the business, positively impacting firm performance. Intention to persist encourages adaptability and innovation. Entrepreneurs who are determined to continue their ventures are more likely to experiment with new ideas, pivot when necessary, and implement innovative solutions. This adaptability and willingness to innovate can keep the business relevant and competitive, leading to improved firm performance.

The analysis underscores the serious role of intention to persist in enhancing firm performance. Entrepreneurs who are committed to continuing their ventures despite challenges tend to achieve better business outcomes. This positive relationship highlights the importance of fostering persistence through support programs, educational initiatives, policy interventions, and community support.

CHAPTER - 6

MEDIATION AND MODERATION ANALYSIS

This chapter show the mediation and moderation role as per the conceptual framework. Here in this conceptual framework, there is a mediating role of attitude towards business, perceived behavioural control, subjective norms and personal norms in relation to entrepreneurial competencies and firm performance. Secondly, moderating role of risk resilience in relation of entrepreneurial competencies and firm performance.

6.1 Relation between Attitude towards Business (ATB), Perceived Behavioral Control (PBC), Personal Norms (PN) and Subjective Norms (SN) in the relationship of Entrepreneurial Competencies (EC) and Intention to Persist (IP)

Entrepreneurial competencies (EC) are essential skills and attributes that enable entrepreneurs to successfully manage and grow their businesses. The intention to persist (IP) reflects an entrepreneur's determination to continue their business despite challenges. This study examines how various psychological and social factors mediate the relationship between EC and IP. Specifically, it investigates the roles of attitude towards business (ATB), perceived behavioural control (PBC), personal norms (PN), and subjective norms (SN) in this relationship.

H_{a4}: There is a significant mediating effect of Attitude towards Business (ATB), Perceived Behavioral Control (PBC), Personal Norms (PN) and Subjective Norms (SN) in the relationship of Entrepreneurial Competencies (EC) and Intention to Persist (IP).

A detailed analysis of the mediating effects and the overall relationship between Entrepreneurial Competencies (EC), Intention to Persist (IP), and the mediating factors (Attitude towards Business (ATB), Perceived Behavioral Control (PBC), Personal Norms (PN), and Subjective Norms (SN)) is as follow:

A. Total Effect

- The total effect of Entrepreneurial Competencies (EC) on Intention to Persist (IP) is statistically significant ($p < 0.05$), with a path coefficient of 0.259 and a t-statistic of 2.423. This implies that EC significantly influences an entrepreneur's intention to persist.

Table No. 6.1: Attitude towards Business (ATB), Perceived Behavioral Control (PBC), Personal Norms (PN) and Subjective Norms (SN) in the relationship of Entrepreneurial Competencies (EC) and Intention to Persist (IP)

Effect type	Relation between	Path coefficient	T stat	Remark
Total effect	EC -> IP	0.259	2.423	Supported
Indirect effect - specific	EC -> ATB -> IP	0.111	2.727	Supported
	EC -> PBC -> IP	-0.014	0.316	Not Supported
	EC -> SN -> IP	0.058	2.276	Supported
	EC -> PN -> IP	0.077	2.532	Supported
Direct effect	EC -> IP	0.027	0.218	Not Supported
VAF	EC -> ATB -> IP	42.86%		
	EC -> PBC -> IP	-5.41%		
	EC -> SN -> IP	22.39%		
	EC -> PN -> IP	29.73%		
Remark	Partial Mediating effect			

(Source: PLS SEM Software)

B. Specific Indirect Effects:

- The mediating effect of Attitude towards Business (ATB) is significant. The positive path coefficient (0.111) and the associated t-statistic (2.727) indicate that ATB mediates the relationship between EC and IP.
- The mediating effect of Perceived Behavioral Control (PBC) is not significant, as indicated by the path coefficient of -0.014 and the t-statistic of 0.316.
- The mediating effect of Subjective Norms (SN) is significant. The positive path coefficient (0.058) and the t-statistic (2.276) suggest that SN mediates the relationship between EC and IP.
- The mediating effect of Personal Norms (PN) is significant. The positive path coefficient (0.077) and the t-statistic (2.532) indicate that PN mediates the relationship between EC and IP.

C. Direct Effect:

- The direct effect of Entrepreneurial Competencies (EC) on Intention to Persist (IP) is not statistically significant. This implies that the direct path between EC and IP, without considering the mediators, does not yield a significant relationship.

Variance Accounted For (VAF): The VAF values for the specific indirect effects indicate the proportion of the total effect explained by each mediator. For example, EC → ATB → IP explains 42.86% of the total effect, EC → PBC → IP has a negative VAF of -5.41%, EC → SN → IP explains 22.39%, and EC → PN → IP explains 29.73%.

The analysis reveals that while the direct effect of EC on IP is not significant, the mediation pathways involving ATB, SN, and PN significantly contribute to explaining the relationship between EC and IP. These mediating factors collectively explain a substantial portion of the total effect. The non-significant direct effect suggests that the influence of EC on IP is mostly channeled through these mediators. This analysis provides insights into how different aspects of entrepreneurial competencies indirectly shape an entrepreneur's intention to persist through their attitudes, subjective norms, and personal norms.

The results of this study highlight the nuanced ways in which entrepreneurial competencies translate into an intention to persist through various psychological and social mechanisms. The significant mediation by ATB underscores the importance of fostering a positive outlook among entrepreneurs. A positive attitude can be cultivated through positive reinforcement, success stories, and continuous personal and professional development. This positive mindset enables entrepreneurs to view challenges as opportunities, thereby increasing their commitment to persist. The mediating effect of subjective norms suggests that social influence plays a crucial role in entrepreneurial persistence. Entrepreneurs who feel supported and valued by their peers, mentors, and community are more likely to continue their business efforts. This shows the status of making supportive networks and environments for entrepreneurs, such as incubators, mentorship programs, and entrepreneurial communities.

The mediation by personal norms indicates that an entrepreneur's internal sense of duty and ethical standards significantly impact their intention to persist. This finding suggests that fostering strong personal values and a sense of responsibility towards one's business can enhance persistence. Programs aimed at ethical training and corporate responsibility could help in this regard. The lack of significant mediation by PBC indicates that for entrepreneurs with strong competencies, the belief in their ability to control business outcomes might already be high, thus diminishing its additional impact. This suggests that interventions to enhance perceived control may be more beneficial for less experienced or less competent entrepreneurs.

6.2 Moderation effect of Risk-resilience (RR) on the relation of Entrepreneurial Competencies (EC) and Firm Performance (FP)

Entrepreneurial competencies (EC) are critical skills and abilities that entrepreneurs need to successfully manage and grow their businesses. Firm performance (FP) reflects how well a business achieves its objectives, including profitability, market share, and growth. This study explores how risk resilience (RR) influences the relationship between EC and FP. Risk resilience refers to an entrepreneur's ability to effectively manage and bounce back from risks and uncertainties.

H_{a5}: There is a significant role of Risk-resilience as a moderator in the relation of Entrepreneurial Competencies and Firm Performance.

Table No. 6.2: Moderating role of Risk-resilience (RR) on the relation of Entrepreneurial Competencies (EC) and Firm Performance (FP)

Hypothesis	Endogenous	Moderator	Exogenous	Path Coefficient	Standard Error	T statistics	P values	Remark
Risk Resilience x Entrepreneurial Competencies -> Firm Performance	Firm Performance	Risk Resilience	Entrepreneurial competencies	0.054	0.022	2.236	0.025	Supported

(Source: PLS SEM Software)

The hypothesized model considers the moderating effect of Risk-resilience (RR) on the relationship between Entrepreneurial Competencies (EC) and Firm Performance (FP). The coefficient path for the interaction term between RR and EC in predicting FP is 0.054. The standard error associated with this coefficient is 0.022. The t-statistic is calculated as the coefficient divided by the standard error. In this case, the t-statistic is 2.236. The p-value along the t-statistic is reported as 0.025. With a p-value of 0.025, which is less than the conventional significance level (e.g., 0.05), we have evidence to reject the null hypothesis (H₀). This indicates that there is a statistically significant moderating role of Risk-resilience (RR) in the relationship between Entrepreneurial Competencies (EC) and Firm Performance (FP).

The moderating effect of Risk-resilience on the relationship between EC and FP is significant. This supports the alternative hypothesis (H₁), suggesting that the strength of the relationship between EC and FP is influenced by the level of Risk-resilience possessed by the entrepreneurs. The data indicates a significant moderating role of Risk-resilience with Entrepreneurial Competencies and Firm Performance. This result highlights the

importance of considering the entrepreneur's capability to manage and navigate risks as a factor that enhances their competencies on firm performance. Entrepreneurs with higher levels of Risk-resilience may be better equipped to leverage their competencies to achieve favorable firm performance outcomes.

Entrepreneurial competencies include skills such as strategic thinking, leadership, financial management, and innovation. These competencies are crucial for navigating the complexities of the business environment and achieving superior firm performance. Studies by Man et al. (2002) and Chandler and Jansen (1992) have shown a positive correlation between entrepreneurial competencies and business success. Entrepreneurs with strong competencies are better equipped to identify opportunities, optimize resources, and implement effective strategies, leading to improved firm performance. Risk resilience is the ability to anticipate, absorb, and recover from business risks and uncertainties. Entrepreneurs with high risk resilience are more likely to maintain stability and continue progressing even in adverse conditions. This quality is especially important in dynamic and unpredictable business environments where risks are inevitable. The moderating role of risk resilience indicates impact of entrepreneurial competencies on firm performance is stronger when entrepreneurs are resilient to risks. This finding is supported by the interaction effect (path coefficient 0.054), suggesting that risk resilience enhances the positive impact of entrepreneurial competencies on firm performance.

Entrepreneurs with high-risk resilience can make better decisions under pressure. Their ability to remain calm and focused during crises allows them to leverage their competencies more effectively. For example, a resilient entrepreneur with strong financial management skills can navigate economic downturns by making strategic adjustments, thereby sustaining or even improving firm performance. Risk-resilient entrepreneurs are better at adapting to changes and uncertainties. This adaptability enables them to apply their competencies in innovative ways to address new challenges. For example, during the COVID-19 pandemic, resilient entrepreneurs were able to pivot their business models, such as shifting to online platforms, which helped maintain or enhance firm performance despite market disruptions. Resilient entrepreneurs maintain higher levels of motivation and morale, which are crucial for sustaining business operations during tough times. Their resilience helps them stay committed and proactive, leveraging their competencies to

overcome obstacles and drive the business forward. This sustained effort contributes to better overall firm performance.

CHAPTER - 7

FINDINGS,

IMPLICATIONS,

AND

CONTRIBUTION OF THE

STUDY

This chapter provides a concise overview of the study, structured as follows: 7.1 presents the findings of the research, followed by 7.2, which discusses the implications of the study, both organized in alignment with the research objectives. Additionally, 7.3 highlights the contributions of the study, categorized by stakeholders. 7.4 offers recommendations derived from the findings, while 7.5 presents a comprehensive conclusion. Finally, 7.6 and 7.7 outline the limitations of the research and the future scope for further studies, respectively.

7.1 FINDINGS OF THE STUDY

The findings from the MSME reports, and the survey unequivocally emphasizes the imperative for Gujarat to intensify its efforts to promote MSME registrations within the state. The survey results reveal that a relatively small percentage of companies, precisely 11.08%, are aged up to 5 years, indicating a limited influx of new enterprises into the MSME landscape. In contrast, companies aged between 6 to 10 years represent 20.17% of the surveyed entities. These statistics underscore the need for a more robust ecosystem that encourages the establishment of new MSMEs in Gujarat. Fostering an environment conducive to entrepreneurship, innovation, and sustainable growth is essential. Encouraging startups and providing them with the necessary support mechanisms, such as access to finance, mentorship programs, and infrastructure, can significantly enhance the state's MSME sector. By proactively addressing the challenges faced by emerging businesses and streamlining the registration processes, Gujarat can attract a more extensive pool of entrepreneurs and investors. Entrepreneurship, in turn, will contribute to the diversification of industries, increased job creation, and overall economic development in the state.

The data on entrepreneurs' age and educational background provides valuable insights into the entrepreneurial landscape in Gujarat. It is evident from the study that the participation of individuals under the age of 25 in entrepreneurship is relatively low, with only nine entrepreneurs falling within this age bracket. This observation underscores the need for targeted initiatives to encourage and support young aspiring entrepreneurs in the state. A more substantial percentage of entrepreneurs, approximately 20.17%, belong to the age group of 26 to 35 years. This demographic represents a crucial segment of the

entrepreneurial community in Gujarat, signifying a promising trend in mid-career entrepreneurship. However, creating an environment that fosters entrepreneurship among younger individuals is essential, as they bring fresh perspectives, innovative ideas, and energy to the business landscape. Interestingly, Gujarat's highest number of entrepreneurs falls within the age group of 46 to 55. The study suggests that individuals with significant experience and maturity actively engage in entrepreneurship. Leveraging this group's expertise, mentorship programs, and opportunities for intergenerational collaboration can further enhance the state's entrepreneurial ecosystem.

Regarding education, it is notable that many of Gujarat's entrepreneurs are graduates and professionals. The study reflects a positive trend wherein individuals prioritize education before embarking on entrepreneurial journeys. Education equips them with the knowledge and skills required to direct the complexities of business effectively. The composition of sectors within Gujarat's MSME landscape, primarily manufacturing, wholesaling, retailing, and service industries, reveals exciting dynamics. Among these, the service industry has the highest number of registered MSMEs. This category includes various businesses, such as IT companies, education, restaurants, and financial service providers. While the service sector's prominence is noteworthy, it also suggests an opportunity to diversify and strengthen other sectors, particularly manufacturing and retailing. The data further highlights that a significant portion of entrepreneurs in Gujarat belongs to the first generation, comprising 62.5% of the total. This demographic represents individuals who have initiated businesses without the advantage of inheriting established enterprises. Encouraging and nurturing first-generation entrepreneurs is of paramount importance for several reasons.

Firstly, promoting first-generation entrepreneurship can contribute to employment generation. These entrepreneurs often start small to mid-sized businesses, which collectively have the potential to create numerous job opportunities, thereby enhancing the overall employment landscape in the state. Secondly, supporting first-generation entrepreneurs can progress the standard of living for a substantial portion of the population. As these businesses grow and prosper, they can provide stable incomes to their founders and employees, ultimately translating into an enhanced quality of life. Lastly, fostering first-generation entrepreneurship is instrumental in elevating income levels. Entrepreneurs who succeed in scaling their ventures not only benefit personally but also contribute to the

region's economic prosperity by generating wealth and revenue. To consider the full potential of first-generation entrepreneurs, it is crucial to implement policies and programs that provide them with the necessary resources, training, and support. The help can include access to finance, mentorship opportunities, and skill development initiatives. By doing so, Gujarat can further empower this entrepreneurial segment, fostering economic growth, job creation, and an improved standard of living for its citizens. Furthermore, the detailed findings objective wise is as below:

7.1.1 Effect of Entrepreneurial Competencies (EC) on Intention to Persist (IP)

The effect of Entrepreneurial Competencies (EC) on Intention to Persist (IP) in Gujarat is particularly significant due to the state's burgeoning entrepreneurial ecosystem and economic landscape. Gujarat has emerged as a hub for entrepreneurship, characterized by a vibrant startup culture, a favourable business environment, and government initiatives to foster entrepreneurship. In this context, understanding the impact of EC on IP is crucial for promoting sustainable entrepreneurial growth and economic development in the region. Entrepreneurial competencies equip persons with the skills, knowledge, and attributes necessary to direct the challenges and uncertainties of entrepreneurship. In Gujarat, where entrepreneurship is on the rise, cultivating these competencies is essential for empowering aspiring entrepreneurs to overcome obstacles, seize opportunities, and persist in their entrepreneurial endeavours. Whether it's identifying market gaps, innovating new products or services, or navigating regulatory complexities, Entrepreneurial competencies show a vital role in shaping entrepreneurs' intentions to persist amidst the dynamic business landscape of Gujarat. Moreover, the relationship between EC and IP is particularly relevant in Gujarat's context due to the state's emphasis on promoting innovation and entrepreneurship-driven growth. With initiatives such as the Vibrant Gujarat Summit and various policy measures to support startups and MSMEs, there is a growing emphasis on harnessing the entrepreneurial potential of the state's youth population. Gujarat can harness its entrepreneurial potential to drive innovation, job creation, and economic prosperity by fostering a culture of persistence and resilience among entrepreneurs through the development of EC.

7.1.2 Effect of Entrepreneurial Competencies (EC) on Firm performance (FP)

The effect of Entrepreneurial Competencies (EC) on Firm Performance (FP) in Gujarat is significant due to several factors unique to the region's entrepreneurial landscape. Gujarat boasts a thriving entrepreneurial ecosystem characterized by a rich tradition of business innovation and a culture of entrepreneurship. The state's entrepreneurial spirit is ingrained in its ethos, with a long history of successful businesses and entrepreneurial ventures across various sectors, including manufacturing, pharmaceuticals, textiles, and agribusiness. The state government has implemented various initiatives to promote entrepreneurship, such as the Vibrant Gujarat Summit and sector-specific policies to foster innovation, investment, and business growth. These initiatives create an enabling environment for entrepreneurs to leverage their competencies effectively and drive firm performance. Moreover, Gujarat's strategic geographical location, well-developed infrastructure, and market access further enhance entrepreneurial competencies' impact on firm performance. Entrepreneurs in Gujarat benefit from proximity to major industrial hubs, ports, and transportation networks, facilitating market access, supply chain efficiency, and business expansion opportunities. Additionally, educational institutions, research centers, and industry-academia collaborations in Gujarat contribute to developing and nurturing entrepreneurial competencies. These institutions provide opportunities for skill development, knowledge exchange, and innovation, empowering entrepreneurs to enhance their competencies and drive firm performance. Furthermore, Gujarat's dynamic and diverse economy offers ample opportunities for entrepreneurial ventures to thrive across sectors. In traditional industries like textiles and manufacturing or emerging sectors such as renewable energy and information technology, entrepreneurial competencies are pivotal in driving innovation, competitiveness, and growth.

7.1.3 Effect of Intention to Persist (IP) on Firm performance (FP)

The effect of Intention to Persist (IP) on Firm Performance (FP) in Gujarat is noteworthy due to several vital factors inherent to the region's entrepreneurial landscape. Gujarat's entrepreneurial ecosystem is characterized by a culture of perseverance and determination, with many successful entrepreneurs exemplifying a solid intention to persist in their endeavours. This culture of persistence translates into a mindset that values resilience and

tenacity, driving entrepreneurs to overcome challenges and pursue their goals with unwavering commitment. Gujarat's business-friendly environment and supportive policies contribute to the positive relationship between IP and FP. The state government has implemented various initiatives to promote entrepreneurship and facilitate business growth, such as streamlined regulatory processes, access to financing, and incentives for innovation and investment. These supportive measures make an environment for entrepreneurs to persist in their ventures and achieve long-term success. Moreover, Gujarat's strategic geographical location and well-developed infrastructure provide entrepreneurs access to markets, resources, and opportunities for growth. The state's proximity to major industrial hubs, ports, and transportation networks facilitates market expansion, supply chain efficiency, and access to a diverse customer base, enhancing the impact of IP on FP. Gujarat's diverse economy also offers a wide range of sectors and industries for entrepreneurial ventures to thrive. Whether in manufacturing, agriculture, technology, or services, entrepreneurs who intend to persist can capitalize on the state's economic opportunities to drive innovation, create value, and contribute to overall firm performance. Gujarat's rich entrepreneurial heritage and tradition of business excellence serve as a source of inspiration and motivation for aspiring entrepreneurs. The success stories of established firms and industry leaders in Gujarat instil confidence and reinforce the importance of persistence in achieving business objectives and driving firm performance. In conclusion, the effect of Intention to Persist (IP) on Firm Performance (FP) in Gujarat is significant due to the region's conducive entrepreneurial ecosystem, supportive business environment, strategic advantages, and cultural ethos of perseverance. Entrepreneurs with a solid intention to persist are well-positioned to leverage these factors to drive innovation, growth, and success in their ventures, thereby contributing to Gujarat's overall economic development and prosperity.

7.1.4 Mediation Analysis – Effect of Attitude towards Business (ATB), Perceived Behavioral Control (PBC), Personal Norms (PN), and Subjective Norms (SN) in the relationship of Entrepreneurial Competencies (EC), and Intention to Persist (IP)

The mediation effect of Attitude towards Business (ATB), Perceived Behavioural Control (PBC), Personal Norms (PN), and Subjective Norms (SN) in the relationship between Entrepreneurial Competencies (EC) and Intention to Persist (IP) in Gujarat is of significant importance due to several vital factors inherent to the region's entrepreneurial landscape.

Firstly, Gujarat's entrepreneurial ecosystem is characterized by a diverse mix of industries, ranging from traditional sectors like textiles and manufacturing to emerging sectors such as renewable energy and information technology. Entrepreneurs rely on their competencies in this dynamic environment to navigate challenges, identify opportunities, and drive innovation. However, the translation of these competencies into sustained entrepreneurial action and Intention to persist is influenced by individual attitudes toward business, perceived behavioural control, personal norms, and subjective norms.

Attitude towards Business (ATB) reflects an individual's beliefs and feelings about entrepreneurship. In Gujarat, where entrepreneurship is highly regarded and celebrated, a positive attitude towards business can serve as a catalyst for entrepreneurial action and persistence. Entrepreneurs with a favourable attitude towards business are more likely to leverage their competencies effectively and maintain a solid intention to persist in facing obstacles. Perceived Behavioural Control (PBC) refers to an individual's perception of their ability to control their actions and outcomes in entrepreneurship. In Gujarat, where a supportive business environment and access to resources are prevalent, entrepreneurs may have a heightened sense of perceived behavioural control, empowering them to overcome challenges and persist in their entrepreneurial endeavours.

Subjective Norms (SN) reflect an individual's perceptions of social expectations and norms regarding entrepreneurship. In Gujarat, where there is a strong tradition of family businesses and community support for entrepreneurship, subjective norms can influence entrepreneurial intentions and behaviours. Entrepreneurs who perceive positive social norms and support for entrepreneurship are likelier to persist in their ventures, bolstered by external validation and encouragement. Personal Norms (PN) encompass an individual's internalized beliefs and values regarding entrepreneurial behaviour. In Gujarat, where entrepreneurship is deeply ingrained in the cultural fabric, personal norms significantly shape entrepreneurial intentions and actions. Entrepreneurs who align their entrepreneurial competencies with personal norms are more likely to exhibit a solid intention to persist, driven by a sense of duty, passion, or moral obligation.

Overall, the mediating effect of ATB, PBC, PN, and SN in the relationship between EC and IP underscores the multifaceted nature of entrepreneurship in Gujarat. By understanding how these factors interact and influence entrepreneurial intentions and

actions, policymakers, educators, and business leaders can design targeted interventions and support mechanisms to adopt a favourable environment for entrepreneurial success and persistence in the region.

7.1.5 Moderation Analysis – Effect of Risk resilience (RR) in the relationship between entrepreneurial competencies (EC) and firm performance (FP)

The moderating role of risk resilience (RR) in the relationship between entrepreneurial competencies (EC) and firm performance (FP) in Gujarat is particularly significant due to the region's dynamic entrepreneurial landscape and the inherent challenges associated with entrepreneurship. A culture of novelty, risk-taking, and resilience characterizes Gujarat's entrepreneurial ecosystem. Gujarat entrepreneurs often face many risks, including market uncertainties, regulatory challenges, and resource constraints. In this context, effectively managing and navigating risks is crucial for entrepreneurial success and firm performance. Entrepreneurial Competencies (EC) prepare individuals with the skills, knowledge, and capabilities to effectively identify, assess, and mitigate risks. These competencies enable entrepreneurs to make informed decisions, adapt to changing market conditions, and capitalize on emerging opportunities. However, the translation of EC into tangible firm performance outcomes may be contingent upon the level of risk-resilience exhibited by entrepreneurs. Risk-resilience (RR) mentions to an individual's capacity to withstand and rebound from adverse events or setbacks. In Gujarat, where entrepreneurship is characterized by inherent uncertainties and volatility, entrepreneurs with high levels of risk-resilience are better equipped to navigate challenges and sustain firm performance over the long term.

The moderating role of RR on the EC-FP relationship advises that the impact of entrepreneurial competencies on firm performance may be amplified or attenuated depending on entrepreneurs' ability to manage and cope with risks effectively. Entrepreneurs with high levels of risk resilience will leverage their competencies more effectively, resulting in improved firm performance outcomes. Moreover, Gujarat's entrepreneurial ecosystem provides ample opportunities for entrepreneurs to develop and enhance their risk resilience through experiential learning, mentorship, and peer support networks. By fostering a culture of resilience and providing entrepreneurs with the essential tools and resources to manage risks effectively, policymakers, educators, and

business leaders can enhance the moderating effect of RR on the EC-FP relationship, ultimately driving sustainable entrepreneurial growth and economic development in the region. In conclusion, the moderating role of risk resilience (RR) in the relationship between entrepreneurial competencies (EC) and firm performance (FP) in Gujarat underscores the importance of resilience in navigating the complexities and uncertainties of entrepreneurship. By understanding and harnessing the moderating effect of RR, stakeholders can support entrepreneurs in building resilience, thereby enhancing the impact of EC on firm performance and fostering a thriving entrepreneurial ecosystem in Gujarat.

Table No. 7.1: Literature Support

Hypothesis	Endogenous	Exogenous	Remark	Literature support
EC -> ATB	ATB	EC	Supported	Ajzen, I. (1991), Liñán, F., & Chen, Y. W. (2009), Krueger, N. F. Jr., & Carsrud, A. L. (1993), Shapero, A., & Sokol, L. (1982)
EC -> PBC	PBC	EC	Supported	
EC -> SN	SN	EC	Supported	
EC -> PN	PN	EC	Supported	Goel, S., & Karri, R. (2017), Fayolle, A., Liñán, F., & Moriano, J. A. (2014), Liñán, F., & Fayolle, A. (2015)
EC -> IP	IP	EC	Supported	Krueger, N. F. Jr., Reilly, M. D., & Carsrud, A. L. (2000), Fayolle, A., & Liñán, F. (2014), Liñán, F., & Chen, Y. W. (2009)
EC -> FP	FP	EC	Supported	Mitchelmore, S., & Rowley, J. (2010), Sanchez, J. (2012), Man, T. W. Y., Lau, T., & Chan, K. F. (2002), Rauch, A., Wiklund, J., Lumpkin, G. T., & Frese, M. (2009), Lumpkin, G. T., & Dess, G. G. (1996)

ATB -> IP	IP	ATB	Supported	Liñán, F., & Chen, Y. W. (2009), Krueger, N. F. Jr., & Carsrud, A. L. (1993),
PBC -> IP	IP	PBC	Not Supported	Liñán, F., & Chen, Y. W. (2009), Thompson, E. R. (2009), Kautonen, T., Gelderen, M. V., & Fink, M. (2015)
SN -> IP	IP	SN	Supported	Bird, B. (1988), Schwarz, E. J., Wdowiak, M. A., & Almer-Jarz, D. A. (2009), Kolvereid, L. (1996)
PN -> IP	IP	PN	Supported	
IP -> FP	FP	IP	Supported	Rauch, A., Wiklund, J., Lumpkin, G. T., & Frese, M. (2009), Wiklund, J., Davidsson, P., & Delmar, F. (2003)
RR x EC -> FP	FP	RR	Supported	Gargi Singh 2018, Claire Pauly 2021

(Source: Author's Creation)

7.2 IMPLICATIONS OF THE STUDY

The implications of this study shed light on various aspects of entrepreneurial success and performance, providing valuable insights for both current and aspiring entrepreneurs, as well as for policy makers, educators, and institutions that support entrepreneurial development. By examining the relationships between entrepreneurial competencies, intentions to persist, firm performance, and the moderating and mediating factors that influence these dynamics, this research offers practical recommendations for enhancing entrepreneurial outcomes. Understanding these implications can help entrepreneurs refine their strategies, improve their skills, and leverage supportive environments to achieve

sustained business success. The following sections will delve into the specific implications related to each research objective.

7.2.1 Implication on effect of Entrepreneurial Competencies (EC) on Intention to Persist (IP)

The study shows that the skills, knowledge, and personality traits of entrepreneurs significantly affect their intention to keep going, even when faced with challenges. This means that if entrepreneurs work on improving their abilities and gaining more knowledge about their businesses, they are more likely to stick with their ventures for the long haul. For instance, if entrepreneurs can communicate better and think more critically, they can make smarter decisions and clearly express their business ideas, which can help them persist through tough times. Moreover, it's crucial for entrepreneurs to use their skills and knowledge positively. This means applying what they know in practical and beneficial ways to solve problems and move their business forward. Training programs and workshops that focus on real-world applications can be very helpful in this regard. Entrepreneurs should also aim to boost both their theoretical understanding of business concepts and their practical know-how. This balanced approach can be achieved through educational courses and hands-on experiences, making them well-prepared to handle real business situations confidently.

Another key finding is the importance of enthusiasm and passion. Entrepreneurs who are genuinely excited about their business are more likely to stay committed and push through difficulties. Programs that provide mentorship, inspirational talks from successful business owners, and motivational workshops can help cultivate this passion. When entrepreneurs are passionate, they are more resilient and persistent, which is crucial for long-term success. From a policy perspective, it's important for governments and organizations to support the development of entrepreneurial skills. This can be done by creating policies that promote skill development, providing access to resources, and ensuring a supportive business environment. Such measures can encourage more entrepreneurs to continue with their ventures, even when the going gets tough.

Educational institutions also play a vital role. By incorporating entrepreneurship education into their curricula, schools and universities can help students develop essential business skills from a young age. Practical projects, internships, and collaborations with industry

professionals can enhance this learning experience, making it more relevant and effective. Building a strong community and network can provide entrepreneurs with much-needed support. Networking events, business associations, and online platforms can facilitate knowledge sharing, collaboration, and mentorship. This sense of community can provide both emotional and professional support, helping entrepreneurs stay motivated and persistent.

7.2.2 Implications on effect of Entrepreneurial Competencies (EC) on Firm performance (FP)

Entrepreneurs who possess the right skills, knowledge, and personality traits tend to achieve positive outcomes in their businesses. The study found that these entrepreneurial competencies significantly impact firm performance. When entrepreneurs effectively use communication skills, theoretical and practical knowledge, honesty, and enthusiasm, they contribute positively to their firm's performance. For instance, strong communication skills can help entrepreneurs effectively convey their vision, build better relationships with clients and stakeholders, and manage their teams more efficiently. Theoretical knowledge provides a foundation for understanding market dynamics and strategic planning, while practical knowledge ensures that entrepreneurs can implement strategies effectively and adapt to real-world challenges. Honesty builds trust and credibility, which are essential for long-term business success. Enthusiasm fuels motivation and resilience, enabling entrepreneurs to overcome obstacles and inspire their teams.

To further enhance their firm's performance, entrepreneurs can benefit from participating in seminars and workshops. Events like Vibrant Gujarat offer valuable opportunities for networking, learning, and exchanging ideas with other successful entrepreneurs and industry experts. These platforms provide insights into the latest market trends, innovative business practices, and potential partnerships, all of which can contribute to improving firm performance. By continuously developing their entrepreneurial competencies and staying informed about industry advancements, entrepreneurs can drive their businesses toward sustained growth and success.

7.2.3 Implications on effect of Intention to Persist (IP) on Firm performance (FP)

Analysing the effect of Intention to Persist (IP) on Firm Performance (FP) reveals a significant relationship between the two. When entrepreneurs maintain a positive attitude and behaviour, it strengthens their intention to persist, which in turn positively impacts their firm's performance. This relationship underscores the importance of a steadfast and determined mindset for business success. The intention to persist is shaped by several factors, including an entrepreneur's attitude towards their business, perceived behavioural control, subjective norms, and personal norms. A positive attitude towards the business fosters a proactive and enthusiastic approach, which is crucial for overcoming challenges and seizing opportunities. Perceived behavioural control, which refers to an person's confidence in their capability to manage business tasks, enhances their capability to make effective decisions and take decisive actions. Subjective norms, or the perceived social pressure from family, groups, and the business community, influence the entrepreneur's motivation to persist. Personal norms, which are the entrepreneur's internal standards and values, also play a critical role in sustaining their commitment to the business.

Entrepreneurs can strengthen their intention to persist by seeking support and encouragement from family members and friends. This support network can provide emotional backing, practical advice, and even financial assistance when needed. By leveraging the collective wisdom and experience of their close circles, entrepreneurs can navigate the complexities of business more effectively. Additionally, fostering a positive business environment and maintaining a resilient mindset can help entrepreneurs stay focused on their long-term goals, ultimately leading to improved firm performance. Therefore, cultivating a strong intention to persist, supported by a positive attitude and a reliable support network, is essential for driving business success.

7.2.4 Implications on mediating effect of Attitude towards Business (ATB), Perceived Behavioural Control (PBC), Personal Norms (PN) and Subjective Norms (SN) in the relationship of Entrepreneurial Competencies (EC) and Intention to Persist (IP).

In measuring the mediating effect of Attitude towards Business (ATB), Perceived Behavioural Control (PBC), Personal Norms (PN), and Subjective Norms (SN) in the relationship between Entrepreneurial Competencies (EC) and Intention to Persist (IP), several key findings emerge. Firstly, entrepreneurial competencies, which include skills,

knowledge, and personality traits, are significantly related to attitude towards business, perceived behavioural control, subjective norms, and personal norms. These competencies form the foundation that influences various psychological factors crucial for sustaining business efforts.

Attitude towards business, subjective norms, and personal norms all demonstrate a significant relationship with the intention to persist. This means that how entrepreneurs perceive their business, the social pressures they feel, and their internal standards play crucial roles in determining their perseverance. A positive attitude towards the business fosters commitment and enthusiasm, subjective norms offer social support and validation, and personal norms align personal values with business goals, collectively enhancing the intention to persist. Interestingly, perceived behavioural control does not show a significant relationship with the intention to persist. This indicates that merely believing in one's capability to control business outcomes is not sufficient to drive perseverance. Other factors, such as personal values and social influences, play more critical roles in this context.

To improve the intention to persist, it is vital for entrepreneurs to cultivate a positive environment that motivates and supports their efforts. A supportive environment can include mentorship, access to resources, positive social networks, and ongoing learning opportunities. Entrepreneurs should seek out positive reinforcement from their surroundings, whether through networking with like-minded individuals, participating in professional development activities, or fostering a workplace culture that values and encourages persistence. To summarize these entrepreneurial competencies are foundational, the mediating effects of attitude towards business, subjective norms, and personal norms are crucial in strengthening the intention to persist. Entrepreneurs should focus on creating and maintaining a positive, supportive environment to enhance their perseverance and, ultimately, their business success.

7.2.5 Moderating role of Risk-resilience (RR) on the relation of Entrepreneurial Competencies (EC) and Firm Performance (FP).

Examining the moderating role of Risk-Resilience (RR) between Entrepreneurial Competencies (EC) and Firm Performance (FP) reveals some crucial insights. Risk-resilience denotes to an entrepreneur's capability to withstand and manage risks, which is

pivotal in navigating the unpredictable nature of business. This quality significantly influences how well entrepreneurial competencies translate into firm performance. There is a noteworthy relationship between risk-resilience as a moderator and the connection between entrepreneurial competencies and firm performance. Essentially, risk-resilience amplifies the impact of entrepreneurial competencies on firm performance. When entrepreneurs possess high risk-resilience, their skills, knowledge, and personality traits more effectively translate into better business outcomes. This indicates that the ability to manage and bounce back from risks strengthens the positive effects of entrepreneurial competencies on a firm's success.

The moderating effect of risk-resilience is particularly positive, suggesting that as entrepreneurs develop greater risk-resilience, their firms tend to perform better. This resilience allows them to navigate challenges more effectively, make informed decisions under pressure, and sustain their businesses through tough times. Consequently, higher levels of risk-resilience lead to an increase in firm performance, highlighting the importance of fostering this quality among entrepreneurs. To enhance risk-resilience, entrepreneurs can seek support from various institutions and organizations dedicated to helping startups and small businesses. These entities often provide valuable resources such as training programs, mentorship, networking opportunities, and access to funding. Engaging with such institutions can equip entrepreneurs with the knowledge and tools needed to understand business patterns and the inherent risks involved. This support system not only helps in building risk-resilience but also in understanding how to strategically manage risks for better firm performance. In summary, risk-resilience plays a crucial moderating role in enhancing the relationship between entrepreneurial competencies and firm performance. Entrepreneurs should focus on building their risk-resilience by leveraging the support of institutions and organizations that provide resources and guidance. By doing so, they can improve their ability to handle risks and thereby enhance their firm's performance and overall success.

7.3 CONTRIBUTION OF THE STUDY

This study makes several important contributions that are beneficial for different stakeholders involved with Micro, Small, and Medium Enterprises (MSMEs) in Gujarat.

By understanding these contributions, each stakeholder can better address the challenges and opportunities within the MSME sector. The insights gained from this study can lead to more effective policies, better financial products, enhanced educational programs, and improved support for entrepreneurs.

7.3.1 CONTRIBUTION FOR ENTREPRENEURS

This study provides significant insights and contributions for entrepreneurs in Gujarat's MSME sector. One of the key findings indicates that only 11.08% of MSMEs are less than five years old, while a substantial proportion are between six to ten years old. This highlights the challenges new businesses face in establishing themselves. For budding entrepreneurs, the study underscores the importance of accessing essential resources such as finance, mentorship, and infrastructure support. For instance, a startup in the tech industry could benefit from mentorship programs that connect them with seasoned professionals who have navigated similar challenges. Additionally, understanding the benefits of simplified registration processes can motivate potential entrepreneurs to formalize their ventures, making them eligible for various government schemes and financial aids. The study's emphasis on the need for supportive policies and streamlined procedures can help new businesses reduce initial barriers and increase their chances of survival and growth.

7.3.2 CONTRIBUTION FOR POLICYMAKERS

Policymakers stand to gain valuable guidance from this study in terms of formulating and refining policies to support the MSME sector. The figures reveals that the maximum number of entrepreneurs in Gujarat are between the ages of 46 and 55, suggesting a wealth of experience that could be harnessed through structured programs. For example, policies that incentivize experienced entrepreneurs to mentor younger ones could create a more dynamic and supportive business environment. Furthermore, the study's findings on the geographical distribution of MSMEs highlight disparities among different districts. Policymakers can use this information to develop region-specific initiatives, such as providing infrastructure support in underrepresented areas or creating local business networks to foster collaboration. By addressing these regional disparities, policymakers can ensure a more balanced economic development across the state.

7.3.3 CONTRIBUTION FOR FINANCIAL INSTITUTIONS

Financial institutions can leverage the study's findings to know the financing needs and challenges faced by MSMEs. The data indicates a significant number of first-generation entrepreneurs, representing 62.5% of the total. These entrepreneurs often lack the collateral or credit history required for traditional loans. Financial institutions can develop tailored financial products, such as microloans or venture capital funds, specifically designed to support first-generation entrepreneurs. For example, a bank could introduce a loan scheme with relaxed collateral requirements and offer financial literacy workshops to help new business owners manage their finances effectively. Understanding the educational backgrounds of entrepreneurs, where 45.17% are graduates and 40.63% are professionals, can also help financial institutions develop targeted marketing strategies and support services that provide to the explicit needs of educated entrepreneurs.

7.3.4 CONTRIBUTION FOR EDUCATIONAL INSTITUTIONS

Educational institutions play a crucial role in shaping future entrepreneurs. The study discloses that a substantial number of entrepreneurs are graduates or hold professional qualifications, underscoring the importance of integrating entrepreneurship education into academic curricula. Universities and colleges can develop specialized programs that teach practical business skills, such as business planning, financial management, and digital marketing. For example, an engineering college could offer elective courses in entrepreneurship, encouraging students to apply their technical knowledge to real-world business challenges. Additionally, institutions can establish incubators and innovation hubs that provide students with the resources and mentorship wanted to develop their business ideas. By fostering an entrepreneurial mindset from an early age, educational institutions can contribute to a more vibrant and innovative MSME sector.

7.3.5 CONTRIBUTION FOR EXISTING MSME OWNERS

For current MSME owners, the study offers valuable insights into improving business performance and resilience. The data indicates that the service industry has the highest number of registered MSMEs, followed by manufacturing, retailing, and wholesaling. Understanding these sectoral dynamics can help existing business owners identify growth opportunities and diversify their operations. For instance, a retail business could explore

expanding into the service sector by offering complementary services such as home delivery or online shopping platforms. The study's findings relation for entrepreneurial competencies, intention to persist, and risk resilience on firm performance can also guide existing business owners in enhancing their strategic planning and operational efficiency. By focusing on building competencies and resilience, business owners can better navigate market uncertainties and sustain long-term growth.

7.3.6 CONTRIBUTION FOR GOVERNMENT AGENCIES

Government agencies responsible for economic development and MSME support can utilize the study's findings to design effective programs and interventions. The data highlights the need for a more robust ecosystem that encourages the establishment and growth of new MSMEs. Government agencies can develop initiatives such as startup incubators, accelerators, and innovation hubs that provide entrepreneurs with access to resources, mentorship, and networking opportunities. For example, a state-run incubator could offer subsidized office space, technical support, and access to a network of industry experts. Additionally, government agencies can use the study's insights to streamline administrative processes, making it easier for entrepreneurs to register their businesses and access government schemes. By creating a more supportive environment, government agencies can foster innovation and economic growth within the MSME sector.

7.3.7 CONTRIBUTION FOR INVESTORS

Investors looking to support MSMEs in Gujarat can benefit from the study's detailed analysis of the entrepreneurial landscape. The data on the age and educational background of entrepreneurs can help investors identify promising startups with high growth potential. For example, investors might focus on sectors where a significant number of educated and experienced entrepreneurs are operating, such as the tech or service industries.

Understanding the challenges handled by first-generation entrepreneurs can also inform investment strategies. Investors can offer not only financial backing but also mentorship and strategic guidance to help new businesses succeed. By aligning their investment strategies with the study's findings, investors can make informed decisions that support sustainable business growth and yield positive returns. The comprehensive findings from the study provide actionable insights for various stakeholders within Gujarat's MSME

sector. Entrepreneurs can leverage these insights to overcome challenges and enhance their business operations. Policymakers can formulate targeted initiatives to support and promote MSME growth. Financial institutions can advance tailored financial products to meet the unique needs of entrepreneurs. Educational institutions can integrate entrepreneurship education into their curricula to prepare future business leaders. Existing MSME owners can identify growth opportunities and enhance their resilience. Government agencies can design effective programs to foster a supportive entrepreneurial ecosystem. Investors can make informed decisions to support sustainable business growth.

7.4 RECOMMENDATIONS OF THE STUDY

Entrepreneurship requires skills, knowledge and personality traits that completes their entrepreneurial competencies. Secondly to have a intention to persist, entrepreneurs requires positive attitude towards business, perceived behavioural control, subjective norms and personal norms. Entrepreneurs who have positive intention to persist along with entrepreneurial competencies will definitely have a noteworthy impact on firm performance. Furthermore, Risk resilience is one of the moderator factors that have a positive impact on firm performance along with entrepreneurial competencies. The only variable that has a no significant impact is perceived behavioural control on intention to persist, as it includes the personal believes of entrepreneurs. For this study of entrepreneurial success in Gujarat, these are some of the required supportive recommendations for entrepreneurs.

- The findings suggest a important relationship between entrepreneurial competencies and intention to persist. This means that if entrepreneurs have skills, knowledge and personality traits they will have strong intention for their business. Here to strengthen entrepreneurial skills and traits there is a requirement of competencies that can be enhanced through targeted training programs and practical workshops. For instance, offering courses in marketing, financial management, and leadership can offer entrepreneurs with the technical skills they need to run their businesses effectively. Additionally, fostering traits such as resilience and creativity is crucial. Resilience can be built through workshops that teach entrepreneurs how to bounce back from failures and adapt to changing

circumstances. Creative problem-solving can be encouraged through activities and exercises that challenge entrepreneurs to think outside the box. Mentorship programs, where experienced business owners share their knowledge and provide guidance, are also invaluable in developing these competencies. By focusing on both the technical and personal aspects of entrepreneurship, these programs help entrepreneurs shape a solid foundation for achievement.

- The findings recommend a significant relationship between entrepreneurial competencies and firm performance. This means if the entrepreneurs have strong skills, knowledge and personality traits that will have the good firm performance. To improve firm performance, entrepreneurs need to focus on several areas. Firstly, enhancing skills in financial management can help entrepreneurs better understand and control their business finances. This includes budgeting, financial planning, and cash flow management. Secondly, marketing skills are essential for reaching customers and increasing sales. Offering training in digital marketing, customer relationship management, and sales strategies can significantly boost a firm's market presence and revenue. Additionally, implementing effective operational practices is crucial. This can be achieved through workshops on supply chain management, productivity enhancement, and quality control. Another important aspect is setting clear, achievable goals and regularly monitoring progress. Entrepreneurs should be encouraged to use performance metrics and key performance indicators (KPIs) to track their success and make informed decisions. By focusing on these areas, entrepreneurs can improve their firm's performance, leading to sustainable growth and profitability.
- The study suggests a significant relationship of Intention to persist and firm performance. Here it is clear that strong intention will also have a good influence on firm performance. Intention to persist refers to an entrepreneur's commitment to continue their business efforts despite challenges and setbacks. Strengthening this intention involves boosting confidence, providing support, and promoting a positive outlook. Mentorship programs can play a significant role in this by pairing less experienced entrepreneurs with seasoned mentors who offer advice, share their own experiences of overcoming obstacles, and provide emotional support. Workshops that focus on decision-making, risk management, and strategic planning can also help entrepreneurs feel more prepared and confident in their abilities.

Creating a supportive community where entrepreneurs can share their experiences and encourage each other is equally important. When entrepreneurs see others facing similar challenges and persisting, it reinforces their own determination to continue. Additionally, sharing success stories of entrepreneurs who have persisted and succeeded can inspire and motivate others to maintain their commitment to their business goals. By providing the right support and fostering a culture of perseverance, entrepreneurs are more likely to stay dedicated and achieve long-term success.

- The finding suggests that attitude towards business, subjective norms and personal norms act as a mediator between the entrepreneurial competencies and intention to persist. Developing a positive attitude towards business is crucial for entrepreneurial success. This involves cultivating a mindset that views challenges as opportunities and setbacks as learning experiences. Sharing success stories of entrepreneurs who have overcome obstacles and achieved great things can inspire a positive outlook. Creating platforms for entrepreneurs to network and support each other can also help maintain this positive attitude. When entrepreneurs see their peers succeeding and receiving recognition, it reinforces the belief that they too can achieve similar success. On the other hand, developing subjective norms involves creating a supportive environment where social pressure encourages positive behavior. This can be done by organizing networking events and creating online platforms where entrepreneurs can connect, share experiences, and support each other. Hearing success stories from peers and role models can inspire entrepreneurs to follow similar paths. Publicizing these success stories through media can create a ripple effect, encouraging others to adopt the same positive behaviors. Lastly, developing personal norms among entrepreneurs involves fostering a strong sense of ethics and responsibility in their business practices. This can be achieved by organizing workshops that focus on ethical decision-making, where entrepreneurs learn to handle real-life scenarios with integrity. Providing a clear set of ethics guidelines can serve as a useful reference for making the right choices. Additionally, promoting social responsibility by encouraging businesses to engage in community service or environmental conservation initiatives can help instill a sense of duty and care. All these together will have an impact on intention to persist.

- The finding suggest that perceived behavioral contrail has no significant impact of mediator between entrepreneurial competencies and intention to persist. The perceived behavioral control represents the internal strength and willingness of the entrepreneurs. Perceived behavioral control refers to an entrepreneur's trust in their capability to achieve the tasks essential to start and run a business. Strengthening this belief can be achieved through practical training and providing access to resources that enhance entrepreneurial skills. Workshops that teach essential skills such as financial management, marketing, and strategic planning can equip entrepreneurs with the knowledge they need to feel in control of their business endeavors. Additionally, offering tools and resources for risk management can help entrepreneurs handle uncertainties more confidently. Mentorship programs where experienced entrepreneurs guide newcomers can also play a significant role in boosting perceived behavioral control.
- The findings suggests noteworthy impact of risk resilience as a moderator between entrepreneurial competencies and firm performance. This suggest that if the entrepreneurs are having positive risk-taking abilities that will have a positive impact on firm performance. One way to develop risk resilience is through training programs that teach risk assessment and management techniques. These programs can help entrepreneurs identify potential risks, evaluate their impact, and develop contingency plans. Additionally, providing access to risk management tools, such as software for monitoring market trends and financial risks, can be highly beneficial. Encouraging a mindset that views failures and setbacks as learning opportunities is also crucial. Workshops that focus on resilience-building activities, such as scenario planning and stress management, can prepare entrepreneurs to handle difficult situations with confidence.

7.5 CONCLUSION

Entrepreneurship encompasses the journey of conceiving, nurturing, and overseeing a fresh business endeavour to generate profits or accomplish specific objectives. An entrepreneur is an individual who recognizes a demand within the market, devises a product or service to satisfy that demand, and willingly takes on the challenges and accountabilities of

introducing that offering to the market. Entrepreneurship encompasses a diverse array of abilities and actions, including recognizing opportunities in the market, crafting a comprehensive business strategy, obtaining financial support, assembling a capable team, creating and promoting a product or service, and proficiently handling the financial and operational aspects of the business. Entrepreneurial Competencies are the foundational skill set for individuals engaging in entrepreneurial activities. These competencies encompass skills, knowledge, and personality traits vital in shaping an entrepreneur's capability to effectively initiate and manage a business. For the Intention, the extended theory of planned behaviour explains the model. Here, the new variable of personal norms is added to the theory to know the Intention. Furthermore, the Intention to Persist represents an entrepreneur's commitment and determination to overcome obstacles and pursue their entrepreneurial goals. Risk Resilience is a serious factor in entrepreneurship, indicating an entrepreneur's capacity to adapt and rebound amid uncertainty and adversity. It underscores the ability to perceive risks as opportunities and sustain entrepreneurial efforts even when confronted with setbacks. Firm Performance is a crucial outcome variable that assesses a business venture's overall success and effectiveness. This study centres on entrepreneurs within Gujarat's micro, small, and medium enterprises sector. The research explicitly targets individuals who hold decision-making authority within their respective organizations and are instrumental in shaping the course of their businesses. The overarching objective is to assess and understand the entrepreneurial competencies comprehensively, as well as the Intention to persist and risk resilience of these entrepreneurs, focusing on their impact on firm performance.

Having thoroughly examined the demographic characteristics of the study participants, the discussion now transitions to a systematic exploration of the research objectives and their corresponding findings. This section is dedicated to presenting the outcomes of the study in alignment with the five specified objectives. By analysing the results through the lens of each objective, the aim is to deliver a comprehensive understanding of how entrepreneurial competencies influence intention to persist, firm performance, and associated variables within the unique context of Gujarat's entrepreneurial ecosystem. This structured approach ensures a nuanced exploration of the factors shaping entrepreneurial behaviour and outcomes in the region, thereby contributing valuable insights to the field of entrepreneurship research.

The effect of Entrepreneurial Competencies (EC) on Intention to Persist (IP) in Gujarat is particularly significant due to the state's burgeoning entrepreneurial ecosystem and economic landscape. Gujarat has emerged as a hub for entrepreneurship, characterized by a vibrant startup culture, a favourable business environment, and government initiatives to foster entrepreneurship. In this context, understanding EC on IP is vital for promoting sustainable entrepreneurial growth and economic development in the region. Entrepreneurial competencies equip persons with the skills, knowledge, and attributes essential to navigate the challenges and uncertainties of entrepreneurship. In Gujarat, where entrepreneurship is on the rise, cultivating these competencies is essential for empowering aspiring entrepreneurs to overcome obstacles, seize opportunities, and persist in their entrepreneurial endeavours. Whether it's identifying market gaps, innovating new products or services, or navigating regulatory complexities, Entrepreneurial competencies show a vital role in determining entrepreneurs' intentions to persist amidst the dynamic business landscape of Gujarat. Moreover, the relationship between EC and IP is particularly relevant in Gujarat's context due to the state's emphasis on promoting innovation and entrepreneurship-driven growth. With initiatives such as the Vibrant Gujarat Summit and various policy measures to support startups and MSMEs, there is a growing emphasis on harnessing the entrepreneurial potential of the state's youth population. Gujarat can harness its entrepreneurial likely to initiative innovation, job creation, and economic prosperity by fostering a culture of persistence and resilience among entrepreneurs through the development of EC.

The effect of Entrepreneurial Competencies (EC) on Firm Performance (FP) in Gujarat is significant due to several factors unique to the region's entrepreneurial landscape. Gujarat boasts a thriving entrepreneurial ecosystem characterized by a rich tradition of business innovation and a culture of entrepreneurship. The state's entrepreneurial spirit is ingrained in its ethos, with a long history of successful businesses and entrepreneurial ventures across various sectors, including manufacturing, pharmaceuticals, textiles, and agribusiness. The state government has implemented various initiatives to promote entrepreneurship, such as the Vibrant Gujarat Summit and sector-specific policies to foster innovation, investment, and business growth. These initiatives create an enabling environment for entrepreneurs to leverage their competencies effectively and drive firm performance. Gujarat's strategic geographical location, well-developed infrastructure, and

market access further enhance entrepreneurial competencies' impact on firm performance. Entrepreneurs in Gujarat benefit from proximity to major industrial hubs, ports, and transportation networks, facilitating market access, supply chain efficiency, and business expansion opportunities. Additionally, educational institutions, research centres, and industry-academia collaborations in Gujarat contribute to developing and nurturing entrepreneurial competencies. These institutions provide opportunities for skill development, knowledge exchange, and innovation, empowering entrepreneurs to enhance their competencies and drive firm performance. Furthermore, Gujarat's dynamic and diverse economy offers ample opportunities for entrepreneurial ventures to thrive across sectors. In traditional industries like textiles and manufacturing or emerging sectors such as renewable energy and information technology, entrepreneurial competencies are pivotal in driving innovation, competitiveness, and growth.

The effect of Intention to Persist (IP) on Firm Performance (FP) in Gujarat is noteworthy due to several vital factors inherent to the region's entrepreneurial landscape. Gujarat's entrepreneurial ecosystem is characterized by a culture of perseverance and determination, with many successful entrepreneurs exemplifying a solid intention to persist in their endeavours. This culture of persistence translates into a mindset that values resilience and tenacity, driving entrepreneurs to overcome challenges and pursue their goals with unwavering commitment. Gujarat's business-friendly environment and supportive policies contribute to the positive relationship between IP and FP. The state government has implemented various initiatives to promote entrepreneurship and facilitate business growth, such as streamlined regulatory processes, access to financing, and incentives for innovation and investment. These supportive measures create an allowing environment for entrepreneurs to persist in their ventures and achieve long-term success. The state's proximity to major industrial hubs, ports, and transportation networks facilitates market expansion, supply chain efficiency, and access to a diverse customer base, enhancing the impact of IP on FP. Gujarat's diverse economy also offers a wide range of sectors and industries for entrepreneurial ventures to thrive. Whether in manufacturing, agriculture, technology, or services, entrepreneurs who intend to persist can capitalize on the state's economic opportunities to drive innovation, create value, and contribute to overall firm performance. Gujarat's rich entrepreneurial heritage and tradition of business excellence assist as a source of inspiration and motivation for aspiring entrepreneurs. The success

stories of established firms and industry leaders in Gujarat instil confidence and reinforce the importance of persistence in achieving business objectives and driving firm performance. The effect of Intention to Persist (IP) on Firm Performance (FP) in Gujarat is significant due to the region's conducive entrepreneurial ecosystem, supportive business environment, strategic advantages, and cultural ethos of perseverance. Entrepreneurs with a solid intention to persist are well-positioned to leverage these factors to drive innovation, growth, and success in their ventures, thereby contributing to Gujarat's overall economic development and prosperity.

The mediating effect of Attitude towards Business, Perceived Behavioural Control, Personal Norms, and Subjective Norms in the relationship between Entrepreneurial Competencies and Intention to Persist in Gujarat is of significant importance due to several vital factors inherent to the region's entrepreneurial landscape. Firstly, Gujarat's entrepreneurial ecosystem is characterized by a diverse mix of industries, ranging from traditional sectors like textiles and manufacturing to emerging sectors such as renewable energy and information technology. Entrepreneurs rely on their competencies in this dynamic environment to navigate challenges, identify opportunities, and drive innovation. However, the translation of these competencies into sustained entrepreneurial action and Intention to persist is influenced by individual attitudes toward business, perceived behavioural control, personal norms, and subjective norms.

Attitude towards Business reflects an individual's beliefs and feelings about entrepreneurship. In Gujarat, where entrepreneurship is highly regarded and celebrated, a positive attitude towards business can serve as a catalyst for entrepreneurial action and persistence. Entrepreneurs with a favourable attitude towards business are more likely to leverage their competencies effectively and maintain a solid intention to persist in facing obstacles. Perceived Behavioural Control refers to an individual's perception of their ability to control their actions and outcomes in entrepreneurship. In Gujarat, where a supportive business environment and access to resources are prevalent, entrepreneurs may have a heightened logic of perceived behavioural control, empowering them to overcome challenges and persist in their entrepreneurial endeavours.

Subjective Norms reflect an individual's perceptions of social expectations and norms regarding entrepreneurship. In Gujarat, where there is a strong tradition of family

businesses and community support for entrepreneurship, subjective norms can influence entrepreneurial intentions and behaviours. Entrepreneurs who perceive positive social norms and support for entrepreneurship are likelier to persist in their ventures, bolstered by external validation and encouragement. Personal Norms encompass an individual's internalized beliefs and values regarding entrepreneurial behaviour. In Gujarat, where entrepreneurship is deeply ingrained in the cultural fabric, personal norms significantly shape entrepreneurial intentions and actions. Entrepreneurs who align their entrepreneurial competencies with personal norms are more possible to show a solid intention to persist, driven by a sense of duty, passion, or moral obligation. The mediating effect of ATB, PBC, PN, and SN in the relationship between EC and IP underscores the multifaceted nature of entrepreneurship in Gujarat. By understanding how these factors interact and influence entrepreneurial intentions and actions, policymakers, educators, and business leaders can design targeted interventions and support mechanisms to foster a favourable environment for entrepreneurial success and persistence in the region.

The moderating role of risk resilience in the relationship between entrepreneurial competencies and firm performance in Gujarat is particularly significant due to the region's dynamic entrepreneurial landscape and the inherent challenges associated with entrepreneurship. A culture of novelty, risk-taking, and resilience characterizes Gujarat's entrepreneurial ecosystem. Gujarat entrepreneurs often face many risks, including market uncertainties, regulatory challenges, and resource constraints. In this context, effectively managing and navigating risks is crucial for entrepreneurial success and firm performance. Entrepreneurial Competencies equip individuals with the skills, knowledge, and capabilities to effectively identify, assess, and mitigate risks. These competencies allow entrepreneurs to make well-versed choices, familiarize to changing market circumstances, and opportunities. However, the translation of EC into tangible firm performance outcomes may be contingent upon the level of risk-resilience exhibited by entrepreneurs. Risk-resilience refers to an individual's capacity to withstand and rebound from adverse events or setbacks. In Gujarat, where entrepreneurship is characterized by inherent uncertainties and volatility, entrepreneurs with high levels of risk-resilience are better equipped to navigate challenges and sustain firm performance over the long term.

The moderating role of RR on the EC-FP relationship suggests that the impact of entrepreneurial competencies on firm performance may be amplified or attenuated

depending on entrepreneurs' ability to manage and cope with risks effectively. Entrepreneurs with high levels of risk resilience are likely to leverage their competencies more effectively, resulting in improved firm performance outcomes. Moreover, Gujarat's entrepreneurial ecosystem provides ample opportunities for entrepreneurs to develop and enhance their risk resilience through experiential learning, mentorship, and peer support networks. By fostering a culture of resilience and providing entrepreneurs with the necessary tools and resources to manage risks effectively, policymakers, educators, and business leaders can enhance the moderating effect of RR on the EC-FP relationship, ultimately driving sustainable entrepreneurial growth and economic development in the region.

The moderating role of risk resilience (RR) in the relationship between entrepreneurial competencies (EC) and firm performance (FP) in Gujarat underscores the importance of resilience in navigating the complexities and uncertainties of entrepreneurship. By understanding and harnessing the moderating effect of RR, stakeholders can support entrepreneurs in building resilience, thereby enhancing the impact of EC on firm performance and fostering a thriving entrepreneurial ecosystem in Gujarat. In conclusion, understanding these relationships between EC, IP, and FP is crucial for policymakers, educators, and business leaders to design effective strategies and support mechanisms to foster a thriving entrepreneurial ecosystem in Gujarat. By nurturing entrepreneurial competencies and promoting a culture of persistence and resilience, Gujarat can harness its entrepreneurial potential to drive sustainable economic growth and prosperity in the region.

7.6 LIMITATIONS OF THE STUDY

While this study aims to shed light on the entrepreneurial dynamics within Gujarat's Micro, Small, and Medium Enterprises sector, it's crucial to recognize certain limitations that may affect how the study interpret and apply its findings. Firstly, the study's sample size is specific to Gujarat's entrepreneurial landscape, which might not fully represent MSME ecosystems in other cities or regions, limiting the generalizability of the results. Secondly, the data collection method, relying on questionnaires, is susceptible to response bias and self-reporting errors. Participants' responses may be influenced by factors like social desirability or recall bias, potentially impacting the accuracy of the results. This could lead

to an incomplete understanding of the true entrepreneurial competencies and intentions to persist among MSME entrepreneurs in Gujarat. Moreover, the study's cross-sectional design only provides a snapshot of entrepreneurial competencies, intention to persist, and risk resilience at a single point in time. It doesn't account for changes and developments in these variables over time, which could influence the study's findings and their applicability in real-world scenarios.

Additionally, there's a possibility of self-selection bias, where entrepreneurs who chose to participate in the study may possess different characteristics or motivations compared to those who didn't participate. This bias might affect the study's external validity, making it challenging to generalize the findings to the broader MSME population accurately. Furthermore, while the study focuses on specific mediating factors like attitude towards business, perceived behavioural control, personal norms, and subjective norms, it may overlook other potential mediators or moderators that could influence the relationships between entrepreneurial competencies, intention to persist, and firm performance. This could limit the comprehensiveness of the study's findings. External factors such as economic conditions, regulatory changes, and market fluctuations also pose a challenge as they may influence entrepreneurial competencies, intention to persist, and firm performance in ways not captured by the study. Despite these limitations, the study provides a solid foundation for understanding entrepreneurship in Gujarat's MSME sector. It offers valuable insights that can guide future research endeavours to address these limitations and deepen the understanding of entrepreneurship dynamics in the region.

7.7 DIRECTIONS FOR FUTURE RESEARCH

Understanding how entrepreneurial competencies, intention to persist, risk resilience, and firm performance vary across different cultural contexts is essential for gaining insight into the multifaceted nature of entrepreneurship. By conducting cross-cultural studies, researchers can delve into the intricate interplay between culture and entrepreneurial behaviour, shedding light on how cultural values, norms, and practices shape entrepreneurial outcomes. For instance, comparing the entrepreneurial dynamics in Gujarat with others can highlight the influence of cultural factors on entrepreneurial decision-making processes and strategies. Longitudinal studies offer a comprehensive understanding

of how entrepreneurial competencies, intention to persist, and risk resilience evolve over time and impact firm performance. By tracking these variables longitudinally, researchers can uncover dynamic patterns, critical milestones, and factors that contribute to entrepreneurial success or failure. For instance, a longitudinal study spanning several years can reveal how entrepreneurial competencies develop, adapt, and influence firm performance at different stages of an entrepreneur's journey.

Furthermore, Comparing the entrepreneurial ecosystems of different regions or countries provides valuable insights into how variations in support structures, policies, and cultural factors influence entrepreneurial success. Such comparative analyses enable policymakers and ecosystem builders to identify best practices, policy interventions, and support mechanisms that foster a conducive environment for entrepreneurship. For example, comparing the entrepreneurial ecosystems of Gujarat and other states can highlight the role of policy frameworks, access to funding, and cultural attitudes in driving entrepreneurial activity and innovation. Investigating the effects of specific government policies and interventions on entrepreneurship is crucial for understanding how policy changes, tax incentives, and regulatory reforms shape the development and performance of entrepreneurial ventures. By analysing the impact of government policies, researchers can provide evidence-based recommendations to policymakers aimed at promoting entrepreneurship and fostering economic growth. For instance, studying the effects of tax incentives for startups in Gujarat can elucidate their effectiveness in incentivizing entrepreneurial activity and stimulating innovation.

Moreover, exploring additional mediating and moderating factors that influence the relationships examined in the thesis enhances understanding of the complexities of entrepreneurship. For instance, investigating the role of social networks, access to resources, or market conditions as mediating or moderating factors can provide valuable insights into the mechanisms through which entrepreneurial competencies, intention to persist, and risk resilience impact firm performance. By examining these factors, researchers can develop more nuanced models of entrepreneurship that capture the interplay of various individual, organizational, and environmental factors. Finally, focusing on specific sectors or industries allows researchers to uncover how entrepreneurial competencies, intention to persist, and risk resilience operate within different business environments. For example, studying the healthcare sector in Gujarat can reveal unique

challenges and opportunities for entrepreneurs in delivering innovative healthcare solutions. Sector-specific studies provide valuable insights tailored to the needs and dynamics of specific industries, informing industry-specific policies and interventions.

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Submission Form- Scale Development

Title of the work: Questionnaire on Entrepreneurial Competencies, Intention to Persist, Risk Resilience, and Firm Performance



Registrar: Namita Sharma, Associate Professor, Lovely Professional University
Date: 14/05/2023
Researcher: Niraj Gurprekash Plaha, Research Scholar, Lovely Professional University

Summary of Work: Research using the questionnaire on entrepreneurial competencies, intention to persist, risk resilience, and firm performance has yielded valuable insights into the factors that contribute to the success of entrepreneurial ventures. It is found that entrepreneurs with high levels of entrepreneurial competencies, such as creativity, innovation, and problem-solving skills, are more likely to achieve firm success. Additionally, entrepreneurs with a strong intention to persist and high-risk resilience are more likely to overcome challenges and achieve success in their ventures. Further research has also shown that these factors are interconnected, with entrepreneurial competencies and intention to persist contributing to risk resilience and ultimately to firm performance. Overall, the questionnaire has proven to be a useful tool for measuring and understanding the complex relationship between these critical factors in entrepreneurship.

Construct	Items	Strongly Disagree	Disagree	Somewhat Disagree	Neutral	Somewhat Agree	Agree	Strongly Agree
Skill: Entrepreneur skills include various skill sets such as i) Communication, ii) Negotiation, iii) Creative & analytical thinking, iv) Leadership, v) Decision-making These entrepreneurial skills are vital for promoting innovation, business growth, and competitiveness	I believe that I speak in a certain order and logic							
	When I talk to someone, I convince them							
	The person with whom I talk wants to collaborate with me							
	I can deal with any hardship that comes my way							
	I enjoy trying to find new solutions to the problems							
	I always encourage my team to work towards the same goal							
	I allow team members complete freedom in their work							
	I feel very anxious when I need to make a decision.							
	When making a decision, I consider various options in terms of specific goals.							
	I am aware of the various products/services offered in the market which are similar to my product							
I am aware of the various products/services offered in the market which are similar to my product I often change my strategies after looking at my competitor's actions. I am deeply involved in the process that I follow for my business I always keep track of progress toward the goals of my	I am aware of the various products/services offered in the market which are similar to my product							
	I often change my strategies after looking at my competitor's actions.							
	I am deeply involved in the process that I follow for my business							
I always keep track of progress toward the goals of my								



[illegible]

I usually change my opinion if others oppose my point of					
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view.

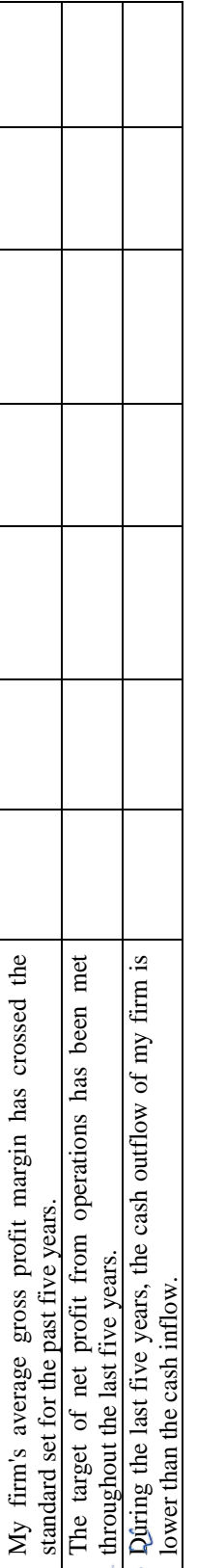
Mv family and friends believe that starting my own					

I am confident that my friends will fund/invest in my business whenever I require fund						
business is preferable to working for someone else.						

It feels good for the conscience to act in an ethical way.						
There are some occasions when I have taken advantage of other people to achieve my goals.						
I feel more ethically responsible for all my actions.						

I am glad to be an entrepreneur					
I am willing to accept challenges to sustain my business					
I will make every effort to maintain my business for a longer period					

My firm's average gross profit margin has crossed the standard set for the past five years.					
The target of net profit from operations has been met throughout the last five years.					



Measuring The Ascending Trend For Sustainable Entrepreneurship: A Bibliometric Analysis

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Abstract: Entrepreneurship refers to initiating, organizing, and managing an innovative business to make a profit, while overcoming the financial threat. Sustainable entrepreneurship has attracted significant scholarly attention over the last decade, which states that there is an opportunity for generating new products, using new techniques that significantly reduce their social and environmental impacts. This study outlines the following research challenges and areas for future study, and provides bibliometric analyses for sustainable entrepreneurship. The data show that, notably, in the last two years, the quantity of publications and citations that get published has steadily increased. Bibliometric performance indicators identify the most productive and significant journals, countries, organizations, and individuals. This study tries to identify the essential publications in the field; the most frequently cited works, the top authors, and the top participating nations. The data were obtained from the Scopus database. Country and co-authorship network maps were designed using the VOS viewer program. This work advances our understanding of sustainable entrepreneurship and bibliometric methods, providing a more complete and trustworthy picture of this field.

Keywords: entrepreneurship, sustainable entrepreneurship, bibliometric analysis

JEL Classification: L26, L31, M21, Q01, Q56, F63, I25.

Introduction

A business enterprise, despite all its risks, must be created, organized, and managed to make it profitable:- this is called entrepreneurship. Creating new enterprises is a top goal for entrepreneurship (Abbasi et al., 2011; De Clercq et al., 2007; Ozkazanc-Pan, 2009). In economics, entrepreneurship that uses land, labor, natural resources, and capital can be profitable (Windapo, 2018). The entrepreneurial vision is characterized by experimentation and taking risks. It is a crucial element of a nation's capacity to prosper in a constantly evolving market, and it is becoming more competitive on a global scale (Nkongolo-Bakenda et al., 2006). Sustainability is the capacity to support or maintain a process consistently across time (Bota-Avram, 2022; Frangopol & Soliman, 2016; Windapo, 2018). Sustainability in business and policy strives to stop the loss of natural or physical resources so they can be used indefinitely (Djupdal & Westhead, 2015; Soto-Acosta et al., 2016). Sustainability includes economic, environmental, and social concepts (Anand et al., 2021).

Sustainable entrepreneurship is a cutting-edge research area incorporating the triple bottom line of economy, environment, and society. It is an economic activity that blends entrepreneurial activities with environmental and social sustainability (Frangopol & Soliman, 2016). Since entrepreneurship is the foundation of economies, researchers are constantly looking for ways to encourage it (Bota-Avram, 2022; Carl Folke, Thomas Hahn, Johan Rockstrom, 2009; Frangopol & Soliman, 2016; Mei et al., n.d.; Schaltegger & Wagner, 2011; Winn et al., 2011). Furthermore, sustainable entrepreneurship has been a research area of interest as people's understanding of the significance of social and environmental sustainability has grown (Schaltegger & Wagner, 2011; Terán-Yépez et al., 2020).

Entrepreneurship is considered, investigated, and is used to allow self-employment, which will result in financial rewards or as one of the means of establishing workplaces (B. Cohen & Winn, 2007; Emami & Khajeheian, 2018; Klewitz & Hansen, 2014; Raman et al., 2022; Satalkina, 2020). In simple words, entrepreneurship comes within the gamut of stimulating economic growth, showing the issues concerning society and the environmental things that are ignored (Greco & De Jong, 2017; Konys, 2019; Wu & Wu, 2008). The appearance of sustainable development, and the increasing emphasis on environmental issues by governments, non-governmental organizations (NGOs), scholars, and corporation's leads to some academics contention. Sustainable entrepreneurship must depend on more than just getting money (Dean & McMullen, 2007; Katsikis & Kyrgidou, 2007; Klewitz & Hansen, 2014; Raman et al., 2022; Tehseen & Ramayah, 2015). Furthermore, some academics believe entrepreneurship can push economic sectors toward long-term development (B. Cohen & Winn, 2007).

In the past ten years, it has been observed that social inequality and environmental destruction are problems that can only be solved with the help of business (Al Mamun

et al., 2016; Muñoz & Cohen, 2018). This drew the interest of academics that have connections with traditional enterprises, communities, and the environment, to develop a new form of entrepreneurial behaviour called sustainable entrepreneurship (Omar, 2021; Pierce et al., 2017; Taatila, 2010). As per the study, Shepherd and Patzelt (2011) stated that sustainable entrepreneurship aims to protect social, economic, and environmental structures. Furthermore, he said that to obtain more financial gains, one cannot damage society (Hanohov & Baldacchino, 2018; Shepherd et al., 2013; Shepherd & Patzelt, 2011). To ensure the welfare of future generations, sustainable entrepreneurship has been observed as an idea that reconstructs the development of economic, environmental, and social values (Bec et al., 2018; Escamilla-Fajardo et al., 2021).

As a result, some scholars started to focus more on the relationship between entrepreneurship and sustainable development, which gave rise to the idea of sustainable entrepreneurship, also known as sustainopreneurship (Terán-Yépez et al., 2020). The basis for sustainable entrepreneurship is the triple bottom line (TBL), which consists of three elements: the environment, which takes into account long-term protection and the reduction of adverse effects; social, which considers clients, stakeholders, partners, workers, and the center of the population; and the economy, which is dependent on economic performance (Belz & Binder, 2017; Bocken, 2015; Criado-Gomis et al., 2017; Frangopol et al., 2017).

To protect the environment and other resources, many businesses, along with the government, have made commitments (Doran & Larsen, 2016). However, few investors are interested in "green investments" or sustainable investments (Gulati & Weiler, 2021). Sustainable entrepreneurship is a viable solution rather than a significant contributor, to social inequality and environmental destruction (Al Mamun et al., 2016; Muñoz & Cohen, 2018). This simple truth caught the attention of scholars, who created a new form of economic venture called sustainable entrepreneurship. It can be sustained entrepreneurship by trying to connect with society, or it can be environmental, or even traditional entrepreneurship (Klewitz & Hansen, 2014; Konys, 2019; Schaltegger & Wagner, 2011; Terán-Yépez et al., 2020).

Theoretically, scholars have been paying more attention to sustainable entrepreneurship, which has resulted in the appearance of the unique topic in academic journals like the Journal of Business Venturing, Greener Management International Journal, Sustainability, and International Journal of Entrepreneurial Behaviour & Research (Afifi et al., 2016; da Silva Veiga et al., 2017).

The Journal of Organizational Change Management published the first article on sustainable entrepreneurship that is suitable for examining the evolution of this field of study. That article recognized the critical group of actors, such as country, association, and author to evaluate the past and offer potential directions for future research (Fran-

gopol et al., 2017). Over the past 10 years, academics, professionals, and organizations have given sustainable entrepreneurship a lot of attention. To the best of our knowledge, the previously released assessments have yet to comprehensively analyze the critical contributions or the primary research issues, or develop the research themes, which would have resulted in more clarity in this domain. This study performed a bibliometric analysis to close this knowledge gap.

By adopting this broad viewpoint and responding to various requests for more research into the subject areas, this paper seeks to systematize the scientific output on multiple domains. In this manner, it provides academics with a comprehensive assessment of the disjointed literature published up to this point and suggests potential directions for future research. In addition, policymakers and practitioners may discover a helpful starting point for encouraging the growth of entrepreneurial sustainability. In keeping with this, a bibliometric analysis with the following research questions has been performed:

1. Which subject area, publications, authors, countries, and articles have the most impact?
2. What is the recent rising research trend in sustainable entrepreneurship which might not yet have been explored in the various domains of study?
3. Which subjects regarding sustainable entrepreneurship have received the most research, and have been investigated most often?
4. How is information about sustainable entrepreneurship organized?

This study makes the following contributions: It provides a complete assessment of the literature on sustainable entrepreneurship research over the past 20+ years, together with the fundamental statistical indicators. We emphasize the most influential authors, papers, institutes, countries, and frequently cited publications. Additionally, by combining specific science mapping techniques, such as co-authorship analysis, and co-citation analysis and with the enhanced bibliometric method, a complete visual demonstration of the academic information relating to sustainable entrepreneurship can be obtained, such as the networks and clustering visualization.

Research Methodology

The purpose of this research is to trace the domain of sustainable entrepreneurship. The study provides data about the most influential publications, institutions, citation titles, nations, and publishers. For this bibliometric analysis, its research results can be a strong foundation for locating meaningful contributions in this sector, and trying to detect recent developments and recommendations for future research. In this research, a sample of

701 articles from Scopus between the years 2000 to 2022 was analysed. This research aims to provide an in-depth review of the existing published articles, by conducting a thorough bibliometric analysis of the research into sustainable entrepreneurship using a bibliometric software tool, such as VOSviewer.

Database And Method

We used the Scopus database to give a thorough map of sustainable entrepreneurship which is reliable due to the current advancements in bibliometric research. Investigating existing and new research trends in sustainable entrepreneurship is the primary goal of this review, which also identifies potential future research areas. The Scopus database was considered because it generates papers of the premium quality and is a trustworthy resource for indexing prestigious journals (Klewitz & Hansen, 2014; Terán-Yépez et al., 2020). Furthermore, the database was chosen because it has a significantly greater number of high-quality journals listed. As other researchers have noted, the accurateness of the search criteria for gathering information from the database has a significant impact on the trustworthiness of bibliometric research (Bota-Avram, 2022; Konys, 2019; Meerow & Newell, 2015; Most et al., 2018; Skute et al., 2017; Terán-Yépez et al., 2020).

The Scopus database was utilized to find publications about "Sustainable Entrepreneurship," "Sustainable Business Performance," "Sustainable Performance," and "Sustainable Business" that were published between 2000 and 2022. To guarantee the completeness of this search, these keywords were mentioned in the article, including titles, abstracts, and keywords. Only the articles that were present in the English language were considered, and the final sample articles were collected in comma-separated values (CSV) file formats for the bibliometric analysis software.

Table 1. Research Framework

Step No 1: Field of study	"Sustainable Entrepreneurship"
Step No 2: Database	"Scopus Database"
Step No 3: Research work	Article title, Abstract, Keywords
	"Sustainable Entrepreneurship," "Sustainable Development," "Business Development"
	Result Filtration = 701
	Between the Years 2000 to 2022

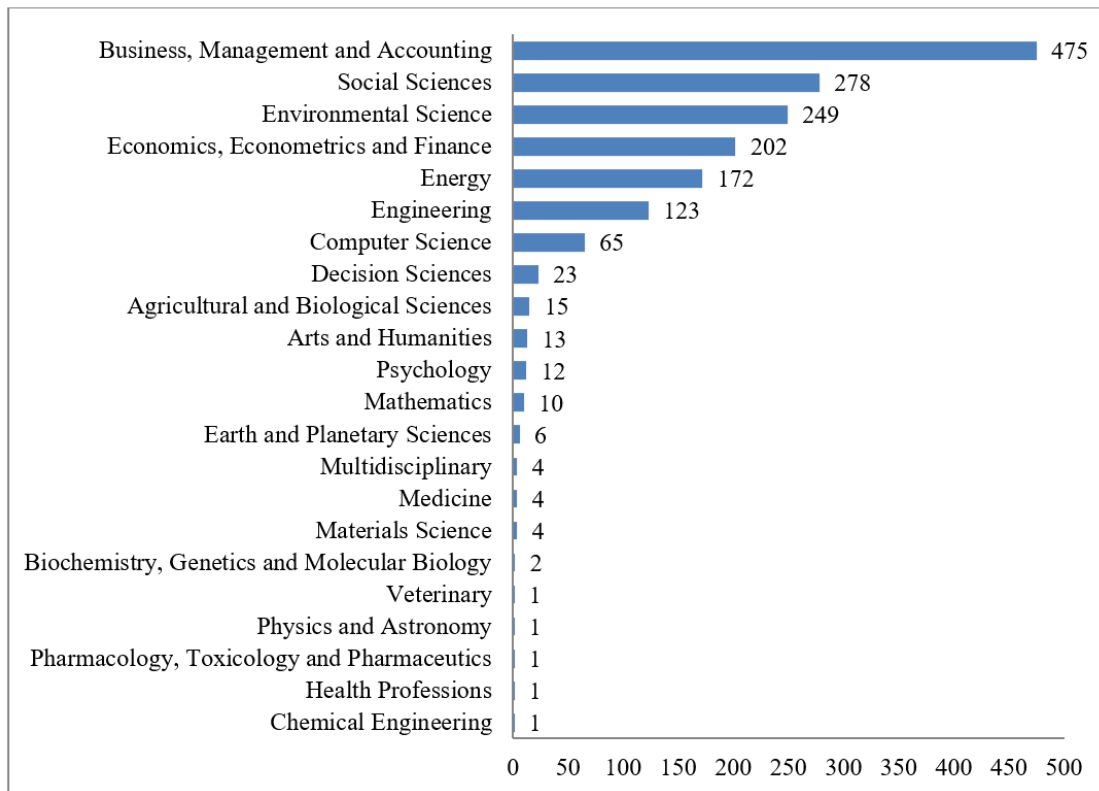
Step No 4: Analysis	Bibliometric Analysis	Visualization (VOS viewer)
	Subject area	Co-authorship network mapping
	Journal with maximum publication	Country-wise network mapping
	Year wise publication	
	Most cited papers	
	Most prolific authors	
	Most prolific countries	
Step No 5: Conclusion	Analysis	

During the search, it was observed that there were 701 articles on sustainable entrepreneurship. Further, to confirm the title, abstract, and keywords, each title was read by the authors. The categorization of the articles was provided based on the year-wise publication, subject area, most creative authors, journals with maximum publications, and most creative countries and most cited studies.

Results And Findings

Subject Area

From the overall publication on sustainable entrepreneurship, the most articles 475 were written about the subject area of business, management, and accounting. One of the articles on this subject had the most citation 845; this was titled "Sustainable Entrepreneurship and Sustainability Innovation: Categories and Interactions," which was published in the Journal of Business Strategy and the Environment. Subject areas such as social science and environment science had 278 and 249 studies, respectively. There were 202 studies on economics, econometrics, and finance, along with 172 studies into energy. Fewer studies have been done in the fields of engineering and computer science, with 123 and 65, respectively. Only one study per subject were published in veterinary, physics and astronomy, pharmacology, toxicology and pharmaceuticals, health professions, and chemical engineering.

Figure 1. Subject Area

(Source: Scopus Data Base)

Journals With Maximum Publications

The studies published on sustainable entrepreneurship belong to a variety of journals. The below-mentioned table shows the top 20 journals. These journals published the largest number of studies on sustainable entrepreneurship. Sustainability Switzerland published 91 articles. The Journal of Cleaner Production had 50 studies, and Business Strategy and the Environment published 30 studies. Furthermore, the journals such as the International Journal of Entrepreneurial Behaviour Research and Business Venturing have published 18 and 11 studies, respectively.

Table 2. Journals With Maximum Publications

Journal Name	Number of studies
Sustainability Switzerland	91
Journal Of Cleaner Production	50
Business Strategy And The Environment	30
International Journal Of Entrepreneurial Behaviour And Research	18
Journal Of Business Venturing	11
International Journal Of Entrepreneurial Venturing	9

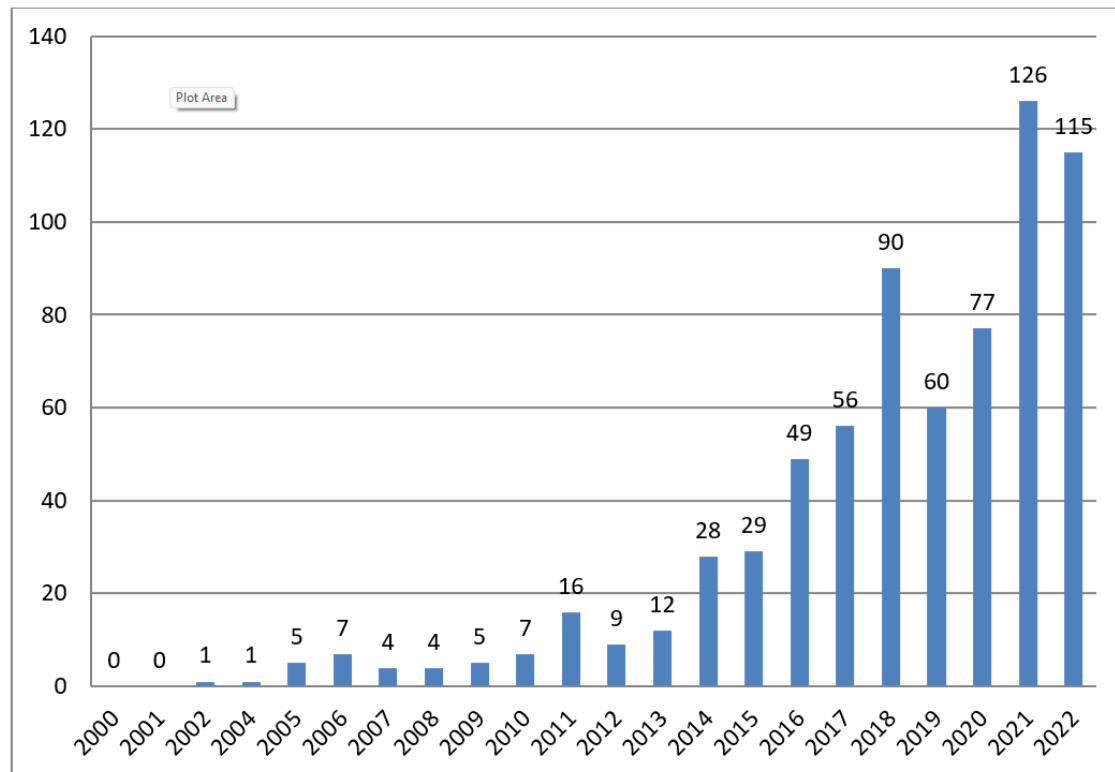
Organization And Environment	8
Small Business Economics	8
Entrepreneurship And Sustainability Issues	7
International Journal Of Entrepreneurship And Small Business	7
World Review Of Entrepreneurship Management And Sustainable Development	7
Journal Of Business Ethics	6
Administrative Sciences	5
Emerald Emerging Markets Case Studies	5
Environment Development And Sustainability	5
International Entrepreneurship And Management Journal	5
International Journal Of Management Education	5
Studies On Entrepreneurship Structural Change And Industrial Dynamics	5
World Journal Of Entrepreneurship Management And Sustainable Development	5
British Food Journal	4

(Source: Scopus Data Base)

Year Wise Publication

The number of studies published from 2000 to 2022 is shown in this table. There was evidence that the number of surveys on sustainable entrepreneurship has grown over time. From 2000 to 2013, the number of published studies was significantly reduced. The research series increased from 28 to 77 between 2014 and 2020, implying a significant increase in researchers' interests. Furthermore, the most prominent research has been published in the past five years. From 2019 to 2022, the number of studies increased from 60 to 115.

The maximum number of studies was published in 2021 (126 studies), which showed that the attention of research into the field has grown tremendously in recent times. In 2022, research done by Sadiq M. had the overall highest number of citations for that year; this was published in the China Finance Review International Journal. That same year, the second-highest number of citations was 25 for study by O'Neil, which was published in the Journal of Business Venturing.

Figure 2. Year-Wise Publications

(Source: Scopus Data Base)

Most Cited Paper

As per the data from Scopus, the 20 most cited studies are presented. It was noted that the most cited paper with 829 citations, was written by Schaltegger S. In his article, the author developed a new concept for sustainable entrepreneurship and its innovation (Schaltegger, Lüdeke-Freund, et al., 2016; Schaltegger & Wagner, 2011). The concept was built with sustainable entrepreneurship that could be widened by incorporating social entrepreneurship, which refers to using the entrepreneurial approach to accomplish social goals and changing market conditions related to sustainability's innovation. Furthermore, the concept could be used as a reference by managers who want to adopt sustainability's innovation and foster sustainable entrepreneurship (Johnson & Schaltegger, 2020; Schaltegger et al., 2018; Schaltegger, Hansen, et al., 2016; Schaltegger, Lüdeke-Freund, et al., 2016; Schaltegger & Wagner, 2011).

Another frequently cited paper was by Dean T.J., and; McMullen J.S. Their article showed how entrepreneurship could make it possible to address issues through the global socioeconomic system's relationship with the environment. While entrepreneurial literature maintains that market failure generates possibilities, environmental economics claims that market failure results in ecological degradation (Dean & McMullen, 2007; Mc-

mullen & Warnick, 2016; Winn et al., 2011).

The third most cited paper is by Cohen B. and, Winn M.I. According to their study, there were four market inadequacies: inefficient firms, asymmetric information, a faulty cost structure, and uncertainty. The study contributes to environmental degradation even while supplying enormous opportunities for the creation of cutting-edge innovations and business strategies (B. Cohen et al., 2008; P. R. Cohen & Levesque, 1990; Enoch, 2006; Frangopol et al., 2017; Mikami & Hinshaw, 2006; Winn et al., 2011).

Table 3. Most Cited Studies

Sr No.	Authors	Title	Year	Cited by
1	Schaltegger, S., Wagner, M.	Sustainable entrepreneurship and sustainability innovation: Categories and interactions	2011	829
2	Cohen, B., Winn, M.I.	Market imperfections, opportunity and sustainable entrepreneurship	2007	775
3	Dean, T.J., McMullen, J.S.	Toward a theory of sustainable entrepreneurship: Reducing environmental degradation through entrepreneurial action	2007	775
4	Hockerts, K., W�stenhagen, R.	Greening Goliaths versus emerging Davids - Theorizing about the role of incumbents and new entrants in sustainable entrepreneurship	2010	649
5	Klewitz, J., Hansen, E.G.	Sustainability-oriented innovation of SMEs: A systematic review	2014	640
6	Shepherd, D.A., Patzelt, H.	The New Field of Sustainable Entrepreneurship: Studying Entrepreneurial Action Linking "What Is to Be Sustained" With "What Is to Be Developed"	2011	518
7	Schaltegger, S., Hansen, E.G., L�deke-Freund, F.	Business Models for Sustainability: Origins, Present Research, and Future Avenues	2016	467
8	Kuckertz, A., Wagner, M.	The influence of sustainability orientation on entrepreneurial intentions - Investigating the role of business experience	2010	378
9	Schaltegger, S., L�deke-Freund, F., Hansen, E.G.	Business Models for Sustainability: A Co-Evolutionary Analysis of Sustainable Entrepreneurship, Innovation, and Transformation	2016	312
10	Pacheco, D.F., Dean, T.J., Payne, D.S.	Escaping the green prison: Entrepreneurship and the creation of opportunities for sustainable development	2010	290
11	Young, W., Tilley, F.	Can businesses move beyond efficiency? The shift toward effectiveness and equity in the corporate sustainability debate	2006	247
12	Lans, T., Blok, V., Wesselink, R.	Learning apart and together: Towards an integrated competence framework for sustainable entrepreneurship in higher education	2014	227
13	Belz, F.M., Binder, J.K.	Sustainable Entrepreneurship: A Convergent Process Model	2017	222
14	Gast, J., Gundolf, K., Cesinger, B.	Doing business in a green way: A systematic review of the ecological sustainability entrepreneurship literature and future research directions	2017	211
15	Shepherd, D.A., Patzelt, H., Baron, R.A.	"I care about nature, but. disengaging values in assessing opportunities that cause harm	2013	178
16	Lordkipanidze, M., Brezet, H., Backman, M.	The entrepreneurship factor in sustainable tourism development	2005	169
17	Cohen, B., Smith, B., Mitchell, R.	Toward a sustainable conceptualization of dependent variables in entrepreneurship research	2008	162
18	Gibbs, D.	Sustainability entrepreneurs, ecopreneurs, and the development of a sustainable economy	2006	157
19	Mu�oz, P., Cohen, B.	Sustainable Entrepreneurship Research: Taking Stock and looking ahead	2018	153
20	Bocken, N.M.P.	Sustainable venture capital - Catalyst for sustainable start-up success?	2015	144

(Source: Scopus Data Base)

The fourth most cited paper was by Klewitz J. This paper evaluated the diverse image that research has created over the last 20 years, with an emphasis on innovative activities, including various kinds of sustainability-oriented innovations and strategic sustainability behavior of SMEs, using an interdisciplinary, systematic review that was undertaken between 1987 and 2010. The author visited significant research databases and conducted a bibliographic and thematic analysis of 84 essential journal articles. The author claims that the initial strategic behaviour of SMEs toward sustainability ranges from resistance to anticipatory, reactive, and innovation-based activity to sustainability-rooted conduct.

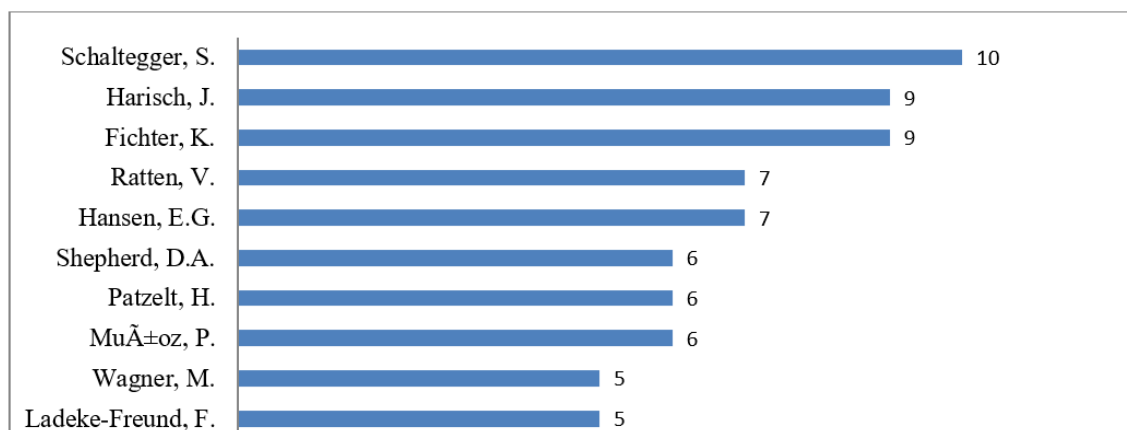
It also identified practices for organizational, process, and product innovation. Third, the results demonstrated that research was still primarily focused on eco-innovation as opposed to triple-bottom-line innovation (economic, social, and environmental dimensions), or SOIs of SMEs (Klewitz & Hansen, 2014; Schaltegger, Hansen, et al., 2016; Schaltegger, Lüdeke-Freund, et al., 2016).

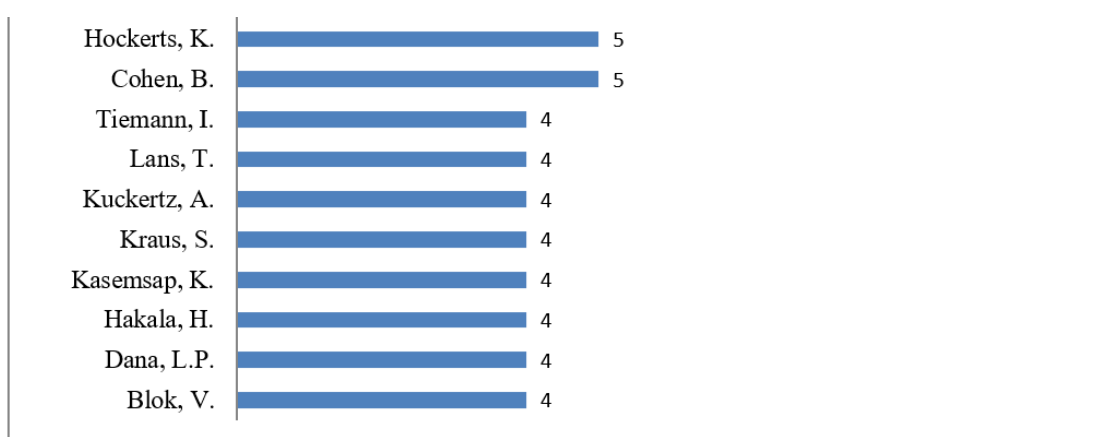
Most Prolific Authors

The study lists the 20 most creative authors. It has been observed that the most prolific author on sustainable entrepreneurship is Schaltegger, S, who has produced 10 research papers. The most cited paper by this author has 845 citations and was published in the Business Strategy and Environment Journal in 2011 (Schaltegger & Wagner, 2011). Another frequently cited paper has 488 citations and was published in the Organization and Environment Journal in 2016 (Frangopol & Soliman, 2016).

The third most cited paper by this author, which has been cited 324 times, was published in the Organization and Environment Journal in 2016. The next most prolific authors were Fichter, K, and Horsch, J with nine research papers each. Their most cited article was published in 2020 in the Journal of Cleaner Production (Breuer et al., 2018; Fichter & Tiemann, 2018).

Figure 3. Most Prolific Authors





(Source: Scopus Data Base)

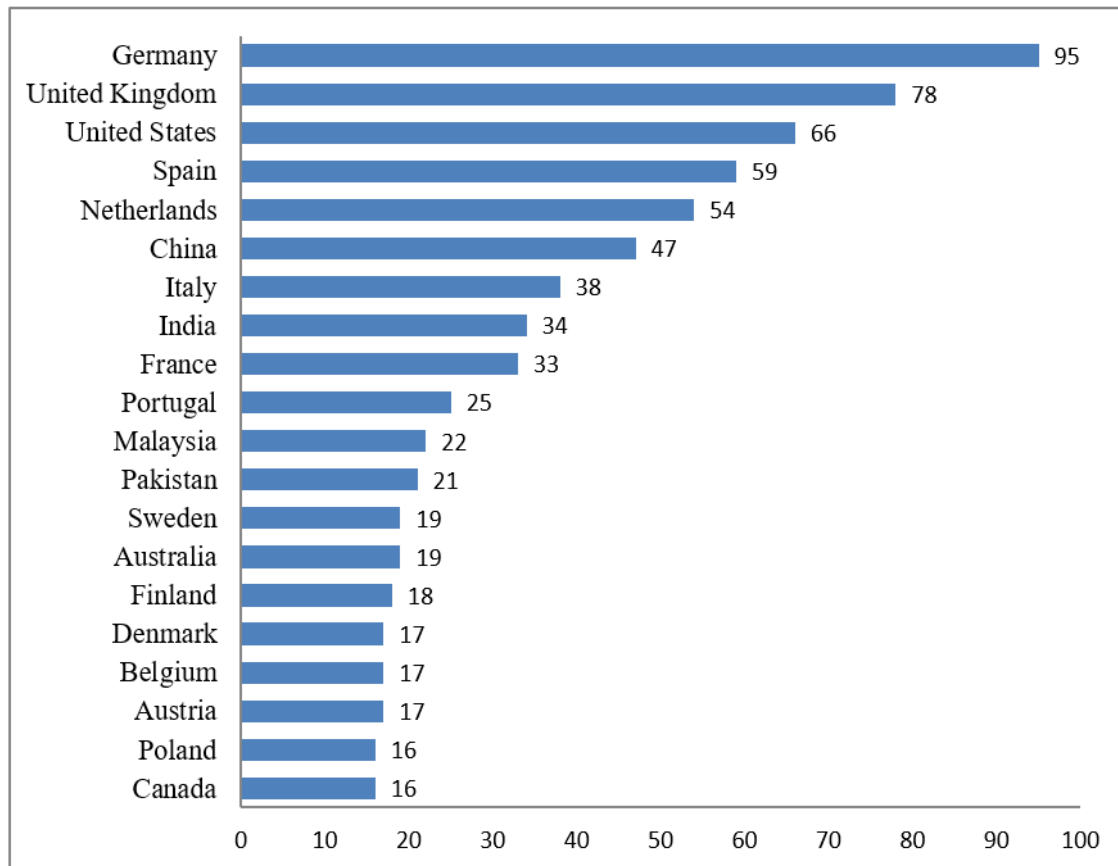
Most Prolific Countries

Germany (95), the United Kingdom (78), and the United States (66) were the top three countries with the highest number of articles publications about sustainable entrepreneurship. These countries have significantly contributed to the research output in the field, indicating their strong interest and engagement in sustainable entrepreneurship research. The data showed a substantial presence of European countries among the top contributors. Spain (59), the Netherlands (54), Italy (38), and France (33) were among the top countries, demonstrating Europe's commitment to sustainable entrepreneurship and its active involvement in research and publications related to the topic.

Asian countries, such as India (34), China (47), Malaysia (22), and Pakistan (21), have also made noteworthy contributions to the field. The study indicated the growing interest and involvement by Asian researchers in sustainable entrepreneurship research, reflecting the region's increasing focus on sustainability and entrepreneurship.

The data highlighted the dominance of European countries featuring among the top contributors. This further underscored the significance of sustainable entrepreneurship in European countries and the region's leadership in generating research into the topic. Several European countries, such as Austria, Belgium, Denmark, and Finland, have a similar number of publications (between 17 and 18); this suggests potential collaboration and knowledge exchange regarding sustainable entrepreneurship among these European nations.

Figure 4. Most Prolific Countries



(Source: Scopus Data Base)

Affiliations Of The Authors

The following table shows the affiliations of the authors. The maximum number of authors were affiliated with the Leuphana University of Lueneburg with 21 authors, which showed why authors from Germany, have done more studies into sustainable entrepreneurship. Furthermore, universities such as the Technical University of Munich and the University of Oldenburg have 12 and 11, respectively. Ten authors were from the University of Oldenburg and the University of Beira Interior. Most of the studies have been done in German, Portuguese, Finnish, and Spanish institutions. Most studies in Germany were carried out in institutions based outside Berlin.

Table 4. Affiliations of the authors

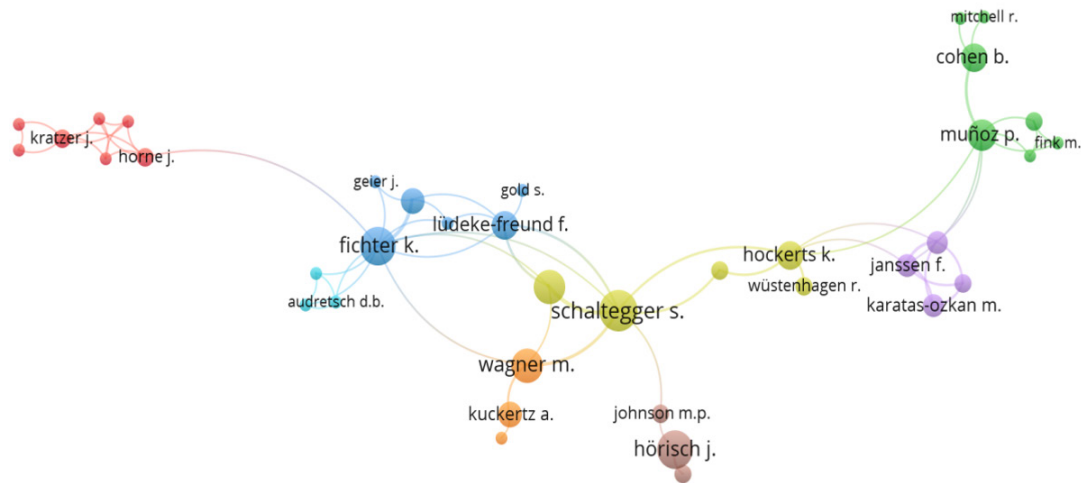
Sr. No.	Affiliations	Country Name	No of Articles
1	Leuphana University of Lueneburg	Germany	21
2	Technical University of Munich	Germany	12
3	University of Oldenburg	Germany	11
4	University Beira Interior	Portugal	10
5	LUT University	Finland	10
6	Technische Universitat Berlin	Berlin	9
7	University de Valencia	Spain	8
8	Wageningen University & Research	Netherlands	8
9	Vrije University Amsterdam	Netherlands	8
10	University Politacnica de Valancia	Spain	8
11	University Utrecht	Netherlands	7
12	Universidad de Almera	Spain	7
13	Copenhagen Business School	Denmark	7
14	Borderstep Institute for Innovation and Sustainability	Germany	6
15	La Trobe University	Australia	6
16	Cz stochowa University Of Technology	Poland	6
17	Julius-Maximilians-University Warzburg	Germany	6
18	University of Hamburg	Germany	6
19	Grenoble Ecole de Management	France	6
20	University of Liverpool Management School	England	6

(Source: Scopus Data Base)

Co-Authorship Network Mapping

The co-authorship connectivity map created by the VOS viewer software is shown here. The image is composed of large and small circles linked by several lines. Authors who have already collaborated with other authors are shown by bigger circles and labels. Furthermore, the figure demonstrates the names of the authors who have collaborated the most with other authors in the data set. Eight clusters were formed in the database. Clusters 1 and 2 each have seven authors. In addition, the other clusters have five or six, or three authors.

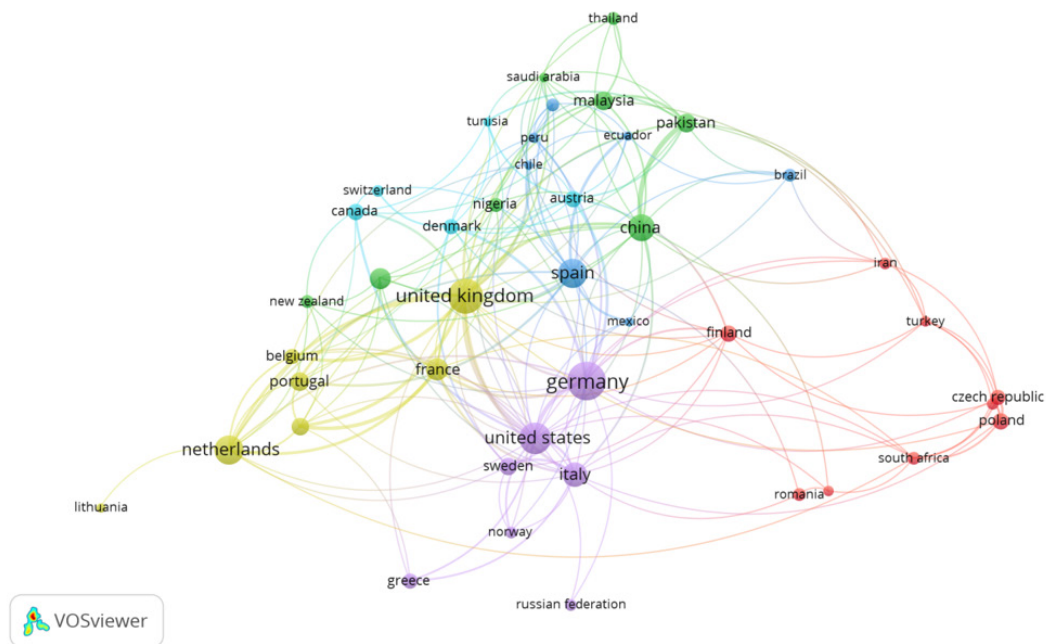
Figure 5. The obtaining fintech dataset process



(Source: VOS viewer)

Country Wise Network Mapping

The figure shows the country-wise detailed network map created with the VOS viewer software. The authors from different countries who have co-authored with other authors are assigned circles and labels. The figure shows the names of the country, which had the greatest number of authors in the data set. In the database, 11 clusters were formed. Clusters 1 and 2 consist of 10 countries each. Furthermore, the other clusters have nine or seven, or eight countries.

Figure 6. Country Wise Network Mapping

(Source: VOS viewer)

Results And Findings

Sustainable entrepreneurship research encompasses numerous academic topics, including entrepreneurship, the environment, international business, and international management, and has been published in more than 100 journals. This article demonstrates that, even though researchers interested in sustainable management and entrepreneurship gave this field its start, sustainable entrepreneurship is currently a mainstream research area that attracts scholars from a wide range of academic fields (Klewitz & Hansen, 2014; Kony, 2019; Terán-Yépez et al., 2020b). Contributions have been made by various nations' educational institutions, and interest in sustainable entrepreneurship is also visible in the geographic and interdisciplinary diversity.

The significance of this research helps to understand the value of sustainable entrepreneurship. The first research question aimed to identify the subject areas, publications, authors, countries, and articles that have had the most significant impact on sustainable entrepreneurship based on the data extracted from Scopus between 2000 and 2022. Through our bibliometric analysis, we identified the most influential subject areas: business, management, accounting, social sciences, environment science, economics, econometrics and finance, engineering, and computer science. These findings indicate the multidisciplinary nature of sustainable entrepreneurship and its intersection with the various domains. The

study had identified reputable journals and conference proceedings that are published in scopus database. The results enable researchers and practitioners to access critical sources for comprehensive and impactful studies.

Furthermore, we pinpointed prolific authors such as Schaltegger, Cohen, Dean, and Hockerts, who have contributed significantly to the literature on sustainable entrepreneurship. Recognizing these influential authors can aid in identifying potential collaborators and mentors, facilitating knowledge transfer, and promoting interdisciplinary research. Geographically, our study revealed the countries that have actively contributed to sustainable entrepreneurship research, such as Germany, the United Kingdom, the United States, Spain and the Netherlands. This information is valuable for policymakers and funding agencies seeking to support and foster research efforts in specific regions. Additionally, we determined the articles with the highest citation counts, indicating their widespread influence on the academic community. These highly cited articles serve as essential references for researchers and provide critical insights into the foundational concepts and ideas for sustainable entrepreneurship.

The second research question delved into identifying recent emerging trends in research into sustainable entrepreneurship that have not yet been explored extensively in previous studies. By analyzing the publication trends over time, we detected novel themes and areas of interest that gained momentum in the later years of our study period (from 2018 to 2022). These emerging trends include but are not limited to circular economy business models, green technology entrepreneurship, sustainable supply chain management, and the role of sustainable entrepreneurship in addressing social inequalities. These nascent research areas offer promising avenues for future investigation and policy intervention as they reflect contemporary concerns and challenges related to sustainable development and entrepreneurship. Scholars and practitioners can effectively leverage these insights to address pressing environmental and social issues.

The third research question sought to identify the subjects that have received the most research attention and investigation into sustainable entrepreneurship. Our bibliometric analysis identified vital themes such as business, management, accounting, social sciences, environment science, economics, econometrics and finance, engineering, and computer science journals that have been extensively studied and the results published. These subjects include sustainable business models, corporate social responsibility, eco-innovation, green marketing, and social entrepreneurship for sustainability. return on assets in the sample period, but the lag of FIN was a negative sign.

The final research question explored how information about sustainable entrepreneurship organized in the academic literature. Our bibliometric analysis revealed common patterns and structures in the literature, such as frequently cited references, networks of co-cited articles and authors, and clusters of related keywords. Understanding the organization of information on sustainable entrepreneurship can assist researchers in navigating the vast body of literature, identifying influential works, and tracking the flow of ideas and research collaborations over time.

This knowledge promotes a more efficient and comprehensive exploration of the existing literature and facilitates the integration of various perspectives in future studies. A thorough understanding of global research into sustainable entrepreneurship and its distribution across subject fields, publications, nations, institutions, and authors is also available to junior and senior researchers. It is significant because it clarifies how corporations and academic researchers continuously expand their knowledge. Finally, this study may be helpful to academics who are already researching this subject, because it makes several recommendations for new areas of investigation.

Conclusion

In conclusion, a bibliometric study on sustainable entrepreneurship provides a comprehensive and up-to-date analysis of the scholarly output in this emerging field. By examining the data extracted from Scopus from 2000 to 2022, we have addressed four research questions that shed light on various aspects of sustainable entrepreneurship. Our study's multidimensional approach to exploring sustainable entrepreneurship research is significant. Unlike previous bibliometric studies, which often focused on either entrepreneurship or sustainability in isolation, we concentrated specifically on the intersection of both fields. This unique perspective allows us to uncover distinct trends, themes, and collaborations characteristic of sustainable entrepreneurship.

The study's objectives are to represent the state of the sustainable entrepreneurship discipline, identify important themes, and identify future research challenges using bibliometric analysis. This work has added to the knowledge about sustainable entrepreneurship and enhanced earlier literature studies. Diverse subject areas have access to sustainable entrepreneurship-specific literature.

However, Scopus was chosen over the other primary database because it contains nearly 84% of the articles in WoS and has more indexed journals than WoS (Klewitz & Hansen, 2014; Terán-Yépez et al., 2020). By choosing Scopus, the chance of missing documents during the search is decreased. Since the investigators determined study periods, the study periods used in the strategic diagrams may also influence the outcomes.

Choosing keywords that can directly influence the study's findings is one of its limitations, as with other bibliometric analyses. However, as we have demonstrated, sustainable entrepreneurship is recognized as a distinct concept that distinguishes it from related ideas. The idea of sustainable entrepreneurship has evolved in recent years to the point that several terms are associated. Choosing one database over another can also lead to limitations because the samples may vary.

This study observes the maximum number of studies related to sustainable entrepreneurship is in Business, Management, and Accounting, with 475 studies. An ultimate paper on sustainable entrepreneurship was published in 2021 with 134 publications. Most of the articles are posted by German authors, resulting in 88 documents in Scopus. The most prolific writers include Schaltegger, Lens, Parayannis, Muoz, and Cohen (Johnson & Schaltegger, 2020; Schaltegger, Hansen, et al., 2016; Schaltegger, Lüdeke-Freund, et al., 2016; Schaltegger & Wagner, 2011). Cohen, Schaltegger, and Wagner are the authors who have contributed the most to the growth of sustainable entrepreneurship research.

The three primary contributing nations are firstly Germany; secondly, the United Kingdom, and thirdly the United States, with a high range of clusters of a growing universal collaboration related to sustainable entrepreneurship research. The study concludes that sustainable entrepreneurship research is a growing trend because the number of publications and citations has increased exponentially over the past ten years. The rise of professional journals, the publication of special issues in very well journal articles, the existing demand for more research, and the increasing significance accorded by different factors such as companies and education institutions are just a few reasons for the enhanced interest in sustainable entrepreneurship.

The study will be beneficial to Managers and entrepreneurs. The comprehensive review of stakeholders, including the author, institution, and country, is constantly increasing to use the management lessons from this study. This review makes it simple to find references that will help them better understand sustainable entrepreneurship. Managers may also gain an idea of managerial interest. For example, they can learn how agents attempt to assist businesses by understanding various phenomena linked to sustainable entrepreneurship.

Managers might observe, for instance, that studies are being conducted to determine why workers' cognitive validity influences how attractive sustainable enterprises are to customers and how sustainable businesses might draw managerial talent. Furthermore, those who see that research is now being performed to understand better the founders of sustainable firms can use this research and how these practices ensure a sustainable entrepreneurial orientation in their businesses. These research findings sought to comprehend how numerous sectors of the economy enforce the transformation from a traditional

to a sustainable business model.

Future research agendas for new and experienced researchers in this field should include a more detailed analysis of the relationship between corporate social responsibility and environmental performance in sustainable development, green human resource management practices, and the advantages of ecological performance for businesses. Another critical area for future research is the industry and innovative technology. In addition, economic and social outcomes and other topics like developing nations and different chances or opportunities for young people are known. However, other subjects, such as sustainable management and business, human resources, etc., require additional research.

Furthermore, it would be beneficial to expand the database coverage and consider a broader range of literature sources in future studies to ensure a more comprehensive analysis. Additionally, exploring the perspectives of practitioners and policymakers through surveys or interviews could provide further insights into the practical implications of sustainable entrepreneurship research. Our bibliometric study is a valuable foundation for scholars and practitioners seeking to advance knowledge and foster sustainable entrepreneurship to address global challenges and promote a more sustainable future.

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