

CHISELING ENTREPRENEURIAL MINDSETS: A SYSTEMATIC LITERATURE REVIEW ON THE ESSENTIAL SKILLS

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ABSTRACT:

In contemporary times, entrepreneurs are held to a higher standard than mere administrators. Entrepreneurship and entrepreneurial activities are gaining importance in this VUCA world. As their significance for both the economy and society has been established, governments across the globe are increasingly endorsing independent activities. Understanding the essential skills that comprise an entrepreneurial mindset is therefore of the utmost importance. The purpose of the systematic literature review is to identify the essential skills that comprise an entrepreneurial mindset. In total, forty-seven research studies were incorporated into the review. The systematic procedure facilitated the examination of research trends throughout the years. Understanding the essential skills necessary to cultivate an entrepreneurial mindset was also made possible by the research. The entrepreneurial mindset has been the subject of numerous studies, but the essential skills demanded in an ever-evolving environment have received even less attention. This research provides an answer to this question and establishes the direction for subsequent investigations. The study is of utmost importance for policy makers as it identifies the essential skills that should be the primary emphasis of educational programs and activities designed to foster an entrepreneurial mindset.

Key Words: *Entrepreneurial Mindsets, Skills, Entrepreneurship, Systematic Literature Review*

1. INTRODUCTION

According to Bosman (2019) Technical skills are needed, but you also need to be curious, be able to put together pieces of information to find answers, and be focused on creating value. These are all traits of an entrepreneurial mindset. Success in today's fast-paced, highly competitive business world requires an entrepreneurial mindset and the acquisition of essential skills. This is true whether one is an entrepreneur launching a new firm or an employee aiming to innovate and drive development inside an existing organization. By definition, the entrepreneurial mindset is "the inclination to discover, evaluate and exploit opportunities (Bosman & Fernhaber, 2018). An entrepreneurial mindset is more than just starting a business. It also means being proactive, creative, and focused on opportunities when fixing problems and making decisions. Entrepreneurship leads to new ideas, jobs, and economic growth (Kritikos, 2014). It is generally acknowledged that entrepreneurial activities hold significant economic value. It drives new jobs, commerce, ideas, technology, and goods (Arzeni, 1998; Audretsch, 2007; Birch, 1987; Kirchoff, 1997). Given its relevance, it is not unexpected that much work has been put into understanding what can assist such actions (Davis et.al.,2016).

Research studies show that entrepreneurship is not an inborn trait but one that can be entrepreneurial mindset can be learned and developed (Naumann,2017). But those sparks and drivers need to be set off by someone with a business attitude. People have been interested for a long time in the psychological traits, motives, attitudes, and actions that make someone an entrepreneur and help them be successful. Since studying entrepreneurial thinking, entrepreneurship researchers have wondered why some individuals recognize opportunities and others don't. Studies have indicated that entrepreneurial mindset can be developed. And if it can be developed there has to be certain skills that foster the entrepreneurial mindset. Some researchers say that training these skills is one way to get students ready for the uncertain needs of society and the job market in the coming decades

(Murgatroyd, 2010; Sahlberg & Oldroyd, 2010). It is now generally accepted that an entrepreneurial mindset helps leaders create value by "recognizing and acting on opportunities, making decisions with limited information, and remaining adaptable and resilient in conditions that are uncertain and complex," said Rowena Barrett, pro vice-chancellor for entrepreneurship at the Queensland University of Technology.

Despite an increased focus on developing and understanding entrepreneurial mindsets, the studies on the necessary skills that led to this mindset remain nascent. Many studies focus on entrepreneurs' human capital as success criteria for new enterprises, but little is known about the drivers of entrepreneurial skills needed to establish a business (Stuetzer et.al., 2013). To fill this research void, this systematic literature review was conducted. The primary objective of this research is to synthesize the existing body of literature concerning the entrepreneurial mindset and the requisite skills. The research study seeks to identify the skills that must be developed in order to cultivate an entrepreneurial mindset. The research will serve to establish a definitive course regarding the essential skills demanded. Additionally, it seeks to determine future research agendas through the identification of research gaps within the studies.

2. LITERATURE REVIEW:

McGrath and MacMillan (2000) defined "entrepreneurial mindset" as "the ability to sense, act, and mobilize under uncertain conditions." According to them, entrepreneurs stay alert to new opportunities, but do not pursue all of them at the same time. Instead, they are aware of their scarce resources and strictly focus them on those projects which are aligned with their strategy and promise the highest return. Implementing these projects requires them to be adaptive to the evolving reality to ensure the best exploitation of opportunities. For this, they leverage their existing internal and external social networks (McGrath & MacMillan, 2000).

The entrepreneurial mindset is defined as a feeling or tendency to provide a critical and creative thinking ability (Nabi et al., 2017). Research studies have indicated that entrepreneurial mindset is related to self-competence (Haynie et al., 2010). And the self-competence of individuals depends upon the psychological factors Solesvik et al. (2013); Westhead and Solesvik (2016). A study by Lindberg et al. (2017) also said that understanding how people act and what they do as entrepreneurs is an important part of having an entrepreneurial mindset. Entrepreneurial mindset has also been linked to knowledge, experience, creative thinking, problem-solving, looking for opportunities, attitudes, and beliefs (Pfeifer et al. (2016) and Zupan et al. (2018). The entrepreneurial mindset is linked with the individual's thinking ability, looking for opportunities instead of obstacles, and offering ideas in overcoming solutions rather than complaints (Naumann, 2017; Davis et al., 2016). Which leads to the conclusion that the entrepreneurial attitude can be strengthened. (Cui et al., 2019; Daniel, 2016).

The "entrepreneurial mindset" can be analyzed from two perspectives. In relation to commercial activities, it involves groups and individuals who create marketable products and services or are entering different phases of establishing and managing a company. These activities hardly overlap with the educational activities of young people in primary education. The second position, which has been gaining in prominence in the last decade turns the spotlight on the promotion of creative and innovative problem-solving as a universally applicable skill (Neck & Greene, 2011; Sarasvathy & Venkataraman, 2011).

Haynie and Shepherd (2007, p. 9) argued that entrepreneurial mindset is an outcome of meta-cognitive awareness as it is the "ability to adapt thinking process to a changing context and task demands". In 2010 Shepherd et al., further refined their definition and suggested that the "ability to rapidly sense, act, and mobilize" is a response to a decision made under uncertainty to exploit an

opportunity. Baron (2014) stressed the uniqueness that entrepreneurs create by the way they "think, reason, make decisions, plan and set goals". They are able to connect apparently unrelated patterns through the use of their internal frameworks, which are shaped by experience, knowledge, heuristics and networks. The environments they are in make a different way of thinking necessary. When they translate their ideas into reality they do not use usual cause- and effect logics, but connect information in a different way (Baron, 2014). McMullen and Kier (2016, p. 664) agree by stating that the EM is the "ability to identify and exploit opportunities without regard to the resources currently under their control".

These definitions hereby make entrepreneurial mindset a skill that can be developed. In our research study we are centering our focus on the definition as given by). Davis et al., (2016) stated that EM is a "constellation of motives, skills, and thought processes that distinguish entrepreneurs from non-entrepreneurs".

Entrepreneurship skills are the traits and skills that allow people to find, build, and go after business opportunities that will help them succeed (Baron and Markman, 2000). People who want to start and run their own businesses need to have strong entrepreneurship skills. These skills include many different abilities, such as being creative, coming up with new ideas, taking risks, and being able to spot and take advantage of chances. Entrepreneurs must pitch their ideas, close deals, and develop ties with customers, suppliers, and investors, so effective communication and networking skills are also crucial. Strong financial management skills are also needed to make budgets, make predictions, and keep track of cash flow. Problem-solving and decision-making skills are also very important for businesses because they have to deal with problems and unknowns quickly and effectively. As such, entrepreneurship skills are necessary to get through the tricky parts of starting and running a business in today's market.

3. MATERIAL AND METHOD

It was discovered through a review of the relevant literature that the entrepreneurial mindset is subject to numerous definitions. According to studies, entrepreneurship is a skill that can be learned rather than something that comes naturally to people. Because of this, mapping is needed to find the skills that make up this entrepreneurial mindset. In order to bring together various points of view and aspects of the entrepreneurial mindset, this research study also tries to find connections between the entrepreneurship mindset and the skills needed. The other goal of this study is to find the gaps in the research so that research fans can come up with answers in the future.

These inclusion criteria were set before the search for appropriate research works and the inclusion criteria were decided. The factors for elimination were also chosen to cut down on wasted time and effort. A thorough literature review was done to see how much writing was already out there on the subject. This is how the research study does its job. We did a full search using the keywords “entrepreneurial mindset” and “skills,” which led to a considerable number of research studies. It was possible to find more key terms in these studies by looking at their titles and keywords. This helped make a better list. Also, the list was looked at more closely to see if the key terms were used in the news and study. The writing that was already out there on the subject was looked at using the Google Scholar search engine database. The final list had 47 study papers that were all about having an entrepreneurial mindset and skills. The parts of these research studies were looked at, and it was decided that the parts about the release year, study type, focus area, key skills, and results would be taken from these research studies.

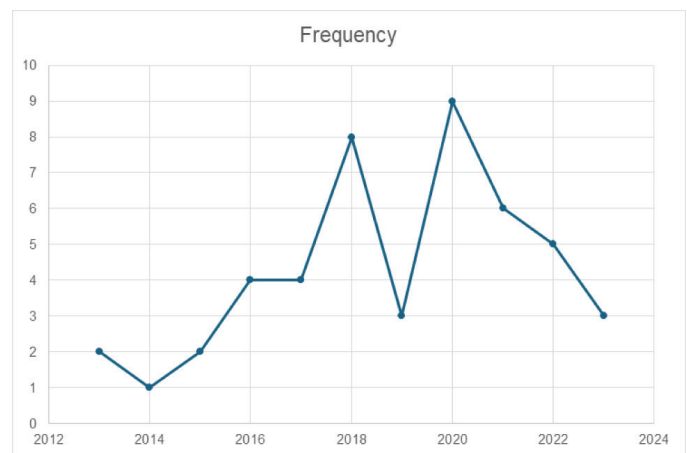
4 FINDINGS AND DISCUSSION

4.1 trend analysis of research

There were 47 research studies included in this systematic review of the literature. A trend analysis was performed by examining the prevalence of these research studies conducted in the past few years. An increasing level of attention has been observed towards the domains of interpreneur mindset and

interpreneur skills. As the significance of interviews has progressively come to be acknowledged over time, researchers’ curiosity regarding the characteristics of an entrepreneur has grown. The growing quantity of research studies serves as an indication of the unresolved inquiries that academia endeavors to address in order to benefit the industry.

Figure 1 Trend Analysis of Research

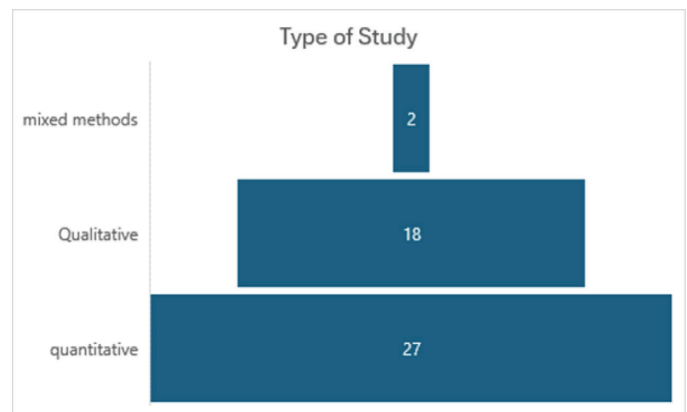


Source: Developed for the purpose of the study

An illustration of the number of studies conducted throughout the course of time can be found above. Between the years 2018 and 2020, there was a growing interest in the academia regarding entrepreneurial mindset and skills. It is also possible to observe that the level of interest has been steadily increasing over the course of the years.

4.2 Types of studies undertaken

Figure 2 Types of studies undertaken



Source: Developed for the purpose of the study

The categories of studies conducted are depicted in the figure above (Figure 2). An observation was made that the majority of research conducted to examine the entrepreneurial mindset was quantitative in nature. Additionally, qualitative research was being conducted; however, it primarily consisted of exploratory case studies targeting particular regions or occupations. A total of two investigations have been conducted employing hybrid methods.

4.3 Word Cloud of key words used.

The emergence of the word cloud concept in recent years has facilitated comprehension of which keywords are most frequently employed in research studies. On the basis of the keywords utilized in the reviewed research studies, a word cloud was generated. The findings are illustrated in Figure 3 that follows.

Figure 3 Word Cloud of key words used.



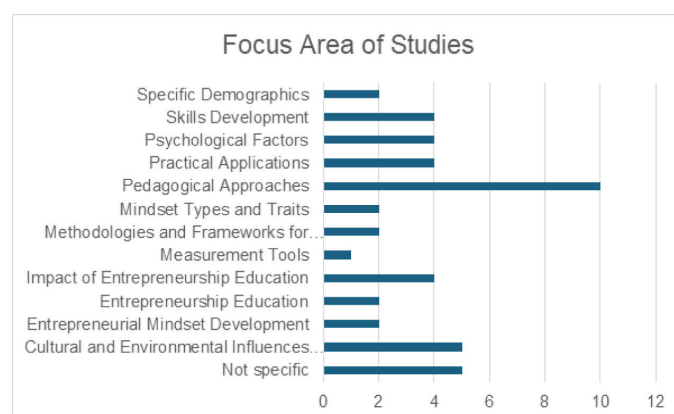
Source: Developed for the purpose of the study

The word cloud that is produced provides an overview of the primary variables that comprise the world-based research studies that are being evaluated(Figure 3). Evidently, their education and analysis of entrepreneurial intent had been the primary focus, as had been the development of their mindset. Furthermore, the studies looked into the skills that are needed and can be learned through a

variety educational program. These terms show that there is a lot of focus on learning and understanding the attitude and skills needed to be an entrepreneur, as well as the part that education plays in encouraging people to be entrepreneurial. Other buzzwords that are often used are those that are specific to being an entrepreneur, like spotting opportunities, managing risks, and growing a business. Overall, the terms show that the focus is on learning about the business world from a psychological, educational, and practical point of view.

4.4 Focus Area of Studies

Figure 4 Focus Area of Studies.



Source: Developed for the purpose of the study

The illustration above (Figure 4). shows that the educational methods to learning the entrepreneurial mindset and skills necessary for business have been the main focus of the studies under review. After this, studies were done to try to figure out how culture and surroundings affect the desire to be a business. Another big area of study has been how entrepreneurs improve their skills, what psychological factors affect their willingness to take risks, how business schooling affects them, and how these ideas can be used in real life. A smaller number of studies have looked at how to measure a business attitude and the skills that are needed.

4.5 Skills identification and categorisation

Table 1: Categories of skills

Category	Skills	Authors
Professional Skills	Self-reflection, Collaborative problem-solving, Opportunity identification, Strategic planning, Managing ambiguity, Resolution of problems and decision-making, Transformational leadership, Clear and visual communication, Teamwork and networking, Digital communication	(Korte et al., 2018; Balachandra, 2019; Aima et al., 2020; Bekki et al., 2018; Gubik & Bartha, 2021; Jardim, 2021; Hassan et al., 2022)
Technical Skills	Opportunity identification, Creativity, Innovative thinking, Financial literacy	(Zupan et al., 2018; Colombelli et al., 2022)
Management Skills	Careful planning, Strategic implementation	(Blake Hylton et al., 2020)
Social Skills	Communication, Teamwork	(Costin et al., 2018; Pollard & Wilson, 2014)
Personal Skills	Curiosity, Self-reflection, Confidence, Resilience, Creativity, Initiative, Risk-taking, Happiness, Gratefulness	(Mukhtar et al., 2021; Ikonen & Nikunen, 2019; Morris & Tucker, 2023; Subramaniam & Shankar, 2020)
Educational Skills	Decision-making, Risk management, Problem-solving, Attitude, Self-efficacy, Inspiration	(Wardana et al., 2020; Cui et al., 2021; Burnette et al., 2020; Saptono et al., 2020)
Mindset Skills	Entrepreneurial mindset, Growth mindset	(Daspit et al., 2023; Billingsley et al., 2023)

Source: Developed for the purpose of the study

Professional Skills: These skills are essential for navigating the professional world and include self-reflection, collaborative problem-solving, strategic planning, managing ambiguity, resolution of problems and decision-making, transformational leadership, clear and visual communication, teamwork and networking, and digital communication (Aima et al., 2020).

Technical Skills: Technical skills are specific abilities and knowledge required to perform tasks related to a particular field or industry. In the context of entrepreneurship, technical skills might include identifying business opportunities, being creative in product development, and thinking innovatively to solve complex problems. Financial literacy is also crucial for managing the financial aspects of a business effectively (Colombelli et al., 2022).

Management Skills: Management skills involve the ability to plan, organize, lead, and control resources to achieve specific goals or objectives. In entrepreneurship, careful planning and strategic implementation are vital for launching and growing a successful venture. Entrepreneurs must be adept at managing resources, time, and people to drive their business forward (Blake Hylton et al., 2020).

Social Skills: Social skills are interpersonal abilities that enable individuals to interact effectively and harmoniously with others. In an entrepreneurial context, communication and teamwork are essential for building relationships with stakeholders, collaborating with partners, and leading teams towards common goals (Wongpreedee et al., 2015).

Personal Skills: Personal skills refer to qualities and traits that individuals possess and develop to manage themselves and their relationships effectively. These skills include curiosity, self-reflection, confidence, resilience, creativity, initiative, risk-taking, happiness, and gratefulness. Entrepreneurs need these personal qualities to navigate the challenges of entrepreneurship, take calculated risks, and bounce back from setbacks (Ikonen & Nikunen, 2019).

Educational Skills: Educational skills encompass the knowledge, attitudes, and self-efficacy gained through formal education and learning experiences. Decision-making, risk management, attitude, and self-efficacy are critical for aspiring entrepreneurs to develop as they navigate the complexities of starting and running a business (Wardana et al., 2020).

Mindset Skills: Mindset skills refer to the attitudes, beliefs, and perspectives that shape how individuals approach challenges and opportunities. An entrepreneurial mindset emphasizes qualities such as resilience, adaptability, growth mindset, and a willingness to take risks. Developing this mindset is crucial for aspiring entrepreneurs to overcome obstacles, seize opportunities, and achieve success in their ventures (Handayati et al., 2020). These skills are essential for success in the modern, technology-driven world and include critical thinking, communication, collaboration, creativity, adaptability, and digital literacy. In entrepreneurship education, fostering these skills prepares individuals to thrive in a rapidly evolving business landscape (Ghafar, 2020).

4.6 Analysis of key findings from studies

Table 2: Analysis of key findings from studies

Category	Key analysis
Entrepreneurial Skills and Mindset Development Through Education	Simulation games, empathy, arts entrepreneurship education, interdisciplinary approaches, Challenge-Based Learning programs, and growth mindset interventions enhance skills like decision-making, risk management, problem-solving, communication, and teamwork, while also influencing entrepreneurial self-efficacy and attitude.
Role of Entrepreneurial Mindset in Innovation and Problem-Solving	Entrepreneurial mindset, distinct from managerial, offers a competitive edge by fostering people-oriented, purpose-oriented, and learning-oriented mindsets, enabling individuals to introduce innovations into communities.
Entrepreneurial Skills and Mindset in Different Contexts	Successful women waste recycling entrepreneurs exhibit an entrepreneurial mindset that promotes environmental care, learning, and creativity, which positively impacts SMEs’ performance through innovation and business alertness.
Impact of Educational Methods on Entrepreneurial Mindset	Intervention methods enhance participants’ perception of opportunity identification and creative capabilities, while effective Entrepreneurially Minded Learning activities enhance entrepreneurial behavior and self-efficacy.
Impact of Cultural and Environmental Factors on Entrepreneurial Mindset	Cultural and environmental factors significantly impact entrepreneurial mindset and preparation, with the field of study and ecosystem evaluation positively influencing students’ entrepreneurial intentions.
Entrepreneurial Mindset in Poverty Alleviation	- Entrepreneurship offers significant potential as a poverty-alleviation tool.

Source: Developed for the purpose of the study

The above table (table 2) helps in consolidating the key learnings of the studies that were under consideration. From the analysis 6 main themes had emerged. Regarding entrepreneurial skills and mindset development through education, it was found by Korte, Smith, and Li (2018), that empathy is a key part of being an entrepreneur because it helps you understand how other people feel, think, and experience things. The study by Wardana et al. (2020) shows that educational factors affect a person's business self-efficacy, attitude, and thinking. In order to help people acquire a creative mindset, entrepreneurship education aims to improve their skills, attitudes, and abilities (Pollard & Wilson, 2014). According to Lindberg et al. (2017), challenge-based learning programs improve the attitude and skills of entrepreneurs, including their ability to plan, be creative, and understand money. To solve complicated problems, we need to use methods from different fields and work together to learn, which encourages self-directed and active participation (Zupan, Cankar, & Setnikar Cankar, 2018). Helping students develop a business mindset, like growth mindset treatments, can boost their confidence in their ability to succeed and keep at their work (Burnette et al., 2020).

The studies aimed at understanding the role of entrepreneurial mindset in innovation and problem-solving it was found that an entrepreneurial mindset is characterized by its potential to generate a competitive advantage over a managerial mindset (Daspit, Fox, & Findley, 2023). According to Subramaniam and Shankar (2020), entrepreneurial leaders cultivate perspectives that are focused on learning, people, and purpose, which empowers them to effectively navigate situations characterized by uncertainty and ambiguity. By recognizing and comprehending the desires and requirements of community constituents, individuals with an entrepreneurial mindset are capable of introducing innovations into their respective communities (Korte, Smith, & Li, 2018).

Asenge et al. (2018) found that the performance of small and medium-sized enterprises (SMEs) is enhanced by the entrepreneurial mindset via inventiveness, originality, and business vigilance. In

addition to environmental stewardship, intellectual growth, spirituality, ingenuity, and innovation, prosperous female waste recycling entrepreneurs exhibit an entrepreneurial mindset (Latukismo et al., 2021).

Studied analysing the impact of educational methods on entrepreneurial mindset like that of Hassan et al. (2022) found that entrepreneurial behavior and self-efficacy are both enhanced by EML activities that are truly effective. According to Lindberg et al. (2017), the implementation of intervention strategies has a beneficial effect on the way in which participants perceive the identification of opportunities and their creative capacities.

Sustainableto et al. (2020) in understanding the impact of cultural and environmental factors on entrepreneurial mindset, discovered that entrepreneurial preparation is impacted by cultural and environmental factors that influence the entrepreneurial mindset. Furthermore, a positive correlation was observed between the academic discipline and students' intentions to pursue entrepreneurship, as well as their assessment of the entrepreneurial ecosystem (Gubik & Bartha, 2021).

According to Morris and Tucker (2023), research indicates that entrepreneurship possesses considerable capacity to alleviate poverty, given that individuals living in distress establish both formal and informal enterprises. The significance of education, the cultivation of an entrepreneurial mindset and skills, which are vital for problem-solving, economic growth, and innovation, is underscored by these results. Additionally, cultural and environmental influences are noteworthy in this regard.

5.CONCLUSION:

It is evident, based on the presented findings, that academic interest in the entrepreneurial mindset and skills increased significantly between 2018 and 2020. As evidenced by the increased number of studies conducted over time, interest has increased consistently. While the majority of research on entrepreneurial mindset has been quantitative

in nature, exploratory case studies in particular regions or occupations have been the subject of qualitative research. Limited research has utilized mixed methodologies. Education and the analysis of entrepreneurial intent, in addition to the development of an entrepreneurial mindset and set of skills via educational programs, have been the primary focus of these studies.

There is a significant emphasis on acquiring knowledge and comprehending the mindset and skills necessary to be an entrepreneur, as well as the function of education in fostering entrepreneurship. The use of buzzwords such as opportunity identification, risk management, and business expansion demonstrate a pragmatic and psychological approach to understanding the business world.

Following the impact of culture and environment on entrepreneurial aspirations, the educational methods for acquiring an entrepreneurial mindset and set of skills have been a major subject of research. Additionally, there is a focus on comprehending how entrepreneurs develop their skills, the psychological determinants that influence their propensity for taking risks, the consequences of business education, and the pragmatic implementation of these concepts in real-world situations.

A growing interest in comprehending and cultivating the entrepreneurial mindset and skills, with an emphasis on education, psychology, and practical application, is underscored by the reviewed studies. The significance of these factors in promoting entrepreneurship and tackling obstacles in the business realm is widely acknowledged.

The analysis of research studies makes it clear that people who want to be excellent entrepreneurs need to have certain skills. There are many types of these skills, such as career skills, technical skills, management skills, social skills, personal skills, educational skills, and thinking skills. Each of these skills is very important for starting and growing an entrepreneurial mindset and the career success you would like to have. Professional skills like self-reflection, working with others to solve problems, effective planning, and clear communication are

necessary to get ahead in the business world. To put business ideas into action well, you need technical skills like being able to spot opportunities and understand money. To plan, organize, and lead teams to reach business goals, you need to have management skills. It's important to have social skills like conversation and teamwork if you want to make friends and work with others. Personal skills, like being resilient, creative, and willing to take risks, are necessary to deal with problems and adjust to new situations. The information, attitudes, and self-efficacy that you learn from school are all examples of educational skills. These are very important for people who want to start their own business. Mindset skills, like having a growth mindset and being resilient, are important for keeping a positive mood when facing problems and seizing chances. When someone is an entrepreneur, they often have to deal with doubt and misunderstanding, so these skills are especially important.

The studies suggest that learning these skills through schooling and other situations can greatly improve a person's entrepreneurial mindset and raise their chances of success in business. The value of knowing these influences in promoting entrepreneurship is highlighted by the fact that culture and environmental factors play a major role in influencing entrepreneurial mindset and behavior.

Future Scope: As there has been seen that the number of coordinate studies on analysis of 11 of skills, future quantitative studies can be undertaken to analyse the label of these qualities in an individual and methods to develop these excise in individuals. As our research has led to the identification of skills future studies can be undertaken to analyse pedagogy method to inbuilt these skills. And analyse the impact of these still generations on internal mindset.

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