Entrepreneurial spirit, employee maturity, and work environment towards entrepreneurial mindset framework

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Abstract

This study aimed to evaluate the entrepreneurial spirit, employee maturity, and work environment of employees in Chinese engineering enterprises which was made the basis in developing an entrepreneurial mind-set framework for employees. Descriptive research was adopted in the study using self-made questionnaire. The self-made questionnaire in this study allowed the researcher to collect specific and relevant data on entrepreneurship, employee maturity, and work environment, providing valuable information for the study. The 505 managerial and non-managerial employees were selected as respondents in the 50 engineering firms because they represented different levels within an organization and may have different perspectives on entrepreneurial thinking. Managerial and non-managerial employees have different roles and responsibilities within an organization. Based from the results, the respondents had moderate agreement on their entrepreneurial spirit as to vision and drive, leadership and proactivity. They demonstrated a solid foundation in their maturity as to their self-management, adaptability and resilience. There was moderate level of agreement on the respondents work environment as to physical, social and cultural environment. A significant relationship was revealed between entrepreneurial spirit, employee maturity and work environment. Lastly, an entrepreneurial mindset framework was developed for employees in Chinese engineering companies.

Keywords: entrepreneurial spirit, employee maturity, work environment, entrepreneurial, mindset framework

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1. Introduction

In recent years, the entrepreneurial ecosystem has witnessed a significant transformation, with increasing emphasis on fostering an entrepreneurial spirit within individuals and organizations. The convergence of entrepreneurial spirit, employee maturity, and work environment plays a crucial role in nurturing an entrepreneurial mindset framework. This study aims to explore the interplay between these three constructs and their impact on fostering an entrepreneurial mindset within organizations. Pratiwi et al. (2024) claimed that entrepreneurial spirit refers to an individual's inclination to engage in entrepreneurial activities, characterized by innovation, risk-taking, and proactive behavior. However, the factors influencing entrepreneurial spirit and its development remain an area of interest for researchers and practitioners alike. In today's rapidly changing economic environment, entrepreneurial activities are seen as a key driving force for economic growth and innovation. Entrepreneurial spirit is not limited to entrepreneurs, it can also be reflected in the thinking patterns and work attitudes of employees within the organization.

Employee maturity encompasses the level of professional and emotional development exhibited by individuals within an organization. Employee maturity is closely related to the ability to adapt to change, embrace innovation, and take calculated risks, which are essential components of an entrepreneurial mindset. Further, Jiang et al. (2022) analyzed goal setting and expectation management: Employee maturity refers to the ability, knowledge, and experience level of employees in their work. Performance management requires setting appropriate goals and expectations based on the maturity level of employees. For employees with higher maturity, higher goals and expectations can be set to encourage them to unleash their potential; For employees with lower maturity, more challenging but achievable goals can be set to help them grow and improve. The level of employee maturity can affect their performance and results in the workplace. For employees with higher maturity, more detailed and in-depth evaluations can be conducted, including the evaluation of their professional knowledge and skills. Employee maturity is of great significance for the formulation of development plans and training. Performance management can determine employees' needs and opportunities in their career development direction by assessing their level of maturity. For employees with higher maturity, higher level training and development opportunities can be provided to help them further improve their abilities and level; For employees with lower maturity, basic training and coaching can be provided to help them establish necessary skills and knowledge. Employee maturity also has an impact on the design of incentive and reward mechanisms. Performance management can determine appropriate incentives and rewards based on the maturity level of employees. For employees with lower maturity, simple but meaningful rewards can be provided to encourage them to actively participate and improve.

The work environment, including physical and social environments, has a profound impact on employees' mentality and behavior. A supportive work environment can promote the development of entrepreneurial mindset as it encourages innovation, tolerates failure, and provides necessary resources The work environment plays a critical role in shaping employees' behavior and mindset. Recent studies have also focused on the impact of work environment on entrepreneurial outcomes. Jiang et al. (2022) highlighted the role of resource availability and leadership in fostering an entrepreneurial work environment. Bumann et al. (2019) claimed that entrepreneurial spirit and performance management promote each other. Entrepreneurial spirit stimulates employees' innovation and enthusiasm, while performance management ensures the realization and sustainable development of entrepreneurial spirit by setting goals, evaluating performance, managing risks, and providing rewards. A good work environment and positive work atmosphere can improve employee morale and work motivation, thereby having a positive impact on performance. A positive, supportive, and collaborative work environment can

promote employee engagement and engagement, stimulate employee creativity and teamwork spirit, and ultimately improve overall performance levels (López-Cabarcos et al., 2022).

This study aimed to contribute to the existing literature by investigating the interplay between entrepreneurial spirit, employee maturity, and work environment towards an entrepreneurial mindset framework. By integrating these constructs, the researcher hope to provide valuable insights for organizations seeking to cultivate an entrepreneurial culture and promote innovation-driven growth. This study aimed to explore the impact of three key factors, namely entrepreneurial spirit, employee maturity, and work environment, on the entrepreneurial mindset framework. Through a comprehensive analysis of relevant theories and empirical research, this paper proposed an integrated model and discussed how these factors interacted to jointly shape entrepreneurial attitudes. The introduction section of this paper provided an overview of the research background, research questions, and research objectives, and proposed the theoretical framework for the study.

Objectives of the Study - This study aimed to evaluate the entrepreneurial spirit, employee maturity, and work environment of employees in Chinese engineering enterprises which was made the basis in developing an entrepreneurial mind-set framework for employees. Specifically, it aimed to determine the entrepreneurial spirit as to vision and drive, leadership and pro-activeness; assessed the employee maturity in terms of self management,adaptability, self-awareness and resilience; described the work environment as to physical environment, social environment, cultural environment; tested the significant relationship among entrepreneurial spirit, employee maturity and work environment and developed an entrepreneurial mind-set framework among employees in engineering companies.

2. Method

Research Design - This study adopted a descriptive research paradigm to analyze the collected data, with questionnaire surveys serving as the core means of data acquisition. Descriptive research, as a research strategy, focuses on examining existing relevant facts, data, and information, aiming to provide a detailed overview of specific scenarios, individuals, or events. The objective of this design is to identify correlations, relationships, and discrepancies among three chosen variables,and to methodically and accurately delineate the truths and traits of a specified group.

Participants of the Study - The participants of this study were 505 employees from large and medium-sized engineering enterprises in Guiyang, Guizhou Province, China The engineering enterprises used were those which employed more than 100 employees. Employees included administrative personnel, logistics personnel, and on-site engineers.

Instrument of the Study - Questionnaires were the main tool for data collection. The questionnaire was validated before data collection began. The questionnaire underwent additional review by experts in the field before being used to collect data online from selected respondents. This study used the Wenjuanxing software to distribute survey questions online and collect survey results. The reason for using Questionnaire Star and why survey questionnaires are widely used is mainly due to the following reasons: Questionnaires can collect information in a standardized manner, ensuring that all participants are asked the same questions, making it easier to compare and analyze. The questionnaire can be distributed through multiple channels, such as online, mail, face-to-face, or telephone access, which enables data collection across a wide geographic area and different populations. It can provide anonymity, which helps encourage participants to answer sensitive or personal questions more honestly. Questionnaire design is usually designed to facilitate subsequent data input and analysis, and statistical software can be used for fast and effective data processing. Further, the questions can be customized according to the research objectives and the needs of the target population, including the type, order, and content of the questions. Participants can fill out questionnaires at a time that is convenient for them, without the need to coordinate time directly with researchers.

The sample data of the preliminary questionnaire was used for item analysis and reliability and validity

evaluation of each scale, while the formal questionnaire sample data was for descriptive analysis and hypothesis testing.

Table 1

Reliability Summary Table

Indicators	Cronbach Alpha	Remarks
	.977	
Entrepreneurial Spirit, Employee maturity and Work Environment Instrument		Excellent
Per variable		
Entrepreneurial Spirit	.947	Excellent
Vision and drive	.885	Good
Leadership	.848	Good
Proactiveness	.888	Good
Employee maturity	.967	Excellent
Self management	.919	Excellent
Adaptability	.928	Excellent
Resilience	.879	Good
Work Environment	.962	Excellent
Physical environment	.883	Good
Social Environment	.917	Excellent
Cultural environment	.883	Good

George and Mallery (2003) provide the following rules of thumb: "_ > .9 – Excellent, _ > .8 – Good, _ > .7 – Acceptable, _ > .6 – Questionable, _ > .5 – Poor, and _ < .5 – Unacceptable"

Based on result, the Entrepreneurial Spirit, Employee maturity and Work Environment Instrument has an Excellent consistency as demonstrated by the Cronbach's Alpha value of (.947). This was validated by the Excellent remark from Entrepreneurial Spirit (.955); It was confirmed by the Good results from Vision and Drive (.885), Leadership (.848), and Pro-activeness (.888); Also, it was validated by the Excellent remark from Employee Maturity (.967); It was confirmed by the Excellent results from self-management (.769), Adaptability (.929), and Good results from Resilience (.879). It was further validated by the Excellent remarks from (.962); It was confirmed by the Excellent result from Social Environment (.917), and Good results from Physical Environment (.883), and Cultural Environment (.883); Which shows that the instrument at hand passed the reliability index test.

Data Gathering Procedure - The sample data of the preliminary questionnaire was used for item analysis and reliability and validity evaluation of each scale, while the formal questionnaire sample data was used for descriptive analysis and hypothesis testing. The data collection for this study was divided into two stages: pre-test and formal investigation. In the pre testing phase, 36 questionnaires were distributed to engineering enterprises in Guizhou Province, China through online platforms such as WeChat and Wenguanxing in October 2023. The reasons and purposes for conducting content validation and pilot testing on the survey questionnaire was to ensure relevance. The process of content validation ensures that all items (questions) in the questionnaire were closely related to the research topic and objectives. Content validation also helped ensure that the questionnaire can comprehensively and accurately measure predetermined concepts or constructs. Content validation helped identify important questions that may have been missed in the questionnaire, or identify redundant questions, thereby improving the overall quality of the questionnaire. It also enhanced comprehensibility by ensuring that the language and terminology in the questionnaire were clear and easy to understand for the target audience. The content validation also improved acceptance and ensured that the questionnaire content was suitable for the target audience, and increase participants' willingness and acceptance to complete the questionnaire.

The questionnaire was also pilot tested to small group of individuals to check whether the questionnaire design was reasonable, including the order, format, length, and difficulty of the questions. Assessing comprehensibility, testing helped evaluate whether participants can correctly understand the questions in the questionnaire and answer them in the expected way. Pre testing can reveal potential issues in the questionnaire, such as ambiguities, misleading or difficult to understand questions, as well as questions that may lead to

misunderstandings or incorrect answers. Based on the results of the pre-test, the researcher can make necessary modifications to the questionnaire to improve its quality. Through pre testing, it is possible to estimate the time required to complete the questionnaire in order to adjust its length and ensure that it does not exceed the participants' patience and time constraints. Observing participants' reactions in the pre-test helped the researcher understand the acceptance level of the questionnaire and participants' experiences. Testing helps determine the process of the survey, including the best methods for distributing, collecting, and analyzing questionnaires. Through pre testing, the reliability and validity of the questionnaire was improved, ensuring that the final data collection is reliable and effective. Content validation and testing are key steps in the questionnaire design process, which helped ensure that the questionnaire can effectively collect high-quality data to support research conclusions and recommendations. After strict screening, invalid questionnaires were excluded, and ultimately 32 valid questionnaires were obtained. On the premise of confirming that there were no significant issues with the questionnaire design, the formal sample collection was administered with a total of 508 questionnaires distributed. After data cleaning and elimination of invalid questionnaires, 505 valid questionnaires were finally obtained. Both the pre-test questionnaire and the formal questionnaire were distributed online to engineering enterprises in Guizhou, China through platforms such as WeChat and Wenguanxing, and relevant data were collected. All participants were informed of the purpose of the study and ensured that their privacy was protected. They all voluntarily participated in the survey. This study did not include any significant ethical issues.

Throughout the entire process of the survey questionnaire, permission was obtained from the human resources department of the engineering company to manage the employee questionnaire. During the data collection process, the questionnaire was distributed through an online platform, targeting personnel from engineering enterprises in Guizhou Province. All participants voluntarily participated in the survey after fully understanding the research objectives, and were informed during the survey process that their privacy rights would be fully protected. This study strictly adheres to ethical principles and does not involve any significant ethical issues. During this process, the scientific and rigorous nature of the research was ensured.

Data Analysis - To measure entrepreneurial spirit, with an emphasis on vision, drive, leadership, and proactiveness, as well as to assess employee maturity in terms of self-management, adaptability, and resilience, and to describe the work environment by its physical, social, and cultural dimensions, weighted mean and ranking were utilized. The Shapiro-Wilk Test indicated that the p-values for all variables were below 0.05, signifying a non-normal distribution of the data. As a result, Spearman's rho was used as part of the non-parametric test suite to evaluate the significance of the relationships. All data were processed using a statistical software called PASW version 26 to further interpret the study results using alpha levels of 0.05 and 0.01.

Ethical Considerations - The purpose of the study was explained to all participants, and they were guaranteed that their anonymity would be preserved. Consent forms were signed before the data collection commenced. The respondents were also guaranteed that their involvement was entirely optional and that they had the right to leave the study at any stage without facing any negative consequences. Before conducting the study, all participants were fully informed of the purpose, methods, expected outcomes, and potential risks and benefits of the research. The informed consent process ensures that participants can make a decision on whether to participate in the study based on sufficient information. For this purpose, the researchers provided a written consent form before the start of data collection and provided a detailed explanation of all relevant content before signing. This study strictly adheres to privacy protection principles to ensure the security of personal information and data for all participants. In order to protect anonymity, all data is encoded during the collection and analysis process to prevent any information that may identify the participant's identity from being leaked. In addition, the researchers promise not to disclose any personal information to third parties without the consent of the participants. Participants were informed that their participation was entirely voluntary and they could withdraw unconditionally at any stage of the study without suffering any negative consequences as a result. Researchers ensured participants' autonomy and freedom of choice by clearly informing them of their rights in the study. The researchers maintained a high degree of transparency during the data processing. All methods of data collection,

storage, and analysis follow the ethics of scientific research. The release of research results will also follow the principle of transparency to ensure the accuracy and reliability of information. Prior to the commencement of the study, this research protocol has been submitted to the ethics review committee for review and has been approved. The approval of the ethics review committee further ensures that the design and implementation of the study comply with ethical standards.

3. Results and discussion

Table 2

Summary Table on Entrepreneurial Spirit

Key Result Areas	Composite Mean	VI	Rank
Vision and Drive	3.40	Agree	3
Leadership	3.41	Agree	1.5
Proactiveness	3.41	Agree	1.5
Grand Composite Mean	3.41	Agree	

Legend:3.50-4.00=Strongly Agree;2.50-3.49=Agree;1.50-2.49=Disagree;1.00-1.49=Strongly Disagree

Table 2 summarizes the three dimensions of entrepreneurial spirit. The overall composite mean was 3.41 which means that respondents generally agreed with all dimensions cited. The scores for the three dimensions were almost identical. This affirmed the respondents' identification with the three dimensions. As an entrepreneur, one must first have a vision and motivation, followed by excellent leadership as an internal driving force as well as continuously learn and grow, and achieve the success of the enterprise with a proactive attitude.

This implication showed that entrepreneurial spirit and learning can significantly influence innovation. On the other hand, managers should create a conducive work environment to promote proactive, creative, and innovative attitudes among employees. Pratiwi et al. (2024) described entrepreneurship, as a trait that can be learned and taught, marks individuals who have potential as entrepreneurs, although this is not a guarantee of becoming an entrepreneur. Every entrepreneur basically has an entrepreneurial spirit, with main characteristics such as the ability to lead, be independent, work in a team, be creative, innovative, and dare to face risks. As Ahmad et al. (2023) found in their study, the entrepreneurial spirit encourages individuals to be independent and proactive in taking initiatives and managing their businesses. Furthermore, entrepreneurial spirit is not a quality exclusive to entrepreneurs, but can also benefit employees and other individuals in working innovatively and helping organizations achieve their goals more effectively. The three dimensions of vision and drive, leadership, and adaptability are recognized to characterize entrepreneurial spirit. Entrepreneurs with these qualities can face market risks with a positive and optimistic attitude, develop new products, expand new markets, and promote business growth. Entrepreneurial spirit endows business owners with sharp market insight, the ability to seize opportunities for strategic planning, thereby gaining profits and promoting business growth.

Table 3

Summary Table on Employee Maturity

Key Result Areas	Composite Mean	VI	Rank
Self Management	3.40	Agree	3.5
Adaptability	3.40	Agree	3.5
Resilience	3.41	Agree	1
Grand Composite Mean	3.40	Agree	

Legend:3.50-4.00=Strongly Agree;2.50-3.49=Agree;1.50-2.49=Disagree;1.00-1.49=Strongly Disagree

Table 3 summarizes the three dimensions of employee maturity: Self Management, Adaptability, and Resilience. The value of Grand Composite Mean was 3.4, indicating that the credibility values of the three dimensions were very high. The respondents unanimously agreed. Resilience ranked one. Employee maturity is an important indicator for measuring an individual's ability development in the workplace Compared to self management and adaptability, resilience emphasizes the individual's ability to recover in adversity. Resilience may be more effective in coping with work stress than Self Management and Adaptability. When facing pressure,

an individual's resilience can help them maintain calmness and focus, resulting in higher ratings in maturity assessments. At the organizational level, the importance of resilience is reflected in its contribution to organizational resilience. Compared to Self Management and Adaptability, Resilience is better able to help organizations maintain stability and sustain operations in the face of crisis, which may be the reason for its highest score in maturity assessment. Due to the nature of work in engineering companies, most of the working time is spent on construction sites, so employees have a greater demand for flexibility.

On the other hand, the rank of self-management and adaptability was the same. Both had the same score of 3.5. Of course, construction companies can also improve employee maturity through some company management systems. Wang et al. (2024) classified the management level of construction companies into five categories based on their IT applications, considering that the current real name management system for construction workers is unreasonable. In addition to using literature review and project management maturity models, six modules of human resource management were also considered. It solicited expert opinions and evaluated it using different indicators and improved Delphi method. In addition, the Analytic Hierarchy Process (AHP) is used to determine the algorithm and weights for multiple indicators. A system has been established to evaluate the maturity of real name management for construction workers, providing reference for enterprise personnel information management. The maturity of employees has increased, and both personal and company performance will be correspondingly improved. So, employees need to constantly adapt to the environment, challenge difficulties, and have the confidence to overcome everything. Age is a marker of maturity, but it is not the sole determinant. The maturity in question is psychological, not physical. All individuals undergo a journey from immaturity to maturity. Similarly, the average maturity level of employees within an organization has its own trajectory: immature, progressing towards maturity, relatively mature, and ultimately mature. As maturity evolves, there is more demand for belonging, recognition, respect, and talent, and leaders should consider this change in employees. The maturity of employees is like the maturity of a fruit, it cannot be achieved in a day, nor can it be achieved beyond the level. As long as employees follow the four stages of self-restraint, self-management, self-encouragement, and self-learning, they will definitely become mature, optimistic, and capable professionals in the workplace.

Table 4

Summary Table on Work Environment

Key Result Areas	Composite Mean	VI	Rank
Physical Environment	3.38	Agree	1
Social Environment	3.36	Agree	2
Cultural Environment	3.38	Agree	1
Grand Composite Mean	3.37	Agree	

Legend:3.50-4.00=Strongly Agree;2.50-3.49=Agree;1.50-2.49=Disagree;1.00-1.49=Strongly Disagree

Table 4 summarizes the average values of the three dimensions of physical environment, social environment, and cultural environment in the work environment. The physical and cultural environments were relatively high. The overall average value was 3.37, indicating that the respondents unanimously agreed with these three dimensions. The physical environment and cultural environment both ranked first.and received a score of 3.38.

Even when individuals are aware of the job that aligns with their abilities, they must seek out an environment and ambiance that suit them to experience contentment, leverage their strengths effectively, and achieve success. According to a survey, most people prioritize their work environment when asked if their preferred choice is money or environment when choosing a job. A good working environment, understanding and harmonious interpersonal relationships, will be conducive to career development and achieve self realization. Shen et al. (2023) analyzed the role of environmental factors: People will have a certain psychological state towards a certain work environment, and the psychological state determines the competitive state of work and directly affects work efficiency. Therefore, in management work, creating a good working environment is a necessary condition for improving work efficiency. Everyone must work in a cultural environment that suits all, in order to ensure a happy mood and efficient work. Working together in a cultural environment that can

effectively create brilliant performance in order to receive spiritual and material rewards motivates people to move forward. Dalio believed that the most important culture is: creative selection.is requires organizations to be extremely transparent and highly realistic (Sutaguna et al., 2023). In the workplace, a small space can be created where individuals can draw boundaries with the surrounding environment. In this small space, one can temporarily do things unfazed, recharge, and briefly recovery from busy work. The workplace is crucial in work and life, affecting performance and happiness. Although there may have many limitations, in the workplace adjustments can be made to make the place better.

Table 5

Relationship Between Entrepreneurial Spirit and Employee Maturity

Variables	rho	p-value	Interpretation
Vision and Drive			
Self-Management	0.427**	<.001	Highly Significant
Adaptability	0.396**	<.001	Highly Significant
Resilience	0.394**	<.001	Highly Significant
Leadership			
Self-Management	0.364**	<.001	Highly Significant
Adaptability	0.339**	<.001	Highly Significant
Resilience	0.337**	<.001	Highly Significant
Proactiveness			
Self-Management	0.392**	<.001	Highly Significant
Adaptability	0.369**	<.001	Highly Significant
Resilience	0.375**	<.001	Highly Significant

**. Correlation is significant at the 0.01 level

The above table shows the relationship between entrepreneurial spirit and employee maturity. As seen in the table, the computed rho-values ranging from 0.337 to 0.427 indicated a weak to moderate direct relationship among the sub variables of entrepreneurial spirit and employee maturity. There was a statistically significant relationship between entrepreneurial spirit and employee maturity because the obtained p-values were less than 0.01.

The world cannot be changed, but perspectives offer options. In fact, the view of the world, could be adjusted and created to coexist with the world! The key to the miraculous development of the global economy over the past 300 years has been the entrepreneurial spirit, which is a special kind of person who is good at seizing opportunities, integrating resources, building organizations, and creating value. They are able to create something out of nothing, create miracles with small and broad ideas. Today, all are entrepreneurs, and everyone needs the entrepreneurial spirit Dreams, adventures, opportunities, innovation, integration, resilience, altruism. The concept of "maturity" is a key to understanding our current economic situation, enterprise stage, and leadership team construction. Maturity is an important manifestation of entrepreneurial spirit. For an organization, maturity means "ESG", considering the sustainability of business operations and their impact on social values from three dimensions: environment, society, and corporate governance. For an entrepreneur, maturity means "customer, responsibility, pattern, people-oriented, long-term, value, creation, efficiency, balance, altruism, determination, resilience, inheritance..." For an employee, maturity means "career, profession, value, contribution", which means having "a sense of scene, role, responsibility, professionalism, value, achievement, sense of propriety" As an entrepreneur, having a vision and drive requires the premise of self-management. Leadership and pro-activity require adaptability and resilience. These are the qualities that entrepreneurial spirit should possess. Entrepreneurs are also employees of the enterprise. More mature self-management is needed. This resilience can spread throughout an organization, leading to a beneficial organizational dynamic. Additionally, managers can direct their companies towards establishing challenging objectives by fully leveraging their subjective initiative, thereby enhancing the organization's resilience in terms of its cognitive abilities.

Table 6

Relationship Between Entrepreneurial Spirit and Work Environment

Variables	rho	p-value	Interpretation
Vision and Drive			
Physical Environment	0.316**	<.001	Highly Significant
Social Environment	0.336**	<.001	Highly Significant
Cultural Environment	0.352**	<.001	Highly Significant
Leadership			
Physical Environment	0.353**	<.001	Highly Significant
Social Environment	0.363**	<.001	Highly Significant
Cultural Environment	0.389**	<.001	Highly Significant
Proactiveness			
Physical Environment	0.357**	<.001	Highly Significant
Social Environment	0.387**	<.001	Highly Significant
Cultural Environment	0.399**	<.001	Highly Significant

**. Correlation is significant at the 0.01 level

The above table shows the relationship between entrepreneurial spirit and work environment. As seen in the table, the computed rho-values ranging from 0.316 to 0.399 indicated a weak direct relationship among the sub variables of entrepreneurial spirit and work environment. There was a statistically significant relationship between entrepreneurial spirit and work environment because the obtained p-values were less than 0.01.

Entrepreneurial spirit, as an important intangible production factor in the growth process of enterprises, is the essence of entrepreneurship. The integration of comprehensive skills and the advancement of organizations are intertwined with the influence of entrepreneurial spirit. Their individual traits significantly influence the development of a firm's dynamic capabilities. Entrepreneurship inspires individuals to efficiently and promptly address the issues confronting organizations, enabling them to more effectively navigate challenges and changes. Moreover, by enhancing organizational resilience, entrepreneurial spirit fosters and enhances a company's adaptability to the environment and market competitiveness. This adaptability equips enterprises to handle crises such as business risks and innovation uncertainties resulting from complex and evolving external conditions. It aids in timely strategic decision-making, the full integration and utilization of both internal and external resources, resilience through adversity, and the seizing of new market opportunities. A good working environment can inspire employees to innovate and start businesses. The implementation of the vision in entrepreneurial spirit requires the support of a better working environment. Workplace culture encompasses a range of elements including beliefs, attitudes, habits, regulations, and traditions. A desirable workplace culture is centered around fostering and demonstrating trust. A robust set of fundamental values that all staff members hold in high regard and consistently adhere to are instrumental in creating a positive and efficient working atmosphere. Whether it is the physical environment, social environment, or cultural environment, it has a positive impact on the driving force, leadership, and motivation of entrepreneurial spirit.

Table 7

Relationship Between Employee Maturity and Work Environment

Variables	rho	p-value	Interpretation
Self-Management			
Physical Environment	0.392**	<.001	Highly Significant
Social Environment	0.369**	<.001	Highly Significant
Cultural Environment	0.399**	<.001	Highly Significant
Adaptability			
Physical Environment	0.376**	<.001	Highly Significant
Social Environment	0.368**	<.001	Highly Significant
Cultural Environment	0.400**	<.001	Highly Significant
Resilience			
Physical Environment	0.383**	<.001	Highly Significant
Social Environment	0.349**	<.001	Highly Significant
Cultural Environment	0.385**	<.001	Highly Significant

**. Correlation is significant at the 0.01 level

Table 7 above illustrates the connection between employee maturity and the work environment. The rho values computed in the table, ranging from 0.349 to 0.400, suggested a weak to moderate direct correlation between the sub-variables of employee maturity and the work environment. The relationship between employee maturity and the work environment is statistically significant, as the obtained p-values were lower than 0.01. Employee maturity is a multifaceted concept that arises from the interaction between a company and its external environment. Consequently, categorizes organizational resilience into self-management, adaptability, and resilience. Each dimension of resilience is inextricably linked to the working environment of the organization. This includes the physical environment, social environment, and cultural environment. The maturity of employees in the environment is a driving force.

Adaptability, the development of employees and enterprises is limited by various factors such as development scale, stage, and resource endowment, and has always been at a disadvantage in market competition. Therefore, for companies, the capability to efficiently distribute internal resources and the capacity to secure external resources through diverse channels are crucial for their expansion. Adaptability can assist employees in becoming more acclimated to the work environment, broadening their professional networks, and securing essential resources for their career advancement through enhanced teamwork.

Zheng et al. (2022) representative theory is employee identification with corporate culture is one of the manifestations of high employee maturity. The results indicate that a positive work environment has the power to improve employee performance. On the other hand, it is necessary to provide employees, equipment, and supplies with the necessary resources for execution, without relying on their talents and professional knowledge. "Performance evaluation directly affects highly emotional tasks, judgments of personal commitments, and abilities in professional life." Most working environments in developing countries do not meet standards. Unfortunately, most companies believe that a safe and healthy working environment is an unnecessary expense and have not made significant investments in maintaining a comfortable working environment. For sustainable development, any company must have dedicated employees dedicated to achieving its goals. When people work in a team, they may behave like entrepreneurs, so each team member will participate as much as possible in the task to prove that they are the most promising person in the team. Employees dedicate a substantial portion of their time to their jobs, and the workplace significantly influences their overall job performance. Those who are content with their work environment are more inclined to experience favorable work-related outcomes. A prior research study indicated that the components that shape the work environment can affect employee performance. Additionally, it was suggested that future research could explore this relationship by examining workplace environment and performance evaluation. Some scholars advocate for comparative studies across both private and public sectors to grasp the influence of the work environment on employee performance. Researchers have noted that the workplace environment is vital, as employees tend to be more productive in a conducive workplace, enhancing both individual performance and organizational productivity. Employee performance and job performance are indicative of employee maturity. Consequently, the workplace environment positively influences employee maturity.

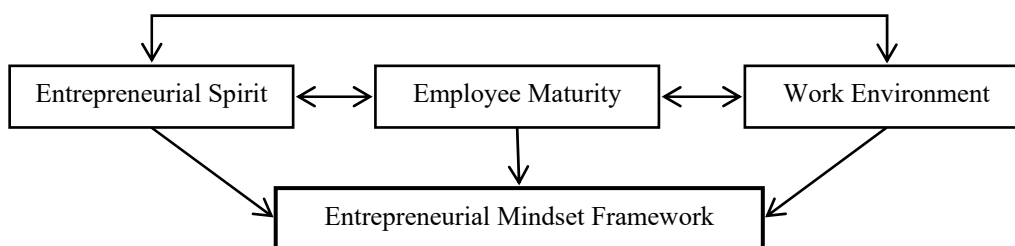**Entrepreneurial Mindset Framework**

Figure 1: Entrepreneurial Mindset Framework

The Entrepreneurial Mindset Framework is closely related to entrepreneurial spirit, employee maturity, and work environment. As an entrepreneur, the first thing you need is motivation for entrepreneurial spirit. Simultaneously possessing a broad vision and sustained motivation support, strong leadership, and a positive mindset. These prerequisites contribute to making them a highly mature employee. Entrepreneurs are also employees. The maturity of employees and the working environment are not unidirectional influences. The self management, adaptability, and resilience of employees are closely related to the physical environment, social environment, and company culture of their work. For entrepreneurial companies, a good working atmosphere requires highly mature employees to create.

A person's work maturity will change with changes in the work environment. Once the maturity of a subordinate's work fluctuates, your "best management style" towards them will also change accordingly. The primary responsibility of an entrepreneur is to inspire the best performance of their subordinates. Divide the maturity level of the company's employees and apply different leadership styles; Divide the needs of employees according to Maslow's theory and implement different training and incentive plans. As the work maturity of subordinates gradually increases, the most effective leadership style has shifted from organization to communication, emotional support, and encouragement. As work maturity increases, managers should further reduce their interference with subordinates, and the main management goal should focus on determining whether the efforts of subordinates meet departmental needs. When employees have excellent maturity, the company should promote humanized management. Provide a work environment that encourages innovation, including improving the physical environment, providing more resources, and strengthening the company culture. At the same time, the maturity of employees can also affect the leadership style of leaders. From the perspective of adapting to change, entrepreneurial spirit enables employees to better adapt to change.

Entrepreneurship is the process by which an individual or team integrates their own resources and external resources to create greater economic and social value. This requires entrepreneurs to discover, create, and utilize appropriate entrepreneurial opportunities, combine production factors with effective business models, and create new businesses to achieve new business success. In this process, Pratiwi et al. (2024) summarized entrepreneurs need to organize and manage their operations, using services, technology, and tools to think, reason, and make judgments. Entrepreneurship also requires comprehensive consideration of methods and harmonious leadership skills. Entrepreneurship can be independent entrepreneurship, or it can be the business of existing enterprises innovating in relatively independent organizational units. The probability of successful entrepreneurship varies depending on many factors, including the abilities, experiences, resources, market environment of the entrepreneur. Whether grassroots employees need to have an entrepreneurial mindset or spirit depends on the specific corporate culture and work environment. However, many companies do encourage their employees to possess entrepreneurial spirit because it can help them better adapt to change, seek innovation, take responsibility, and participate more actively in their work.

4. Conclusions and recommendations

The respondents had moderate agreement on their entrepreneurial spirit as to vision and drive, leadership and pro-activity. The employees demonstrated a solid foundation in their maturity as to their self-management, adaptability and resilience. There was a moderate level of agreement on the respondents work environment as to physical, social and cultural environment. A significant relationship was revealed between entrepreneurial spirit, employee maturity and work environment. An entrepreneurial mindset framework was developed for employees in Chinese engineering companies.

The Human resource manager may establish mentorship programs where experienced employees with entrepreneurial experience can guide and support aspiring employee-entrepreneurs within the company. The HR manager may explore ways to improve the physical, social and cultural aspects of the work environment like creating collaborative work-spaces, promoting open communication or organizing team-building activities that will encourage innovation and idea sharing. The managers in all levels may create a supportive environment that

promotes open communication, collaboration and learning which can help employees feel comfortable to seek help when needed and develop greater resilience in facing challenges. The entrepreneurial mindset framework may be utilized by more companies across industries. Future researchers may conduct research on the establishment of entrepreneurial mindset frameworks from the perspective of cutting-edge international technologies. The innovative awareness of new technologies such as engineering robots, the Internet of Things, information technology, artificial intelligence, and smart construction are the recent entrepreneurial trend in the future engineering industry.

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