

# **The Role of Absorptive Capacity of Knowledge and Entrepreneurial Learning in Enhancing Customer Trust: An Analytical Study in the Private Universities Affiliated with the Holy Hussainiya and Abbasid Shrines.**

Sana Jawad Kadhim Al-Saeedi  
[sana.khadem@qu.edu.iq](mailto:sana.khadem@qu.edu.iq)

Asmaa Qasim Jumaah  
[asmaakasm90@gmail.com](mailto:asmaakasm90@gmail.com)

University of Al-Qadisiyah

Received: 27/8/2025

Accepted: 28/9/2025

Available online: 15/12/2025

---

Corresponding Author : Asmaa Qasim Jumaah

**Abstract :** The current study seeks to identify the role of knowledge absorptivity, represented by its dimensions (knowledge acquisition, knowledge absorption, knowledge investment, knowledge transfer), and entrepreneurial learning as an independent variable, represented by its dimensions (exploratory entrepreneurial learning, investment entrepreneurial learning), in enhancing customer trust, represented by (benevolence, credibility). The problem of the study is to attempt to explain the rapid changes and challenges in competitive markets, through organizations, to maintain the trust and loyalty of their customers. Customer trust is not merely customer satisfaction; it is a relationship built on reliability, transparency, and quality, and is the foundation of any successful business. Knowledge absorption and entrepreneurial learning are important tools that organizations can use to enhance customer trust. However, many organizations fail to use these tools effectively, leading to a decline in customer trust and a negative impact on the organization's overall performance. This can be expressed through several questions, the most important of which is: Does knowledge absorptivity and entrepreneurial learning play a role in building and enhancing customer trust? What is the impact of each of these on customer confidence among the study sample? The study population consisted of lecturers working in private universities affiliated with the holy shrines of Imam Hussein and Al-Abbas in the governorates of Najaf and Karbala. The number of questionnaires distributed amounted to 300. After sorting and verifying the data, the number of questionnaires valid for analysis amounted to 262 out of a total of 274 questionnaires that were retrieved. One of the most important conclusions is the focus of universities on encouraging research and innovation in various fields, which means that these activities enhance the university's reputation and increase customer confidence in providing advanced educational content. The most important recommendations included obligating universities to improve communication channels with customers, including students and parents. This requires establishing effective communication mechanisms in a way that enhances transparency and builds trust, which increases customer satisfaction with the services provided.

---

**Keywords:** Absorptive Capacity of Knowledge, Entrepreneurial Learning, Customer Trust.

**INTRODUCTION:** The contemporary business world is undergoing radical transformations in light of globalization and rapid technological development. This has made knowledge one of the most important strategic resources that determines an organization's ability to survive and compete. It is no longer sufficient to possess knowledge; organizations must possess a high absorptive capacity, enabling them to acquire knowledge from multiple sources, absorb it through comprehension and understanding processes, transform it into organizational practices, and finally invest it to achieve a competitive advantage. Through these dimensions, absorptive capacity becomes a vital channel linking the external environment and its knowledge opportunities with the organization's ability to utilize that knowledge for the benefit of customers.

In this context, entrepreneurial learning emerges as a strategic mechanism that promotes more innovative and effective knowledge investment. Organizations that adopt exploratory learning seek to explore new opportunities and markets and generate innovative ideas, while investment learning focuses on exploiting available resources and knowledge to maximize added value. The interaction between absorptive capacity and entrepreneurial learning creates a cognitive dynamic that enables organizations to respond quickly to environmental changes and develop innovative solutions that meet customer expectations. From a customer perspective, an organization's success is measured not only by its

financial output, but also by its ability to build and enhance trust with its customers. This trust is represented by a set of dimensions: benevolence, which reflects the organization's concern for the customer's interests; credibility, which is linked to the organization's fulfillment of its promises.

## **Research methodology and some previous studies**

### **First Axis: Research Methodology**

#### **First: The Research Problem**

Despite the growing academic and practical interest in the concept of entrepreneurial learning as a strategic tool for developing organizational capabilities, the practical reality indicates that many organizations still face shortcomings in investing in the absorptive capacity of knowledge and employing it effectively to achieve real added value for customers. This shortcoming creates a clear gap between the resources and knowledge organizations possess and the services and products they actually provide that are capable of enhancing customer confidence and maintaining loyalty in a competitive environment characterized by rapid change and complexity. The knowledge gap is represented by the limited number of studies that directly link the absorptive capacity of knowledge and entrepreneurial learning on the one hand, and customer confidence on the other. Although there are indications of the importance of these two dimensions in improving service quality and enhancing reliability and transparency, previous literature has often addressed each variable separately or focused on other outcomes such as financial performance or innovation. This has left a knowledge gap in understanding how absorptive capacity and entrepreneurial learning can be integrated as strategic tools to enhance customer trust. From this perspective, the need arose to answer the main question: Is there an intellectual and theoretical relationship between knowledge absorptive capacity and entrepreneurial learning in enhancing customer trust? To answer this question, a set of sub-questions was formulated that guide the study toward examining this relationship in a deeper and more comprehensive manner:

1. To what extent does knowledge absorptivity, through its various dimensions, contribute to enhancing customer trust in the organization under study?
2. What role can entrepreneurial learning, including innovative and entrepreneurial practices and skills, play in building and consolidating customer trust in the products or services offered by the organization?
3. Can knowledge absorptivity and entrepreneurial learning be viewed as two interrelated variables that jointly influence customer trust?

#### **Second: The Importance of the Study**

**The scientific importance of the current research:** It addresses a contemporary topic that combines knowledge, leadership, and customer behavior within a single framework. Knowledge absorptivity represents an organization's ability to acquire, assimilate, and employ new knowledge in a way that enhances the quality of its decisions and services. Entrepreneurial learning, meanwhile, is the organization's means of utilizing this knowledge to innovate new solutions and work methods characterized by flexibility and innovation. Through this interaction, added value can be created that leads to enhancing customer confidence, which has become a fundamental pillar for organizations' survival in an environment characterized by intense competition and rapid change. Thus, the research provides a scientific perspective that explains how an organization can transform from a mere recipient of knowledge to an entrepreneurial entity capable of employing this knowledge to build stronger and more stable relationships with customers. This is an aspect that has not been fully addressed in its coherence in previous studies. The importance of the research lies in the following:

1. The ability to interact with peer organizations and develop close relationships with them, and to think creatively to solve work environment problems in a way that keeps pace with rapid technological progress.
2. The need to support a functional work environment and compensate for the clear deficiency in employee performance measures and indicators, particularly in the organization under study in the Iraqi context.
3. The current study helps the organization under study, particularly by enhancing performance through knowledge absorption, entrepreneurial learning, and customer trust, with the aim of achieving the organization's objectives with high effectiveness.

#### **Third: Study Objectives**

1. To reveal the role of Absorptive Capacity of Knowledge customer trust, by demonstrating how an organization absorbs and utilizes external knowledge to contribute to improving service quality and increasing customer credibility.
2. To demonstrate the role of entrepreneurial learning in enhancing customer trust by developing the organization's ability to innovate and respond quickly to customer needs.
3. To clarify the impact of Absorptive Capacity of Knowledge and entrepreneurial learning in enhancing customer trust.

#### Fourth: Hypothetical diagram and the most important research hypotheses

The hypothetical plan of the study was drawn based on the research variables.

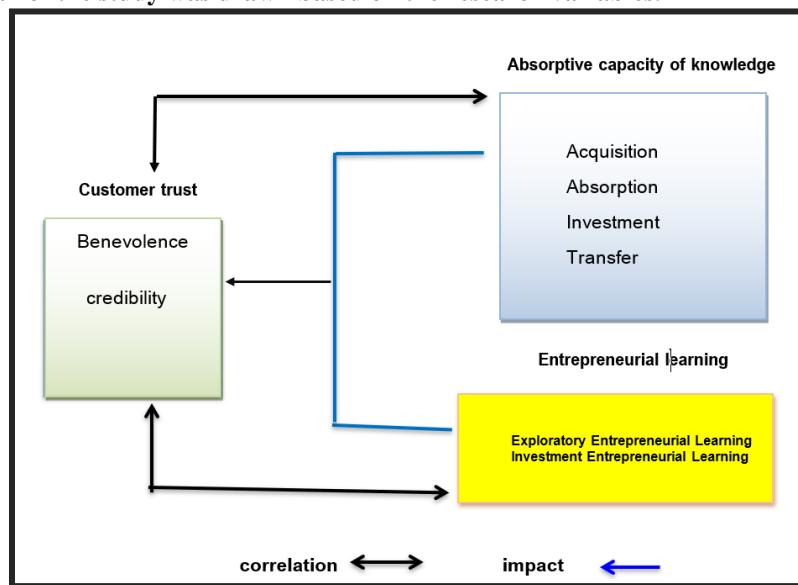


Figure (1) shows the hypothetical scheme of the study.

Source: Prepared by the researcher based on research variables.

**The most important hypotheses of the current research are as follows:**

1. There is a statistically significant positive relationship between knowledge absorptivity and entrepreneurial learning.
2. There is a statistically significant positive relationship between knowledge absorptivity and customer trust.
3. There is a statistically significant positive relationship between entrepreneurial learning and customer trust.
4. There is a significant positive effect of both knowledge absorptivity and entrepreneurial learning in enhancing customer trust.

#### Fifth: Study Community and Sample

In light of the development of private universities and colleges affiliated with the Al-Abbas's and Al-Hussain's shrines in the holy Karbala and Najaf governorates, and their increasing importance, they were chosen as a study community consisting of (821) professors and instructors. The sample size was adopted based on the equation (kergcie& morga) as follows:

$$N = \frac{x^2 p(1-p)}{D^{2(n-1)} + x^2 p(1-p)}$$

Where: **n** = minimum sample size, **p** = population proportion, **d** = error rate

After using the equation, the study sample was obtained. (300) questionnaires were distributed to faculty members in the universities studied, and (273) questionnaires were retrieved from them. It was found that (262) questionnaires were valid for statistical analysis, and they were adopted in the study data.

#### Sixth: Study Limits

##### 1. Spatial Limits

Private universities affiliated with the holy shrines of al-Abbas (pbuh) and al-Hussayn (pbuh) were chosen as the spatial boundaries of the study. Their geographical location in the holy governorates of Karbala and Najaf is considered to be the following: Warith, al-Sabtain, al-Zahraa for Girls, al-Kafeel, and al-Ameed. These universities were chosen intentionally for reasons related to the nature of the study variables, the most important of which are:

- A. Their environment is suitable for the study variables.
- B. They are characterized by an environment characterized by academic and research activity, which enhances the possibility of applying the concepts of entrepreneurship and other research variables.
- C. Private universities are characterized by administrative independence and organizational flexibility, which facilitates the application of the study concepts.

##### 2. Human Limits

According to the study variables, influential groups were chosen at all administrative levels (senior and middle), including board members, department directors, branch heads, and unit managers working in the research sample.

### 3. Temporal Limits:

These include the following:

- A. The timeframe for strengthening the theoretical aspect extended from October 20, 2024, to April 30, 2025.
- B. The timeframe for the practical aspect, which included data collection, questionnaire review, questionnaire distribution to the intended sample, and statistical data analysis, extended from May 1, 2025, to August 13, 2025.

### Seventh: Methods Used in the Study

The researcher relied on the descriptive analytical approach in this study, as it is the most appropriate for analyzing the relationship between the variables under study. A questionnaire design was adopted to collect data from a sample of employees in entrepreneurial organizations, with the aim of measuring the impact of both knowledge absorptive capacity and entrepreneurial learning on building and enhancing customer trust. The data were analyzed using appropriate statistical programs, such as AMOS.V.28 (SPSS.V.24), relying on descriptive and inferential statistical methods, such as analysis of variance, hypothesis testing, and path analysis, to determine the nature of the relationship between the independent variables (absorptive capacity, entrepreneurial learning) and the dependent variable (customer trust). The table below shows the most important dimensions adopted to measure the current research, and statistical methods were used in their analysis:

Table (1) shows the most important dimensions and variables of the research.

Resources	Paragraphs	Dimensions	Variables
(AL-saeedi,2019)	6	Knowledge Acquisition	Absorptive capacity of knowledge
	3	Knowledge Absorption	
	6	Knowledge Investment	
	6	Knowledge Transformation	
(Zhao et al., 2021)	4	Exploratory Entrepreneurial Learning	Entrepreneurial learning
	4	Investment Entrepreneurial Learning	
(Kantsperger&Kunz,2010)	6	Benevolence	Customer trust
	5	credibility	

Source: Prepared by the researcher based on research variables.

### The second axis: Some previous studies related to the variables of the current research

#### 1. Knowledge Absorptive Capacity

##### Study: A New Approach to Measure Absorptive Capacity and Appropriability: A Case Study in Emerging Markets.

Presented by (Cuéllar et al., 2024), the objective of knowledge effort is that absorptive capacity and appropriability are two essential elements in generating competitive advantages and improving innovation performance across countries and organizations. Furthermore, the relationship between absorptive capacity and appropriability has not been adequately studied, and there is still a lack of clear understanding of their impact on generating revenue and value. The type of knowledge effort is an analytical study, the population of knowledge effort is Colombian scientific literature, the sample is knowledge effort (1,680 records) from a database, and the statistical methods used are correlation and regression. The main dimensions addressed in the study are four: acquisition, absorption, investment, and transfer. The most important findings are that knowledge appraisal (KA) and the final stages of local scientific development (AC) rarely occur in Colombia. The main consequence of this absorptive capacity is knowledge appraisal. The most important recommendations are that the need to appropriate scientific knowledge (KA), or the ability to generate rent or value from scientific knowledge, is a major challenge for countries when trying to recover investment in R&D. It is not only a problem for emerging economies with strong R&D systems. However, knowledge leakage or diffusion is common because national innovation systems do not have the necessary capacity to retain this knowledge.

#### 2. Entrepreneurial Learning

##### Study: Entrepreneurial Learning Behavior of Community Insiders

Presented by (Marras, Opizzi & Loi, 2024), the aim of the cognitive effort is to explore how entrepreneurial learning occurs within communities of practice, focusing on trainers in student business incubators and understanding how these trainers learn through their interactions with emerging entrepreneurs and with each other. The type of cognitive effort is a qualitative methodology based on Zaltman's metaphor elicitation technique (zmet), a theoretical framework for the concept of community of practice. The cognitive effort community targeted trainers in a student business incubator, who are students with specific experience in entrepreneurship and who would like to take on training roles within the incubator. The cognitive effort sample included 10 student trainers who are considered community insiders

due to their roles and training practices. The most important dimensions addressed in the study were used: inputs, processes, outcomes, and contexts. Statistical methods used: Because the study relied on a qualitative methodology using the ZMET technique, traditional quantitative statistical methods were not used. The most important findings are that entrepreneurial learning among community workers is an adaptive process that occurs through participation in multiple communities of practice. Learning occurs through interaction with the emerging entrepreneurs they train, as well as through interaction with their fellow trainers. One of the most important recommendations for policymakers seeking to facilitate communities of practice is to enable community worker learning activities and organic development, in addition to networking activities and supporting the entire ecosystem to enable the connection of communities of practice. Leveraging cognitive effort, this study provides deep insights into how entrepreneurial learning occurs in community contexts, which will benefit academics and practitioners in designing effective training programs and developing policies that support adaptive learning within communities of practice.

### **3. Customer Trust**

#### **Study: Exploring the Nexus between Corporate Social Responsibility and Consumer Green Behavior: The Interplay of Corporate Image, Service Quality, and Customer Trust**

Presented by (Liu et al., 2025), the aim of this research is to examine the impact of corporate social responsibility on green customer behavior through the mediating role of corporate image, service quality, and customer trust. This is an analytical study. The research population comprises four different hotel sectors in China, and a total of 741 questionnaires were distributed to the research sample. The main dimensions addressed in the study are loyalty, reliability, dependability, and congruence of values and expectations. The statistical methods used are structural equation modeling.

The results of this study focus on understanding corporate social responsibility, organizational social responsibility, corporate image, service quality, customer trust, and customer satisfaction in the context of the hotel industry, and offer theoretical and managerial implications for developing and developed economies. Originality/Value - The originality of this research lies in its comprehensive examination of the mediating effects of corporate image, service quality, customer trust, and customer satisfaction on the relationship between CSR and CSR in the hotel industry. One of the most important recommendations is the need to focus on CSR initiatives to encourage customers to adopt environmentally friendly behavior in the studied sectors.

### **The third axis: Theoretical Framework for Research Variables**

#### **First: Absorptive Capacity of Knowledge**

##### **1. The Concept of Absorptive Capacity of Knowledge**

Knowledge absorptive capacity is an organization's ability to absorb knowledge from its external environment and use it for creative purposes (Levinthal&Cohen,1990:159). Absorptive capacity consists of several sequential stages at the macro level (transformation). Knowledge recognition, absorption, and exploitation constitute important stages of absorptive capacity. The organization must identify and capture valuable external knowledge (acquisition). It must then understand and absorb this knowledge by combining it with existing knowledge (absorption). The organization must be able to apply internal knowledge commercially (exploitation), such as to innovate its products, processes, or services (VonBriel et al.,2009:4). The concept of knowledge absorptivity originates from a range of sciences, including biology, chemistry, physics, mining, agriculture, food science, forestry, and atmospheric science. It was first introduced in 1989 by Levinthal & Cohen (1990) in their pioneering work on "absorptivity" in business strategy. The term is used to refer to the acquisition of new knowledge and the use of this knowledge to improve an organization's competitiveness, as well as its ability to recognize, absorb, and apply the value of new information for business purposes (Ndiegue et al.,2012:2). The ability to generate innovation through information technology and systems engineering components by absorbing and exploiting organized knowledge in various ways, and investing it in ways that increase organizational value (Keupp&Mermoud,2020:2). The concept of knowledge absorptivity has proven flexible enough to be used not only for different units of analysis but also in many research fields, such as industrial organization, strategic management, business, and technology management (Schmidt, 2010:1). Knowledge absorptivity encompasses an organization's ability to learn, create, manage, and disseminate new knowledge. Absorptive capabilities depend on prior investment in developing their capabilities. As with employee capabilities, an organization tends to develop cumulatively. It also refers to an organization's ability to invest in them to achieve optimal outcomes and develop the skills of its employees (Cohen&Levinthal,1990:131). In management science, knowledge absorptivity is a theoretical construct that explains human behavior that cannot be directly observed. Knowledge absorptivity is a reinterpreted concept (Lane, 2006:833).

##### **2. The Importance of Absorptive Capacity of Knowledge**

Knowledge absorptiveness depends largely on an organization's investment in research and development, its ability to gain insights from current operations, and its ability to gather information from marketing efforts. An organization's

ability to absorb knowledge depends on employees' ability to learn from experience and apply this knowledge within the organizational context (Kayes et al.,2005:579). Knowledge absorptiveness in organizations directly affects the discovery, acquisition, understanding, and exploitation of external information, as well as its ability to develop innovations. Capabilities are developed through dynamic learning processes. Under a knowledge-based perspective, an organization's current level of knowledge has a decisive influence on its knowledge development (Sánchez-García,2023:3). The absorption of external knowledge by employees is critical to achieving innovative results, as it relies on employees linking knowledge recognized by the broader organization to gain control over employee skills (Sjödin et al.,2019:360).

### **3.Dimensions of Absorptive Capacity of Knowledge**

The current study relied on the researcher's scale (Al-Saeedi,,2019) to measure Absorptive Capacity of Knowledge, which includes two dimensions: potential knowledge absorptiveness, consisting of knowledge acquisition and knowledge absorption; and actual knowledge absorptiveness, consisting of knowledge transformation and knowledge investment, also considered in the study (Agustí et al.,2022:85).

**A. Knowledge Acquisition:** This is the organization's ability to identify and evaluate efforts made to acquire knowledge, as well as the ability to identify and acquire externally generated knowledge, which is essential to its operations (Agustí et al., 2022:85). Knowledge acquisition encompasses mechanisms and procedures aimed at gathering information from both within and outside the organization, including creating, generating, and developing structures that will succeed in the future and provide new job opportunities. This knowledge acquisition involves developing skills and learning abilities, developing capabilities, solving problems, and developing organizational functions and activities (Tseng, 2011: 975). In addition, close contact with employees is also a valuable source of knowledge. These mechanisms can be described as informal knowledge channels with a unique practical nature. This alignment of learning and practice establishes a close relationship between the knowledge acquisition process and active knowledge acquisition. Active knowledge acquisition is linked to internal knowledge absorption or sharing, with a focus on community (Dias et al.,2023:9).

**B. Knowledge absorption:** It is the understanding and recognition of potential opportunities, and the ability to use processes that allow an organization to analyze, process, interpret, and understand information obtained from external sources. It represents the process that allows an organization to understand, interpret, and analyze external knowledge. Absorption refers to an organization's ability to absorb external knowledge. In an organization and its processes, it can analyze, process, interpret, and understand information obtained from outside. Ideas and discoveries outside the organization's research area are ignored because they cannot be easily understood. Knowledge acquired from outside can embody rules of inference that are quite different from those used by the organization and can delay the understanding of external knowledge (Godfrey et al.,2023:7-8). Knowledge absorption is one of the processes that allows the analysis, processing, interpretation, understanding, absorption, and classification of new acquired knowledge alongside existing prior knowledge, and how it is distributed to different parts of the organization. It is one of the processes that is distributed to different parts of the organization as a process that enables the organization to communicate with each other (Zahra&George,2002:190).

**C. Knowledge Transformation:** Knowledge Integration: The fundamental challenge facing any organization is the creation of new knowledge (solutions to problems, new products) through the integration of knowledge from different sources. The essence of the integration activity is knowledge transfer as a process in which a single unit is formed, which is the basis of knowledge cohesion (Carlile Rebentisch,2003:1180). This is a form of collective knowledge shared among team members, where teams work together to create perspectives that help guide employees to understand meaning and process in new ways. This shared understanding process develops a new comprehensive understanding that includes the team's perspective to see, understand, and explain the situation they face. Collective knowledge generates team members' knowledge of how to apply their skill sets from previous knowledge areas to the task of developing new products and innovative ideas that can ultimately achieve best practices that provide insights (Hirunyawipada,2010:11).

**D. Knowledge Investment:** It is defined as the integrated implementation and use, adoption and improvement, expansion and use of existing capabilities, and integration of transformed knowledge in a process to create a new knowledge world (Camisón&Forés,2010:709). The investment process that allows organizations to have such routines provides structural, systemic, and procedural mechanisms that allow organizations to maintain knowledge investment over extended periods of time. Investment reflects an organization's ability to harvest knowledge and integrate it into its operations. It requires the retrieval of knowledge already created and its absorption for use. The results of investment are the continuous creation of new goods, systems, or organizational processes. Investment in new ventures that capture knowledge from the market, competitors, and customers and then use this knowledge to create new capabilities. Similarly, established, successful organizations are likely to create, target, and deploy their

knowledge to enhance existing initiatives or encourage new initiatives within the organization (Zahra&George,2002:8).

## **Second: Entrepreneurial Learning**

### **1. The Concept of Entrepreneurial Learning**

In an era of rapid transformation and increasing challenges, innovation and entrepreneurship have become vital tools for achieving progress and excellence in various fields. Hence, entrepreneurial learning has emerged as a modern learning concept that aims to prepare employees to meet future demands using creative and effective methods. Entrepreneurial learning focuses on developing the skills and knowledge that enable employees to identify, analyze, and capitalize on opportunities to achieve success, whether in entrepreneurship or in developing existing organizations. Over the past decade, entrepreneurial learning has attracted the attention of many scholars. Researchers typically direct their efforts to collect data on entrepreneurial learning by understanding what entrepreneurs learn, how they learn, and why they learn. The entrepreneurial learning environment, in which the entrepreneur's contribution can shape the goals and activities during the process of establishing a new venture, is crucial. (Tseng, 2013:429), (Cope, 2011:5) argues that entrepreneurial learning is inherently relational and is one of the fundamental concepts linked to the ability to adapt and respond effectively to rapid changes in the contemporary world. It refers to deep learning skills, where learning is not limited to merely acquiring knowledge, but extends to the ability to analyze, understand, and apply information in innovative ways in various contexts. (Preedy et al.,2020:9) views entrepreneurial learning as important for establishing a successful venture because it helps employees deal with uncertainty and ambiguity. However, entrepreneurial learning is also important for the personal and social development of entrepreneurs. Entrepreneurial learning is a concept that focuses on acquiring the skills and knowledge that enable employees to think creatively and take initiatives in a way that contributes to fostering the spirit of entrepreneurship and innovation. This type of learning is essential in our contemporary world, where increasing economic and social challenges require innovative solutions and unconventional ideas. Entrepreneurial learning represents a learning process that aims to develop employees' abilities to recognize, evaluate, and invest in opportunities in ways that create a positive impact in economic and social spheres. This type of learning enhances skills such as critical thinking, risk management, strategic planning, and working within dynamic teams.

### **2. The Importance of Entrepreneurial Learning**

Entrepreneurial learning is a powerful tool for enhancing resilience and adaptability. It focuses on building an entrepreneurial mindset that combines creativity, problem-solving, and rapid decision-making in the face of challenges. Entrepreneurial learning helps employees develop their critical thinking skills, analyze the environment, and capitalize on opportunities in an innovative way, enhancing their ability to adapt to changing circumstances (Hnátek,2015:344). It supports the idea that entrepreneurial intentions and skills can be taught and that entrepreneurship can be created through learning, practice, and planning. It is closely linked to entrepreneurial learning, which focuses on developing employees' entrepreneurial capabilities by enhancing their strategic thinking and decision-making skills. Entrepreneurial learning provides the tools and knowledge to help formulate clear plans with a focus on analyzing the surrounding environment and capitalizing on opportunities. In addition, entrepreneurial learning contributes to improving implementation skills by training employees to face challenges, achieve goals efficiently, and review performance to ensure continuous improvement (Darmawan&Soetjipto,2016:99). Entrepreneurial learning is linked to developing employees to become more creative and innovative in facing challenges and capitalizing on opportunities. Entrepreneurial learning aims to provide learning experiences that enhance analytical thinking, problem-solving, and bold decision-making, making it an effective tool for enhancing practical and intellectual skills. Entrepreneurial learning creates a learning environment that motivates employees to continuously develop their skills, whether technological or personal skills such as leadership and communication. In turn, enhanced skills contribute to enabling employees to effectively apply entrepreneurial concepts, whether in building projects or improving organizational performance (Abbasi et al.,2011: 242-243).

### **3. Dimensions of Entrepreneurial Learning**

The researcher relied on the scale (Zhao et al., 2021) to measure the dimensions of entrepreneurial learning, which include (exploratory learning, investment learning).

**A. Exploratory Learning:** The concept of exploratory learning differs from exploratory research strategies in information retrieval. It is a similar concept in educational theory, representing a more active and interactive learning process. This type of learning focuses on learners' active exploration, discovery, and reflection with the goal of acquiring new knowledge and solving problems. It includes iterative learning processes, deep cognitive engagement, and the integration of real-life contexts and social interactions to develop learners' problem-solving skills and critical thinking abilities. Exploratory learning is a method built on cognitive, relational, and situational elements that collectively contribute to enhancing learners' deeper understanding (Luo, Pang,&Chang,2024: 2). (Tian et al.,2021:3-

5) believes that exploratory learning is an educational approach that encourages learners to actively and independently explore concepts and discover knowledge. Rather than providing information in advance, a learning environment is provided that encourages interaction, experimentation, and hands-on learning. In exploratory learning, learners are given a degree of freedom to choose their own learning path and discover ideas and concepts in a variety of ways.

**b. Investment Learning:** Investment learning is characterized by a focus on improvement activities, efficiency, and implementation. It is often associated with routine, incremental development, and a short-term orientation. This type of learning aims to leverage and control existing knowledge to meet customer needs and achieve high levels of consistency and efficiency, which is critical in traditional construction projects. Its most prominent themes are knowledge sharing and the dissemination of innovation (Liu et al., 2021:812). Some argue that organizations engage in both exploration and investment simultaneously, while punctuated equilibrium refers to the temporal cycle between long periods of investment and short bursts of exploration. Organizations must dynamically balance the relative levels of exploration and investment to optimally allocate organizational resources. From an absorptive capacity perspective, researchers argue that exploration and investment may complement each other by creating a dynamic learning cycle. Therefore, organizations should engage in high levels of both activities simultaneously to maximize their complementarity. Although these two perspectives dominate ambidexterity research, neither provides the full picture. Paradoxically, learning, exploration, and investment are contradictory yet interconnected (Al-Atwi et al., 2021: 17).

### **Third: Customer Trust**

#### **1. The Concept of Customer Trust**

Customer trust, also known as the perception of trustworthiness, is based on one or more experiences in a series of transactions or interactions characterized by meeting expectations of product performance and satisfaction. Trust involves a person's willingness to act in a particular way because of the belief that their partners will deliver what they expect, along with a general expectation that the person who says, guarantees, or declares to others can be trusted. Trust is, in fact, a strong foundation for business. Without trust, business transactions would not occur. Therefore, it is clear that trust is the driving force of business. From the concepts mentioned above, trust can be generally interpreted as "a hope based on a person or group of words, promises, or statements from employees or other groups that can be justified." Essentially, customer trust is a long-term process for both parties to trust each other. If trust is established between the customer and the organization, it will not be too difficult for the organization to retain customers (Utami, 2015:641).

Customer trust is the belief that binds the customer to the organization. In fact, trust is required to establish the relationship between the customer and the organization. Trust also extends to employees within the organization. The higher level of mutual trust among employees in multicultural organizations creates productive relationships, which ultimately generate long-term benefits for the organization (Sarwar et al., 2012: 28).

#### **2. The Importance of Customer Trust**

Customer trust is a strategic asset that provides a competitive advantage and serves as a driver of sales effectiveness, customer loyalty, commitment, collaboration, and successful business relationships. However, despite the rapidly growing interest in customer trust (Isaeva et al., 2020:17), customer trust contributes to organizations putting their employees and customers first. Customers develop a sense of trust and loyalty toward the organization, often leading to increased profitability and continued success (Raeisi Ziarani et al., 2023:3). Trust is created when an organization makes its customers feel more comfortable doing business with it. Many organizations are valued by their customers not only because of their products, but also because the organization made them feel something more than they expected. Satisfied and confident customers are more likely to speak positively about the brand to others, increasing brand awareness and attracting new customers (Utami, 2015:646).

#### **3. Dimensions of Customer Trust**

The researcher relied on the scale (Kantsperger&Kunz, 2010) to measure the dependent variable, which consists of two agency dimensions (benevolence, credibility), which are appropriate for the field of application, because they are built on an integrated theoretical framework for the comprehensiveness of the scale and the ability to explain purchasing behavior. These dimensions are also compatible with the chosen environment in the current research community and sample, as they require a multi-angled understanding of customer behavior, as follows:

**A. Benevolence:** It is a social psychological phenomenon and is a prosocial behavior that supports others out of genuine concern or goodwill. Acts of benevolence can range from gestures of appreciation, such as caring for a customer and offering product solutions, to skills or donations. Research has shown that benevolence has significant psychological and social benefits, including improved well-being, social cohesion, and a positive impact on both the customer and the organization. However, in addition to traditional methods of performing benevolence, digital technologies provide unique opportunities for organizations to promote and recognize benevolence in innovative

ways. This benefits the customer and helps overcome barriers to benevolence, such as approaching customers and fulfilling their desires (Alrimawi&Nuseibeh,2024:1).

**B. Credibility:** Researchers' interest in credibility began to grow in the middle of the last century, as perception was linked to the development and increase of two main elements of influence: the source and content of the message, as Hovland et al. point out. Credibility was defined based on trust and expertise as its most important dimensions. Trust is a fundamental element in forming an ongoing relationship, while expertise represents the audience's perception of the source's competence. Given the differences between media outlets and concepts that contain dimensions of credibility, and the diversity of their sources and functions, it became necessary to distinguish between these different sources. Many researchers agreed that credibility is a multidimensional concept, although the number of dimensions varies from one source to another (Gaziano&McGrath,1986:452). Brand credibility is a reflection of how customers perceive the brand in terms of experience and trust. Credibility is also linked to the quality and position of the product in the market. The higher the credibility of the brand, the greater the consumer's trust in it and the higher the level of loyalty (Liu&Zheng,2024:4).

#### **Fourth: The Relationship Between Research Variables**

It can be said that knowledge absorptive capacity represents a prerequisite for entrepreneurial learning, as it enables organizations to acquire, assimilate, and apply external knowledge to support the development of entrepreneurial capabilities, enhance their ability to innovate, and discover opportunities. In turn, practicing entrepreneurial learning contributes to expanding and deepening absorptive capacity, making the relationship between them complementary and reciprocal. Knowledge absorptive capacity is also an essential factor in building and strengthening customer trust, as it enables an organization to acquire, assimilate, and utilize knowledge to improve the quality of its products and services, enhance its ability to meet customer expectations, and communicate with them credibly. Therefore, the relationship between knowledge absorptive capacity and customer trust is a direct, positive relationship, as a high level of absorptive capacity enhances customer trust in the organization. Entrepreneurial learning contributes to enhancing customer trust by enabling the organization to develop innovative products and services, respond quickly to customer needs, and reduce customer perceived risks by improving credibility and reliability. Therefore, the relationship between entrepreneurial learning and customer trust is a direct, positive relationship, as a high level of entrepreneurial learning leads to... Enhancing customer confidence levels in the organization.

#### **The fourth axis: The Practical Aspect of Research**

##### **1. Measurement model analysis**

###### **1.1 Descriptive statistics and correlation**

Table (2) presents the results of descriptive statistics and correlation analysis. The mean and standard deviation values for Absorptive capabilities of knowledge, Entrepreneurial learning, and Customer trust are  $M = 4.14$ ,  $SD = .432$ ,  $M = 4.12$ ,  $SD = .558$ , and  $M = 4.04$ ,  $SD = .621$ , respectively. The Pearson correlation coefficient shows a positive and significant relationship between Absorptive capabilities of knowledge and Customer trust( $r = .603$ ,  $p < 0.1$ ). It also indicates a positive relationship between Entrepreneurial learning and Customer trust( $r = .741$ ,  $p < 0.1$ ). These correlations were expected in the study hypotheses.

Table (2) Mean, standard deviations, and correlations between main variables

Variables	M	SD	1	2	3
<b>Absorptive capabilities of knowledge</b>	4.14	.432	<b>1</b>	<b>1</b>	<b>.603**</b>
<b>Entrepreneurial learning</b>	4.12	.558	<b>1</b>	<b>1</b>	<b>.741**</b>
<b>Customer trust</b>	4.04	.621	<b>.603**</b>	<b>.741**</b>	<b>1</b>

**Note N=156, \*\*p<0.01**

**Source:** Prepared by the researcher based on computer programs.

##### **2. Reliability and validity measurement**

Table (3) demonstrates the analysis results of the Confirmatory Factor Analysis (CFA) . As the parameter estimates are feasible and acceptable if their values exceed 40%. As for the standard errors, the smaller they are, the more it is possible to rely on the statistical parameters and vice versa as well, while the statistical significance of the parameter estimates is determined based on the significance of the critical ratio (CR), which represents the statistical scale For the significance of the parameter estimates, as the parameter estimates are important if they exceed the critical ratio (1.96) at the level of significance (%5) and if it exceeds (2.56) at the level of significance (%1) (Holtzman & Sailesh, 2011). The value above 0.40 (loading) indicate Statistically accepted, except for items (1 from Gain knowledge). As well as indicators and base quality of conformity structural equation modeling has exceeded the acceptable statistical limits. This table similarly presents the reliability analysis through Cronbach's alpha. The values are greater than 0.7,

indicating that this study's research instrument shows a high value of internal consistency (Sharma,2016). Therefore, it could be claimed that the measurement paradigm of this study corresponds to reliability and validity criteria.

Table (3) Confirmatory Factor Analysis , and Cronbach's alpha

Variables (dimensions)	Cronbach's alpha	Loading	quality indicators
<b>Absorptive capabilities of knowledge</b>	<b>.855</b>		
Gain knowledge	.783	Deleted .514 .397 .616 .508 .508	CMIN=344.478 DF=158 GFI=.902 CFI=.910 TLI=.900
knowledge absorption	.772	.626 .634 .534	
Knowledge investment	.851	.765 .605 .653 .677 .726 .784	RMSEA=.063
Knowledge transformation	.862	.574 .669 .653 .710 .667 .712	
<b>Entrepreneurial learning</b>	<b>.819</b>		
Exploratory Entrepreneurial Learning	.712	.810 .405 .637 .503	CMIN=33.542 DF=16 GFI=.974 CFI=.973 TLI=.954
Entrepreneurial Investment Learning	.731	.570 .692 .546 .735	RMSEA=.061
<b>Customer trust</b>	<b>.895</b>		
Benevolence	.848	.600 .812 .719 .741 .699 .596	CMIN=140.517 DF=41 GFI=.928 CFI=.930 TLI=.907 RMSEA=.076
Credibility	.805	.725 .593 .703 .747 .596	

**Source:** Prepared by the researcher based on computer programs .

### 3. Tests of hypotheses

This study examined the impact of Absorptive capabilities of knowledge on Customer trust and Entrepreneurial learning on Customer trust Using multicollinearity. Table (4) and structural model illustrate the direct effect, C.R, P-value. To show the direct effect , the Structural Modeling Equation was used, as shown in Table (2). The result show that Absorptive capabilities of knowledge shows a positive relationship with Customer trust ( $\beta = 0.823$ ,  $p <.001$ ), supporting H1. Similarly, H2 also shows a positive relationship between Entrepreneurial learning and Customer trust( $\beta = 0.938$ ,  $p <.001$ ). That multiple testing model showed that the explanation coefficient  $R^2$  reached 86%, which is the explanation percentage that the two independent variables possess to explain the changes that occur in the dependent variable.

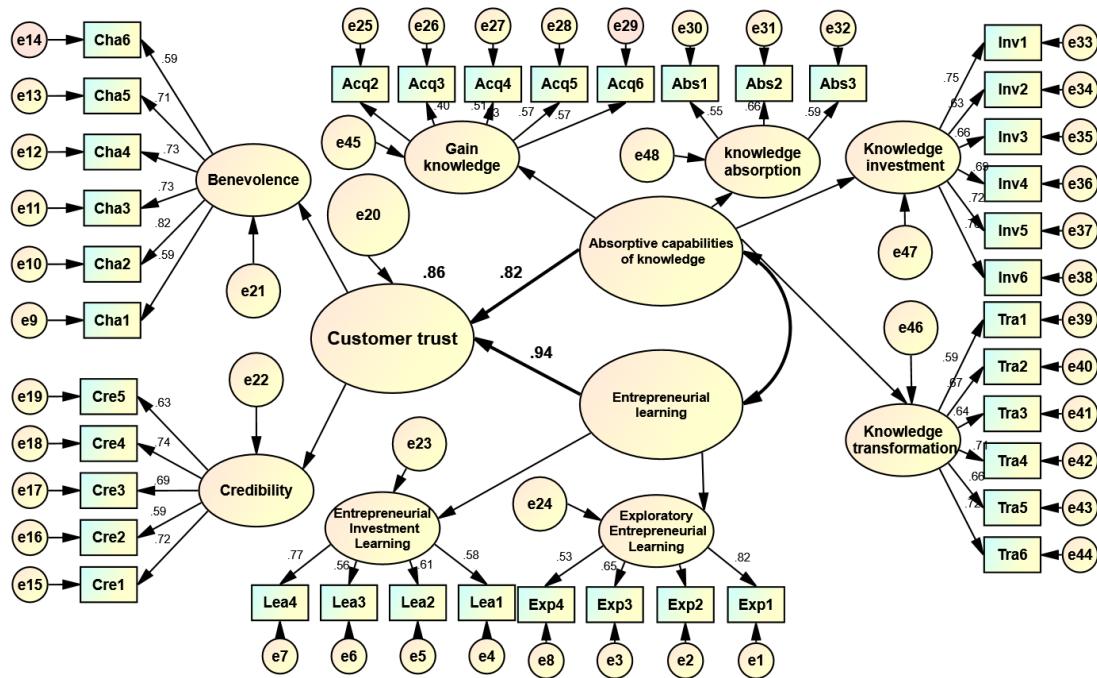


Figure (2) Structural model.

Source: Prepared by the researcher based on computer programs .

Table (4). Path coefficients, S.E, C.R, and p-values

Effect	Hypotheses	B	S.E	C.R.	P	R <sup>2</sup>
Direct effect Multiple linear regression	Absorptive capabilities of knowledge→ Customer trust	.823	.079	5.231	***	.86
	Entrepreneurial learning→ Customer trust	.938	.707	3.442	***	

Source: Prepared by the researcher based on computer programs .

### First: Conclusions

1. There is a correlation between the study variables (knowledge absorptive capabilities, customer trust, and entrepreneurial learning), which means that improving the knowledge absorptive capabilities of individuals or organizations can significantly contribute to enhancing entrepreneurial learning. This reflects the importance of investing in education and training to increase the ability to learn and adapt in dynamic work environments. Furthermore, enhancing the capabilities of individuals or organizations to acquire, invest, transform, and absorb knowledge can significantly improve entrepreneurial learning, and thus achieve success in competitive environments.
2. The study sample is keen to increase knowledge acquisition because of its positive and influential role on customer trust. This means that enhancing an organization's knowledge acquisition capabilities can significantly contribute to improving customer trust. This highlights the importance of focusing on learning and knowledge acquisition strategies as a means of fostering positive relationships with customers and increasing their loyalty.
3. Private universities are keen to develop innovative educational programs that align with their needs. This increases the ability to acquire new skills, which in turn enhances customers' confidence in the quality of education provided.
4. Private universities are keen to strengthen partnerships with the education sector. Consequently, these organizations contribute to providing practical training opportunities for faculty members, which enhances customers' confidence in the university's ability to achieve tangible results.
5. Universities focus on developing the skills of faculty members in areas of knowledge and application. Therefore, the more qualified the faculty, the greater the customers' confidence in the quality of education provided.
6. Universities are keen to encourage research and innovation in various fields. This means that these activities enhance the university's reputation and increase customers' confidence in providing advanced educational content.

## Second: Recommendations

1. Enhancing continuous training for faculty members and developing periodic training programs to update professors' knowledge and skills by establishing an internal training unit with annual plans and periodic impact assessments.
2. Developing strategic partnerships and establishing collaborations with educational and professional institutions to provide field training opportunities for students. This is achieved through signing memoranda of understanding and allocating an office to monitor partnerships and evaluate their outcomes.
3. Establishing innovation and entrepreneurship centers to encourage students to engage in experiential learning and develop their entrepreneurial skills. This is achieved through establishing university business incubators that provide training, mentorship, and initial funding.
4. Adopting interactive teaching methods and employing project-based and collaborative learning to increase student engagement by integrating projects into the curriculum and training professors on their implementation.
5. Promoting scientific research and academic publishing, encouraging researchers to publish solid research to bolster the university's reputation. This is achieved through providing incentives, establishing research funds, and holding scientific conferences.
6. Improving customer communication channels. Developing transparent and effective mechanisms for communicating with students and parents by creating electronic platforms, conducting periodic meetings, and conducting periodic satisfaction surveys

## List of sources

1. Abbasi, K. S., Sarwar, M. Z., & Pervaiz, S. (2012). The effect of customer trust on customer loyalty and customer retention: A moderating role of cause related marketing. *Global Journal of Management and Business Research*, 12(6), 27-36.
2. Agustí, M. A., Ramos-Hidalgo, E., & Moreno-Menéndez, A. M. (2022). The role of international knowledge acquisition and absorptive capacity as a predictor of international performance. *Canadian Journal of Administrative Sciences/Revue Canadienne des Sciences de l'Administration*, 39(1), 81-96.
3. Alrimawi, F., & Nuseibeh, B. (2024, September). Meta-modelling kindness. In Proceedings of the ACM/IEEE 27th International Conference on Model Driven Engineering Languages and Systems (pp. 280-289).
4. Al-Saedi, S. J. K. H. (2019). The Role of Absorptive Capacity of Knowledge in Customer Engagement through Open Innovation: An Analytical Study of the Opinions of a Sample of Customers and Employees in Asiacell Telecommunications Company (Middle Euphrates: Diwaniya, Najaf, Babil, Karbala). Unpublished PhD Dissertation, College of Administration and Economics, University of Al-Qadisiyah, Iraq.
5. Atwi, K., Mondal, A., Pant, J., Cheng, Z., El Hajj, O., Ijeli, I., ... & Saleh, R. (2021). Physicochemical properties and cytotoxicity of brown carbon produced under different combustion conditions. *Atmospheric Environment*, 244, 117881.
6. Camisón, C., & Forés, B. (2010). Knowledge absorptive capacity: New insights for its conceptualization and measurement. *Journal of business research*, 63(7), 707-715.
7. Carlile, P. R., & Rebentisch, E. S. (2003). Into the black box: The knowledge transformation cycle. *Management science*, 49(9), 1180-1195.
8. Cohen, W. M., & Levinthal, D. A. (1990). Absorptive capacity: A new perspective on learning and innovation. *Administrative science quarterly*, 35(1), 128-152.
9. Cohen, W. M., & Levinthal, D. A. (1990). Absorptive capacity: A new perspective on learning and innovation. *Administrative science quarterly*, 35(1), 128-152.
10. Cope, J. (2011). Entrepreneurial learning from failure: An interpretative phenomenological analysis. *Journal of business venturing*, 26(6), 604-623.
11. Cuéllar, S., Fernandez-Bajón, M. T., & de Moya Anegón, F. (2024). A new approach to measure absorptive capacity and appropriability: a case of study in emerging markets. *Journal of the Knowledge Economy*, 15(3), 15418-15446.
12. Darmawan, I., & Soetjipto, B. E. (2016). The implementation of project-based learning to improve entrepreneurial intention and entrepreneurship learning outcome of economics education students. *Journal of Business and Management*, 18(10), 98-102.
13. Dias, Á., Silva, G. M., Patuleia, M., & González-Rodríguez, M. R. (2023). Developing sustainable business models: Local knowledge acquisition and tourism lifestyle entrepreneurship. In *Knowledge Management, Organisational Learning and Sustainability in Tourism* (pp. 37-56). Routledge.
14. Gaziano, C., & McGrath, K. (1986). Measuring the concept of credibility. *Journalism quarterly*, 63(3), 451-462.
15. Godfrey, C. M., Kircher, C., Ashoor, H. M., Ross-White, A., Glandon, L., Wilson, R., ... & Sears, K. (2023). Absorptive capacity in the adoption of innovations in health: a scoping review. *JBI Evidence Synthesis*, 21(1), 6-32.
16. Hirunyawipada, T., Beyerlein, M., & Blankson, C. (2010). Cross-functional integration as a knowledge transformation mechanism: Implications for new product development. *Industrial Marketing Management*, 39(4), 650-660.
17. Hnátek, M. (2015). Entrepreneurial thinking as a key factor of family business success. *Procedia-Social and Behavioral Sciences*, 181, 342-348.
18. Isaeva, N., Gruenewald, K., & Saunders, M. N. (2020). Trust theory and customer services research: theoretical review and synthesis. *The Service Industries Journal*, 40(15-16), 1031-1063.

19. Kantsperger, R., & Kunz, W. H. (2010). Consumer trust in service companies: a multiple mediating analysis. *Managing Service Quality: An International Journal*, 20(1), 4-25.
20. Kayes, D. C., Stirling, D., & Nielsen, T. M. (2007). Building organizational integrity. *Business Horizons*, 50(1), 61-70.
21. Keupp, M. M., & Mermoud, A. (2020). Knowledge absorption for cyber-security: The role of human beliefs. *Computers in Human Behavior*, 106, 106255.
22. Lane, P. J., Koka, B. R., & Pathak, S. (2006). The reification of absorptive capacity: A critical review and rejuvenation of the construct. *Academy of management review*, 31(4), 833-863.
23. Liu, H., Ma, S., AlWadi, B. M., Alam, F., & Zhang, Y. (2025). Exploring the nexus between corporate social responsibility and consumer green behavior: the interplay of corporate image, service quality, customer trust and satisfaction. *Social Responsibility Journal*, 21(4), 751-775.
24. Liu, X., & Zheng, X. (2024). The persuasive power of social media influencers in brand credibility and purchase intention. *Humanities and Social Sciences Communications*, 11(1), 1-12.
25. Luo, Y., Pang, P. C. I., & Chang, S. (2024). Enhancing exploratory learning through exploratory search with the emergence of large language models. *arXiv preprint arXiv:2408.08894*.
26. Marras, G., Opizzi, M., & Loi, M. (2024). Understanding the multifunctional role of entrepreneurial coaching through a systematic review of the literature. *Journal of Managerial Psychology*, 39(6), 795-814.
27. Ndieve, J. R., Herselman, M. E., & Flowerday, S. V. (2012). Absorptive capacity: Relevancy for large and small enterprises. *South African Journal of Information Management*, 14(1), 1-9.
28. Preedy, S., Jones, P., Maas, G., & Duckett, H. (2020). Examining the perceived value of extracurricular enterprise activities in relation to entrepreneurial learning processes. *Journal of Small Business and Enterprise Development*, 27(7), 1085-1105.
29. Raeisi Ziarani, M., Janpors, N. N., & Taghavi, S. M. (2023). Investigation of the effect of customer journey experience on customer engagement considering the mediating role of customer trust. In 5th International Conference on Brand Marketing, Challenges and Opportunities.
30. Sánchez-García, E., Marco-Lajara, B., Martínez-Falcó, J., & Poveda-Pareja, E. (2023). Cognitive social capital for knowledge absorption in specialized environments: The path to innovation. *Heliyon*, 9(3).
31. Sarwar, M. Z., Abbasi, K. S., & Pervaiz, S. (2012). The effect of customer trust on customer loyalty and customer retention: A moderating role of cause related marketing. *Global Journal of Management and Business Research*, 12(6), 27-36.
32. Schmidt, L. K. P. (2015). How to encourage enterprising behaviour in students?.
33. Sjödin, D., Frishammar, J., & Thorgren, S. (2019). How individuals engage in the absorption of new external knowledge: A process model of absorptive capacity. *Journal of Product Innovation Management*, 36(3), 356-380.
34. Tian, Z., Zhao, H., Peter, K. T., Gonzalez, M., Wetzel, J., Wu, C., ... & Kolodziej, E. P. (2021). A ubiquitous tire rubber-derived chemical induces acute mortality in coho salmon. *Science*, 371(6525), 185-189.
35. Tseng, C. C. (2013). Connecting self-directed learning with entrepreneurial learning to entrepreneurial performance. *International Journal of Entrepreneurial Behavior & Research*, 19(4), 425-446.
36. Tseng, C. Y., Chang Pai, D., & Hung, C. H. (2011). Knowledge absorptive capacity and innovation performance in KIBS. *Journal of Knowledge Management*, 15(6), 971-983.
37. Utami, S. (2015). The influence of customers' trust on customer loyalty. *International journal of economics, commerce and management*, 3(7), 638-653.
38. Von Briel, F., Schneider, C., & Lowry, P. B. (2019). Absorbing knowledge from and with external partners: The role of social integration mechanisms. *Decision Sciences*, 50(1), 7-45.
39. Zhao, W., Yang, T., Hughes, K. D., & Li, Y. (2021). Entrepreneurial alertness and business model innovation: the role of entrepreneurial learning and risk perception. *International Entrepreneurship and Management Journal*, 17(2), 839-864.