Global Business and Management Research: An International Journal
Vol. 16, No. 4s (2024)

The mediating role of entrepreneurial learning in internet embedding and resource identification

Li Jianing
School of Management, Universiti Sains Malaysia
Email: lijianing@student.usm.my

Noor Hazlina Ahmad *
School of Management, Universiti Sains Malaysia
Email: hazlina@usm.my

** Corresponding Author*

Abstract
Purpose: The booming and widespread use of Internet technologies has profoundly shaped society, triggering innovations in cultural perceptions and business models. In the entrepreneurial journey, access to resources significantly determines the growth trajectory of emerging firms. Entrepreneurs are faced with the critical question of how to acquire resources in the most efficient way and at what cost these resources will be presented. Drawing on the findings of domestic and international scholars, the focus of this study is on the mediating role of entrepreneurial learning in internet embedding and resource recognition.
Design/methodology/approach: This study, quantitative research was adopted, purpose-based sampling was adopted, and 170 questionnaires were collected from start-ups in Shanghai by questionnaire survey. Regression analysis was adopted for data analysis and SPSS27.0 software was adopted.
Findings: The research of the study indicate entrepreneurial learning plays a mediating role in the relationship between internet embedding and resource recognition.
Research limitations/implications: Due to the urgency of research time and limited research resources, the sample size is limited, and further research needs to expand the scope of research and the number of enterprises. In the process of distributing online questionnaires, due to some respondents not being very familiar with the concept of internet embedding, the proportion of invalid questionnaires is relatively high. From the perspective of regional sources of effective samples, all survey questionnaires are from the Shanghai region, and the regional coverage is not wide enough.
Practical implications: The results of the study will aid managers, government, and shareholders in understanding the elements required for great workers innovation that supports their company's long-term viability.
Originality/value: In order to enable entrepreneurs and entrepreneurial teams to better identify the resources needed in the entrepreneurial process, this report advocates for continuous learning of entrepreneurial knowledge through the internet and recommends internet embedding and entrepreneurial learning as key strategies.

Keywords: Internet Embedding, Entrepreneurship Learning, Resource Identification

Introduction

In the decades following China's economic takeoff, a significant number of entrepreneurs have emerged. Despite this growth, identifying entrepreneurial resources has become increasingly challenging. More than 76% of entrepreneurs believe that identifying entrepreneurial resources

is difficult XiaoChun & Xing (2023). This difficulty arises from several key factors, which have substantial implications for the success and sustainability of new ventures.

Firstly, entrepreneurs often lack a comprehensive understanding and awareness of the resources available to them. This includes financial resources, human resources, market channels, and technological support Aarstad et al. (2016). A report by the China Association of Small and Medium Enterprises (2021) highlights that nearly 60% of SMEs cite access to finance as their biggest challenge, demonstrating a critical gap in resource identification and acquisition.

Secondly, there is a significant issue of information asymmetry. Entrepreneurs frequently struggle to obtain sufficient information about potential investors, suitable talents, and advanced technologies in their industry Jogaratnam (2017). For instance, a survey by PwC (2020) revealed that 70% of startups in China have difficulty in connecting with the right investors due to inadequate information channels.

Moreover, entrepreneurs face severe time and energy constraints. The high-risk and high-pressure nature of entrepreneurship requires them to juggle multiple tasks simultaneously, such as market research, business plan development, and team building Zahra (2021). According to a study by the Global Entrepreneurship Monitor (GEM) (2022), over 65% of entrepreneurs report that time constraints significantly hinder their ability to identify and secure necessary resources.

Additionally, the lack of personal experience and knowledge in resource identification compounds these challenges. Many entrepreneurs, particularly first-time founders, lack the necessary experience to navigate the complex landscape of resource identification effectively Ferraris et al. (2020). This gap in experience often results in missed opportunities and decision-making.

Finally, the rapidly changing market environment adds another layer of complexity. Entrepreneurs must constantly adapt to new trends and technologies, but without accurate and timely market information, they struggle to position their products or services effectively. A study by McKinsey & Company (2021) found that 55% of SMEs in China failed to adapt quickly enough to market changes, leading to strategic missteps and resource misallocation.

Entrepreneurs also realize that entrepreneurial learning is a challenging task. Entrepreneurship learning requires entrepreneurs to actively acquire knowledge and experience to identify better and utilize entrepreneurial resources Greeno (1996). However, the difficulty and challenge of entrepreneurial learning have not been fully studied Miranda et al.(2020). The difficulty of entrepreneurial learning is influenced by various factors, including personal characteristics, educational background, and experience accumulation of entrepreneurs Hassan et al. (2020). At the same time, entrepreneurial learning can be carried out in different ways, such as through practical experience learning, social network learning, education and training learning, etc. Zheng et al. (2017). However, we are currently unclear about the specific mechanisms by which these influencing factors and methods affect the difficulty and challenge of entrepreneurial learning. Empirical research in entrepreneurial learning is relatively insufficient Jiao et al. (2010). Although some studies have explored the relationship between entrepreneurial learning and resource identification through case analysis, survey questionnaires, and other methods, more empirical research is needed to verify and support these theoretical viewpoints Ahmed et al. (2020). Empirical research can gain a deeper understanding of the role of entrepreneurial learning in resource identification by tracking the learning process of entrepreneurs and collecting their experiences in addressing entrepreneurial learning challenges.

The influencing factors and entrepreneurial learning methods on resource identification have not been fully explored Markowska et al. (2020). Resource identification refers to

entrepreneurs discovering and identifying resources that can be used for entrepreneurial activities through observation and cognition of the external environment Wang et al. (2014). Entrepreneurial learning may affect resource identification by increasing the knowledge reserve of entrepreneurs, expanding cognitive boundaries, and improving information processing abilities Cha et al. (2023). However, we have not yet established a systematic theoretical framework to explain how entrepreneurial learning addresses these difficulties and affects the resource identification process (Muhammad, 2019).

The focus of this study is on new start-up companies in the Shanghai region. New startups in the Shanghai region are considered the most suitable for conducting this study for two reasons. Firstly, the Shanghai region is a major contributor to China's economic growth Liu et al. (2021). The impact of internet embedding on the identification of entrepreneurial resources is the second research topic of this project Awan et al. (2021). According to the definition of a start-up enterprise, it is established for no more than 5 years (60 months); Relatively small in scale, with no more than 200 employees when accepting investments; The total assets and annual sales revenue shall not exceed CNY 30 million Ji et al. (2022). Recent years have seen the rapid growth of internet technology, which has resulted in a quick establishment period for new businesses Sukumar et al. (2021). In addition, new startups have just gone through or are currently in the early stages of entrepreneurship, new startups have just experienced the identification of entrepreneurial resources or more necessary to identify entrepreneurial resources Xiong (2022). The interviewees need to understand the resource identification process in the process of enterprise entrepreneurship, so the interviewees in this study include company bosses, executives, and middle-level managers Hakovirta et al. (2022). We have obtained the latest relevant data using the "AiQicha" website. The sampling criteria are based on the inclusive requirements of the study, which includes startups with employees not more than 200 people.

Literature Review

In today's rapidly developing network information technology landscape, the Internet serves as a pivotal tool for communication and exchange, providing more convenient ways for people to connect. The social network research school, represented by Granovetter (1985) and more recently by Thornton and his colleagues (2021), focuses on individual relationship patterns in networks and how interpersonal communication, communication channels, and related networks affect individual behavior Thornton et al. (2021).

Dong's (2015) study delineates relationships between individuals and organizations into strong and weak ties, highlighting differences in interaction frequency, intimacy, and reciprocity Dong (2015). Research indicates that social resources are embedded within social networks, requiring resource acquirers to access these resources through their network connections, with weak ties playing a particularly effective role in resource identification McKenna et al. (2002). Social resource theory posits that individuals with higher social status have greater access to resources, and their more abundant social networks increase their likelihood of resource acquisition Susilana (2019). Scholars have also discovered that the Internet provides a new mode of learning, enabling the discovery of a large amount of information and learning materials, thus making research and achievements more scientifically grounded Michael, (2004). Bargh and McKenna (2002) explored the Internet from the perspective of social life, concluding that it enhances relationships and offers a more open, free, and convenient communication platform Bargh & McKenna (2002).

Aldrich and Zimmer (1987) highlighted that different entrepreneurial networks impact entrepreneurial outcomes, with Jia et al. (2022) agreeing on the value of social networks in information exchange, promoting resource and opportunity identification Aldrich & Zimmer

(1987); (Jia, 2022). Li et al. (2019) verified the significant role of social networks in entrepreneurship, noting that entrepreneurs use these networks to connect opportunities with resources (Li, 2019).

The rapid development of information technology has made communication more convenient, with increasing demand for Internet functionalities among individuals and businesses (Feher & Towell (1997). The Internet's widespread application in business is transforming business models, with companies expanding through online platforms Stephanie (2014). Fanou's research on Internet penetration in Africa illustrates the Internet's impact on lifestyles and organizational communication Fanou (2017).

Blazevic et al. (2014) argue that the Internet provides a more expansive platform for communication, altering social interactions and enhancing information acquisition and social network integration Blazevic et al. (2014). Yu Hanfei (2014) introduced the term 'internet embedding', likening it to social networks in its ability to help entrepreneurs gather resource information and build social capital, thereby facilitating opportunity identification Yu (2014). Fang (2020) further refined this concept, proposing that internet embedding consists of three dimensions: connection degree, matching degree, and a sense of sacrifice Fang (2020).

In summary, internet embedding refers to the social, psychological, and economic ties individuals develop with the internet. Higher degrees of embedding result in stronger connections and greater integration into the digital environment, mirroring the benefits and dynamics seen in traditional social networks.

Entrepreneurship learning refers to the process of learning from various accumulated experiences to enhance one's knowledge stock Aarstad et al. (2016). Scholars based on the perspective of experience believe that experience is the key to entrepreneurial learning. Miranda (2020) agrees that entrepreneurial learning is the application of valuable experiences to learning in the context of entrepreneurship. Ahsanl (2021) agrees that entrepreneurial learning is a process of understanding experience, while Roslan and his colleagues (2019) agree that entrepreneurial learning is a learning process that is built on the accumulation of experience and effectively processes information. He believes that from a cognitive perspective, entrepreneurial learning is a process of internalizing external knowledge.

Cope (2005) pointed out that there is a very complex, close, and dynamic relationship between entrepreneurs and businesses. A successful entrepreneurial manager needs to persevere in learning. Williams and his colleges (2019) agree with the view that entrepreneurial learning is a continuous process, where entrepreneurs continuously learn in their daily work and activities. The entire process of entrepreneurial practice involves entrepreneurial learning. Opportunities and risks coexist. In rapidly changing and uncertain environments, entrepreneurs need to continuously learn knowledge to enhance their ability to grasp the external environment. The purpose of a direct result of entrepreneurial learning is to acquire entrepreneurial knowledge. Entrepreneurial knowledge is the core of entrepreneurial learning research, and the proprietary knowledge possessed by entrepreneurial knowledge can be configured with knowledge with rental potential. Betas (2005) believes that learning is a cognitive change. Jajat (2018) agrees that entrepreneurial learning is a process of learning, storing knowledge, and actively applying it to entrepreneurial activities. Dutta and Crossan (2005) pointed out that entrepreneurial learning focuses on reflecting and learning from the mistakes made in entrepreneurship. The concept of entrepreneurial learning from the perspective of dynamic evolution emphasizes that entrepreneurial learning is a dynamic, historical, and cumulative process with a certain path dependence. One of its representative figures, Minniti &Bygrave (2001), is that the process of entrepreneurial learning should include processing information, attempting errors, updating decision models, and improving performance. Entrepreneurship learning is not only a process

of accumulating and creating knowledge in entrepreneurial activities but also a utilizing knowledge for better decision-making.

The vast majority of scholars believe that entrepreneurial learning is an individual-level behavior, that is, the individual behavior of entrepreneurs El-Awad et al. (2017). However, there are also a few scholars who believe that entrepreneurial learning is not only aimed at entrepreneurs but also the overall behavior of entrepreneurial enterprises. This study believes that the organizational structure division of new startups is relatively vague, not clear enough, and the institutional dispersion is not complete and robust enough, making it difficult to study entrepreneurial learning from the perspective of the enterprise as a whole Nevalainen et al. (2021). Therefore, this study mainly studies the entrepreneurial learning behavior of entrepreneurs at the level of entrepreneurial teams.

Ashley (2018) pointed out that the necessary condition for discovering strategic opportunities is the analysis and identification of internal resources. When corporate identity, they can find this strategic opportunity. New ventures are institutions that develop products and services and engage in entrepreneurial activities in uncertain environments. New startups are disruptive and creative, while their management is relatively immature, and their processes are relatively chaotic Susilana (2019). However, their flexibility and speed are key to competing with mature enterprises.

In order to gain an advantage in the competitive market and not be eliminated by the market over time, new startups need to quickly and low-cost access the key resources needed to influence the enterprise Cannon et al. (2020). Due to the lack of sufficient material and financial resources for new startups, the possibility of attempting to acquire and develop resources on a large scale is reduced. Identifying valuable resources for the enterprise and enhancing its competitiveness are the challenges that new startups must face in their development Lim et al, (2020). The choice of each resource will significantly affect the good development and long-term survival of the enterprise Wang (2020). Unsuitable resources will not match entrepreneurial opportunities, resulting in the waste of other productive resources and negative impacts on the development and growth of the enterprise.

Drencheva et al. (2022) conducted a dynamic study on resources, starting from the overall chain from identifying resources to utilizing them, revealing the correlation between core resources and enterprise performance, and analyzing the process of transforming resources into capabilities. The study by Ermilina et al. (2021) confirms that the output of a new enterprise is largely determined by the characteristics of the resources identified by entrepreneurs. New enterprises should pay attention to resource identification in the early stages, combine the characteristics of entrepreneurial opportunities, list their detailed resource needs, and determine the relative importance of various resources.

In the process of resource identification, rich knowledge is required, and the source of this knowledge is entrepreneurial learning Buccieri (2022). Entrepreneurs use entrepreneurial learning to transform their acquired entrepreneurial knowledge into their own abilities, improve their ability to identify resources, and lay a solid foundation for future resource integration of entrepreneurial activities.

In summary, resource identification is a prerequisite for enterprises to develop and utilize resources, laying the foundation for future resource integration (Bauer et al., 2020). Based on the relevant views of existing research, this study believes that how identifying initial resources is a strategic choice for enterprises, which has an important impact on the future development and growth of enterprises Gao et al. (2021). By effectively identifying resources, enterprises can obtain valuable resources for subsequent development and growth, providing an inexhaustible driving force for their rapid growth.

Hypothesis Development

Studies show that internet embedding enhances access to information, networks, and learning opportunities, which in turn fosters entrepreneurial learning. For instance, embedding internet use in entrepreneurial activities improves knowledge acquisition and sharing, leading to better opportunity identification Huang et al.(2019). Additionally, EL enables entrepreneurs to effectively utilize internet resources for identifying and exploiting opportunities, thus enhancing resource identification Guo et al. (2016).

Entrepreneurial learning enhances the capability to bundle and leverage resources obtained via internet embedding, thereby improving resource identification and utilization An et al. (2018). The mediating role of EL is further supported by studies showing that knowledge and skills acquired through entrepreneurial activities facilitated by internet embedding significantly influence the ability to identify valuable resources Zhuang et al. (2023). Moreover, research indicates that EL helps in the application of information and communication technologies (ICT) in entrepreneurial ventures, enhancing the effectiveness of resource identification processes.

In summary, entrepreneurial learning serves as a critical intermediary that translates the benefits of internet embedding into effective resource identification by enhancing knowledge acquisition, opportunity recognition, and resource utilization capabilities. Therefore, based on the above analysis, the following Hypotheses are proposed:

Entrepreneurial learning plays an intermediary role between internet embedding and resource identification.

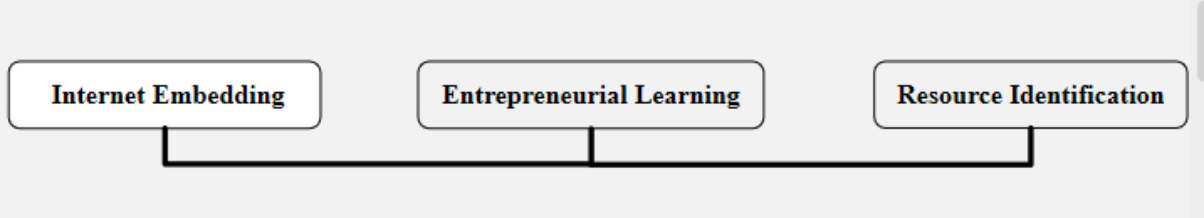

Figure 1. The mediating role of entrepreneurial learning

Methods

This study used positivist methods for research. The research results of Zukauskas and his colleges (2018), and Saunders and his colleges (2009) show that the empirical researcher is an authoritative and impartial individual in the literature. The empirical researcher will summarize the results to predict performance and use the information in practice.

This study adopts a positivist research approach to investigate the link between entrepreneurial learning and Internet embedding on the identification of entrepreneurial team resources. Positivism, as Zukauskas et al. (2018) and Saunders et al. (2009) discuss, posits that empirical researchers serve as authoritative and impartial observers who summarize results to predict performance and apply findings in practice. Given the study's aim and positivist foundation, a quantitative research approach is employed. Quantitative methods align with positivist research paradigms as they enable the collection and analysis of numerical data to understand patterns and relationships objectively Shanahan et al. (2019). A cross-sectional survey methodology is utilized to collect data from respondents. This method is chosen for its efficiency in gathering data quickly and cost-effectively compared to longitudinal surveys Zukauskas et al. (2018). The data collection process involves distributing closed questionnaires via Internet email. Respondents complete the surveys electronically, ensuring ease of access and convenience.

The measuring scale is a technique used in quantitative measurement programs that seeks to ascertain the subjective, sometimes abstract, ideas. Measurement scales, often named

measurement levels, are created by assigning the characteristic variables of objects according to various rules. The basic characteristics of the measurement scale are descriptive, comparable, degree, and starting point Waskom (2021). Descriptive refers to specific words or signs; Comparability refers to the relative size of the description.

The Likert scale, which consists of a set of statements, is used in this study. There are five possible responses for each statement: 7,6,5, 4, 3, 2, and 1 for "Totally Agree," "Mostly Agree," "Partially Agree," "Partially Agree & Partially Disagree, " "Partially Disagree, " "Mostly Disagree," and "Totally Disagree" Nemoto et al. (2014). Each respondent's attitude is the total of his responses to all the questions. This score can reveal an individual's attitude or different position on the scale.

Commercial market research and marketing both make extensive use of the rating scale. For instance, in sociological study, participants can be questioned about their views, thoughts, or remarks regarding this issue. Odd grades are represented by 5 or 7 points on our standard Likert scale, whereas even grades are represented by 4 or 6 points Weijter et al. (2010). However, there are also ways to extend the scale response level to 10 (1- 10), or even 11 (0- 10). However, in the actual application process of project scale preparation, the setting of the response level of scale often depends more on the sense, preference and great randomness of perception experience.

The research methodology used for this study is quantitative research. In particular, SPSS 27.0 is utilized to handle and evaluate the data that was gathered for this investigation. The precise procedure is as follows: first, the measurement questionnaire's validity and reliability are assessed; second, the internal consistency of each dimension of the Internet's embedded structure is tested using exploratory factor analysis; and third, the reliability of the questionnaire's main variables and sub-variables is assessed using the Cronbach's a coefficient method. Using the aforementioned procedure, the validity and reliability of the questionnaire are examined. Secondly, through correlation analysis, the correlation between Internet embedding and resource identification, Internet embedding three sub-dimensions (connection degree, matching degree, sense of sacrifice) and resource identification, entrepreneurial learning, and resource identification is tested. The impact of internet embedding on resource recognition is investigated through regression analysis, as is the effect of each of the three-internet embedding sub-dimensions (connect degree, matching degree, and sense of sacrifice) on resource recognition independently. Evaluate how online embedding affects learning about entrepreneurship and look at the effects of the three sub-dimensions of internet embedding (feeling of sacrifice, matching degree, and connect degree) independently. Examine how learning about entrepreneurship affects the identification of resources. Finally, the intermediary effect of entrepreneurial learning is tested through hierarchical regression analysis. On this basis, statistical analysis is carried out to test the hypothesis.

Linear regression analysis was employed in this work to validate hypothesis 1, 2, and 3. According to Schmidt and Finan (2018), linear regression analysis is a statistical technique used to examine the relationship between the independent variable, also known as the explanatory variable, and the dependent variable, also known as the response variable. It is predicated on the idea that the independent and dependent variables have a linear relationship. By using a linear regression model, linear regression analysis seeks to forecast or explain changes in the dependent variable. A straight line or hyperplane is fitted to represent the relationship between the independent and dependent variables in a linear regression study. According to Osborne and Waters (2019), the line slope and intercept indicate the extent to which the independent variable influences the dependent variable. The explanatory and predictive power of the independent variable on the dependent variable can be assessed by examining the significance of the slope and the degree of fit of the model. Linear regression

analysis has a wide range of practical applications, such as economics, social sciences, medical research, and marketing Morris et al. (2019). It provides researchers with an effective tool to explore and understand the relationships between variables, and to make predictions and decision support. Hierarchical regression was used to verify hypothesis 4. To find differences, hierarchical regression is the same as examining each layer's variables independently.

According to Chatterjee and Hadi (2013), the fundamental idea is to include the variable of interest in the model at the very end in order to analyze its contribution to the regression equation while excluding the contributions of other variables. We can determine that a variable has a distinct role that other variables cannot fill if it continues to have a significant impact. This approach is mostly employed in situations when identifying the distinct contribution of a single independent variable is challenging due to a high degree of correlation between the variables. In this study, the first step is to investigate the impact of the independent variable internet embedding on the identification of dependent variable resources. Then examine the contribution of the three dimensions of internet embedding as independent variables to the regression equation, excluding the contributions of other variables Sarstedt (2019). Then study the impact of entrepreneurial learning on resource identification. We will then investigate if there is a meaningful relationship between the mediating variable of entrepreneurial learning and the independent variable of internet embedding. Lastly, a quadratic regression will be carried out once the mediating variable of entrepreneurial learning is included in the regression equation based on the earlier findings.

This chapter conducted a research design and determined that purposive sampling was used to select samples for this study. The sample size is determined to be 170 new startups in the Shanghai region of China. The main method of questionnaire surveying comes from distributing online questionnaires through email. The pre-test results showed that there were no language errors or ambiguity issues in the questionnaire and indicates that the questions in the questionnaire have enough validity and reliability. This research employed a Likert scale questionnaire with seven response options for each statement: "Totally Agree", "Mostly Agree", = "Partially Agree", "Partially Agree & Partially Disagree", "Partially Disagree", "Mostly Disagree", and "Totally Disagree", which are 7,6,5, 4, 3, 2, and 1 respectively. The total of each respondent's answers to all the questions determines their attitude. This chapter constructed a four-part survey questionnaire based on the research purpose, theoretical model, research hypothesis, and research design. The embedded Internet measuring scale is the first component, the resource identification measurement scale is the second, and the entrepreneurial learning measurement scale is the third.

Findings

This study splits the assessment of mediation into three parts, taking influence from the theory of Baron and Kenny (1986). First, determine how independent variables affect dependent variables. Step 2: Evaluate how independent factors affect mediating variables. Step 3: Incorporate the mediating variable into the regression equation to examine its impact on the dependent variable, taking into account the impact of the independent variable, and contrast the outcomes with the test findings from Step 1. In order to verify hypothesis 4, this study uses the hierarchical regression method and carries out the following procedures: Step 1: Include resource identification and internet embedding in the regression equation and investigate the relationship between the independent variable and the dependent variable; Step 2: Determine whether the intermediary variable, entrepreneurial learning, is significantly impacted by the independent variable, internet embedding; Step 3, add the intermediary variable entrepreneurial learning to the regression equation based on the previous data, and perform a quadratic regression. The inspection results are shown in Table 1

Table 1 Test of mediating Effect of Entrepreneurial Learning

Variables	Unstandardized B	Coefficients Std.Error	Standardized Coefficients Beta	t	Sig
1 (Constant)	1.057	1.176		.899	.369
Internet Embedding (IE)	.308	.016	.726	18.808	<.001
2 (Constant)	-1.154	1.217		-.948	.344
Internet Embedding (IE)	.268	.018	.632	15.144	<.001
Entrepreneurial Learning (EL)	.091	.018	.209	5.000	<.001

Note: **p<0.001, *p<0.05.

Based on previous research, we can conclude that internet embedding has a significant impact on resource recognition, and internet embedding also has a significant impact on entrepreneurial learning. To further validate this conclusion, we conducted a regression analysis. In the first layer of regression, we take internet embedding and resource identification as independent variables; In the second layer of regression, we added entrepreneurial learning as a mediator variable, and internet embedding and entrepreneurial learning as independent variables, with resource identification as the dependent variable for regression analysis.
The analysis's findings indicate that the beta value is 0.726 and the p-value is less than 0.001 when resource recognition is limited to internet embedding. Nevertheless, the p-value stayed below 0.001 and the beta value of the internet embedding for resource recognition dropped to 0.632 after the mediating variable of entrepreneurial learning was taken into account. This suggests that between resource identification and internet embedding, entrepreneurial learning acts as a mediator. Consequently, we can say that hypothesis 4, which suggests that entrepreneurial learning acts as a mediator between resource identification and internet embedding, is supported.

Discussion and Conclusion

This study verifies the Mesomeric effect of entrepreneurial learning in the relationship between Internet embeddedness and resource identification.
Entrepreneurial learning serves as a critical mediator between internet embedding and resource identification. By facilitating the acquisition and application of entrepreneurial knowledge, entrepreneurial learning enhances the ability of entrepreneurs to identify and utilize resources (Johannisson et al., 2018). The study confirms that entrepreneurial learning mediates the relationship between internet embedding and resource identification, underscoring the importance of continuous learning in leveraging internet resources for entrepreneurial success (Sarasvathy, 2001; Gorgievski & Stephan, 2016).
This study has explored the impact of Internet embedding on resource identification and entrepreneurial learning. It has also examined the mediating role of entrepreneurial learning in the relationship between Internet embedding and resource identification. The findings highlight the significant positive effects of Internet embedding, in its dimensions of connection degree, matching degree, and sense of sacrifice, on both resource identification and entrepreneurial learning. Furthermore, entrepreneurial learning has been shown to enhance resource

identification, and it plays a crucial mediating role between Internet embedding and resource identification.

Overall, this research underscores the importance of leveraging Internet embedding for entrepreneurial success. By effectively utilizing the Internet, entrepreneurs can enhance their learning processes, identify valuable resources, and ultimately improve their chances of success. This study contributes to the existing literature by providing empirical evidence on the beneficial effects of Internet embedding and offers practical insights for entrepreneurs and policymakers aiming to foster a supportive environment for entrepreneurship.

Theoretical Implications

In theory, this study determined the contribution of internet embedding to resource identification by entrepreneurs during the entrepreneurial process. Verified the mediating role of entrepreneurial learning between internet embedding and entrepreneurial resource identification. This study suggests that companies in the entrepreneurial stage lack a clear organizational framework. Therefore, from a team perspective at the micro level, this study investigates the degree of internet embedding, entrepreneurial learning behavior, and resource identification of entrepreneurs. The concept of internet embeddedness is derived from the concepts of "embeddedness" and "work embeddedness", and some scholars have demonstrated that internet embeddedness has an impact on the identification of entrepreneurial opportunities by influencing social capital. This study uses the concept of internet embedding to describe and study the impact of the development of internet technology on entrepreneurs' information acquisition, resource identification, and overall ability improvement. At different stages of enterprise growth, the types or importance of resources required vary, and startups also have certain characteristics in terms of resource needs and resources. Identifying the growth stages and resource demand characteristics of new startups is a prerequisite for resource development and utilization (Xian, 2019). New startups, like other enterprises, should pay attention to the heterogeneity and illiquidity of resources to bring competitive advantages to the enterprise. From the four attributes of heterogeneous resources, namely valuable, scarce, immutable, and irreplaceable, to measure the human, social, financial, material, technological, and organizational resources of enterprises, it can be found that some resources cannot become the core resources of enterprises Teman (2018). Therefore, the research results obtained in the theoretical aspects of resource identification in this study are very meaningful.

On this basis, this study explores the relationship between internet embedding and entrepreneurial learning and verifies whether internet embedding affects the resource identification of entrepreneurial teams through entrepreneurial learning, thereby providing a reference for future academic research on entrepreneurship. This study also has the potential to enrich the existing literature on identifying entrepreneurial resources for entrepreneurs in Shanghai.

Practical and Social Implications

From the perspective of Practical Contributions, although there are more opportunities to identify entrepreneurial opportunities on the internet, individuals lack relevant experience or business training, making it difficult to directly identify entrepreneurial opportunities and seize better opportunities. This study provides a method for entrepreneurial teams to broaden their channels of resource identification and offers a new entrepreneurial learning path for team members. By leveraging online resources, entrepreneurs can access a wealth of information, knowledge, and experiences that are critical for identifying potential entrepreneurial opportunities. This can lead to better decision-making and strategic planning in the early stages of business development. Entrepreneurs can gain a more accurate understanding of market

demands and trends by using the Internet for research and data collection. This improved market intelligence helps in determining the positioning and competitive advantage of their products or services, ultimately guiding the direction and goals of their entrepreneurial ventures.

The study suggests that Internet embedding offers a new path for entrepreneurial learning. Online learning platforms, social media, and other Internet-based tools enable entrepreneurs to acquire various entrepreneurial skills and knowledge. This practical learning approach can reduce risks and costs associated with traditional entrepreneurial education and training, making it more accessible and effective. By understanding the impact of Internet embedding on entrepreneurial resource identification and the role of entrepreneurial learning, entrepreneurs can enhance their ability to identify critical resources. This, in turn, increases the likelihood of entrepreneurial success as they are better equipped to navigate the challenges and opportunities of the business landscape.

From a macro perspective, this study provides valuable insights for policymakers. With the ongoing economic reforms and the government's efforts to promote mass entrepreneurship, the findings of this study can inform the creation of supportive policies. Strengthening research on identifying entrepreneurial resources can directly serve as a policy reference, encouraging a more conducive environment for entrepreneurial activities. By incorporating these practical implications, entrepreneurs and policymakers can better harness the potential of Internet embedding to foster a more dynamic and successful entrepreneurial ecosystem.

Limitations and Suggestions for Future Research

Firstly, in this study, entrepreneurial learning was analyzed as a one-dimensional variable, without analyzing the dimensions of entrepreneurial learning. In further research, the empirical learning dimension, cognitive learning dimension, and practical learning dimension of entrepreneurial learning can be analyzed to investigate the mediating effect of different learning methods of entrepreneurial learning between internet embedding, resource identification behavior, it is also possible to analyze the impact of internet embedding on different learning styles of entrepreneurial learning.

Secondly, this study constructs and validates the entire model from the micro level of entrepreneurs. In further research, relevant scales can be designed and developed at the relatively macro-organizational level to study how the Internet affects organizations. Before surveying an organization, it is necessary to carefully consider the objects and scope of the survey to ensure the adaptability of variables to the organization and the coordination and consistency between different variables.

Thirdly, this study is based on the impact of the Internet on entrepreneurial team behavior, where entrepreneurial learning and resource identification are only partial effects of this impact. In the following research, the identification of opportunities, social capital, and relationship networks in entrepreneurship can be included in the verification model, and the impact of Internet embedding on resource identification, acquisition, utilization, and integration can also be further studied, the model can also be further validated in specific contexts, and this thesis only provides a reference direction for entrepreneurial research.

References

Aarstad, J., Pettersen, I. B., & Henriksen, K. E. (2016). Entrepreneurial experience and access to critical resources: a learning perspective. Baltic Journal of Management, 11(1), 89-107.

Aldrich, H. E.,Rosen, B., &Woodward, B. (1987). The Impact of Social Networks on Business Foundings and Profit: A Longitudinal Study, 154－169

Ashley E. Faulkner. Entrepreneurship resources in US public libraries: website analysis[J]. Reference Services Review,2018,46(1).

Bauer, A. M., Fang, J., Pittman, J., Zhang, Y., & Zhao, Y. (2020). How aggressive tax planning facilitates the diversion of corporate resources: Evidence from path analysis. Contemporary Accounting Research, 37(3), 1882-1913.

Blazevic, V., Wiertz, C., Cotte, J., De Ruyter, K., & Keeling, D. I. (2014). GOSIP in cyberspace: Conceptualization and scale development for general online social interaction propensity. Journal of Interactive Marketing, 28(2), 87-100.

Buccieri Dominic, Javalgi Rajshekhar G.,and Gross Andrew."Examining the formation of entrepreneurial resources in emerging market international new ventures." Industrial Marketing Management. 103. (2022).

Cha, J.(2023). Social entrepreneurship versus conventional entrepreneurship: how entrepreneurship orientation moderates the effects of human capital and social capital signals on media crowdfunding success.

ChaMcKenna, K. Y., Green, A. S., & Gleason, M. E. (2002). Relationship formation on the Internet: What's the big attraction? Journal of social issues, 58(1), 9-31.

Chatterjee, B. C., Ahmed, I. , Wadud, A. , Maity, M. , & Oki, E. . (2022). Bpria: crosstalk-avoided bi-partitioning-based counter-propagation resource identification and allocation for spectrally-spatially elastic optical networks. IEEE transactions on network and service management.

Chatterjee, S., & Hadi, A. S. (2013). Regression analysis by example. John Wiley & Sons.

Chen, J., & Liu, Y. (2020). Internet Embedding and Resource Identification Capabilities of Entrepreneurial Teams. Entrepreneurship Research Journal, 35(4), 451-467.

Christine Hine (2020). Ethnography for the Internet:Embedded, Embodied and Everyday. Taylor and Francis.

Creswell, J. W., & Creswell, J. D. (2017). Research design: Qualitative, quantitative, and mixed methods approach. Sage publications.

Deakins, D. Freel, M. (1998). Entrepreneurial learning and the growth process in SMEs. The Learning Organization, 5(3): 144-155.

Deakins, D., & Free, C. (1998). Entrepreneurship and small firms. McGraw-Hill Education (UK).

Dillman, D. A., Smyth, J. D., & Christian, L. M. (2014). Internet, phone, mail, and mixed-mode surveys: The tailored design method. John Wiley & Sons.

Dong, C. (2015). Research on the Impact of Internet Embedding on the Resource Access Behavior of Entrepreneurial Teams . Jilin University.

Drencheva Andreana, Stephan Ute,and Patterson Malcolm G.."Whom to Ask for Feedback: Insights for Resource Mobilization From Social Entrepreneurship." *Business & Society*. 61.7(2022).

Ermilina Veronika, et al."Business owners' features and access to entrepreneurial resources: new insights for accelerator acceptance." *Review of International Business and Strategy*. 32.2(2021).

Fang, G& Gu, L (2020). Research on the influencing factors of knowledge appreciation in inter organizational knowledge transformation: based on "Internet plus" collaborative innovation. Research on Technology Management, 40 (4), 7

Ferraris, A., Santoro, G., & Pellicelli, A. C. (2020). "Openness" of public governments in smart cities: removing the barriers for innovation and entrepreneurship. *International Entrepreneurship and Management Journal*, 16, 1259-1280.

First Financial (2022), the three-year survival rate of Chinese startups is less than 1%, https://www.yicai.com.

Galunic, D, Rodan S. (1998) . Resource recombinations in the firm Knowledge structures and the potential for Schumpeterian innovation.Strategic Managenent Journal, 19: 1193-1201.

Gao, Z., Li, L., & Lu, L. Y. (2021). Social capital and managers' use of corporate resources. *Journal of Business Ethics*, 168, 593-613

Gorgievski, M. J., & Stephan, U. (2016). Advancing the psychology of entrepreneurship: A review of the psychological literature and an introduction. *Applied Psychology*, 65(3), 437-468

Granovetter, M. (1985). Eeonomic Aetionand Soeia1 Strueture: The Problem of Embeddedness. Ameriean Journal of Soeiology, 91(3):494- 510.

Greeno, J. G. Collins, A. M. Resnick, L. B. Cognition and learning. Berliner, D.C. Calfee, R.C. (eds.). (1996). Handbook of educational psychology. New York: Simon & Schuster Macmillan, 15-46.

H.Teman Koesmono.(2018) .Effect of External Environmental Industries, Leadership of Entrepreneurship, Resources and Motivation of Entrepreurship to Orientation and Performance of Entrepreneurship of Leathers Craft Center in Tanggulangin Sidoarjo East Java. Journal of Marketing and Consumer Research, 45(0).

Hamirul, H., et al. (2019). "Social Entrepreneurship Learning Model in Higher Education using Social Network Analysis." Journal of Physics: Conference Series 1339.

Hao, Z.P., Zh, S,D, Wang,J,X. (2018). Comparative Study on Entrepreneurship and Learning and Chinese Situation Enlightenment. Management Journal,15 (09): 1411-1422.

Hassan, A., Saleem, I., Anwar, I., & Hussain, S. A. (2020). Entrepreneurial intention of Indian university students: the role of opportunity recognition and entrepreneurship education. *Education+ Training*, 62(7/8), 843-861.

Huang, M.J., Li H.B. (2020). The influence of Internet embedding and social initiative on the social network of returning entrepreneurs. Journal of Beijing University of Science and Technology (Social Science Edition), 36 (01): 57-64.

Huang, M.J., Li H.B. (2020). The influence of Internet embedding and social initiative on the social network of returning entrepreneurs. Journal of Beijing University of Science and Technology (Social Science Edition), 36 (01): 57-64.

Jogaratnam, G. (2017). The effect of market orientation, entrepreneurial orientation and human capital on positional advantage: Evidence from the restaurant industry. International Journal of Hospitality Management, 60, 104-113.

Ki Hyun Baek, et al. (2020)."Analysis of Research Trends Using G-power in Physiotherapy Research in Korea: Systematic Review." The Journal of Korean Physical Therapy. 32.2.114.

Li, Z., & Wang, Q. (2022). The Impact of Internet Technology on Organisational Change and Growth. Journal of Business and Management, 45(3), 123-137.

Markowska, M., & Wiklund, J. (2020). Entrepreneurial learning under uncertainty: exploring the role of self-efficacy and perceived complexity. Entrepreneurship & Regional Development, 32(7-8), 606-628.

Mehwash FarooquiHina GullMahira IlyasSardar Zafar IqbalMohammad Aftab Alam KhanGomathi KrishnaMohammed Salih Ahmed. (2019). Improving mental healthcare using a human centered internet of things model and embedding homomorphic encryption scheme for cloud security. Journal of Computational and Theoretical Nanoscience, 16(5a6).

Miranda, J., Bernardo, R. Fernandez, J.,and Molina, A. (2021). "Collaborative Networking to Enable Innovation and Entrepreneurship Through Open Innovation Hubs: The

Entrepreneurship Learning Centre of Mexico City." *Boosting Collaborative Networks 4.0: 21st IFIP WG 5.5 Working Conference On Virtual Enterprises, Pro-Ve 2020 598*

Miranda, J., Bernardo, R. Fernandez, J.,and Molina, A. (2021). "Collaborative Networking to Enable Innovation and Entrepreneurship Through Open Innovation Hubs: The Entrepreneurship Learning Centre of Mexico City." Boosting Collaborative Networks 4.0: 21st IFIP WG 5.5 Working Conference On Virtual Enterprises, Pro-Ve 2020 598.

Pottie, G. J., & Kaiser, W. J. . (2000). Embedding the internet: wireless integrated network sensors. Communications of the Acm, 43.

R Susilana,L Dewi & M Ali.(2019).A Study on the need of entrepreneurship local content curriculum in Bandung Senior High School. *IOP Conference Series: Earth and Environmental Science.* (1). 245/1

R. Fanou, et al. (2017). "Reshaping the African Internet: From scattered islands to a connected continent." *Computer Communications.* 113

Sarstedt, M., Mooi, E., Sarstedt, M., & Mooi, E. (2019). Regression analysis. A concise guide to market research: The process, data, and methods using IBM SPSS Statistics, 209-256.

Shan, B, A. (2013). Study on the Impact of the Chinese Situation-Based Entrepreneurship Network on the Entrepreneurship Learning Process. Jilin University, 2013.

Shanahan, T., Tran, T. P., & Taylor, E. C. (2019). Getting to know you: Social media personalization as a means of enhancing brand loyalty and perceived quality. Journal of Retailing and Consumer Services, 47, 57-65.

Shane S, Stuart T. (2022). Organizational endowments and the performance of university start-ups. Management Science, 48（1）:154-171.

Stephanie Kelly. (2014). "Oh myyy! There goes the Internet: Life, the Internet, and everything." *Business communication quarterly: BCQ 77*.4.

Thornton, M., Hammerback, K., Abraham, J. M., Brosseau, L., Harris, J. R., & Linnan, L. A. (2021). Using a Social Capital Framework to Explore a Broker's Role in Small Employer Wellness Program Uptake and Implementation. *American Journal of Health Promotion*, 35(2), 214-225.

W., Xing, L. (2023). The impact of social networks and prior knowledge on identifying entrepreneurial opportunities. Innovation and Entrepreneurship Education (02), 52-59

Wang, H., Zhang, L., & Chen, Y. (2021). The Role of the Internet in Facilitating Entrepreneurial Behavior and Opportunities. Entrepreneurship Research Journal, 28(2), 189-204.

Waskom, M. L. (2021). Seaborn: statistical data visualization. *Journal of Open Source Software*, 6(60), 3021

Wei, W., & Jian-Hua, Z.. (2019). Research on the mechanism of entrepreneurship learning to undergraduates' entrepreneurship realization under system constraints. *Value Engineering.*

Wu Libo,Feng Lili & Yan Jianna.(2022).Research on University Innovation and Entrepreneurship Resource Database System Based on SSH2. Mathematical Problems in Engineering. doi:10.1155/2022/1168796.

Wu, L., Yang, F. Tian Y., & Yurong P. (2022). The impact of job embeddedness and its theoretical explanation. Progress in Psychological Science, 29 (5), 906-920.

Wu, X., & Liang, Y. . (2018). Research on College Students' Entrepreneurship under the Influence of Internet. International Conference on Education, Economics, Social Science, Arts, Sports and Management Engineering.

Xie, Y. (2020). "Review of Work Embedding Theory".Proceedings of the 5th International Conference on Social Sciences and Economic Development (ICSSED 2020).Ed.. Atlantis Press.

Yao, X., Lee, T W, Mitchell T R, et al. (2004). Job embeddedness: current research and future directions. In: Griffeth R, Hom P. Understanding employee retention and turnover. Greenwich, CT: Information Age, 153-187.

Yao, Z, Luo, J, Zhang, X& Zhang, L (2020). Internet Embedding, Dual Entrepreneurship Learning, and Farmers' Entrepreneurship Performance. Scientific Research, 38 (4), 11.

Zahra, S. A. (2021). The resource-based view, resourcefulness, and resource management in startup firms: A proposed research agenda. Journal of Management, 47(7), 1841-1860.

Zahra, S. A. (2021). The resource-based view, resourcefulness, and resource management in startup firms: A proposed research agenda. Journal of Management, 47(7), 1841-1860.

Zhao, H, Wang, M& Wang, G (2022). The impact of ecological embeddedness of Industrial Internet platform on the exploratory innovation performance of participating enterprises. Technological Progress and Countermeasures, 39 (15), 10.

Zhao, L.,Li, Q., Yi, S., Tao, C., Tian, H. & Yao, W. (2021). Research on the Impact of Entrepreneurship Learning on Farmers' Entrepreneurship Performance Taking Entrepreneurial Ability as the Mediating Variable. (eds.)Proceedings of Second International Conference on management, economics and law. pp.59-69. Atlantis Press.

Zheng, W., Xu, M., Chen, X., & Dong, Y. (2017). Who is shaping entrepreneurial experience? A multiple case study of Chinese entrepreneurial learning. Management Decision, 55(7), 1394-1409.