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Research Article

The Impact of Knowledge Acquisition on Continuous Innovation Capability: The Mediation Effect of Knowledge Integration

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ABSTRACT

Elevating the continuous innovation capability of technology-based small and medium enterprises (SMEs) has consistently been a pivotal means for SMEs to distinguish themselves in fiercely competitive markets. However, within the academic sphere, research on the continuous innovation capability of technology-based SMEs significantly lags behind other sectors. This paper seeks to investigate the need and tactics for augmenting the perpetual creativity aptitude of high-tech SMEs, with the ultimate aim of allowing these businesses to reach greatness in this area.This study constructs a theoretical framework, based on the principles of continuous innovation theory and knowledge management theory, with knowledge acquisition (both explicit and tacit) as the independent variable, knowledge integration as the mediator, and continuous innovation capability as the dependent variable.The primary objective is to ascertain if (explicit and tacit) knowledge acquisition is seen as an independent factor impacting continuous innovation capability, and to investigate the mediating effects of knowledge integration in the connection between (explicit and tacit) knowledge acquisition and continuous innovation capability. Utilizing random sampling, 455 authentic surveys were conducted in China to fulfill the desired objective. The study scrutinized these theories through correlation and regression analysis, revealing that knowledge integration played a major role in tacit and explicit knowledge acquisition with ongoing innovation skills. The significance of knowledge acquisition and integration is emphasized in these findings, which contribute to the enhancement of high-tech SMEs. The results of this research are significant for small and medium-sized enterprise proprietors, decision-makers, and scholars, highlighting the critical role of knowledge gathering and amalgamation in boosting ongoing innovation in tech-oriented SMEs.

Keywords: Knowledge Acquisition, Continuous Innovation Capability, Knowledge Integration, SMEs.

INTRODUCTION

The intensification of the focus on assessing the growth, efficacy, and effect of Small and Medium Enterprises (SMEs) on both domestic and international economies has been spurred by a growing acknowledgement of them as catalysts of innovation, job creation, and economic growth (D'Angelo, 2019). Research in SMEs has evolved to be more cross-disciplinary, incorporating knowledge from areas like management, economics, sociology, psychology, and technology to provide a comprehensive insight into the elements influencing SME success (Gherghina, Botezatu, Hosszu, & Simionescu, 2020; Das, Kundu, & Bhattacharya, 2020). Calantone, Dröge, and Vickery (2002) suggest that firms armed with sophisticated tech innovation abilities excel in quickly tackling

novel challenges, thus boosting their competitive advantage and market position. Despite the strong focus on technological advancements and their impact on innovation studies, research into sustainable innovation within SMEs remains in its initial stages.

It is becoming increasingly evident that continuous innovation serves as the driving force behind progress, with high-tech SMEs particularly susceptible to the imperative of sustaining their capacity for continuous innovation (Tong & Rahman, 2022). This susceptibility arises from market dynamics characterized by shifts in industry paradigms and technological advancements, lending weight to the theoretical significance and practical relevance of this endeavor.

Hence, the principal objective of this study is to delve into the evolving domain of continuous innovation within SMEs and propose a preliminary framework for the formulation and implementation of such innovation (Schminke & Van Biesebroeck, 2013; R. Cheng, Tao, Wang, & Zhao, 2023). Thus, knowledge integration refers to the process of combining knowledge, information, and expertise from diverse sources and domains to generate new insights, innovations, and problem-solving (D. Zhang, Sun, Liu, Zhou, & H. Zhang, 2018). In the context of SME research, knowledge management can play a crucial role, especially in continuous innovation capability (Baocang, 2018).

The gap between these areas is that while there is a lot of research on individual areas such as technology-based SMEs, sustainable innovation capability and knowledge management, there is less research on how these areas are interrelated and how to integrate to achieve the best results. In addition, there is a gap in research on how to effectively manage and integrate different types of knowledge, such as tacit and explicit, to support continuous innovation. CI and KM's effects on SME success are similarly little studied.

In all, this study aims to understand the factors that affect the sustainable innovation capability of technology-based SMEs, with a particular focus on knowledge integration, knowledge acquisition, and their interactions. To enhance sustainable innovation capability, knowledge management is essential. However, further research is needed to investigate the role of knowledge integration in the relationship between continuous innovation capability and knowledge acquisition, which has a significant impact on enhancing continuous innovation capability. Similarly, taking technology-based SMEs as the research subject is a new way to validate the applicability of this model. From an operational standpoint, this study offers a path to anti-risk and sustainable growth for technological SMEs in the face of drastic external shifts and the swift advancement of science and technology.

LITERATURE REVIEW

Continuous Innovation Capability

A sustained and methodical attempt to upgrade a product, service, or process through the introduction of novel concepts, technologies, or techniques can be termed continuous innovation. This approach differs from the traditional innovation model, which tends to focus on a single, breakthrough or a series of isolated innovations (Trivellato, Martini, & Cavenago, 2021). Continuous innovation capability is the core element of an organization’s remaining competitive. It gives organizations the ability to continuously produce and implement novel and unique concepts, products, and procedures, which is important for responding to market changes and meeting user needs. Adapting to market changes more quickly and seizing market opportunities to ensure long-term success and growth are the hallmarks of organizations that are constantly innovating (Lianto, Dachyar, & Soemardi, 2022).

Knowledge Acquisition

The foundation for innovation-driven development and economic security in modern countries is increasingly based on knowledge-intensive and high-tech industries (Watanabe, Naveed, & Neittaanmäki, 2017; Sergeevna & Nadtochiy, 2020). Many scholars believe that knowledge is the most untapped resource in modern countries (Sergeevna & Nadtochiy, 2020; X. Zhang, Jiang, Xiao, & Cheng, 2018). Divided into explicit and implicit knowledge acquisition, knowledge is characterized by its own fluidity (Baocang, 2020). Explicit knowledge, comprising of facts, processes, documents, regulations, standards, and notions, is distinct from tacit knowledge, which cannot be simply articulated or conveyed. Organizations and people preserve tacit knowledge as experiences, insights, abilities, and know-how (Conner & Prahalad, 1996).

Knowledge Integration

The integration of knowledge is a process that unites various sources and types of knowledge to construct new or enhanced systems, products, or comprehension, with applications ranging from product creation to

organizational creativity and more (Li, Zhang, & Zheng, 2019). This necessitates the successful amalgamation and amalgamation of diverse kinds of knowledge to realize the creativity and admiration of knowledge.Maximizing and optimizing knowledge necessitates a thorough examination of the links and interactions between the various knowledge, as well as how to integrate them organically (Kozierkiewicz, Du Nguyen, & Pietranik, 2018). And the intertwined nature of knowledge acquisition and integration emphasizing their collective importance in innovation, competitive advantage, and effective knowledge management practices (Baocang, 2020; Xi, Wang, & Zhu, 2020).

More importantly, knowledge integration is crucial for the innovation and development of enterprises. By effectively integrating and utilizing different types of knowledge, enterprises can continuously improve their competitiveness and adaptability to gain a greater advantage in the fierce market competition (Baocang, 2020).

Knowledge Acquisition and Continuous Innovation Capability

In the process of continuous innovation, based on the fleeting market opportunities and customer demand changes, limited by resources and capabilities, technology-based SMEs need to use external complementary resources and heterogeneous capabilities to achieve cooperative innovation, and then form systematic solutions (Geng, 2013). In this process, explicit knowledge resources, as the basic language and common language for communication between enterprises, the more the number of knowledge acquired, the greater the willingness to interact and the consensus formed between the two sides, the more conducive to improving each other's ability to identify and define potential opportunities, and the formation of innovative interface rules and innovation. Enterprise innovation capacity increases with information absorption and transfer energy. The root of organizational core competency distinctions lies in tacit knowledge, the intimate, personalized understanding of a technical sector. The amount of implicit and explicit resources acquired, the more mutual passion and willingness for cooperation, the greater the potential for creativity in companies (Bing & Wan-Qin, 2017), all contribute to the increased monetary worth of information distilled and incorporated into an object package. The following hypothesis is put forth:

H1: Explicit knowledge acquisition has a significant positive impact on continuous innovation capability.

H2: Tacit knowledge acquisition has a significant positive impact on continuous innovation capability.

The Mediating Role of Knowledge Integration

Ferriani, Cattani, and Baden-Fuller (2009) believe that in order to maintain competitive advantage, enterprises need to allocate and integrate the resources they have obtained (Sun, Zhao, Zhang, & Tian, 2022). According to Guo and Zhang (2017), enterprise resource integration capacity includes micro strategic meetings, reformulating the "rules of the game," and macro interchange and allocation. activation and integration capability. Resource integration can make enterprises maintain their competitive advantages by creating new resources, reorganizing old resources and protecting the original resources. Senyard, Baker, and Davidsson (2009) conducted a questionnaire survey on 1329 start-ups, and the results showed that there was a significant correlation between resource integration and enterprise innovation. The reintegration and creation of proprietary knowledge by firms is a source of innovation, as Kogut and Zander (2003) have noted. This has been further confirmed by Jian, Wu, and Huang (2008), who found that the integration of these resources has a significant, direct positive effect on organizational innovation. Additionally, Xue (2014) verified this same effect.The integration of resources has a remarkable beneficial influence on the capacity for sustainable innovation.

In academic research, knowledge integration and resource integration are closely related and often studied together. Resource integration involves merging people, technology, and finances to accomplish an objective. Information integration involves merging multiple kinds of information to get new insights for making good decisions.

Both knowledge integration and resource integration are important for an organization to achieve its goals. Similarly, organizations that can effectively integrate their knowledge, such as combining different types of knowledge, are better able to make better decisions and achieve their goals.

These two concepts are closely related, because knowledge integration is a key factor in resource integration, because knowledge can be regarded as a resource (Yiu & Law, 2014). Organizations that are adept at combining their expertise and assets are also more apt to capitalize on those resources and realize their objectives.

Academics have been increasingly intrigued by the way businesses amalgamate knowledge and resources to reach their objectives. Exploring the components that foster a culture of knowledge exchange and cooperation within businesses(Jang & Landuyt, 2023), this study delves into the management and utilization of data at all levels of the organization, as well as the role technology plays in enabling the amalgamation of knowledge and resources. Further research is essential to gain a comprehensive comprehension of how companies amalgamate

knowledge and resources to accomplish their objectives.

As knowledge-intensive firms, the dependency of technology-based SMEs on their capacity to acquire information may be envisaged for the purposes of this article. For SMEs, knowledge integration — a crucial component of developing an effective, productive, circular, and viable information flow — is of the utmost significance (Islam, Avazov, Dobre, & Kwak, 2016). This integration capability is especially crucial for enterprise innovation, surpassing absorptive capability (Jian et al., 2008). Confirmation of the simulation analysis reveals that when knowledge integration is efficient, the average path length of a knowledge innovation network is reduced and the agglomeration coefficient is decreased, resulting in a higher and easier efficiency of knowledge distribution. Therefore, knowledge acquisition ability has a favorable impact on resource integration ability.

From this, the following assumptions can be made:

H3: Explicit knowledge acquisition has a positive effect on knowledge integration.

H4: Tacit knowledge acquisition has a positive effect on knowledge integration.

H5: Knowledge integration has a significant positive effect on continuous innovation capability.

H6: Knowledge integration plays a mediating role between explicit knowledge acquisition and continuous innovation capability.

H7: Knowledge integration plays a mediating role between tacit knowledge acquisition and continuous innovation capability.

In summary，the conceptual framework of this study are as follow (**Figure 1**)：

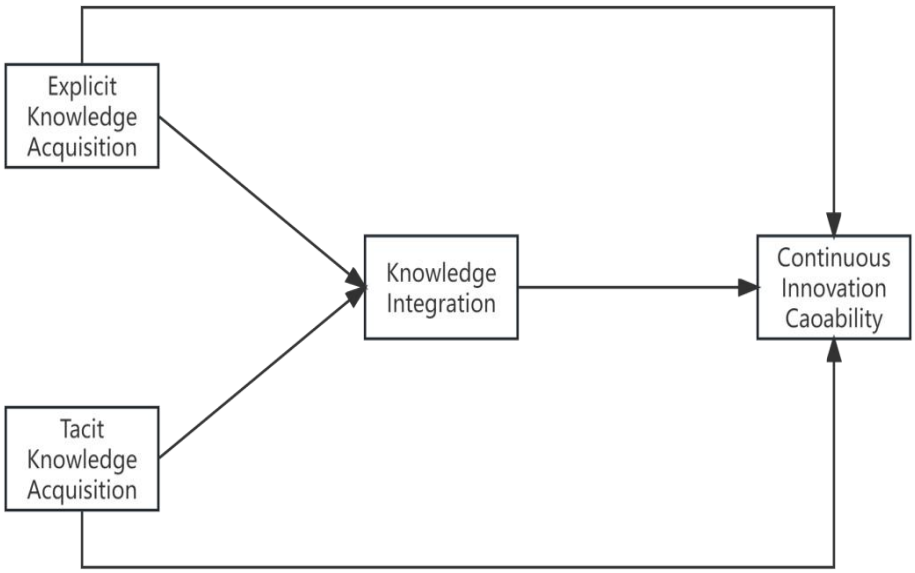

Figure 1. Conceptual Framework

METHODOLOGY

Sampling and Data Collection

A cross-sectional survey, utilizing primary data, was the focus of this study. This study mainly used quantitative research methods to verify the research hypothesis.

The data was collected from questionnaires which is based on the measurements above was structured by Likert scale. The sample consisted of individuals who manage or own high-tech SMEs in China. Random sampling was employed to select the representative participants for the sample, and ethical considerations such as informed consent and data confidentiality were kept in mind during the research.

Qualitative quantitative research methods were employed to ascertain the scale's validity and feasibility prior

to its collection. Five specialists in the field of this study were then consulted to verify the questionnaire's dependability. Subsequently, a minor scale of testing was initiated to guarantee the reliability and validity of the questionnaires.

The sample size should be at least over 400 according to the previous study. The total number of questionnaires distributed was 543, with 455 being valid. The proportion of valid questionnaires in the total was 83.8%.

Descriptive statistics, such as means and standard deviation, were employed to encapsulate the demographic particulars of the variables. This study also takes tests of reliability and validity, such as Cronbach's alpha, discriminant validity, composite reliability etc.To ascertain the dependability and precision of the data, regression and correlation analysis were utilized to probe the links between the variables and verify the hypotheses presented. Additionally, to gauge the degree to which measuring instruments generate analogous outcomes in different contexts, or if they can precisely gauge the concepts or variables to be gauged.An analysis of mediation was done to investigate the mediating effects of knowledge integration between tacit or explicit knowledge acquisition and the capacity for perpetual innovation.

Measurements

The following measurements, sourced from a prior literature review, were used to construct this study questionnaire (**Table 1**):

Table 1. The Sources and Abbreviations of the Variables

Variables	Abbreviation	Sources	Number of items
Continuous Innovation Capability	CIC	(Baocang, 2018) (Xue, 2014)	7
Explicit Knowledge Acquisition	EKA	(Baocang, 2020)	5
Tacit Knowledge Acquisition	TKA	(Baocang, 2020) (Xue, 2014)	5
Knowledge Integration	KI	(Jian et al., 2008)	5

RESULTS AND DISCUSSION

Variables' Correlation of Pearson, Descriptive Statistics, and AVE

The means, standard deviations, Cronbach's alpha, and CR of four variables are presented in **Table 2**. The results show that the TKA has the highest mean and SD among the four variables. Also, all four variables' Cronbach's alpha (0.82, 0.87,0.87,0.80) are above 0.8, which indicate the reliability is acceptable. The Correlation Coefficient of each variable, beneath the square roots of AVE, demonstrates that the discrimination validity analysis of each variable is satisfactory.

Table 2. Descriptive Statistics, CR, AVE and Pearson Correlation of Variables

	M	SD	α	CR	1	2	3	4
1.CIC	3.84	0.64	0.82	0.89	(0.73)			
2.EKA	4.03	0.66	0.87	0.89	0.49**	(0.76)		
3.TKA	4.83	0.78	0.87	0.90	0.58**	0.54**	(0.81)	
4.KI	4.01	0.61	0.80	0.86	0.55**	0.62**	0.70**	(0.74)

Note: n=455
The square roots of AVE are used in discrimination validity analysis
* * At the 0.01 level (two-tailed), the correlation is significant.
* At the 0.05 level (two-tailed), the correlation is significant.

Confirmatory Factor Analysis of the Variables

The researchers construct Confirmatory factor analysis for each variable in order to analyze the validity of the

variables, and **Table 3** demonstrates that the outcomes of each variable are satisfactory.

Table 3. Confirmatory Factor Analysis of the Variables

Variable	χ^2	df	χ^2/df	RMSEA	CFI	TLI	IFI	p
CIC	42.77	14	3.06	0.07	0.98	0.96	0.98	<0.05
EKA	6.1	5	1.22	0.02	1.00	1.00	1.00	<0.05
TKA	20.4	5	4.08	0.08	0.99	0.97	0.99	<0.05
KI	6.282	5	1.26	0.02	1.00	1.00	1.00	<0.05
Criteria	/	/	≤5	≤0.08	≥0.90	≥0.90	≥0.90	<0.05
Note: n=455								

Regression Analysis

The significance of the coefficient of action (β =0.157, P<0.001) between EKA and CIC is evident, thus negating the null hypothesis and validating the path. Similarly, the coefficient of action (β =0.317, P<0.001) between TKA and CIC is also significant, thus confirming the validity of the path. In summary, H1 and H2 are proved.

The significance of the effect coefficient (β=0.185, P<0.001) of the path between EKA and KI is such that the null hypothesis is disproven, thus confirming its validity; likewise, the effect coefficient (β=0.344, P<0.001) of the path between TKA and KI is significant, thus the null hypothesis is disproved, thus confirming its validity. Lastly, the effect coefficient (β =0.357, P<0.001) of the path between KI and CIC is significant at the level, thus confirming its validity. Thus, H3, H4, H5 are proven (**Table 4**).

Table 4. Results of Regression Analysis

Hypothesis	Relation	B	β	P	Decision
H1	EKA→CIC	0.939	0.157	0.000***	Accepted
H2	TKA→CIC	0.344	0.317	0.000***	Accepted
H3	EKA→KI	0.934	0.185	0.000***	Accepted
H4	TKA→KI	0.314	0.344	0.000***	Accepted
H5	KI→CIC	0.424	0.357	0.000***	Accepted
Note: * * *, * * and * represent the significance levels of 1%, 5% and 10%, respectively					

Mediation Effect Test

In this study, we primarily focus on the examination of the mediating effects test to gain a more thorough understanding of the mediating effects of the model. The following steps of mediating effects are outlined:

(1) Formulate a regression model to illustrate the mediating effect.

(2) Model 1: Regression model of dependent variable CIC with independent variables EKA and TKA , i.e., CIC=c1EKA+e1; A=c2C+e2

(3) Model 2: Regression model of independent variable EKA, independent variable TKA and mediating variable KI, i.e., KI=a1B+e3; KI=a2C+e4

(4) A regression model of CIC with EKA, TKA, and KI is presented in Model 3. The equation CIC is: e5+c1*EKA+b*KI, CIC=e6+b*KI+c2*TKA.

(5) After constructing the model, the regression model coefficients for the mediating effects were derived in **Table 5**:

Table 5. Results of Intermediary Test Analysis（n=455）

	CIC					KI					CIC				
	B	**SE**	**t**	**P**	**β**	**B**	**SE**	**t**	**P**	**β**	**B**	**SE**	**t**	**P**	**β**
Constants	0.509	0.117	4.356	0.000***	-	0.814	0.106	7.646	0.000***	-	0.363	0.123	2.96	0.003***	-
EKA	0.469	0.05	9.412	0.000***	0.468	0.386	0.045	8.501	0.000***	0.416	0.4	0.053	7.543	0.000***	0.399
TKA	0.385	0.05	7.675	0.000***	0.381	0.41	0.046	8.96	0.000***	0.439	0.312	0.054	5.795	0.000***	0.309
KI											0.179	0.051	3.517	0.000***	0.166
R^2	0.662					0.671					0.671				
Adjusted R^2	0.66					0.669					0.668				
F	F(2，452)=441.723，P=0.000***					F(2，452)=460.912，P=0.000***					F(3，451)=306.014，P=0.000***				
***, **, and * stand for 1%, 5%, and 10% of P value															

Table 5 reveals three distinct models that are part of the mediating effects analysis: Model 1, regression model of independent variable X with dependent variable Y: CIC=0.509+0.469 * EKA+0.385 * TKA Model 2, regression model construction of independent variable X with mediating variable KI (multiple models if multiple mediating variables): KI=0.814+0.386 * EKA+0.41 * TKA Model 3, regression model construction of independent variable X and mediating variable KI together with dependent variable Y: CIC=0.363+0.4 * EKA+0.312 * TKA+0.179 * KI. To ascertain the degree to which KI mediates between CIC and the independent variables EKA and TKA, the mediating effect of the test was assessed.

Table 6 reveals that a and b, both of which are significant for EKA, and c'(=0.4) with the same sign as c' imply that KI may act as a partial mediator between EKA and CIC, and further testing is necessary, the 95% BootCI of a*b for EKA (= 0.138 - 0.021) excluding the number 0 (significant) and c' (= 0.4) significant and a*b with the same sign as c' is partially mediated; similarly, a (= 0.41) and b (= 0.179) significant and c' (= 0.312) significant and a*b with the same sign as c' for TKA (tacit knowledge acquisition), therefore, the partially mediating role of KI between TKA and CIC is evident. further testing that the 95% BootCI (=0.137-0.026) of a*b for TKA (tacit knowledge acquisition) does not include the number 0(significant) and c'(=0.312) is significant and a*b is partially mediating when it has the same sign as c'.

KI's part in mediating between EKA and CIC is evident, as is its role in mediating between TKA and CIC. If it is partially mediated, the effect share is calculated by the formula: a*b/c. Then, the mediating effect of KI between EKA and CIC is 0.069/0.469=0.147; the mediating effect of M between TKA and CIC is 0.073/0.385=0.190.

In summary, for path: EKA => KI => CIC, the partial mediating effect of the mediating variable D, and for path: TKA => KI => CIC, partial mediating effect of mediating variable KI.

Table 6. The Results of the Mediating Effect

c	**a**	**b**	**a*b Intermediary Effect Value**	**a*b (Boot SE)**	**a*b (z value）**	**a*b (P value）**	**a*b (95%BootCI)**	**c' Direct effect value**	**Decision**
0.469	0.386	0.179	0.069	0.029	2.349	0.019**	0.138 - 0.021	0.4	Partial Mediation Role
0.385	0.41	0.179	0.073	0.029	2.562	0.011**	0.137 - 0.026	0.312	Partial Mediation Role

This research seeks to ascertain if knowledge integration acts as a mediator between the acquisition of knowledge and the capacity to continually innovate within technology-based SMEs.

Geng (2013) delves into the correlation between explicit acquisition and continuous innovation capability, which is evidenced by the outcomes of H1 and H2. Many scholars have come out similar conclusions. A strong correlation between knowledge management and innovation ability was found by Lam, Nguyen, Le, and Tran

(2021) and an open culture of innovation, including mutual trust, cooperation, and learning, can enhance the efficacy of knowledge management practices. Additionally, Jing and Cisheng (2021) discovered that explicit knowledge acquisition has a beneficial effect on innovation capacity. In addition, Gulyaz and Erturk (2020) also noted that knowledge acquisition and learning, production, marketing and strategic planning capabilities show significant positive relationships in R & D centers. The importance of explicit knowledge acquisition in the innovation process is highlighted by these studies, with (Baocang, 2020) inferring that explicit and tacit knowledge acquisition have a considerable effect on the capacity for continuous innovation. Zhu and Zhang (2022) contrast this research object with the current paper, which focuses on the continuous innovation capacity of virtual organizations, and is intended for small and medium-sized technology-based enterprises.

The integration of knowledge is significantly impacted by both explicit and tacit knowledge acquisition, as evidenced by H3 and H4's results. It illustrate the theory of knowledge management. Compared with cognitive tacit knowledge, Xu, Tang, Chen, and Brem (2023) find out that skilled tacit knowledge has a stronger intermediary role between open innovation (whether inward-oriented or export-oriented) and collaborative innovation ability. However, not all areas of knowledge acquisition receive equal attention. Chinese firms in international M&As tend to emphasize explicit knowledge transfer over tacit knowledge, influenced by factors like complementarity in explicit knowledge and cultural differences (Ai & Tan, 2018).

As for H5, it is evident that knowledge integration exerts a significantly positive influence on continuous innovation capability, which is similar with Sun et al. (2022). Additionally, both tacit and explicit knowledge acquisition contribute significantly to enhancing continuous innovation capability. Enhancing continuous innovation capability is significantly aided by both tacit and explicit knowledge acquisition.

The mediating effect analysis demonstrates that knowledge integration is of paramount importance for H6 and H7. It acts as a partial mediator between explicit knowledge acquisition and continuous innovation capability (W. Cheng, Hailin, & Hongming, 2008), as well as between tacit knowledge acquisition and continuous innovation capability. These findings underscore the importance of knowledge integration in shaping the continuous innovation capability of technology-based SMEs as the previous research (W. Cheng et al., 2008).

CONCLUSION

This study not only demonstrates the considerable beneficial effect of knowledge integration on the perpetual innovation aptitude of high-tech SMEs, but also emphasizes its part as a partial mediator between explicit and implicit knowledge acquisition and continuous innovation capacity. These findings provide a robust theoretical foundation and valuable practical insights for businesses aiming to enhance their knowledge integration strategies. The integration of knowledge, which is often essential for SMEs to survive and expand, is a necessity for those that are heavily dependent on knowledge and technology. This proficiency in knowledge integration acts as a catalyst for the convergence, amalgamation, and practical application of insights from diverse fields and disciplines.The capacity to uncover novel notions, fresh outlooks, and inventive solutions allows these businesses to foster a culture of perpetual enhancement and creativity in their goods and services. Ultimately, this enhances their collective proficiency and collaborative efficacy, reinforcing their overall competitiveness.

IMPLICATIONS

Theoretical Implications

A theoretical model of the connection between knowledge acquisition and ongoing innovation aptitude of technology-based SMEs was formulated. This paper's innovation emphasis is mainly demonstrated in the formation of a theoretical research model on the association between knowledge acquisition and lasting innovation aptitude of technology-based SMEs, and the confirmation of the relationship through empirical research. This innovation point is of great significance to the broadening of the application boundaries of innovation management theory, knowledge management theory, and dynamic capability theory.

This research delves deeper into the mediating role of knowledge integration and trust between explicit knowledge acquisition and continuous innovation capability, with implications for a more comprehensive comprehension of the intricate connections between these essential variables and the ways in which they influence continuous innovation capability.

Practical Implications

From a strategic decision-making standpoint, the aptitude for knowledge integration plays a pivotal role in rendering comprehensive and well-informed intelligence, thus providing robust support for an enterprise's strategic choices. By amalgamating knowledge from disparate domains, companies are better equipped to assess market dynamics, industry competition, and technological advancements, equipping them to make judicious and insightful decisions.

Hence, it is imperative for companies to fortify the development and nurturing of their knowledge integration capabilities, a feat that can be realized through a multifaceted approach. Firstly, establishing cross-departmental collaboration mechanisms, constructing knowledge management platforms, and facilitating inter-team communication and cooperation are vital steps.A centralized repository for knowledge storage and sharing, containing documents, reports, lessons learned, best practices, and more, can be a great aid in reducing access and diminishing the problem of information silos.

Corporate decision-makers should foster an atmosphere of collaboration and knowledge exchange amongst their personnel, thus encouraging the alteration and flux of knowledge within the company. This may entail stimulating interactions and cooperation between disparate departments, formulating cross-functional project teams, orchestrating regular inter-departmental meetings and workshops, and actively recruiting and training employees with interdisciplinary proficiencies.

RESEARCH LIMITATION AND FUTURE DIRECTIONS

Although this study has yielded some useful results in revealing the relationship between key variables of the sustained innovation capability of technology-based SMEs, there are still some limitations that need to be mentioned. By acknowledging these limitations, we can provide some insights for future research and stimulate the reader's interest in further research in this area.

Firstly, the data source for this study is limited to technology-based SMEs in specific regions or specific industries.The study findings may have been restricted in their applicability. To acquire a more comprehensive and globalized result, future research should broaden the sample to include technology-based SMEs from various areas, industries, and sizes.

This study's variables of interest center around knowledge acquisition and integration. Secondly, Further study is required as some additional potential elements or aspects might effect the continuous innovation capabilities of technology-based SMEs.The introduction of innovation culture, leadership style, and organizational culture may have a considerable effect on the capacity to innovate continually. Further research may explore the connection between these variables and the existing variables.

The cross-sectional data design utilized in this research was inadequate in gauging the causal and temporal connections between the variables. To gain a more profound comprehension of the causal connections and the ever-evolving relationship between variables, a longitudinal research design that tracks alterations over time in technology-based SMEs could be employed in future studies.

Furthermore, since the study's questionnaire relied on respondents' self-reports, there's a chance that some information was skewed and biased out of self-consciousness. Subsequent research endeavors may consider using several data sources, including documentary analysis, interviews, and observational data, in order to enhance the validity and precision of the results.

This study has produced significant findings regarding the connections among critical factors influencing the continuous innovation capability of technology-based SMEs. Despite the study's restrictions, we urge future investigators to investigate the impact of extra elements on perpetual innovation aptitude. Through continual enlargement and thorough investigation, we strive to augment our comprehension and advance of sustained innovation aptitude among technology-based SMEs, thereby furnishing more reliable direction and backing to business administrators, administrators, and academics.

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