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**Watchara Chiengkul**

Rajamangala University of Technology Isan Khon Kaen Campus

**Wanita Boonchom\***

Rajamangala University of Technology Isan Khon Kaen Campus

**Wasana Phuangpornpitak**

Rajamangala University of Technology Isan Khon Kaen Campus

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**The Knowledge Application to Enhance the Competitive Capacity of Agritourism in Roi-Kaen-Sara-Sin Cluster, Thailand**

The purpose of this study was to investigate the relationship between knowledge management and the adoption of innovation and technology, with the goal of leveraging knowledge application to enhance the competitive capacity of agritourism within the Roi-Kaen-Sara-Sin cluster. The purposive sampling method was used in this quantitative research. Samples were collected from 456 farmers engaging in agritourism in Roi Et, Khon Kaen, Mahasarakham, and Kalasin provinces, Thailand. The data was examined using a structural equation model. According to the findings of the study, knowledge management has a favorable association with knowledge application through the mediation of the adoption of innovation and technology. The results of this study can be used in strategic planning for area-based management.

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Keywords: Knowledge management, Innovation and technology, Knowledge application, Agritourism, Thailand

Dr. Watchara Chiengkul

Lecturer

Faculty of Business Administration and Information Technology, Rajamangala University of Technology Isan Khon Kaen Campus

Address: 150 Srichan Road, Muang, KhonKaen 40000, Thailand.

Email: [watchara.ch@rmuti.ac.th](mailto:watchara.ch@rmuti.ac.th)

Dr. Wanita Boonchom\* (*Corresponding author*)

Assistant Professor

Faculty of Business Administration and Information Technology, Rajamangala University of Technology Isan Khon Kaen Campus

Address: 150 Srichan Road, Muang, KhonKaen 40000, Thailand.

Email: [vanita.bo@rmuti.ac.th](mailto:vanita.bo@rmuti.ac.th)

Dr. Wasana Phuangpornpitak

Lecturer

Faculty of Business Administration and Information Technology, Rajamangala University of Technology Isan Khon Kaen Campus

Address: 150 Srichan Road, Muang, KhonKaen 40000, Thailand.  
Email: [wasana.ch@rmuti.ac.th](mailto:wasana.ch@rmuti.ac.th)

**Watchara Chiengkul** is a lecturer in Tourism and Hospitality Management at the Faculty of Business Administration and Information Technology, Rajamangala University of Technology Isan Khon Kaen Campus, Thailand. He holds a Ph.D. in Hospitality and Event Management from the Faculty of Business Administration and Accountancy, Khon Kaen University (Thailand). His research interests include sustainability, special events, and consumer behavior in Tourism and Hospitality.

**Wanita Boonchom** is an Assistant Professor in Management at the Faculty of Business Administration and Information Technology, Rajamangala University of Technology Isan Khon Kaen Campus, Thailand. She holds a D.B.A. in Business Administrator from the Faculty of Business Administration and Accountancy, Khon Kaen University (Thailand). Her research interests include entrepreneurship and behavioral economics.

**Wasana Phuangpornpitak** is a lecturer in Logistic Management at the Faculty of Business Administration and Information Technology, Rajamangala University of Technology Isan Khon Kaen Campus, Thailand. She holds a Ph.D. in Industrial engineering from the Faculty of Engineering, Khon Kaen University (Thailand). Her research interests include efficiency, productivity, vehicle routing problem, transportation, and logistic management.

## **Introduction**

Borderless communication and growing competition in numerous forms are currently affecting the livelihoods of individuals, communities, and society in the midst of a shifting crisis (Chin & Pehin Dato Musa, 2021). This predicament pushed small farmers to investigate the potential of supplementary economic techniques in order to sustain their businesses. In particular, farmers are continually seeking innovative methods to organize business in order to increase their revenue, turn their farms into tourist sites, employ agricultural goods in unique and creative ways, and develop new market niches (Ammirato et al., 2020). Therefore, Agritourism is becoming more current as a strategy for agricultural entrepreneurs to diversify their companies and stimulate the rural economy (Canovi & Lyon, 2020).

Utilizing a community's intellectual capital to enhance learning capacity is what knowledge management is all about (Basadur & Gelade, 2006). Knowledge, not just information, is the major source of a community's inventive potential. Knowledge must be well managed for it to be used for further development, become concrete, or lead to application and practice for maximum benefit (Swan et al., 2000). Therefore, it can be seen that knowledge is a form of social capital that is a crucial tool for business development to gain competitive advantages. For the agritourism industries, knowledge management is one of the processes used to enhance the quality of service standards and promote further applications for increasing work efficiency in the network group (Chin & Pehin Dato Musa, 2021). This process will enable the development of knowledge exchange to lead to targeted development, namely human development, job development, and community development (Swan et al., 2000). Nowadays, with the changes and the development of technology and innovation, all communities or individuals can take advantage of the adoption and integrate it with knowledge management to increase the level of application of knowledge more efficiently (Lee et al., 2016).

In Thailand, there are still many features to improve for agritourism, which is currently in the early stages of growth (Tseng et al., 2019). The provinces of Roi Et, Khon Kaen, Mahasarakham, and Kalasin in northeastern Thailand comprise the Roi-Kaen-Sara-Sin cluster, which was established to achieve strategic management in generating additional income outside of the agriculture sector by enhancing the economic well-being of the populace through tourism. However, the cluster also faces issues with the group's ability to develop into an effective unit. This problem is caused by farmers' and rural entrepreneurs' lack of awareness and understanding of knowledge management concepts and practices, as well as the limited access to material and communication technologies in some rural areas, which is a significant step in enhancing and

connecting tourism within the cluster (AlBar & Hoque, 2019). For example, in the context of Italy, De Rosa et al. (2019) observed that farmers involved in agritourism rarely use systematic strategic planning. Unsustainability is frequently caused by a dearth of long-term strategies and reliance on spontaneous management (Shih et al., 2018; Tseng et al., 2019). Moreover, due to the scarcity of research in this field, the knowledge management viewpoint is not extensively used in agritourism studies (Martins et al., 2019; Seisawatwanit, 2013). In order to address this research gap, facilitate knowledge management in agritourism, and encourage the adoption of innovation and technology, a certain set of factors must be identified.

The goal of this study was to explore farmers' opinions on the relationship between knowledge management and the adoption of innovation and technology, which leads to the application of knowledge targeted at boosting competitiveness in agritourism in the Roi-Kaen-Sara-Sin cluster. The current study primarily used a knowledge-based view of the firm and the technology acceptance model. The knowledge-based view of the firm is used to clarify the development of knowledge management: knowledge can be gained, acquired, built, organized, stored, exchanged, and learned within an organization, and it is critical in shaping a company's skills and competitiveness (Cooper et al., 2023; Grant, 1996). The technology acceptance model helps to describe how individuals and organizations adopt new technologies (Davis, 1989). Therefore, in the current study, the knowledge-based view of the firm is employed to elucidate the connections between perceptions of knowledge management and implementation. The technology acceptance model was also employed to support the association between the adoption of innovation and technology and the application of knowledge in agritourism. Complementing the knowledge in the tourism industry, agritourism enterprises that effectively manage and leverage their knowledge resources can create new products and services, develop innovative processes,

and improve customer experiences (Ammirato et al., 2020). By doing so, these firms can differentiate themselves from competitors and achieve higher levels of profitability and growth (Grant, 1996). The findings of this study hold potential utility for farmers and other relevant stakeholders, as they can be applied within the organization to yield further benefits.

### **Literature Review**

Knowledge management is an essential process that facilitates the attainment of human and professional development goals, ultimately fostering the growth of learning communities. By effectively implementing knowledge management, organizations and communities can drive continuous improvement and enhance their overall efficiency (Limsangpetch et al., 2022). There are studies of knowledge management in several academic fields. According to the majority of research, knowledge management is critical to strengthening organizations ability to create competitive advantages (e.g., Kuncoro & Suriani, 2018; Mardani et al., 2018; Mothe et al., 2018). This is due to the recognition that knowledge management within the group is a crucial component in obtaining a comprehensive understanding of the overall functioning of the organization (Hung et al., 2005). Therefore, knowledge management is a tool that helps communities adapt, be resilient, and respond more quickly to rapid changes in situations. Suppose the communities can manage knowledge systematically or even exchange knowledge. In that case, it will be a proactive operation that helps the group's work improve and develop (Del Giudice & Della Peruta, 2016). It will also help if the communities can adopt new technologies and innovations that come up in their work. This will even more encourage the organization to use knowledge to improve its work or come up with new work ideas (Santoro et al., 2018). Therefore, we propose the following hypothesis:

*Hypothesis 1 (H1):* Knowledge management has a positive relationship with the adoption of innovation and technology.

Innovation and technology are considered factors that enhance operational efficiency and contribute to enhanced competitiveness, such as profitability and sales growth (Hsueh & Tu, 2004; Al-bahussin & El-garaihy, 2013). Many communities should focus on bringing innovation and technology to enable communities to apply knowledge effectively, especially by being exposed to innovation and modern technology in the agritourism sector (Carrillo et al., 2004; Al-bahussin & El-garaihy, 2013). As a result, the effective adoption of innovation and technology will play an important role in enabling an organization or group of people to apply or integrate that knowledge to achieve operational benefits that reflect their operational capability (Lichtenthaler & Lichtenthaler, 2009). Based on this, we propose the following hypothesis:

*Hypothesis 2 (H2):* Adoption of innovation and technology has a positive relationship with knowledge application.

Applying knowledge is a critical approach for firms to generate new core competencies and boost their competitive capabilities (Mulhim, 2017). This process entails methodically organizing and integrating knowledge, as well as embracing innovation and technology, in order to successfully deliver and transfer knowledge to others (Abbas & Sagsan, 2019; Mothe et al., 2017). The implementation of effective knowledge management can result in favorable outcomes in terms of knowledge application (Santoro et al., 2018). This is because Knowledge management may aid in the acquisition and organization of agritourism-related knowledge, including information about farming practices, hospitality, marketing, and customer service. By organizing this knowledge, agritourism enterprises may more readily incorporate it into their operations and improve their products as a result. Moreover, the adoption of technology enables agritourism

enterprises to access and utilize information more efficiently, thus improving the knowledge application process (Ananya, 2021). For example, online booking systems allow farmers and tourism operators to manage reservations more effectively, reducing the potential for errors and improving customer satisfaction. Social media platforms provide a means for farmers and tourism operators to engage with customers, promote their products and services, and obtain feedback. In conclusion, the adoption of innovation and technology can enhance the competitiveness of agritourism ventures and contribute to sustainable rural development. Therefore, the relationship between the above concepts and research studies can infer and lead to the following assumptions:

*Hypothesis 3 (H3):* Knowledge management has a positive relationship with knowledge application.

*Hypothesis 4 (H4):* Adoption of innovation and technology is the mediator variable between knowledge management and knowledge application.

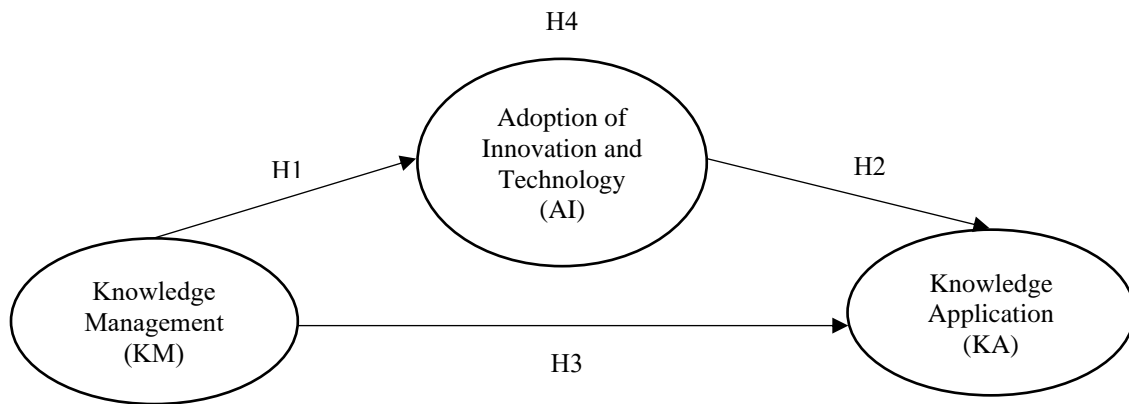


Figure 1: Research Framework

## Methodology

### *Sample and Data Collection*

This study was conducted in Roi Et, Khon Kaen, Mahasarakham, and Kalasin provinces in Thailand. A closed-ended questionnaire was used to collect data in order to encounter the study's

objectives. This research has been approved by the Human Research Ethics Committee, Rajamangala University of Technology Isan, Thailand (project code HEC-02-65-011). To ensure the gathering of relatively stable results for structural equation modeling (SEM), this study required a minimum of 300 samples (Hair et al. 2010). Based on purposive sampling, farmers engaging in agritourism in Roi Et, Khon Kaen, Mahasarakham, and Kalasin provinces were approached and invited to participate in the survey. To be certain that all respondents were eligible for the research, field researchers questioned the participation of farmers in agritourism. A questionnaire was distributed to those who qualified and agreed to participate. 476 questionnaires were gathered and validated for accuracy. This process resulted in the removal of 20 questionnaires because they were incomplete and missing information. After elimination, a sample of 456 responses was retained for analysis.

### ***Measurement***

The questionnaire consisted of three parts: 31 questions about knowledge management (gaining knowledge, acquiring knowledge, building knowledge, organizing knowledge, storing knowledge, exchanging knowledge, and learning) adapted from Bunmepipit (2008), 3 questions about knowledge application adapted from Yang et al. (2012), and 3 questions about the adoption of innovation and technology adapted from Lee et al. (2016). A 5-point Likert scale ranging from level 1 (strongly disagree) to level 5 (strongly agree) was utilized to measure the responses in the study. The questionnaire also asked about the respondents' demographic characteristics (e.g., gender, age, and agriculture type). Although the sample in this research consisted of domestic farmers, a forward-and-back translation technique was necessary to guarantee that there was no loss of meaning following the translation process (Douglas & Craig, 2007).



## ***Data Analysis***

The data collected in this study were analyzed using two statistical software programs, namely SPSS and Mplus. First, the respondents' demographic characteristics were analyzed using descriptive statistics. Then, the study's hypothesis was analyzed employing SEM. The two-step modeling approach was employed following the suggestion of Anderson and Gerbing (1988). The initial step was to validate the measurement model using confirmatory factor analysis (CFA) and the common method bias test. Then, the hypothesis was tested using SEM to examine the alignment between the model and the empirical data.

## **Research Findings**

### ***Respondents' Demographic Characteristics***

A total of 456 questionnaires were returned. The analysis results revealed that most respondents were 259 females (56.8%), followed by 197 males (43.2%). Most of them were between 41-50 years old: 142 people (31.1%), followed by those between 51 and 60 years old: 108 people (23.7%). The agriculture type was mainly farming (rice), with 237 people (52%). The skewness and kurtosis readings were within the acceptable range of -2 to 2, suggesting that the data exhibited a normal distribution (Tabachnick & Fidell, 2007).

### ***Measurement model***

CFA is a test of the suitability and validity of the SEM by considering factor loading to determine the covariance of the indicators. When considering the chi-square value, it was found to be statistically significant ( $\chi^2 = 1184.330$ ,  $df = 606$  ( $p < 0.001$ )). When considering the relative chi-square ( $\chi^2/df$ ) it was 1.954, which indicates a good fit ( $\leq 2$ ). The root mean square error of approximation (RMSEA) was 0.046, which indicates that it was a good fit ( $\leq 0.05$ ). The value of the comparative fit index (CFI) was 0.957, which indicates that it was a good fit ( $\geq 0.95$ ). The value of the Tucker-Lewis Index (TLI) was 0.952, which indicates that it was a good fit ( $\geq 0.95$ ).

The value of the standardized root mean squared (SRMR) was 0.032, which indicates that it was a good fit ( $< 0.08$ ). Based on the satisfactory goodness-of-fit values, it can be concluded that the measurement model met the specified criteria (Hair et al., 2010).

Besides, the CFA was conducted on the modified measurement model to assess the effectiveness of the structural model by testing the relation of 37 observed variables to determine whether it can be a representative of each factor. It was found that the factor loading of observed variables was between 0.662 - 0.882, which met the criteria of factor loading that must be greater than 0.5 (Hair et al., 2010). The composite reliability (CR) analysis of the latent variable found that the value was between 0.833 - 0.898, whereas the CR value should be greater than 0.70 (Hair et al., 2021). The average variance extracted (AVE) value was between 0.503 - 0.733, whereas the AVE value should be greater than 0.50 (Hair et al., 2021). The reliability analysis using Cronbach's alpha found that the value was between 0.831 - 0.906, greater than 0.70 (Zikmund et al., 2010). Consequently, the model had convergent validity, as shown in Table 1.

*Table 1 Results of reliability and validity of the measurement*

<b>Constructs</b>	<b>Factor Loading</b>	<b>t-value</b>	<b>CR</b>	<b>AVE</b>	<b><math>\alpha</math></b>
<b>Knowledge management (KM)</b>					
<i>Gaining Knowledge (RE)</i>			0.886	0.608	0.894
You assess the knowledge necessary to develop the network group.	0.758	32.557			
You indicate knowledge by selecting knowledge that is a characteristic of agritourism development.	0.753	32.353			
You select the knowledge necessary for the network group to build together in the development of agritourism.	0.809	40.696			

<b>Constructs</b>	<b>Factor Loading</b>	<b>t-value</b>	<b>CR</b>	<b>AVE</b>	<b><math>\alpha</math></b>
You have gained the knowledge you need to develop agritourism from sources outside the network group.	0.796	39.79			
Now you need to practice and create new community knowledge about the development of agritourism.	0.782	37.352			
<i>Acquiring knowledge (SE)</i>			.835	.503	.854
You acquire knowledge from experts and local wisdom to manage and develop agritourism.	0.727	28.385			
You have received cooperation from institutions within the network group to acquire knowledge together.	0.706	26.672			
You have received cooperation from institutions outside the network group to acquire knowledge together.	0.698	26.327			
You search for knowledge from various resources for the management and development of agritourism.	0.662	23.311			
You always acquire knowledge from knowledge sources and apply that knowledge to be modern and increase operational efficiency.	0.750	33.596			
<i>Building Knowledge (CR)</i>			.833	.714	.831
You have gained new knowledge in the management and development of agritourism.	0.882	45.513			
You can use IT to build new knowledge in the management and development of agritourism.	0.806	39.685			
<i>Organizing Knowledge (MG)</i>			.849	.652	.848
You have categorized new knowledge discovered from the practice in management for convenient and easy access to knowledge.	0.834	47.502			

<b>Constructs</b>	<b>Factor Loading</b>	<b>t-value</b>	<b>CR</b>	<b>AVE</b>	<b><math>\alpha</math></b>
You have processed new knowledge into unique community knowledge.	0.765	34.260			
You have documented the management of knowledge.	0.822	43.782			
<i>Storing Knowledge (CO)</i>			.876	.701	.872
You have a place or method to collect knowledge that is good and easy to use.	0.847	50.949			
You have systematically updated your knowledge.	0.870	55.857			
Your knowledge of agritourism management and development can be communicated and connected within the network group.	0.794	39.345			
<i>Exchanging Knowledge (SH)</i>			.879	.548	.895
You participate in the exchanging and sharing of knowledge.	0.749	32.659			
You always exchange and share knowledge among community members and network groups.	0.746	32.730			
You exchange and share new knowledge with the network groups by organizing formal and informal meetings.	0.716	28.470			
You exchange and share your new knowledge with institutions outside the network group by holding formal and informal meetings.	0.752	32.379			
You exchange and share new knowledge with the network groups through IT systems.	0.760	34.883			
You exchange and share new knowledge with institutions outside the network group through IT systems.	0.714	29.023			
<i>Learning (LE)</i>			.898	.559	.906

<b>Constructs</b>	<b>Factor Loading</b>	<b>t-value</b>	<b>CR</b>	<b>AVE</b>	<b><math>\alpha</math></b>
You encourage learning about the management of agritourism based on its need and necessity through various channels.	0.705	27.947			
You and your network groups exchange knowledge about the management of agritourism with each other through projects and activities.	0.751	34.349			
You have a project to exchange information and provide feedback to develop agritourism to achieve results faster.	0.764	35.294			
You have a project to share information and feedback with network groups to develop agritourism to achieve results faster.	0.788	40.175			
You have a project to exchange information and provide feedback with external institutions to develop agritourism to achieve results faster.	0.747	33.508			
You have explained the benefits of learning about the development of agritourism.	0.737	32.697			
Your community and network group are continually developing courses according to the appropriateness of the management and development of agritourism.	0.737	32.405			
<b>Knowledge Application (KA)</b>			.892	.733	.890
You have applied your new knowledge to enhance your skills and develop operations to meet tourists' standards.	0.857	55.158			

<b>Constructs</b>	<b>Factor Loading</b>	<b>t-value</b>	<b>CR</b>	<b>AVE</b>	<b><math>\alpha</math></b>
Your network groups have applied their new knowledge to enhance your skills and develop operations to meet tourists' standards.	0.869	58.86			
You publicize knowledge about management and development through an IT network and easy access to information anytime and anywhere.	0.842	50.727			
<b>Adoption of Innovation and Technology (AI)</b>			.861	.597	.856
You use technology to help collect knowledge about agritourism.	0.793	34.566			
You apply your new knowledge about the management of agritourism to create or develop a program for operation and communication.	0.774	31.667			
You use technology to help with marketing planning and publicity.	0.751	28.257			

### **Common Method Bias Testing**

Harman's single factor test, introduced by Podsakoff et al. (2003), is used to evaluate the presence of common method bias. 37 observed variables were analyzed for CFA by specifying a single component. Chi-square difference testing, utilizing the Satorra-Bentler scaled chi-square, was performed to calculate the difference in chi-square values between models. The goodness-of-fit value indicated that the single-component model did not exhibit a satisfactory fit with the empirical data. Also, the coefficient model estimation of CFA was calculated using maximum likelihood estimation with robust standard error (MLR). It was found that the model with components had better measurement performance and better goodness of fit with the empirical data ( $\Delta\chi^2_{(df=23)} =$

1,804.552,  $p < 0.001$ ). Therefore, the measurement model used in this study has no bias from the measurement method.

### **Structural Model Analysis and Hypothesis Testing**

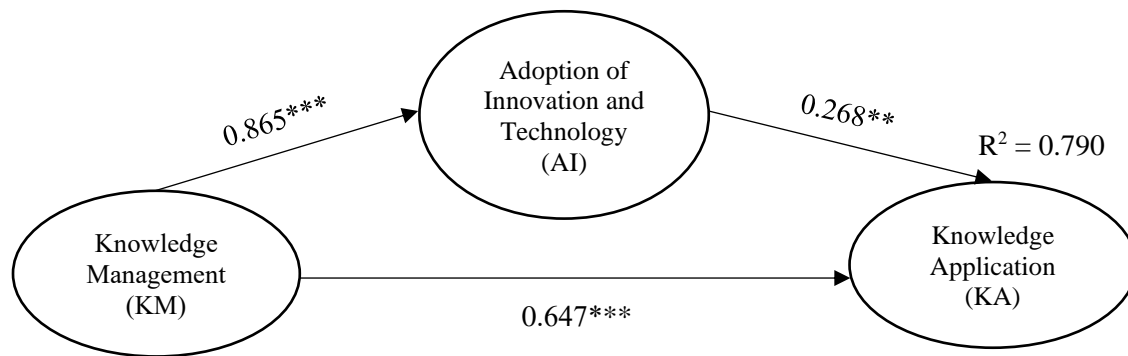
The researcher analyzed the structural model using maximum likelihood to compare the goodness-of-fit between the modified model and empirical data. With all goodness-of-fit indexes that met the acceptance criteria ( $\chi^2 = 1,184.330$ ,  $df = 606$ ,  $p < 0.001$ ;  $\chi^2/df = 1.954$ ; RMSEA = 0.046; CFI = 0.957; TLI = 0.952; SRMR = 0.032) (Hair et al., 2010). The results of the SEM analysis provided standardized coefficients. Out of the main effects examined, three hypotheses were statistically supported, indicating significant relationships. The analysis revealed a positive relationship between knowledge management and the adoption of innovation and technology ( $\beta = 0.865$ ,  $p < 0.001$ ); the adoption of innovation and technology was positively associated with knowledge application ( $\beta = 0.268$ ,  $p < 0.01$ ); and knowledge management was positively correlated to knowledge application ( $\beta = 0.647$ ,  $p < 0.001$ ). Therefore, H1, H2, and H3 were supported.

To inspect the mediating role of the adoption of innovation and technology, hypothesis H4 was evaluated using the approach proposed by Baron and Kenny (1986). After introducing the adoption of innovation and technology into the analysis, the direct effect of knowledge management on knowledge application remained significant, indicating the presence of partial mediation. Consequently, H4 was supported ( $\beta = 0.647$ ,  $p < 0.001$ ).

Table 2: Summary of statistical results from hypothesis testing

	Hypotheses	Standardized estimate	t-value	Hypothesis
H1	KM → AI	0.865	39.425***	Accepted
H2	AI → KA	0.268	3.037**	Accepted
H3	KM → KA	0.647	7.894***	Accepted
H4	KM → AI → KA	0.232	2.994**	Accepted

Note: \*\*\* $p < 0.001$ ; \*\* $p < 0.01$ ; KM: knowledge management; KA: knowledge application; AI: adoption of innovation and technology



Note: \*\*\* $p < 0.001$ , \*\* $p < 0.01$

Figure 2: Structural Equation Analysis Model

### Conclusion and Discussion

Knowledge management is a vital role of the agritourism sector since it contributes to the industry's long-term viability and expansion. The study findings indicated that knowledge management is reliant on the adoption of innovation and technology, which serve as key mechanisms for facilitating knowledge application. Notably, the adoption of innovation and technology was found to partially mediate the relationship between knowledge management and knowledge application.

Based on these findings, it is crucial to further investigate the factors that contribute to farmers' knowledge application within the frameworks of the knowledge-based view of the firm and the technology acceptance model. The empirical evidence gathered in this study supports the notion that knowledge



management has a positive influence on the adoption of innovation and technology, which is consistent with Mardani et al. (2018) confirmed that knowledge management exhibits a positive and statistically significant relationship with innovation and organizational performance in Iranian companies. Similarly, Koch's (2011) research theorizes the relationship between knowledge integration and efficiency resulting from innovation, where knowledge plays a crucial role as a mediator variable in promoting the application of innovation and technology. Moreover, Lee et al. (2016) discovered that knowledge management had a favorable impact on innovation and technology for Malaysian SMEs. Therefore, knowledge management is a supporting aspect that enables organizations to achieve high efficiency in adopting innovation and technology.

Additionally, the results of this investigation also recommend that the adoption of innovation and technology had a positive effect on knowledge application, in line with Andreeva and Kianto's (2012) purpose that the implementation of human resources management practices and the utilization of information and communication technology in knowledge management had a significant impact on the financial performance and sustainable competitiveness of companies in Russia, China, and Finland. Similarly, the results of the study by Kuncoro and Suriani (2018) reveal that the main purpose of innovation is to satisfy market demand. So, being innovative is a trait that businesses can leverage as a competitive advantage. Moreover, Lee et al. (2016) pointed out that the adoption of innovation and technology are the factors that promote businesses higher competitive capacities. In the agritourism context, farmers who are aware of new operating guidelines and adopt innovation and technology until they can apply and implement them effectively will contribute to promoting innovation in the network group's operations and provide models for transferring knowledge to other network groups (Chalhoub, 2010). Moreover, farmers can use technology-based services and products to offer a better experience to their visitors (Chin & Pehin Dato Musa, 2021). Farmers can leverage mobile apps to share information about their farm and products, employ online booking systems to simplify visitor planning, and utilize virtual reality tours to offer visitors a preview of their upcoming experience. This can be explained by the technology acceptance model, which

provides a theoretical framework that elucidates the factors influencing users' acceptance of new technology. (Davis, 1989). Gaining insights into farmers' acceptance and adoption of these technologies can support agritourism stakeholders in developing and implementing technology-based services that effectively cater to the needs of both farmers and visitors. In conclusion, the technology acceptance model may be used to analyze farmers' acceptance and adoption of new technologies that can enhance agricultural operations and expand agritourism offerings.

Our research also shows that knowledge management enhances knowledge application. This is consistent with the findings of Gnyawali and Stewart (2003), who discovered that in-group knowledge management reflects an organization's ability to be proactive. The effectiveness of a group's work tends to increase when there is a greater emphasis on encouraging knowledge sharing (Del Giudice & Della Peruta, 2016). Moreover, Al Koliby et al. (2022) demonstrate that knowledge acquisition influences knowledge application, which is a component of knowledge management in the context of Malaysian manufacturing SMEs. Similarly, According to Mothe et al. (2017), knowledge application is a critical resource for developing new core competencies for the company and enhancing economic efficiency (Mulhim, 2017). Long-term sustainability can also be aided by effective knowledge management. In the realm of agritourism, the knowledge-based view of the firm can be applied to comprehend how agritourism enterprises can utilize their knowledge resources to bolster their competitive capacity by actively applying knowledge (Grant, 1996). Agritourism combines agricultural and tourism operations, and as such, agritourism businesses must have a varied range of expertise and abilities to be successful (Ammirato et al., 2020). Knowledge management is an important role that will allow the network group to integrate knowledge systematically and transfer it to others by using knowledge from various sources that can improve the efficiency of work in the communities (Abbas & Sagsan, 2019; Santoro et al., 2018).

Interestingly, this study demonstrates that adoption of innovation and technology is a partial mediator between knowledge management and knowledge application. It is consistent with Chen et al. (2009), who studied in the Taiwan context and found that learning and absorbing knowledge as part of the

knowledge management process affect competitive advantage, where innovation is the mediator variable. Similarly, Lee et al. (2016) also demonstrate that knowledge management has an influence on competitive advantage, with the adoption of innovation and technology serving as a critical mediator variable in SMEs gaining a competitive advantage. Moreover, Ho (2011) also confirmed that adoption of innovation and technology were the mediator variables linking self-learning readiness and organizational efficiency in technology companies in Taiwan. Therefore, adopting innovation and technology is an important factor that promotes knowledge management processes, leading to more efficient knowledge application.

### **Implications**

This study makes several contributions to the existing literature. First, the results of this study contribute to the expansion of knowledge management literature within the tourism sector. Although previous research (e.g., Kuncoro & Suriani, 2018; Mardani et al., 2018; Mothe et al., 2018) extensively examined knowledge management from the perspective of employees in organizations, scholars have seldom investigated the perspectives of farmers who form groups for agritourism. To gain a comprehensive understanding, this research has focused on studying knowledge management within the context of developing countries that are in the early stages of the growth of agricultural tourism, namely Thailand (Tseng et al., 2019). Therefore, the conclusions of this research reflect the conceptual views of farmers engaging in agritourism in the Roi-Kaen-Sara-Sin cluster. Second, the research model employed in this study examines the behavior of farmers toward knowledge application in agritourism through a combination of two concepts: the knowledge-based view of the firm and the technology acceptance model. This study adapts a knowledge-based view of firm concepts to explain the significance of knowledge and intellectual assets in establishing a competitive edge and ensuring long-term business prosperity. The knowledge-based view of the firm postulates that a firm's knowledge resources, including its employees' skills, expertise, and know-how, are critical to its ability to innovate, adapt, and create value for customers (Cooper et al., 2023; Grant, 1996). The technology acceptance model explains how individuals and organizations adopt and use new technologies (Davis, 1989). Providing members with technology can increase their willingness to share knowledge with

colleagues, ultimately contributing to organizational learning and innovation (Fayyaz et al., 2021). This study greatly enhances our understanding of the theory by demonstrating that knowledge application benefits from effective knowledge management. Moreover, the adoption of innovation may complement relationships more comprehensively, leading to knowledge application. Thus, the current study advances theoretical perspectives in the tourism context.

From a practical perspective, this study presents guidance for policymakers, marketers, or related agencies to enhance competitiveness in agritourism. First, emphasize knowledge sharing. There should be a culture of knowledge sharing among agritourism stakeholders, including farmers, business owners, researchers, and governmental organizations, in order to efficiently implement new ideas and technology. This necessitates the development of knowledge exchange venues and procedures, such as workshops, conferences, and online communities. Second, build knowledge management capacity. Stakeholders in agritourism need to improve their knowledge management abilities to efficiently locate, capture, and distribute pertinent knowledge. This includes knowledge transfer and abilities like data analysis and information organization. These talents can be improved through training courses and seminars. Third, invest in technology infrastructure. It is essential to have access to the most recent technical advancements if you want to boost agritourism's ability to compete. This requires investment in technology infrastructure, including tools for data analytics, high-speed internet connectivity, and data storage. Finally, fostering partnerships and collaboration among agritourism stakeholders can help accelerate the adoption of innovation and technology. This includes research on market trends, customer preferences, and emerging technologies that can be applied to agritourism.

### **Brief Summary**

Adoption of innovation and technology plays an important role in making knowledge management more efficient. Farmer network groups should be able to adapt new innovations and technologies for agritourism operations and knowledge management inside the network group, leading to operational strategies to boost competitiveness in the tourism industry. In addition, the significance of establishing a knowledge

management system lies in cultivating individuals who are motivated to acquire knowledge and are open to exchanging it, consequently fostering the formation of network groups referred to as "learning communities."

### **Limitations and Directions of Future Research**

This research also has limitations. First, the sample used may not accurately represent the entire population, as is the case with purposive sampling. Also, only one place and a specific time are included in the study area of this research. The results of this investigation should be tested in other agritourism destinations to address this issue. Further, it would be fruitful to examine other factors that can enhance the competitive capacity of agritourism, such as entrepreneurship, engagement management, and marketing strategy.

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