



The Influence of Innovation Culture, Self-efficacy, and Information Technology on Personal Knowledge Management

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Abstract. Organizations' ability to gain strategic knowledge is critical to sustaining sustained competitive advantage in a dynamic business environment. Starting from a business activity failure, it created a topic about KM with the aim that there was no limit to the benefits for KM itself. To realize that knowledge's value can affect the organization's progress over time, KM is one of the important research topics. This study aims to determine the influence of a culture of innovation, self-efficacy, and information technology on personal knowledge management. The method used is a survey with a quantitative approach. Self-administered questionnaires were distributed to 108 respondents working for JIEP with the criteria for five years, middle-top management category, have staff and status as permanent and contract employees. The research sample was obtained using stratified random sampling. The Structural Equation Modeling (SEM) approach, with the help of Smart PLS software, is used to test the proposed hypotheses. The results showed that the culture of innovation, self-efficacy, and information technology had a significant positive relationship with personal knowledge management. In addition, information technology has the most significant influence on personal knowledge management compared to other variables. The novelty of this study is to examine the effect of innovation culture, self-efficacy, and information technology on personal knowledge management simultaneously.

Keywords: Culture of Innovation · Self-Efficacy · Information Technology · Personal Knowledge Management

1 Introduction

An organization's ability to leverage strategic knowledge is a significant resource for maintaining a sustainable competitive advantage in a dynamic business environment. Knowledge Management (KM), or in Indonesian terms referred to as knowledge management, is widely recognized as a tool to regulate and make rules or strategic management of an organization/company [1]. Starting from a failure regarding certain business activities, which then had a broad impact on the organization or company, they created

KM promotion topics with the aim that there was no limit to the benefits for KM itself [2]. To realize that the value of knowledge can affect organizational progress over time, KM is an important research topic [3–6]. The process of gathering and generating useful knowledge, such as knowledge acquisition, marks the initiation of implementing knowledge management practices in the corporate world, then the stages of storing, placing and ensuring that employees can access knowledge easily (knowledge conversation), utilizing knowledge application, and preventing the application of knowledge that is forbidden (knowledge protection) [7].

The process of knowledge management emphasizes the arrangement of enterprise assets based on knowledge and adjusts to dynamic market conditions to achieve the renewal of the organization or enterprise. The evolution of KM has attracted the attention of researchers because it involves increasing learning abilities for organizations and is one of the determinants of a company's long-term competitive advantage [8, 9]. The progression of KM can be described as a sequence of phases that begins with evaluating the company or preparing for the adoption of the KM concept (initiation stage), followed by its formal implementation (implementation stage), and culminating in its integration into the daily operations of all corporate entities to enhance overall organizational effectiveness.

The concept of Knowledge Management (KM) has recently received wide attention. This is stated indirectly in the process of transforming information into corporate values. KM is an organizational specialty when its primary concern is exploiting and developing the company's knowledge of its goals. KM is not better, but to know how to do things better, whereby implementing the concept of KM also indirectly improves the results of financial performance and performance. Bergeron stated that from a business point of view, to improve employee performance and the nature of the business, a wise and systematic business optimization strategy is needed to be able to filter, select, organize, communicate, and store vital company information [10]. The company is competitive. In addition, Groff and Jones state that tools, techniques, and strategies are used in knowledge management to analyze, develop, organize, share, and maintain business expertise [11].

Several studies have been conducted to identify various determinants of the successful implementation of KM. Davenport & Prusak stated that factors originating from the particular context can promote or hamper the performance of the KM itself [12]. Sharing the knowledge of individual employees in an organization will be the conclusion of organizational knowledge that can enable the formation of the learning of the organization itself [13]. One crucial individual factor in the evolution of KM is self-efficacy. According to Lin, self-efficacy owned by company members will help the company to implement ideal knowledge management in its organization [14]. Lin surveyed 241 managers in companies-Several studies have been conducted to identify various critical factors for successful KM implementation [14]. Davenport and Prusak reported that factors originating from the particular context can promote and hinder the implementation of KM itself [12]. Sharing the knowledge of individual employees in an organization will be the Conclusion that Organizational Knowledge can enable the formation of organizational learning itself [13]. One of the essential individual factors in the evolution of KM is self-efficacy. According to Lin, self-efficacy possessed by company members will help companies to implement the ideal knowledge management in their organizations

[14]. Lin, In His Research, Surveyed 241 Managers in Large Companies in Taiwan and Proved that self-efficacy has a significant positive relationship with the implementation of KM [14].

Meanwhile, Lin [6] and Yeh et al. [15] stated that organizational support is necessary for KM adoption. Organizational factors are essential because organizations play a role in increasing the abilities, motivation and opportunities to participate individuals in applying KM. The development of an organization is closely tied to the culture that emerges within it. The development of this organization is determined by how far the innovations need to be carried out by the company. Innovation has a vital role in being part of the corporate culture. A company that can continuously innovate can be sure that it is one step ahead of its competitors because innovating proves that the company can survive. Thus, the culture of innovation is a factor that comes from the context of the organization that requires management with KM in order to become a culture that has continuity from time to time in the company concerned [16].

Multiple studies have indicated that information technology factors can impact the development of KM, in addition to individual and organizational factors. According to Hazlett et al., information technology can assist employees in performing their duties and implementing KM with greater efficiency [17]. Lin found that the elements in the context of information technology influence the application of KM [6]. The development of large companies in Taiwan is significantly impacted by two key elements, namely the quality of their KM system and the infrastructure of their KM system. Additionally, studies have shown that there is a positive relationship between self-efficacy and the implementation of KM. Meanwhile, Lin [6] and Yeh et al. [15] stated that obtaining organizational support is necessary for KM adoption. Organizations are crucial in enhancing the capacity, incentive, and chances for individuals to engage in KM, making organizational factors critical. In the context of the organization, the culture that develops in it is an essential part of the development of the organization. The development of this organization is determined by how far the innovations need to be carried out by the company. Innovation has a vital role in being part of the corporate culture. A company that can continuously innovate can be sure that it is one step ahead of its competitors because innovating proves that it can survive. Thus, the culture of innovation is a factor that comes from the context of the organization that requires management with KM in order to become a culture that has continuity from time to time in the company concerned [16]. Several studies have indicated that information technology factors can have an impact on the evolution of KM, in addition to individual and organizational factors. Hazlett et al. discovered that IT can aid employees in performing tasks and implementing KM with greater efficiency [17]. Lin found that the elements in the context of information technology have an influence on the application of KM [14]. These elements are KM System Quality and KM System Infrastructure, which have a significant positive influence on evolution.

Although many researchers have conducted empirical tests on the influence of antecedent factors on the implementation of KM, the majority of previous studies have only explored the partial correlation between antecedent factors and KM. There is a lack of research that examined the simultaneous effect of self-efficacy, innovation culture and information technology on knowledge management. We also believe this study will be the first to develop and test a KM model that integrated self-efficacy, innovation culture

and information technology in the case of Indonesia. The KM concept studied in this study is focused on practice and implementation in the corporate realm. KM practice aims to manage the knowledge of individuals and organizations to meet all needs, by identifying and utilizing existing assets, acquiring new knowledge, and developing new opportunities over time. This approach increases the knowledge assets available to the organization [18].

This study aims to explore the determinants of KM implementation in Indonesia, with a particular focus on JIEP as a case study. JIEP is responsible for managing industrial estates in the DKI Jakarta Province. The study is divided into fifth sections: Sect. 2 presents a review of the literature, theoretical background, and the hypotheses put forth in this study, whereas Sect. 3 outlines the methodology used. Section 4 presents the results and discussion of findings and is followed by the conclusion of this research, limitations and further research.

1.1 Literature Review

In this section, we discuss about the concept of knowledge management, previous works and also develop the hypotheses based on our research model proposed.

Knowledge Management. Knowledge management can be described as the process of managing knowledge, which aligns with Bergeron's definition that it encompasses the collection, retention, and strategic retrieval of information relating to work and decision-making from managers and employees, in order to support individual or collective actions [10]. Bergeron states that, viewed through a business lens, knowledge management is characterized by a deliberate and systematic method for improving business performance by selecting, filtering, preserving, organizing, and sharing important information within the organization [10]. Groff and Jones argue that knowledge management functions as a tool, technique, and strategy for safeguarding, analyzing, organizing, fostering, and sharing business knowledge [11]. So from this understanding, it can be said that knowledge management is organized management of existing knowledge so that this knowledge can be used and valuable effectively to provide a competitive advantage to a company [19].

The significance of utilizing knowledge management is affected by various factors, one of which is the potential for significant losses resulting from its absence. Knowledge management is currently predominantly employed by business companies to manage their information optimally and convert it into knowledge, which can be analyzed to determine appropriate business strategies that enhance profitability and competitive advantage over other companies. In this study, KM is more focused on the individual level to determine how individuals participate in organizations, especially in applying KM. The concept of Personal Knowledge Management is still minimal to be discussed because KM usually studies the organizational level more than the individual level [20, 21]. However, some experts have attempted to define PKM [22].

The concept of Personal Knowledge Management refers to the competence of individuals to capture, store, and retrieve knowledge that is relevant to their work and decision-making. This knowledge can be used to facilitate individual or group actions. Avery et al. proposed a model for Personal Knowledge Management, which includes

seven information skills: (1) retrieving, (2) evaluating, (3) organizing, (4) collaborating, (5) analyzing, (6) presenting, and (7) securing [23].

Previous Works and Hypotheses Development. Numerous researchers have performed empirical investigations concerning the elements that affect KM, for instance, Lin who devised a research model to evaluate the influence of individuals, organizations, and information technology context on the evolution of KM [14]. The research discovered that there is a noteworthy positive correlation between self-efficacy and the development of KM, specifically in the stages of Initiation, Implementation, and KM Institutionalization. In line with this study, Yew et al. conducted a study to investigate how Chinese individuals' knowledge-sharing behavior is related to their self-efficacy with the internet and computer usage [24]. The study collected data from 135 Chinese students who were studying at Malaysian universities. The findings revealed that there was a significant positive correlation between self-efficacy, which included internet and computer self-efficacy, and knowledge-sharing behavior. Lanigan and other researchers also observed a similar positive association between self-efficacy and knowledge management [25].

In addition, the relationship between innovation culture and KM has also been investigated by several researchers, such as Yazhou and Jian [26]. Their assertion is that there is a positive and significant relationship between KM and organizational innovation, which is supported by the findings of Hamidah et al. [27]. In their study, they investigate the impact of knowledge management on innovative behavior and its influence on the managerial performance of medium-sized batik industry owners in West Java. The findings from their research indicate that knowledge management has a beneficial effect on the culture of organizational innovation. Research conducted by Lin also confirms that organizational culture factors, especially sharing culture, have a positive relationship with KM [14].

In the context of KM, information technology factors also play an important role in supporting the successful implementation of KM. Research conducted by Lin found that information technology factors consisting of KM system infrastructure and KM system quality turned out to have a significant effect on all KM variables [14].

Innovation Culture and Personal Knowledge Management. Innovative Culture is defined as an organization with shared basic values that support innovation, organizational norms to support innovation, and real innovation-oriented practices [28]. In this study, innovation culture is the extent to which people believe organizations support new knowledge and ideas in implementing KM. Innovation culture provides a wide space for organizational elements, in this case, employees, to explore creative and innovative abilities and knowledge without limits.

Prior studies have found that innovation culture is significantly related to knowledge management [14]. However, Hamidah et al. [26], Yazhou and Jian [27] also found that KM positively affects organizational innovation culture. There is an inconsistency in the direction of the variable relationship between the research of Lin [14] and the research

of Hamidah et al. [27], Wang and Lin [26]. Based on the previous research, we propose the following hypothesis follows:

H1: Innovation Culture has a significant influence on Personal Knowledge Management

Self-efficacy and Personal Knowledge Management. Self-efficacy is related to people's perceptions of what they can do with their skills [14]. Employee self-efficacy is an individual's belief in his ability to perform organizational tasks. Self-efficacy has nothing to do with what a person has done in the past but rather a consideration of what more can be done in the future. Self-efficacy in this employee involves more consideration than the ability to apply existing skills to broader tasks. In this study, *self-efficacy* is defined as the level of trust and attitude toward sharing knowledge in the work environment. The success or failure of KM implementation depends on employees' trust and attitude to be open or share knowledge.

Previous research has demonstrated that there is a positive association between self-efficacy and various dimensions of KM, including KM Initiation, KM Implementation, and KM Institutionalization [14]. Yew and colleagues investigated the correlation between the variables of internet self-efficacy and computer self-efficacy with one of the processes in knowledge management, namely knowledge sharing behavior [24]. The results showed that internet and computer self-efficacy are significantly related to knowledge-sharing behavior. Based on the previous research, we propose the following hypothesis as follows:

H2: Self-Efficacy has a significant influence on Personal Knowledge Management

Information Technology and Personal Knowledge Management. Information technology is concerned with the capabilities and readiness that enable organizations to expand the availability of social networks by overcoming geographic boundaries [29]. With the existence of information technology, knowledge management can be made possible and successful because of the speed and ability of people in place, even though the time zone is different [19]. Kulkarni et al. claimed that an effective KM implementation in companies requires a high-quality KM system that is readily available and easily accessible [30].

Prior studies have found that information technology significantly influences KM implementation [14, 19]. In the study conducted by Hsiu-Fen Lin, the variable of information technology is comprised of two aspects: KM System Infrastructure and KM System Quality [14]. These two dimensions are measured in Knowledge Management, which has three dimensions: KM Initiation, KM Implementation, and KM Institutionalization. The results show that KM System Infrastructure does not have a significant relationship with KM Initiation but has a significant positive relationship with KM Implementation and KM Institutionalization. On the other hand, all KM variables, which are KM Initiation, KM Implementation, and KM Institutionalization, have a significant positive

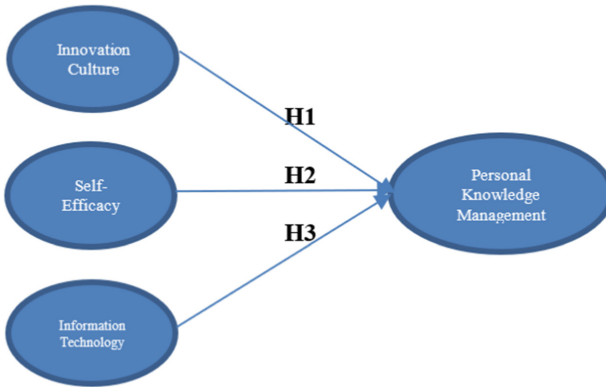


Fig. 1. Research model.

relationship with KM System Quality. Research, we propose the following hypothesis follows:

H3: Information Technology has a significant influence on Personal Knowledge Management

The proposed research model in this study consists of three constructs. They are innovation culture, self-efficacy, information technology and personal knowledge management. In the literature of KM, innovation culture, self-efficacy and information technology play a vital role in influencing KM implementation. Thus, it is important to study the impact of innovation culture, self-efficacy, and information technology on personal knowledge management simultaneously. The previous studies have not discussed this.

2 Methods

2.1 Research Approach

The research aims to explore how innovation culture, self-efficacy, and information technology impact personal knowledge management. The study utilizes a quantitative approach through a survey method to address the research questions. Cross-sectional data is used to study a phenomenon at a certain time. Based on Almahamid and McAdams, cross-sectional research requires much data to generalise the research results [31]. The object of the research is JIEP, a company with a vision of becoming an integrated modern area development company with international standards and environmental insight through the application of KM. The instrument design and data collection will be discussed in the next section.

2.2 Instrument Design

This study employed four variables in the research model: innovation culture, self-efficacy, information technology and personal knowledge management. We adapted the

scale based on previous studies to measure those variables in this study. Jonsson proposed five dimensions of innovation culture which were used in this study: innovation readiness, creativity and entrepreneurship, organizational learning, market orientation, and motivation and relations. The total number of items used for measuring innovation culture was 11 items. At the same time, the self-efficacy variable was adapted from Lin, Constant et al., and Ravindran and Iyer, where there are three dimensions of self-efficacy, namely workability, knowledgeability and self-confidence [14, 32, 33]. The total number of items used for measuring self-efficacy was 10 items for information technology variables adapted from Lin [14], DeLone and McLean [34], where information technology has two dimensions, namely system infrastructure and system quality. A total of 10 items were used for measuring information technology. Tiwana, Amriani, and Lin proposed a model of Personal Knowledge Management that includes seven dimensions, which are information retrieval, information evaluation, information organization, collaboration, information analysis, information presentation, and information security [14, 35, 36]. The total number of items used to measure personal knowledge management was 15.

This research employs a five-point Likert scale questionnaire, where the statements are rated on a scale of 1 (“strongly disagree”) to 5 (“strongly agree”). A pilot study was conducted to ensure that the research instruments met the criteria of reliable measuring tools and adhered to standard research methods before disseminating the questionnaires. To test the validity and reliability of the instrument, this study involved 30 respondents from the same population as the research unit. The instrument test results indicate that the instrument in this study can be said to be valid and reliable.

2.3 Data Collection

This study employs a survey as the data collection method. Questionnaires are distributed directly to respondents who meet several criteria, namely employees who have worked for five years, the category at the middle-top management level, have staff, and has the status of permanent and contract employees. The population of employees who meet these criteria is 147 people. The researchers utilized a stratified random sampling method in this study, which involves randomly selecting samples from the population, while also ensuring that they are representative of each stratum. This sampling technique is carried out if the members of the people are heterogeneous [37]. Stratified random sampling is done by making layers (strata); then, several subjects are taken randomly from each layer. The sample size used in this study was 108 respondents who met the above criteria. Additionally, the data were subjected to analysis through the utilization of Structural Equation Modeling (SEM) methodology to assess the hypotheses posited in this investigation. Smart PLS was used in this study because it is known for overcoming data normality and only requires a limited number of samples [38].

3 Results

In this section, the initial outcome presented the demographic information of the respondents and an analysis of the measurement model, which involved testing the validity and reliability of each construct in the model. The second result presented the structural

Table 1. Demographic of respondents.

Variables	Frequency	%
<i>Gender</i>		
Male	59	54.6
Female	49	45.3
<i>Age</i>		
Below 27	18	16.7
27–36	38	35.2
37–46	30	27.7
47–56	21	19.4
Above 56	1	0.9
<i>Education</i>		
High School	5	4.6
Diploma	9	8.3
Bachelor	73	67.6
Master	19	17.6
Doctoral	2	1.9

model analysis to conduct the hypotheses testing of three hypotheses proposed in this study.

3.1 Demographic of Respondents

Based on the findings, a total of 108 valid responses were processed for further examination. Table 1 shows the respondents' profile, indicating that there were 59 male respondents (54.6%) and 49 female respondents (45.3%). For the age distribution, most of the respondents were aged 27–36 (35.2%), followed by the age of 37–46 (27.7%), age 47–56 (19.4%), age < 18 (16.7%) and age > 56 years (0.9%). For education level, most of the respondents have bachelor degree (67.6%), followed by master degree (17.6%), diploma (8.3%), high school (4.6%) and doctoral degree (1.9%).

3.2 Measurement Model

During the measurement model stage, the study evaluated the convergent validity and reliability of the three constructs being measured. The value of factor loading and average variance extracted (AVE) were used to assess convergent validity, while composite reliability (CR) was used to determine reliability. According to [39], factor loading for each item must be greater than 0.7 and AVE greater than 0.5 to meet the required threshold value while the CR value must be at least 0.7 or more to meet the reliability. Based on Table 2, it can be seen that the factor loading values are above 0.7, AVE is above 0.5

Table 2. The result of measurement model.

Construct	Indicator	Convergent Validity		
		Factor Loading	AVE	Composite Reliability
Innovation Culture (X1)	X11	0.767	0.704	0.895
	X12	0.879		
	X13	0.916		
	X14	0.751		
	X15	0.871		
Self-Efficacy (X2)	X21	0.829	0.776	0.858
	X22	0.937		
	X23	0.872		
Information Technology (X3)	X31	0.909	0.730	0.701
	X32	0.796		
	X33	0.862		
Personal Knowledge Management (Y)	Y11	0.790	0.690	0.917
	Y12	0.877		
	Y13	0.885		
	Y14	0.869		
	Y15	0.726		
	Y16	0.825		

and CR is above 0.7. Thus, the results of the convergent validity and reliability test have met the requirements.

The evaluation of discriminant validity was also conducted by comparing the square root of AVE to the correlation value between constructs. If the square root of AVE is greater than the correlation value with other constructs, then it indicates the existence of discriminant validity [40]. The results show that discriminant validity was satisfied as seen in Table 3.

3.3 Structural Model

In the structural model phase, the proposed research model in Fig. 1 was assessed for the relationship between the hypothesized constructs. The value of the determination coefficient (R^2) and the significance of path analysis were computed to show how well the data support the hypothesis [41]. Based on Table 4, it can be seen that the three exogenous constructs (innovation culture, self-efficacy and information technology) were able to explain 57.4% of the variance of the endogenous construct (personal knowledge management). Since a good model must have R^2 value of more than 26%, the results show a satisfactory model.

Table 3. Discriminant validity.

Construct	Innovation Culture	Self Efficacy	Information Technology	Personal Knowledge Management
Innovation Culture	0.839*			
Self Efficacy	0.271	0.881*		
Information Technology	0.307	0.523	0.854*	
Personal Knowledge Management	0.513	0.591	0.622	0.831*

* Square root AVE

Table 4. The value of R² (Determination Coefficient).

Endogent Latent Variable	Personal Knowledge Management
R ²	0.574

Furthermore, there are 3 (three) hypotheses to be tested in this structural model where the path coefficient value (β), T-Statistic dan significance (P-Value) should meet the requirements to support the proposed hypothesis. According to [39], the path coefficient shows how strong the relationship between the two constructs is. The path coefficient value must be greater than 0.1 with a significance equal to or less than 0.05. The recommended T-Statistic value must also be greater than 1.96.

In Table 5 it can be seen that the innovation culture construct has a significant effect on personal knowledge management ($\beta = 0.317$, $p < 0.05$, T-statistic = 5.014) and self efficacy ($\beta = 0.318$, $p < 0.05$, T-statistic = 3.581), thus H1 dan H2 were supported. Further, the information technology construct also has a significant influence on personal knowledge management ($\beta = 0.359$, $p < 0.05$, T-statistic 3.093), supporting H3. Thus all proposed hypotheses can be supported from the research results.

If further observed, it is obtained that information technology is the strongest predictor of personal knowledge management compared to other variables.

Table 5. Hypothesis testing.

Hypothesis	Path	β	T-Statistic	P-Value	Results
H1	X1- >Y1	0.317	5.014	0.000	Supported
H2	X2- >Y1	0.318	3.581	0.000	Supported
H3	X3- >Y1	0.359	3.093	0.002	Supported

4 Discussion

This study examined the antecedent factors of personal knowledge management in organization. Specifically, this research investigated the impact of innovation culture, self-efficacy and information technology on personal knowledge management. Based on the result of study, it can be shown that all the proposed hypotheses have been supported by the existing data.

The findings showed that innovation culture significantly affects personal knowledge management. This study's results align with previous studies, such as Lin [14] found that innovation culture has a significant effect on knowledge management, which were also consistent with the results of this study. This indicates that the greater innovation culture of the organization can increase personal knowledge management. The innovation culture is believed to provide space for all elements of the organization, in this case, employees, to explore abilities and knowledge creatively and innovatively without limits, thereby increasing motivation and opportunities for employees to implement knowledge management. Employees with a culture of innovation will be happy to have new knowledge to improve the organization in new ways and share their knowledge with others to achieve success in knowledge management.

The study also revealed that personal knowledge management was significantly influenced by self-efficacy. This outcome is consistent with previous research that has shown that self-efficacy perceptions have a considerable impact on personal knowledge management, such as [14] found that self-efficacy has a positive relationship with KM which consists of dimensions KM Initiation, KM Implementation, and KM Institutionalization. In line with this research, [15] also reported a positive relationship between the internet and computer self-efficacy with knowledge management, especially knowledge-sharing behavior. This means that higher self-efficacy tends to improve personal knowledge management. The greater the individual's confidence in his ability to carry out KM-related tasks, such as sharing knowledge, it will support the successful implementation of KM in the organization. If employees have high levels of confidence, willingness, and ability to share knowledge, it can enhance the quality of knowledge management among their colleagues. The shared knowledge comes not only from one field but also from various fields, so employee knowledge management will develop in other fields.

This study also corroborates the previous research indicating that information technology has a significant effect on personal knowledge management, including [14, 19] found that information technology significantly influences KM implementation. Hsiu-Fen Lin's study showed that KM System Infrastructure and KM System Quality, which are the two dimensions of information technology, have a significant and positive correlation with KM implementation. This means that when an organization provides better information technology, it can lead to better personal knowledge management. The study also found that information technology plays a crucial role in providing a high-quality KM system that enables easy storage, access, and updates of knowledge, thereby facilitating the successful implementation of KM. The utilization of information technology is essential in organizations because IT can spur organizational efficiency and effectiveness by applying and categorizing knowledge into an organizational technology platform so that employees can access knowledge related to the work carried out in the organization.

5 Conclusion

The objective of this study is to identify the factors that precede personal knowledge management in Indonesia. Its focus is to investigate how innovation culture, self-efficacy, and information technology impact knowledge management. The case study is JIEP, a company with a vision to become an integrated modern area development company with an international standard and environmental perspective. This study is believed to be the first to develop and test a KM model that integrates self-efficacy, innovation culture, and information technology.

The findings reveal that all hypotheses proposed in the study are supported through data analysis. The innovation culture has a significant impact on personal knowledge management. Self-efficacy was also found to be significantly related to personal knowledge management. Moreover, it is noteworthy that information technology has a greater impact on personal knowledge management compared to other variables.

Therefore, to improve personal knowledge management, JIEP should enhance the organization's innovation culture and all employees' self-efficacy to improve their ability, motivation, and participation in KM. Furthermore, information technology needs to be improved to provide a high-quality KM system to support the successful implementation of KM.

The results of our study have several practical implications for JIEP firms with a long-term orientation. Aspects of knowledge management can be improved by increasing the innovation culture, self-efficacy, and information technology of employees. Improving information technology should be given priority since its influence on knowledge management is more dominant compared to the other two variables, according to the findings. This study adds to the existing body of literature regarding the correlation among innovation culture, self-efficacy, information technology, and knowledge management.

Our research has some limitations. Initially, we collected cross-sectional data for this study, so the results may differ if the research is conducted at different times. Second, this study cannot be generalized because it only involves 108 respondents as the sample of this study. Thus, further research can be carried out by overcoming some of the limitations of the existing research in our study.

References

1. Teece, D.J., Pisano, G., Shuen, A.: Dynamic Capabilities and Strategic Management. *Strategic management journal*, 18(7), 509–533 (1997).
2. Anantatmula, V.S.: The Role of Technology in the Project Manager Performance Model. *Project Management Journal*, 39(March), 28–42 (2008).
3. Kambil, A.: Obliterate knowledge management: Everyone is a knowledge manager! *Journal of Business Strategy*, 30(6), 66–68 (2009).
4. Lee, J.H., Kim, Y.G.: A stage model of organizational knowledge management: A latent content analysis. *Expert Systems with Applications*, 20(4), 299–311 (2001).
5. Cholissodin, I., Riyandani, E.: Analisis Big Data (Teori & Aplikasi), Fakultas Ilmu Komputer (Filkom), Malang (2018).
6. Lin, H.F.: A stage model of knowledge management: An empirical investigation of process and effectiveness. *Journal of Information Science*, 33(6), 643–659 (2007).

7. Gold, A.H., Malhotra, A., Segars, A.H.: Management : Knowledge capabilities perspective organizational. *Jurnal of Management System*, 18(1), 185–214 (2001).
8. Cepeda, G., Vera, D.: Dynamic capabilities and operational capabilities: A knowledge management perspective. *Journal of Business Research*, 60(5), 426–437 (2007).
9. Johannessen, J.A., Olsen, B.: Knowledge management and sustainable competitive advantages: The impact of dynamic contextual training. *International Journal of Information Management*, 23(4), 277–289 (2003).
10. Bergeron, B.: *Essentials of Knowledge Management*, John Wiley & Sons (2003).
11. Groff, T., Jones, T.: *Introduction to Knowledge Management*, London (2003).
12. Davenport, T.H., Prusak, L.: *Working knowledge: How organizations manage what they know*, Harvard Business Press (1998).
13. Cabrera, Á., Collins, W.C., Salgado, J.F.: Determinants of individual engagement in knowledge sharing. *International Journal of Human Resource Management*, 17(2), 245–264 (2006).
14. Lin, H.F.: Antecedents of the stage-based knowledge management evolution. *Journal of Knowledge Management*, 15(1), 136–155 (2011).
15. Yeh, Y.J., Lai, S.Q., Ho, C.T.: Knowledge management enablers: A case study. *Industrial Management and Data Systems*, 106(6), 793–810 (2006).
16. Alazmi, M., Zairi, M.: Knowledge management critical success factors. *Total Quality Management and Business Excellence*, 14(2), 199–204 (2003).
17. Hazlett, S.A., Hill, F.: E-government: The realities of using IT to transform the public sector. *Managing Service Quality: An International Journal*, 13(6), 445–452 (2003).
18. Jarrar, Y.F.: Knowledge management: learning for organisational experience. *Managerial Auditing Journal*, 17(6), 322–328 (2002).
19. Darudiato, S., Suryadi, L.: Knowledge Management: Tinjauan Pemberdayaan pada Perusahaan Umumnya. *ComTech: Computer, Mathematics and Engineering Applications*, 4(2), 1079 (2013).
20. Pauleen, D.: Personal knowledge management: Putting the “person” back into the knowledge equation. *Online Information Review*, 33(2), 221–224 (2009).
21. Tsui, E.: echnologies for personal and peer-to-peer (p2p) knowledge management. CSC Leading Edge Forum Technology Grant Report, (2002).
22. Jarcho, H.: PKM is not a technology
23. Avery, S., Brooks, R., Brown, J., Dorsey, P., O’Conner, M.: *Personal Knowledge Management: Framework for Integration and Partnerships*. In: n Annual Conference of the Association of Small Computer Users in Education (ASCUE). ASCUE: Myrtle Beach, SC (2001).
24. Teh, P., Chong, C., Yong, C., Yew, S.: Internet self-efficacy, computer self-efficacy and cultural factors on knowledge sharing behavior. *African Journal of Business Management*, 4(18), 4086–4095 (2010).
25. Lanigan, M.L.: Are Self-Efficacy Instruments Comparable to Knowledge and Skills Tests in Training Evaluation Settings? *Performance Improvement Quarterly*, 20(3), 97–112 (2008).
26. Wang, Y., LIN, J.: An empirical research on knowledge management orientation and organizational performance: the mediating role of organizational innovation. *African Journal of Business Management*, 7(8), 604–612 (2013).
27. Hamidah, Sule, E.T., Yunizar, Ariawaty, R.N.: Influence of Knowledge Management on Innovative Behavior and Its Impact on Managerial Performance of Medium-Scale Batik *PalArch’s Journal of Archaeology of ...*, 18(2), 436–455 (2021).
28. Johansson, A.C.J., Jönsson, E.: Innovation Culture in Five Dimensions: Identifying Cultural Success Factors and Barriers for Innovation. 1–100 (2014).
29. Pan, S.L., Leidner, D.E.: Bridging communities of practice with information technology in pursuit of global knowledge sharing. *Journal of Strategic Information Systems*, 12(1), 71–88 (2003).

30. Kulkarni, U.R., Ravindran, S., Freeze, R.: A knowledge management success model: Theoretical development and empirical validation. *Journal of Management Information Systems*, 23(3), 309–347 (2006).
31. Almahamid, S.M., McAdams, A.C.: Determinants of user continuance intention to use e-government. *International Journal of Electronic Governance*, 3(4), 343–372 (2010).
32. Constant, D., Kiesler, S., Sproull, L.: What is mine is ours, or is it? *Information Systems Research*, 5(4), 400–422 (1994).
33. Iyer, C.H., Ravindran, G.: Indian Ethos for Transparency in Ethical Accounting: A Conceptual Analysis. *Indian Journals*, 3(1), 57–61 (2013).
34. DeLone, W.H., McLean, E.R.: The DeLone and McLean model of information systems success: A ten-year update. *Journal of Management Information Systems*, 19(4), 9–30 (2003).
35. Tiwana, A.: *The knowledge management toolkit: Orchestrating IT, strategy, and knowledge platforms*, Pearson Education India (2002).
36. Amriani, T.N.: *Knowledge Management (KM) dalam Organisasi Publik*
37. Umar, H.: *Metode Riset Perilaku Konsumen Jasa*, Jakarta (2003).
38. Chin, W.: *Partial Least Squares for Researchers: an Overview and Presentation of Recent Advances Using the PLS Approach*
39. Hair, J., Black, W., Babin, B., Anderson, R.: *Multivariate Data Analysis: A Global Perspective*, (2010).
40. Fornell, C., Larcker, D.F.: Evaluating Structural Equation Models with Unobservable Variables and Measurement Error. *Journal of Marketing Research*, 18(1), 39 (1981).
41. Santhanamery, T., Ramayah, T.: Explaining the e-Government Usage Using Expectation Confirmation Model: The Case of Electronic Tax Filing in Malaysia. In: *Public Administration and Information Technology*. pp. 287–304. Springer (2014).

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