

A Multi-Factoral Approach to Enhancing Millennial Teachers' Personal Knowledge Management: A Case Study in Private Islamic Schools in Indonesia

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Abstract

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Prior research has emphasized a need for scholarly works investigating millennial instructors' knowledge management (PKM) practices at the individual level within an institution. In addition, there needs to be more research examining the role of organizational learning as a mediator between transformational leadership and personal knowledge management among millennial instructors. This study examines how transformational leadership, ICT literacy, and organizational learning affect personal knowledge management (PKM) among Indonesian school instructors in their 20s and 30s. Another goal is to investigate the function of organizational learning as a mediating factor. We administered questionnaires to 100 teachers at some private Islamic schools in Bengkulu, Indonesia, and evaluated them subsequently using partial least squares structural equation modeling. The results suggest that proficiency in information and communication technology (ICT), the ability to inspire and guide others through transformational leadership, and the presence of a culture that promotes continuous learning within the business all contribute positively to the practice of personal knowledge management (PKM) among instructors from the millennial generation. The study determined that ICT literacy had the most substantial impact on teachers' PKM. Furthermore, organizational learning mediates between transformational leadership and PKM, resulting in a slight rise. These findings have practical consequences for school administrators who aim to increase millennial teachers' information and communication technology (ICT) skills in the region. One way to achieve this is by creating an ICT literacy ecosystem within schools, which will help strengthen the personal knowledge management of these instructors.

Kata kunci:

Manajemen Pengetahuan Pribadi (PKM), Guru Milenial, Kepemimpinan Transformasional, Literasi Teknologi Informasi dan Komunikasi (ICT), Pembelajaran Organisasi

Abstrak

Penelitian sebelumnya menekankan kekurangan karya ilmiah yang menyelidiki praktik manajemen pengetahuan pribadi (PKM) pada tingkat individu di kalangan pendidik milenial dalam sebuah institusi. Selain itu, penelitian yang mengeksplorasi peran pembelajaran organisasional sebagai mediator antara kepemimpinan transformasional dan manajemen pengetahuan pribadi di kalangan guru milenial juga masih kurang. Untuk mengatasi permasalahan ini, penelitian ini mengeksplorasi bagaimana kepemimpinan transformasional, literasi Teknologi Informasi dan Komunikasi (ICT), dan pembelajaran organisasional memengaruhi manajemen pengetahuan pribadi (PKM) di kalangan guru di Indonesia yang berusia 20-an dan 30-an tahun. Tujuan lainnya adalah untuk menyelidiki fungsi pembelajaran organisasional sebagai faktor mediasi. Kami menyebarkan kuesioner kepada 100 guru di beberapa sekolah Islam swasta di Bengkulu, Indonesia, dan mengevaluasinya menggunakan *partial least squares structural equation modeling*. Hasil penelitian menunjukkan bahwa kemahiran dalam teknologi informasi dan komunikasi (ICT), kemampuan untuk menginspirasi dan membimbing orang lain melalui kepemimpinan transformasional, dan adanya budaya yang mendorong pembelajaran berkelanjutan dalam organisasi, semuanya berkontribusi positif terhadap praktik manajemen pengetahuan pribadi (PKM) di kalangan instruktur dari generasi milenial. Penelitian ini menunjukkan bahwa literasi ICT memiliki dampak paling signifikan pada PKM guru. Selain itu,

pembelajaran organisasional berperan sebagai mediator antara kepemimpinan transformasional dan PKM, meskipun peningkatannya tidak signifikan. Temuan ini memiliki konsekuensi praktis bagi administrator sekolah yang bertujuan untuk meningkatkan keterampilan teknologi informasi dan komunikasi (ICT) guru milenial di daerah tersebut. Salah satu cara untuk mencapainya adalah dengan menciptakan ekosistem literasi ICT di dalam sekolah, yang akan membantu memperkuat manajemen pengetahuan pribadi para guru milenial tersebut.

INTRODUCTION

The OECD report by (Huang & Yuan, 2020) highlights the crucial significance of teachers as facilitators and creators of knowledge. As a result, instructors are required to maintain a high degree of expertise and continuously develop their professional abilities. Instructors, in their role as academics, have the responsibility to convey knowledge to students and help them understand learning techniques as a crucial means of staying up-to-date, developing a lifelong learning mindset, and displaying resilience when confronted with difficulties. The United Nations has outlined enhancing the professional competencies of instructors as one of the Sustainable Development Goals (SDGs) to be accomplished by 2030 (United Nations, 2023). To achieve this objective, instructors must consistently enhance, structure, assess, analyze, update, present, and innovate effectively, demonstrating their expertise as professional educators. This is becoming increasingly essential, especially in schools where academic achievement is greatly impacted by the intellectual contributions of instructors as knowledge workers.

Amidst the swift evolution of our times, educational institutions must bolster the competence of their instructors by imparting knowledge that facilitates more informed and effective decision-making (Upadhyay et al., 2023). To do this, instructors must enhance their proficiency in knowledge management (KM) abilities (Jasin et al., 2024). KM, in a broader context, entails utilizing two types of knowledge, namely tacit and explicit knowledge, to boost individual and organizational advancements and accomplish organizational objectives. Knowledge Management (KM) is most effective when it encompasses a wide range of knowledge, from theoretical understanding ("know-what") to practical skills ("know-how") (Hasan et al., 2022). However, it is common for people to just link KM with the information and communications technology (ICT) employed in an enterprise (Sun et al., 2024).

Organizations may foster individuals who possess a continuous desire to learn and adapt to swift changes by including knowledge management (Shehzad et al., 2024). Examining KM at the individual level is an important idea, and Personal Knowledge Management (PKM) is acknowledged as a separate aspect within this framework (Wong et al., 2019). PKM involves not just individual-level knowledge management, but also personal information management, philosophy, cognition, communication, and other personal factors. Within the realm of education, individuals commonly understand PKM as the capacity to acquire and oversee knowledge. The effectiveness of PKM relies on an individual's drive to explore, acquire knowledge, and exchange information, as well as their capacity to interact with others, utilize technology, and adapt to organizational learning (Wong et al., 2019).

While Knowledge Management (KM) has been a significant subject of research since the 1990, with its relevance acknowledged across various organizational sectors, including education, most studies have predominantly focused on the organizational level, neglecting an in-depth exploration of the pivotal role of teachers as primary actors. However, within the perspective of Islamic Education Management, various interconnected components, such as curriculum, resource management, school leadership, and teaching methods, need thorough consideration (Mohd Nor

& Maksum, 2014). Teachers must holistically develop overall human potential, encompassing spiritual, intellectual, emotional, and physical aspects, necessitating comprehensive management processes. A renowned Malaysian philosopher, Syed Muhammad Al-Naquib Al-Attas (1979), defines education as a 'process of instilling something into the human being.' These definitions underscore that education aims toward achieving a common goal: human development (Husna et al., 2023). Therefore, multi-factor research in enhancing Millennial Teachers' Personal Knowledge Management is expected to address managerial challenges and subsequently improve the quality of Islamic school outputs in Indonesia.

This research focuses on millennial teachers in several private Islamic schools in Bengkulu, Indonesia. The objective is to fill the research gap by investigating the influence of transformational leadership, ICT literacy, and organizational learning on Personal Knowledge Management (PKM) among millennial teachers. Based on the literature review above, the author formulated five hypotheses underlying this study, including: 1) Does transformational leadership positively influence personal knowledge management among millennial teachers? 2) Does proficiency in Information and Communication Technology (ICT) positively affect the ability to manage personal knowledge among millennial teachers? 3) Does organizational learning have a positive influence on personal knowledge management among millennial teachers? 4) Does transformational leadership positively influence the personal knowledge management of millennial teachers by promoting organizational learning? 5) Does transformational leadership exert a beneficial influence on the process of organizational learning? These inquiries intend to contribute valuable insights to the existing body of knowledge, offering practical implications for the improvement of educational processes and outcomes, particularly within the context of Islamic education.

RESEARCH METHOD

This research employs a comprehensive, multi factorial approach to delve into the intricate dynamics of the education system. The rationale behind choosing this methodology lies in viewing education as a complex system composed of several vital components, each with its own unique functions that intricately interact to generate an impact (Ciarocco et al., 2013). This approach effectively analyzes and gathers data from various perspectives, enabling a comprehensive understanding of the issues at hand.

The multi factorial approach in educational research refers to a strategy or method that takes into account various aspects or dimensions in the design, implementation, and analysis of research in the field of education (Astuti et al., 2020). The overarching goal is to obtain a more holistic and in-depth understanding of educational phenomena by considering influential factors (Suryadi, 2021). Through this approach, the research aims to provide accurate and profound insights into the relationships and interactions among the components within the education system.

Recognizing professional instructor as pivotal to the success of shaping quality students, recent literature emphasizes the strong correlation between professional instructor and their commitment to professional missions and Islamic knowledge. The presence of highly-performing instructor is asserted as a primary driver for creating justice for students and advancing schools (Masa'deh et al., 2015). In exploring the Personal Knowledge Management (PKM) of millennial instructor in private Islamic schools in Bengkulu, the study narrows down the influencing factors to three variables: ICT literacy, transformational leadership, and organizational learning. The use

of non-experimental statistical analysis, specifically the Partial Least Squares-Structural Equation Modeling (PLS-SEM) method through SmartPLS software, was chosen due to its suitability for nonparametric data.

The study involves a sample of 100 instructors in their 20 to 30 aged from various private Islamic schools in Bengkulu, focusing on non-parametric data. The PLS-SEM approach is aptly applied to this type of data. While 60% of instructors chose to participate, the level of involvement from respondents remains optional, respecting their autonomy. The selection of the school was based on its adequate ICT infrastructure and visionary leadership.

Using non-experimental statistical analysis and the PLS-SEM method, this study looks at the links between teachers' ICT skills, transformational leadership, and how they manage their own knowledge. It focuses on millennial teachers who work in Islamic private schools in Bengkulu. Your insights and feedback are invaluable as we navigate through this comprehensive exploration.

RESULT AND DISCUSSION

Result

The questionnaire was completed by a total of 100 instructors, accounting for 70% of the school's entire teaching staff. The demographic characteristics of the participants are displayed in Table 1.

Table 1 Participant's demographic

Category		Percentage
Gender	Male	23
	Female	77
Generation	Millenial (born between 1981-1996)	100
Education Level	Bachelor's Degree	56
	Master's Degree	38
	Doctoral Degree	5
Years of teaching experience	1-3 years	58
	4-5 years	34
	5-6 years	8
	>7 years	0

In order to perform the PLS-SEM test, it is essential to thoroughly scrutinize the model to verify that the build items being studied satisfy the required criteria. During model testing, the construct items included in the study are carefully evaluated for their validity and reliability. This evaluation is done through many assessments, including the loading factor test, composite reliability analysis, Cronbach's alpha, and the measurement of the average variance extracted (AVE) value. The main purpose of doing the outer model test is to verify that the model accurately represents the connection between each indicator and its corresponding latent variable. The results of the outer model test for this investigation are methodically displayed in Table 2.

Table 2 Factor loading, Reliability, and Average Variance Extracted (AVE).

Variable	Factor Loading	AVE	Composite reliability	Cronbach's alpha
Individual knowledge management		0.805	0.915	0.779

I possess the ability to assimilate and combine both past and current knowledge acquired through research discoveries.	0.734			
I possess the ability to discern the specific information that provides answers to my inquiries.	0.875			
I possess the ability to analyze and evaluate information from multiple sources in order to choose the most suitable option.	0.952			
I possess the knowledge of the proper places for adding data within the exam questions, articles, or presentations that I create.	0.885			
I possess the ability to retrieve data from multiple digital sources.	0.722			
ICT literacy		0.631	0.859	0.731
I possess a high level of proficiency in managing digital data.	0.801			
I possess the ability to utilize ICT (Information and Communication Technology) in order to assess and establish the reliability and validity of information.	0.890			
I possess an excellent level of trust of producing digital content by utilizing multiple and reputable web sources.	0.832			
Transformational leadership		0.605	0.872	0.744
I feel great pride in my engagement with my manager.	0.804			
The school's administrators inspire instructors to foster more imaginative thinking in problem-solving.	0.884			
Leaders express empathy and care when I require guidance.	0.897			
Leaders contribute to the improvement of my professionalism.	0.845			
Organizational learning		0.602	0.885	0.823
Educators prefer transferring knowledge among others in their field.	0.795			
The teachers at my school have grown accustomed to offering comments to encourage collective advancement.	0.789			
The school encourages teachers who have initiative.	0.789			
The school collaborates with various organizations to attain mutual goals.	0.750			

The table above displays the values of items inside constructs in this study, which range from 0.722 to 0.952. This suggests that all components in the construct fulfill the specified threshold value of 0.70 (Sarstedt et al., 2022). The AVE test evaluates the mean value of the

squared loadings of indicators linked to the constructs. It uses a threshold value of 0.50, as recommended by (Sarstedt et al., 2022). The AVE values for each construct in this investigation confirm their compliance with the widely accepted threshold of 0.50 for a construct's AVE. Furthermore, both the composite reliability and Cronbach's alpha tests have a threshold value that exceeds 0.70. According to the construct testing conducted in this study, all constructions are considered reliable because they exceed the threshold value of 0.70.

The purpose of the outer model test is to evaluate discriminant validity, which aims to confirm the uniqueness of one concept in relation to others. This assessment entails computing the square root of the Average Variance Extracted (AVE) value. A construct is considered eligible if its value exceeds the maximum correlation value with other constructs (Ringle et al., 2020). According to the test results, all constructions exhibit distinctiveness and difference from others, satisfying the necessary requirements. The results of the discriminant validity test are displayed in Table 3.

Table 3 Discriminant Validity Test Result

Category	ICT	OL	PKM	TL
ICT	0.789			
OL	0.05	0.817		
PKM	0.545	0.170	0.911	
TL	0.032	0.773	0.150	0.858

Testing the internal model. Inner model testing clarifies the estimated connections between constructs. The Variance Inflation Factor (VIF) is a metric that measures the degree of correlation between exogenous variables (Hair et al., 2012). Values below 5.00 are preferred for the VIF, as higher values suggest collinearity among these variables. Table 4 shows that the exogenous variables have VIFs <5.00, indicating that there are no worries about multicollinearity in the interactions between these variables.

Table 4 Multicollinearity Test Result

Exogenous variable	VIF	
	OL	PKM
ICT Literacy		1.005
Transformational leadership	1000	2.105
Organizational learning		2.105

The coefficient of determination quantifies the degree to which an external variable influences internal variables concurrently. The values of the coefficient of determination are displayed in Table 5. The R² value obtained from organizational learning has a substantial impact, as it accounts for over 50% of the variation. This indicates that the independent variables have a strong influence on PKM. However, the R² derived from personal knowledge management suggests a relatively smaller influence.

The coefficient of determination indicates the degree to which an independent variable affects dependent variables simultaneously. The values of the coefficient of determination are displayed in Table 5. The R² value obtained from organizational learning has a substantial impact, as it accounts for more than 50% of the variation, indicating that the independent variables have

a strong influence on PKM. However, the R^2 derived from personal knowledge management implies a relatively minor influence.

Table 5 Coefficient Determination

Construct/depent variables	R-square (R^2)
Organizational Learning	0.525
Personal Knowledge management	0.340

Our final examination assesses the research hypotheses. Hypothesis testing relies on the path coefficient value for each exogenous variable towards the endogenous variable. The outcomes are presented in Table 6. Based on the hypothesis testing results and the coefficients of determination, a research model can be elucidated along with the path coefficients, as illustrated in figure 1 below.

Table 6 Hypothesis Test

Hypothesis		Path Coefficient	Conclusion
H ₁	Information and Communication Technology (ICT) literacy has a beneficial impact on the management of personal knowledge among millennials instructors.	0.545	Approved
H ₂	Transformational leadership generates a beneficial influence on the process of personal knowledge management. among millenials instructors	0.060	Approved
H ₃	Transformational leadership provides a beneficial impact on the process of organisational learning.	0.773	Approved
H ₄	Organisational learning improves the management of personal knowledge among millenial instructors.	0.083	Approved
H ₅	Transformational leadership enhances personal knowledge management among millennial instructors by fostering organisational learning.	0.081	Approved

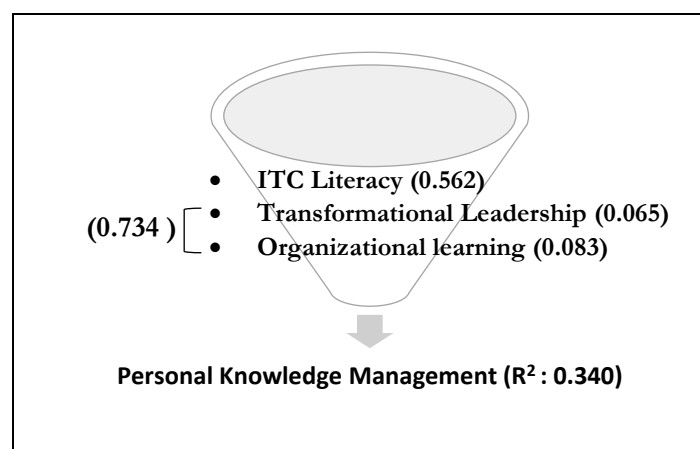


Figure 1. Path coefficient test model

The R^2 result suggests that around 45 % of the PKM variable can be described by the three initial values, with the remainder explained by other factors. Instructors' ICT knowledge, transformational leadership, and organizational learning culture play a key role in the development of PKM abilities at school. This outcome fits with Gui's study (2024), which suggested that KM is influenced by three key factors: technology, culture, and leadership (Gui et al., 2024). In addition, the R^2 value for the OL variable indicates that transformational leadership has a sole influence on OL of 54 %, while other variables account for the remaining portion. The importance of transformative leadership in organizational learning is emphasized by this. The learning culture among Millennials Instructors' increases when they receive help from transformational leaders. The route coefficient, also known as the R-square value, directs us to structural equations 1 and 2.

$$OL = 0.773TL + 0.460 \quad \text{Structural Equation 1}$$

$$PKM = 0.545ICT + 0.060TLL \quad \text{Structural Equation 2} \\ +0.104OL + 0.701$$

Discussion

Based on the research results mentioned above, different hypotheses can be formed, which will be explained in detail below.

H₁: Transformational leadership creates a beneficial impact on personal knowledge management (PKM) among millennials instructors.

The results of the first hypothesis test demonstrate that transformational leadership exerts a favorable impact (with a path coefficient of 0.065) on the personal knowledge management (PKM) of millennial instructors in private Islamic school in Bengkulu. As instructors view the leadership in their school as transformative, their proficiency in PKM also grows, but not much. Despite the perception that school leaders lack transformative qualities, the PKM (Professional Knowledge and Skills) of millennial instructors in private islamic schools remains strong. However, it is evident that transformational leadership has a beneficial influence, as demonstrated by the favorable outcomes of the test findings. This discovery is consistent with the perspectives of (Hallensleben et al., 2015), who argue that transformational leadership has a favorable impact on the improvement of PKM.

Moreover, this discovery also reinforces the investigation carried out by (Yusnita & Virlania, 2024) , which analyzed the correlation between transformative leadership and knowledge management and entrepreneurship at vocational schools. The findings demonstrate a direct and favorable association between transformative leadership, knowledge management, and entrepreneurship even at the individual level. In contrast to the findings of (Masa'deh et al., 2015), who claimed that transformative leadership has a detrimental effect on knowledge management (KM) improvement, particularly in relation to information sharing.

Analysis of instructors' reactions to the indicator questions demonstrates that transformational leadership has the potential to promote teamwork among millennial instructors, thereby increasing the individual expertise of each teacher (Fasya et al., 2023). Moreover, the implementation of transformational leadership in the private Islamic school in Bengkulu has the potential to enhance instructors' creativity, problem-solving abilities, and autonomous pursuit of knowledge.

H₂: Information and Communication Technology (ICT) literacy has a beneficial impact on Personal Knowledge Management (PKM) among Millenials Instructors.

The initial hypothesis test findings demonstrate that ICT literacy has a favorable influence on PKM, with a path coefficient of 0.545. This discovery supports the previous that highlighting the importance of ICT in impacting knowledge management. The study conducted (Ohemeng et al., 2015) examines the utilization of ICT in Ghanaian educational institutions to enhance the efficiency of knowledge management. The necessity to improve the capability and quality of ICT in educational institutions was recognized in order to achieve substantial advancements in knowledge management at both individual and organizational levels.

Within the scope of this study, the millennial teachers at Islamic Private School demonstrate a notable level of proficiency in information and communication technology (ICT). This proficiency is evident in their ability to effectively handle administrative duties and fulfill teaching requirements with the aid of ICT tools. Millenial instructors' are motivated to possess advanced ICT literacy in order to fulfill their professional responsibilities, even in the absence of official ICT training or assessment. The capacity of millennial teachers to derive information from many digital sources adds to the development of Personal Knowledge Management (PKM). In addition, educators utilize Information and Communication Technology (ICT) to generate and distribute knowledge, fostering self-assurance and competencies that impact Personal Knowledge Management (PKM).

Ultimately, it can be deduced that instructors' ICT literacy skills enable them to effectively get and arrange educational resources by utilizing data and information from diverse digital sources, as stated by (Agrawal et al., 2021). Teachers' proficiency in ICT also enables them to effectively share information using digital platforms, hence enhancing their personal knowledge.

According to (Khan et al., 2021) for improving ICT literacy among teachers by institute systematic and continuous training programs. The programs are tailored to educate fundamental and advanced technology skills specific to the educational setting, including online learning platforms, productivity software, professional social media, and ICT-based teaching methods. Training programs can be tailored to different levels of competence, from novice to advanced, to cater to the varying degrees of ICT knowledge and skills among teachers. Customizing the program to meet teachers' individual requirements and preferences of teachers can increase their involvement and enthusiasm for the training.

Aside from formal education, instructors can enhance their ICT knowledge and skills by collaborating through seminars, talks, or joint learning sessions. This increases knowledge and fosters solidarity and support among instructors in improving ICT literacy. It is essential to acknowledge and appreciate instructors who are actively improving their ICT literacy skills. This can encourage increased engagement in training programs and strengthen a culture of ongoing learning among teachers.

H₃ : Organizational learning (OL) has a beneficial impact on the process of knowledge management (PKM).

The findings from the third hypothesis test suggest that organizational learning (OL) has a favorable effect on Individual Knowledge Management (IKM), albeit the influence level is relatively modest at 0.083. Consequently, enhancing the organizational learning culture in Private

Islamic Schools will result in a marginal enhancement of teachers' individual knowledge management. While the improvement may not be substantial, advancements in organizational learning seem to contribute to the expansion of instructors' information and knowledge management (IKM) capacities.

The favorable outcomes of this hypothesis test corroborate the assertion (Intezari et al., 2017) that cultural components and knowledge are intricately interconnected. Hence, organizations necessitate a methodology that incorporates knowledge processes as a sequence of interconnected activities, rather than merely a fusion of separate activities, which directly affects individual performance.

The study conducted by (Kokkaew et al., 2022) investigated the impact of human resource management (HRM) on knowledge management (KM), sustainable organizational performance (OP), and organizational learning (OL) in Thai construction enterprises. The findings revealed a favorable association between sustainable organizational performance and human resource management. Knowledge management (KM) and organizational learning (OL) were found to be mediating factors in the sustainable link between HRM and OP.

The same observations are applicable to teachers as well, their readiness to exchange knowledge and cooperate can improve both their own abilities and the overall capacity for organizational learning. Knowledge-sharing fosters collaboration among instructors, rather than intensifying competition. It expands their perspectives and validates their knowledge, enhancing their confidence and equipping them with reliable information. The effective implementation of human resource development initiatives in schools, specifically targeting teachers, would greatly contribute to the successful management of organizational learning. This, in turn, will boost the process of individual knowledge management for instructors (Abdollahi et al., 2023; Antunes & Pinheiro, 2020). One effective strategy for enhancing the organizational learning culture in schools is creating teams or discussion groups focused on addressing subjects linked to organizational learning, sharing experiences, and exchanging best practices to enhance knowledge management. These teams or discussion groups can exist in offline or online platforms facilitated by digital technology (Khan et al., 2021).

H₄ : Organizational learning (OL) has a beneficial impact on the process of knowledge management (PKM).

The findings from the fourth hypothesis test suggest that organizational learning effectively acts as a mediator in the impact of transformational leadership on PKM, with a value of around 0.081. This result indicates a modest impact, but it is still greater than the direct influence of transformational leadership on PKM, which is approximately 0.055. The results of this test indicate that transformational leadership has a limited impact on developing the personalities of millennial instructors at Private Islamic Schools, whether it be through direct influence or organizational learning.

The integration of transformational leadership, which motivates teachers to become inventive learners, and the cultivation of a learning culture, in addition to organizational learning, amplify their capacity for learning. This enables individuals to openly articulate their ambitions for cultivating novel concepts and acquiring knowledge efficiently. The results of this study are consistent with previous research that suggests organizational learning acts as an intermediary between transformative leadership and knowledge management (Abdollahi et al., 2023).

It is determined that the implementation of a transformational leadership training program for school administrators and leaders is essential, in accordance with the hypothesis mentioned

above. This curriculum aims to cultivate abilities in transformational leadership, including motivating and inspiring people, establishing strong relationships, and promoting innovation and continual learning (Fitriani et al., 2024; Huda & Rokhman, 2021; Setyorini & Khuriyah, 2023). Leaders and managers are essential in promoting an inclusive and supportive learning culture in schools, which fosters cooperation, experimentation, and learning from mistakes (Ali, 2024).

H₅: Transformational leadership exerts a beneficial impact on organizational learning.

The last hypothesis test indicates that transformational leadership has a significantly positive impact on Organizational Learning (OL), with a path coefficient of 0.734. This implies that as teachers' perceptions of transformational leadership in the school increase, the organization's ability to learn also increases. The results of this hypothesis support the notion (Bereiter & Scardamalia, 2014) that building OL in an organization requires the support and active engagement of leaders. Specifically, (Chen & Hong, 2016) and (Philip, 2005) emphasize the crucial role of a leader in shaping the organizational learning culture so that members of the organization can share knowledge and develop in tandem with organizational growth.

Analyzing the responses of millennial instructors' participants to the indicator questions, it is evident that transformational leadership in the Islamic private school in Bengkulu encourages collaborative efforts aimed at sharing knowledge. The transformational leadership in the school also inspires teachers to think with a global perspective (Azizah & Apdila, 2021; Zamrodatin et al., 2023). These findings align with the results of the study (Panagopoulos et al., 2023) investigating the impact of transformational leadership on instructors' satisfaction in Achaia, Western Greece.

The study's results demonstrate a positive impact of three variables: transformational leadership, job satisfaction, and instructors' commitment. Additionally, (Suliman et al., 2019) found that the transformational leadership of CEOs influences the processes of the Top Management Team (TMT). More importantly, CEOs need to comprehend the culture and support required for TMT members to work effectively, as actively implementing reward and punishment in transformational leadership enhances the effectiveness of an organizational institution. performance.

CONCLUSION

By the evaluation of variables in this study, we deduce the findings that follow concerning Knowledge and Information Management (KIM) at private Islamic schools located in the city of Bengkulu. The variables investigated in this study, including ICT literacy, transformational leadership, and organizational learning, demonstrate a favorable impact on KIM. Furthermore, transformational leadership has a good impact on organizational learning. The considerable relationship between transformative leadership and knowledge integration and management (KIM) is remarkable, especially given the inconsistent findings published by scholars in prior study, which have indicated both positive and negative impacts. Therefore, knowledge and information management are impacted by ICT literacy, transformational leadership, and organizational learning, leading to enhanced organizational learning performance.

In addition, organizational learning acts as a mediator between transformational leadership and KIM, showing a favorable influence, albeit the amount of this effect is smaller than the direct impact. According to the study findings, ICT literacy is identified as the most significant factor affecting KIM. Hence, it is deduced that school administration should prioritize the information and communication technology (ICT) proficiency of young instructors belonging to the millennial cohort. This theoretical discoveries have practical consequences that are important for preparing

instructors to address knowledge management issues in the digital age. School administrators should focus on providing ICT training for young instructors, especially those who are part of the millennial cohort, born between the early 1980s and the early 2000s (Atstsaury et al., 2024; Isa et al., 2024). To prioritize this, training programs, workshops, or online resources can be organized to focus on developing technology skills. School administrators, in their role as policymakers, should consider implementing policies that encourage the incorporation of ICT into the school curriculum and learning activities. These approaches are expected to enhance the school community members' ability to handle and utilize information efficiently.

By implementing this approach, enhancements can be achieved in the KIM program within these privately-run Islamic schools throughout the city. Furthermore, the research results clearly establish that transformational leadership has a considerable influence on organizational learning, which in turn acts as a mediator for its impact on KIM. Although the mediating effect is not very significant, school administration might prioritize improving organizational learning to promote knowledge and information management (KIM) activities among instructors from the millennial generation.

There are multiple limitations to our research. Initially, only 70% of the questionnaires were returned for the census because participation was voluntary. Our examination of PKM competency is limited to three external variables: ICT literacy, transformational leadership style, and organisational learning culture. Factors such as technology, leadership styles, and organisational cultures were not taken into account, which could have allowed other variables to have a stronger impact on PKM. Our research is assessed by SmartPLS by analysing coefficients of determination (R²) and path coefficient values. Extra measuring tools like SPSS are necessary for conducting goodness of fit tests, which require extra data such as the number of observations, normality, and homogeneity.

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