Influence of Determinant Factors on Knowledge Management and Innovative Work Behavior

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ABSTRACT
The relationship between knowledge management and innovative work behavior has gained increasing attention in today's dynamic business environment. This research delves into organizational dynamics by investigating the impact of critical determinants in knowledge management on employees' innovative work behavior within the unique context of PT Alien Design Consultant (ADC), Jakarta. The study examines three primary determinants: Innovation Culture (X1), Information Technology (X2), and Knowledge Management (Y1), and their potential influence on Innovative Work Behavior (Y2). Employing a quantitative research approach, the study utilizes the Structural Equation Modeling (SEM) technique with Partial Least Squares (PLS) path analysis to assess the hypothesized relationships. Five hypotheses are formulated and rigorously tested to uncover the significance of the abovementioned determinants in driving innovative work behavior among employees. The findings reveal insightful nuances about the organizational dynamics within PT Alien Design Consultant (ADC), Jakarta. Four of the five hypothesized paths are established as significant, thus highlighting the critical role of Innovation Culture, Information Technology, and Knowledge Management in fostering employees' innovative work behavior. However, it is noteworthy that one hypothesized path emerges as non-significant, indicating a potential deviation from the anticipated relationship. This research contributes to theoretical and practical domains by shedding light on the intricate interplay between knowledge management determinants and innovative work behavior within an industrial setting. The results provide valuable insights for organizations aiming to enhance their innovative capabilities by understanding the specific drivers that impact employee behavior. As such, this study advances our comprehension of the multifaceted dynamics that underpin organizational innovation in the modern business landscape.

Keywords: *Knowledge Management, Innovative Work Behavior, Business Organization, Information Technology*

1. INTRODUCTION

Within the dynamic and rapidly evolving landscape of contemporary business, the imperative for organizations to strategically harness knowledge has emerged as a pivotal determinant for sustaining a competitive advantage. Knowledge Management (KM), or Pengelolaan Pengetahuan in the Indonesian lexicon, stands prominently as a recognized organizational tool for orchestrating and strategically managing organizational processes, supported by Teece, G. et al [1]. This strategic approach involves the transformation of information into corporate values, with KM recognized as an integral element for organizational success. Its distinctiveness lies in its tailored capacity for the exploitation and development of corporate knowledge, carefully aligned with the overarching objectives of the organization.

The significance of implementing Knowledge Management transcends the mere pursuit of organizational superiority; it extends to the mastery of refining operational efficacy. The adoption of KM principles is postulated to indirectly impact financial performance and overall organizational efficacy, as asserted by Bergeron et al. [2]. This underscores the notion that KM is not merely an abstract concept but a strategic imperative for organizations seeking

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not just to perform better, but to understand how to conduct their operations with superior efficiency. From a business perspective, Knowledge Management is conceptualized as a systematic and deliberate strategy for optimizing business operations. This involves the meticulous selection, filtration, storage, organization, and communication of crucial information within the company. The ultimate aim is to enhance both employee performance and the competitive nature of the organization.

In the scholarly discourse, Groff and Jones [3] further emphasize that Knowledge Management constitutes a multifaceted approach involving tools, techniques, and strategies for maintaining, analyzing, organizing, developing, and sharing business expertise. The nuanced exploration of KM, as articulated by these scholars, highlights its role as more than a mere repository of information. It is a dynamic process that involves not only the acquisition and storage of knowledge but also its systematic analysis, organization, and strategic dissemination. Within the intricate tapestry of organizational processes, KM emerges as a proactive mechanism for fostering a culture of continuous learning, adaptability, and innovation.

Moreover, within the contemporary era, the role of information technology assumes a heightened significance, warranting in-depth exploration as an antecedent variable. In essence, the interplay between Information Technology (IT) and KM forms a critical nexus that demands meticulous scholarly scrutiny. The integration of advanced IT solutions serves as a catalyst for enhancing KM processes, underscoring the symbiotic relationship between technological infrastructure and effective knowledge management strategies. Therefore, in the pursuit of unraveling the intricacies of KM, it becomes imperative to delve into the role and impact of information technology as an enabler and facilitator of KM processes.

In sum, a nuanced understanding of Knowledge Management becomes pivotal for driving organizational change and innovation in processes. The evolving business landscape, as elucidated by Agarwal [4], demands adaptive solutions, compelling companies to foster creativity and operational innovation. In tandem with this, the focus on continuous operational innovation necessitates enhancing the capabilities of staff to promote and develop innovative solutions, as highlighted by Gupta et al. [5]. The concept of Innovative Work Behavior, encapsulating the ability to foster and promote innovation within organizations, stands out as a critical aspect in this dynamic environment. This theoretical underpinning underscores the strategic imperative for organizations to cultivate an environment conducive to continual learning, creativity, and adaptive innovation.

Against this sophisticated theoretical backdrop, the current research underscores the essentiality of delving into the intricacies of Knowledge Management within the specific organizational context of PT Alien Design Consultant in Jakarta. This strategic exploration aims to unravel the unique dynamics of KM in this setting, emphasizing its role in fostering organizational change, promoting innovation, and ultimately contributing to sustained competitive advantage. The research builds upon the theoretical foundations laid by Teece et al. [1], Bergeron [2], and Groff and Jones [3], thereby accentuating the vital need to comprehend and leverage Knowledge Management principles within the evolving business milieu. The specific focus on PT Alien Desain Consultant in Jakarta not only serves as a contextual anchor for the research but also underscores the broader organizational implications and applications of KM in diverse business environments.

2. METHODS

The Indonesian company PT Alien Design Consultant (ADC) employees in Jakarta participated in the survey. Innovation Culture (X1), Information Technology (X2), Knowledge Management (Y1), Innovative Work Behavior (Y2), and system success are the six indicators used in this sort of quantitative study. The population and sample are determined using the Hair formula, and the score is calculated using the Likert scale:

Minimum sample size = Number of indicators x 5

Additionally, are 15 indicators multiplied by 5 to get a minimum sample size of 75. Conducting data analysis in this study using SmartPLS 4.0 software, using inferential statistical analysis with six steps of structural equation modeling (SEM), which will be assessed descriptively).

3. RESULT AND DISCUSSION

3.1. Result

In the SEM test, there are at least three steps of analysis, namely: (1) testing the relationship between indicators and latent or construct variables (the outer model or measurement model); (2) testing the relationship between latent or construct variables (the structural model); and (3) testing the compatibility model. The results of the calculations on the construct validity and reliability tests are shown in Figure 1 below, which is the result of running the outer model test (measurement model).

Figure 1-3 below shows the results of the construct validity and reliability tests. Questions or indicators with a loading factor value of 0.7 will be excluded from the model when testing their validity, supported by Hair Jr, et al [6]. In Figure 1 and 2, it can be seen that the first and second running output shows that there is a loading factor value of 0.7, which will then be excluded from the model one by one, namely: λY2.1 = 0.687, λY2.4 = 0.673, λY2.5 = 0.653 (figure 1). After running three times, the external model is obtained, which contains all indicators with a loading factor value of > 0.7.

Figure 1 Pls Algorithm Run 1

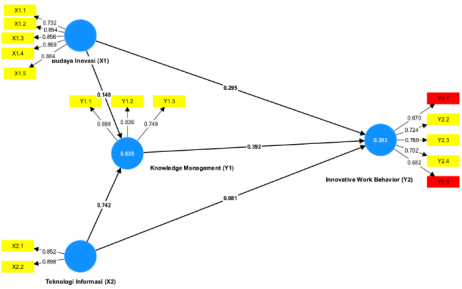


Figure 2 Pls Algorithm Run 2

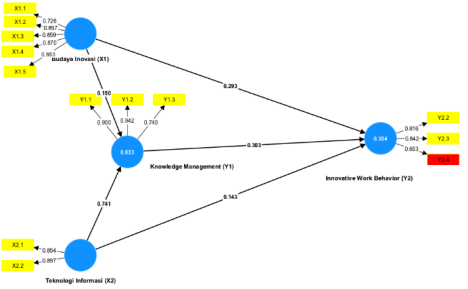
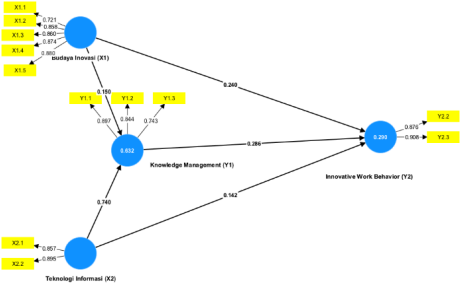


Figure 3 Pls Algorithm Run 3



The influence analysis between latent and construct variables in the SEM model is nothing more than testing the structural model in path analysis. In the inner model, the research hypotheses will be proven. In this study, the analysis

used bootstrapping using SmartPLS software. The results of running calculations with Bootstrapping are shown in Figure 2 below, and the results of several stages of the analysis are explained in Table 1 below.

To complete the analysis in this study, the authors display a table of hypothesis test results. This can be seen in the table.

Table 1. Hypothesis Test

Rata-rata, STDEV, Nilai T, Nilai p | Interval keyakinan | Bias interval kepercayaan dikoreksi

	Sampel asli (O)	Rata-rata sampel (M)	Standar deviasi (STDEV)	T statistik (|O/STDEV|)	Nilai P (P values)
Information Technology (X2) -> Innovative Work Behavior (Y2)	0.142	0.143	0.110	1.291	0.197
Information Technology (X2) -> Knowledge Management (Y1)	0.740	0.740	0.048	15.385	0.000
Innovative Culture (X1) -> Innovative Work Behavior (Y2)	0.240	0.240	0.090	2.653	0.008
Innovative Culture (X1) -> Knowledge Management (Y1)	0.150	0.153	0.066	2.264	0.024
Knowledge Management (Y1) -> Innovative Work Behavior (Y2)	0.286	0.287	0.129	2.207	0.027

Source: Process Data, 2023

Shown in Table 1 above is the calculation result of bootstrapping to test the inner model, which describes the research hypotheses in the SEM model simultaneously. The results of the path analysis explain the direct effects of one construct on another as follows:

1. H1 = Innovation Culture (X1) positively affects Knowledge Management (Y1) with a path coefficient of px1y1 = 0.154 and p-value = 0.0.016. So, the first hypothesis is proven.
2. H2 = Information Technology (X2) positively affects Knowledge Management (Y1) with a path coefficient of px2y1 = 0.740 and p-value = 0.000. So, the second hypothesis is proven.
3. H3 = Innovation Culture (X1) positively and significantly affects Innovative Work Behavior (Y2) with a path coefficient of px1y2 = 0.240 and p-value = 0.008. so the fourth hypothesis is proven.
4. H4 = Information Technology (X2) has a positive and not significant effect on Innovative Work Behavior (Y2) with a path coefficient of px2y2 = 0.142 and p-value = 0.197. So, the fourth hypothesis is not proven.
5. H3 = Knowledge Management (Y1) significantly negatively affects Innovative Work Behavior with a path coefficient of py1y2 = 0.484 and p-value = 0.000. So, the third hypothesis is proven.

Model Fit Testing

At the stage of testing the model's suitability, there are five types, among others, by looking at the coefficient of determination (R square), f square, q square, and the standardized root mean square residual (SRMR). In this paper, researchers only used two model fit tests: R square and SRMR. The initial stage of testing the model's suitability is determining the coefficient of determination (R square) value. The results of calculating R2 are shown in Table 2 below.

Table 2. Model Fit Test (R-Square)

	R-square	Adjusted R-square
Knowledge Management	0.290	0.276
Innovative Work Behavior	0.632	0.627

Source: Process Data, 2023

It appears in Table 2 that the model fit test with the R-square test shows a significance level of 0.290 or 29% on variable Y1. This means that the percentage value of the influence of exogenous variables, namely innovation culture and information technology, as exogenous variables on endogenous variables, namely Knowledge Management, is 29%. Next, in Table 6, the model fit test with the R-square test shows a significant level of 0.632 or 63% on variable Y2. This means that the percentage value of the influence of the endogenous variable, namely Knowledge Management, on other endogenous variables, namely Innovative Work Behavior, is 63%.

Table 3. SRMR Test

Index Fit	Fit Criteria	Marginal Fit Criteria	Results
Standardized Root Mean Square Residual (SRMR)	≤ 0.08	0.08 - 0.09	0.089

Source: Process Data, 2023

The value that describes the model's mismatch based on the residuals is the SRMR value. Therefore, the model is better and more accurate with a smaller SRMR value. If the SRMR value is 0.08, the model is considered to be fit; if it is between 0.08 and 0.10, the model is said to be marginal; and if it is more significant than 0.10, the model is said to be wrong (unsuitable) [7]. Given that the model fit is marginal and acceptable, Table 3's SRMR value of 0.960, which falls between 0.08 and 0.10, indicates.

3.2. Discussion

After testing the relationship between indicators and latent variables, testing the relationship between latent variables, and testing the suitability of the model, finally, a final model that fits simultaneously has been found. As described above, indicator testing implies the exit of indicators Y2.1, Y2.4, and Y2.5 from the Innovative Work Behavior (Y2) variable. In addition, at the initial inner model testing stage, it implies a weak hypothesis path: the effect of Innovation Culture (X1) on Knowledge Management (Y1). Then, finding the final model that fits simultaneously implies that the entire hypothesis model can be accepted.

1. According to Khazanchi [8] and El Harbi et al. [9] argue that organizational culture manages innovation and contributes to company performance. Through knowledge management, the information contained in the company can be appropriately managed and become knowledge that can be used to analyze what business strategies need to be taken to increase profits and competitive competition with other companies. The results of model fit testing prove the existence of a positive influence relationship from the Innovation Culture variable (X1) on Knowledge Management (Y1). This proves that the better the culture of innovation in the organization, the better the knowledge management, which in this study is knowledge management.
2. The statement of the vital role of information technology in the implementation of knowledge management is supported by Fong and Lee [10], who states that with the existence of information technology, knowledge management programs can be possible to implement and succeed because of the speed and also the ability of people who are in place even though the time zone is different. The results of model fit testing prove the existence of a positive influence relationship from the Information Technology variable (X2) on Knowledge Management (Y1). This proves that the better the culture of innovation in the organization, the better the knowledge management, which in this study is knowledge management.
3. Every organization has a different way of developing its culture. Because of these different perspectives, there is no general definition. According to Khazanchi [8] and El Harbi et al. [9] argue that organizational culture manages innovation and contributes to firm performance. The model fit test results prove a positive influence relationship from the Innovation Culture variable (X1) on Innovative Work Behavior (Y2). This influence can be seen through the magnitude of the influence of 0.240. This proves that the better the culture of innovation in the organization, the better it will encourage the growth of innovative work behavior.
4. The statement on the importance of the role of information technology in KM implementation is also supported by Fong and Lee [10], who state that with information technology, it is possible to implement knowledge management programs and be successful because of the speed and the ability of people who are in place even though the time zone is different. The model fit test results prove a positive but not significant influence of the Information Technology variable (X2) on Knowledge Management (Y1). This influence can be seen through the magnitude of the influence of 0.142. This proves that the better the information technology facilities in the organization, the more innovative employees' work behavior will grow and develop. But, the SEM test results prove that the p-value of information technology that affects knowledge management is insignificant, which means that the effect of information technology on knowledge management is meaningless.
5. Bergeron et al. [2] also states that knowledge management from a business point of view has a different meaning, namely a systematic and thoughtful business optimization strategy for selecting, filtering, storing, organizing, and communicating information that is important to the business in the company which is intended to improve employee performance and competitive companies. The results of model fit testing prove the existence of a weak and not meaningful influence relationship from the Knowledge Management (Y1) variable on Innovative Work Behavior (Y2). The magnitude of the influence can be seen through the magnitude of 0.484. It proves that appropriate and reasonable information and knowledge management in the organization will increase the culture of innovative behavior for the organization and its employees.

AUTHORS CONTRIBUTIONS

Based on various studies, organizational culture emerges as a crucial factor in managing innovation and enhancing company performance through effective knowledge management. It facilitates the appropriate handling of internal

information, transforming it into actionable knowledge to inform strategic decision-making for profitability and competitive advantage. Model fit testing confirms a positive relationship between Innovation Culture and Knowledge Management, indicating that a stronger culture of innovation correlates with more effective knowledge management practices, ultimately benefiting organizational outcomes. Furthermore, while information technology plays a vital role in facilitating knowledge management implementation, its direct impact may not be as significant as perceived. Although it enables efficient access to information across different time zones, statistical analysis reveals that its influence on knowledge management is statistically insignificant. Therefore, while organizational culture and information technology are integral to fostering innovative work behavior, the latter's direct impact on knowledge management may be less pronounced, necessitating a nuanced understanding of their roles in organizational dynamics.

Knowledge management is the organized management of existing knowledge so that this knowledge can be used and valuable effectively to provide a competitive advantage to a company, supported by Darudiato et al. [11]. The results of testing the model's suitability prove a weak and insignificant influence relationship from the Knowledge Management variable (Y1) on Innovative Work Behavior (Y2). The magnitude of the influence can be seen through the magnitude of the effect of 0.632 which means R^2= 63%. This proves that appropriate and reasonable information and knowledge management in the organization will increase the culture of innovative behavior for the organization and its employees.

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The hope is that the results of this study are not only academic but can also provide practical benefits for PT Alien Design Consultant (ADC) researchers in developing innovative work behavior through the application of Innovation Culture, Information Technology, and Knowledge Management. In addition, the findings in this study can also be a foundation for future studies that will be more in-depth and comprehensive in exploring other factors that affect innovation in the organizational environment.

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