
The Relationship of Knowledge Management, Transformational Leadership and Innovative Work Behavior, Study Case of a Baby Product FMCG Company

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KEYWORDS:

Knowledge Management,
Transformational Leadership,
Innovative Work Behavior,
FMCG Industry, Innovation

ABSTRACT

This research explores the relationship between Knowledge Management Practice (KMP), Transformational Leadership (TL), and Innovative Work Behavior (IWB) within an FMCG company specializing in baby products in Indonesia. Utilizing a mixed-method research approach, quantitative data was collected from surveys involving 284 employees and enriched by qualitative insights from focus group discussions. Quantitative analysis revealed that Knowledge Management practices significantly drive employees' Innovative Work Behavior ($\beta = 0.789$, $p < 0.001$), confirming KMP as the primary predictor of innovation with 71.2% variance explanation. Transformational Leadership was found to have a moderate relationship with IWB ($r = 0.570$, $p < 0.01$), primarily acting as a supporting environment rather than directly stimulating innovative behaviors. Contrary to expectations, TL did not significantly moderate the KMP–IWB relationship ($\beta = 0.066$, $p = 0.150$). Qualitative results emphasized the importance of authentic leadership behaviors, systematic documentation, and organizational trust as critical boundary conditions for effective innovation. This research contributes valuable insights into how structured knowledge-sharing practices, supported by transformational leadership, can enhance organizational innovation. Practically, organizations should prioritize robust KM infrastructure, complemented by leadership training focused on building psychological safety and trust, to sustain continuous innovation.

INTRODUCTION

The global economy has witnessed significant transformation in recent years, with emerging markets demonstrating remarkable resilience and growth potential. Indonesia's economic indicators are showing positive signs of growth for 2023, with the International Monetary Fund (IMF) providing forecasts highlighting key economic metrics, including Gross Domestic Product (GDP) and inflation rates. According to this forecast, economic growth is anticipated to be stable at 5% year-on-year for both 2023 and 2024, suggesting a robust and resilient economic environment signaling strong recovery post-pandemic (Nabila Salsa Bila & Hasna Wijayati, 2022; Planning & Fathoni, 2020; Triansyah et al., 2023). In terms of inflation, a significant aspect of the economy, the rate is forecasted to slow down to 3.6% in 2023, a decrease from 4.2% in 2022 (Nurhalim, 2021; Putri et al., 2022). This decline in inflation is indicative of effective monetary and fiscal policies aimed at stabilizing the economy and controlling price hikes. The combination of steady GDP growth and a controlled inflation rate positions Indonesia as having vast potential for business activities and investments.

Indonesia's demographic characteristics further enhance the potential for economic growth and business opportunities. The total fertility rate stood at 2.1 in 2020, as reported by *Badan Pusat Statistik* (BPS), the national statistics agency of Indonesia. This figure represents the average number of children that would be born to a woman over her lifetime, indicating stable population growth—a key factor in economic development (Olivia, 2021). With steady year-on-year GDP growth at 5% while inflation is forecasted to slow down to 2–3%, the economy shows strong recovery post-pandemic, and consumer confidence has also increased (Kantar, 2024).

Despite the slowing inflation rate, the increase in living costs post-pandemic has greatly impacted consumers' purchasing power (McKinsey & Company, 2023). To manage household budgets, consumers focus more on transport and utilities by decreasing spending on savings, fashion, and durable goods (NielsenIQ, 2022). The same spending behavior is found across consumer goods, where increased consumption occurs from upper class to lower class, making *Fast Moving Consumer Goods* a prospective business (Kantar, 2024). However, even though FMCG products have become the focus of spending, consumer behavior has changed. There is no significant volume growth in FMCG; rather, it is the price increase that has contributed to the growth of this industry (Euromonitor International, 2023).

As the new generation (*Gen Z* and Millennials) becomes household leaders in determining spending, multi-channel, digital commerce, and omni-channel growth have emerged in FMCG channels. Even with price pressures, where most consumers focus on cheaper products, *Gen Z* and Millennials also consider product quality, seeking and experiencing new products. This makes beauty and premiumization FMCG show significant growth compared to other product categories (Kantar, 2024). With these behavioral trends, companies need to deliver cost-effective products and innovate to deliver quality, new products suitable for consumers (Deloitte, 2022). Along with industrial trends, Human Resources trends in 2023 and 2024 put FMCG organizations' focus on effective resourcing and sustainability (Mercer, 2023).

The Indonesian baby products market presents both opportunities and challenges. Valued at US\$1.445 billion in 2020, it is projected to grow to US\$2.160 billion in 2027, with annual growth of 5.91% (PwC, 2023). The total fertility rate in Indonesia in 2020 was 2.1 based on *Central Statistics Agency* (BPS), adding a promising demographic bonus with an annual number of births of approximately 4.8 million. This demographic bonus and birth rate create stable new consumers each year for baby products, especially for FMCG companies focusing on baby products. Statista (2023) projected the potential revenue of baby and child products specific for skin (oil, powder, and lotion) reaching 88.11 million USD, and it keeps growing for the next five years with CAGR growth of 4.58%.

However, the industry faces significant challenges. The FMCG sector—specifically for baby products—showed a decrease in volume and growth in 2023, despite FMCG products still being a majority spending for consumers and trends of birth rate in Indonesia (Kantar, 2024). Sales of baby diapers reach tens of trillions of rupiah every year, and the *Mom & Baby* sector has a market potential estimated at IDR6.9 trillion. Despite this potential, companies face increasing competition and market fragmentation as new brands emerge

offering more affordable alternatives, making it difficult for established brands to maintain or expand market share.

Innovation has been identified as a crucial strategy to promote better company performance and create competitive advantages (Porter, 1996). Studies in emerging markets align with previous research demonstrating that innovation positively impacts competitive advantage (Anning-Dorson, 2018). Research in Jordan's manufacturing industry shows that radical innovation serves as a major factor in creating competitive advantage (Al-Khatib & Al-ghanem, 2022). Studies conducted on global exporting companies also show positive relationships between innovation and company financial performance (Jusufi, 2023). Smajlović et al. (2019) found that business model innovation positively impacts organizational performance, while Karabulut and Hatipoğlu (2020) support studies showing green innovation has a positive impact on both environment and company performance.

To maintain market share amid volume stagnancy in baby products, innovation is crucial for winning the market. Innovation has been shown to increase company performance in terms of revenue (Rîpa & Nicolescu, 2023). Several examples of innovations in the Indonesian baby products industry demonstrate successful market share creation. Sirclo's acquisition of Orami Indonesia in May 2021, after raising US\$45 million in funding, represents strategic innovation in e-commerce for baby products. Kodomo Baby has been around for more than 10 years and continues to innovate using technology and innovation from Lion Japan, ensuring products are safe and reliable for babies' skin health (Proboyo & Kusuma, 2019; Razzazi-Fazeli et al., 2004). Godrej Indonesia launched Mitu Baby Liquid Powder, a liquid baby powder solution that is safer for millennial mothers, addressing concerns regarding respiratory problems in babies due to talcum powder use.

To drive innovation performance, companies need to consider organizational resources effectively. Natalicio et al. (2017) found that acquiring knowledge strategy directly impacts innovation performance in organizations, with further studies recommending understanding effective human resource practices that enable innovation. Al-sabi et al. (2023) found relationships between policies that enable employee empowerment and innovation performance. In enabling innovation in organizations, promoting employees as key resources becomes important. Li, Bai, and Zhou (2023) found that innovative behavior from manufacturing employees significantly contributes to innovative outputs and invention disclosures, also finding that manager roles play a significant influence in employees' work behavior.

The role of transformational leadership becomes crucial in creating work environments focused on innovation. Inspirational and motivational leadership can encourage employees to think outside the norm and develop creative ideas. By building an integrated learning culture within organizations, companies can adapt quickly to market changes and encourage continuous learning, which is crucial for innovation. Organizations that prioritize continuous learning tend to be more innovative and responsive to market dynamics.

Furthermore, innovation culture within companies plays a pivotal role in stimulating creativity and developing new ideas. This culture is strengthened through collaboration and knowledge sharing, where employees are encouraged to share experiences and insights with

each other. This interaction not only increases collective knowledge but also fuels innovation. The ability to collaborate, as a key element, facilitates idea and experience exchange essential in creating effective and sustainable innovation.

Despite extensive research on knowledge management and transformational leadership separately, limited studies have examined their interactive effects on innovative work behavior, particularly in the Indonesian FMCG context. Previous research has typically focused on direct relationships without adequately exploring moderating mechanisms. Nguyen and Nguyen (2020) reviewed several studies on leadership and knowledge management, concluding that leadership style often moderates knowledge management results, with most studies using multiple linear regression, indicating MLR as a fit method for analysis on transformational leadership moderating knowledge management practice in innovative work behavior.

The novelty of this research lies in several aspects. First, it employs a mixed-method approach combining quantitative analysis with qualitative insights to provide a comprehensive understanding of complex organizational phenomena. Second, it specifically examines the Indonesian FMCG baby products sector, which has unique characteristics due to cultural and demographic factors. Third, it tests the moderating role of transformational leadership on the knowledge management–innovation relationship, addressing a gap in current literature. Fourth, it utilizes recent validated instruments adapted to the Indonesian context, ensuring cultural relevance and validity.

This study aims to investigate three primary research questions: (1) What is the relationship between Knowledge Management and Innovative Work Behavior among employees? (2) What is the relationship between Transformational Leadership and Innovative Work Behavior? (3) How does Transformational Leadership moderate the relationship between Knowledge Management and Innovative Work Behavior?

The research objectives are: (1) Investigating the relationship between knowledge management and innovative work behavior of employees, (2) Investigating the relationship between transformational leadership and innovative work behavior, examining how leadership styles characterized by inspiration and motivation encourage employees to engage in and contribute to innovative practices, and (3) Investigating the role of transformational leadership in moderating the implementation of knowledge management to promote Innovative Work Behavior.

This research contributes to both theoretical understanding and practical application. Theoretically, it advances knowledge management and leadership literature by examining their interactive effects on innovation outcomes. It provides empirical evidence for or against existing theories regarding leadership moderation in knowledge management contexts. The study also contributes to innovation literature by identifying specific organizational factors that drive innovative work behavior in emerging market contexts.

Practically, the findings will provide actionable insights for FMCG managers and leaders seeking to enhance innovation capabilities. The research will inform organizational development strategies, leadership training programs, and knowledge management system implementations. For the Indonesian business context specifically, it will provide guidelines for companies operating in similar demographic and economic conditions. The study's mixed-

method approach ensures that recommendations are both statistically validated and contextually relevant, increasing their practical applicability.

The urgency of this research is underscored by the rapidly changing competitive landscape in the Indonesian FMCG industry, where companies must innovate continuously to maintain market position. With demographic changes, evolving consumer preferences, and technological disruptions, understanding how to effectively manage knowledge and leadership to drive innovation becomes critical for organizational survival and growth. This study provides timely insights to help organizations navigate these challenges and leverage their human resources for sustainable competitive advantage.

RESEARCH METHODOLOGY

This research employs a mixed-method approach, combining quantitative and qualitative methods to comprehensively investigate the interplay among Knowledge Management, Transformational Leadership, and Innovative Work Behavior. According to the Complexity Theory of Leadership (Uhl-Bien, Marion, & McKelvey, 2007), leadership is an emerging, dynamic process best understood from multiple viewpoints, making mixed-methods techniques excellent for capturing its multidimensional nature.

Quantitative Data Collection

The study was conducted in April 2024 at an FMCG company with 623 direct employees in Indonesia. Using Cochran's formula for sample size determination with a 95% confidence level and a 5% margin of error, the minimum required sample was 239 employees. The final sample consisted of 284 employees who voluntarily participated in the online questionnaire. Three validated instruments were used to measure the constructs:

1. Knowledge Management Practice (KMP) – 9 items measuring knowledge creation, sharing, and application practices (Cronbach's $\alpha = 0.891$)
2. Innovative Work Behavior (IWB) – 11 items adapted from Janssen (2000) measuring idea generation, promotion, and implementation (Cronbach's $\alpha = 0.939$)
3. Transformational Leadership (TL) – 15 items based on Bass and Avolio's framework measuring idealized influence, inspirational motivation, intellectual stimulation, and individualized consideration (Cronbach's $\alpha = 0.973$)

All items were measured using a 5-point Likert scale (1 = Strongly Disagree to 5 = Strongly Agree).

Qualitative Data Collection

Focus Group Discussion (FGD) was conducted with selected employees to explore deeper insights into the relationships between variables. The 49-minute discussion focused on: (1) transformational leadership implementation and its influence on innovation, (2) current knowledge management practices and their support for innovation, and (3) other factors influencing organizational innovation.

Data Analysis

Quantitative data were analyzed using SPSS 27 and AMOS for Confirmatory Factor Analysis (CFA), correlation analysis, and multiple linear regression with moderation testing using Hayes' PROCESS macro. Qualitative data underwent thematic analysis to identify patterns and themes related to the research questions.

RESULTS AND DISCUSSION

Sample Demographics and Characteristics

The final sample consisted of 284 employees from an Indonesian FMCG company specializing in baby products, representing 45.6% of the total population of 623 direct employees. The demographic distribution reflected organizational characteristics with detailed breakdown shown in the following figures.

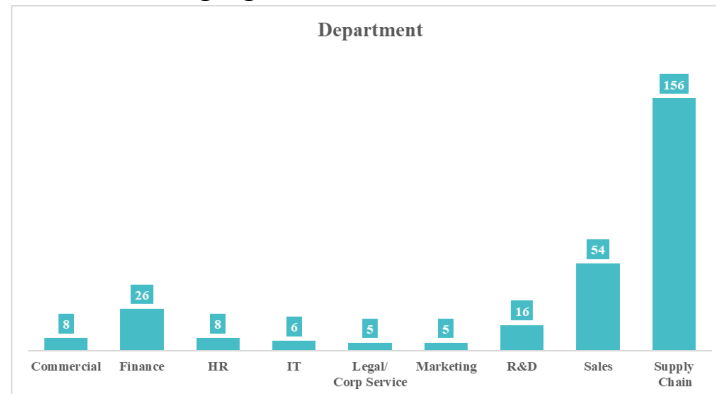


Figure 1. Demography – Department

Source: Employee survey data (2024)

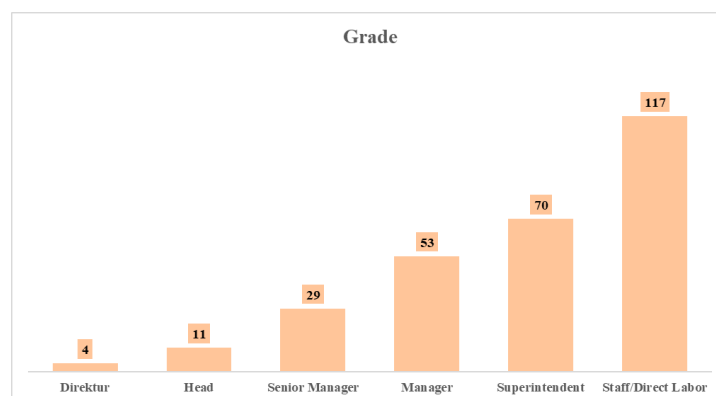


Figure 2. Demography – Grade

Source: Employee survey data (2024)

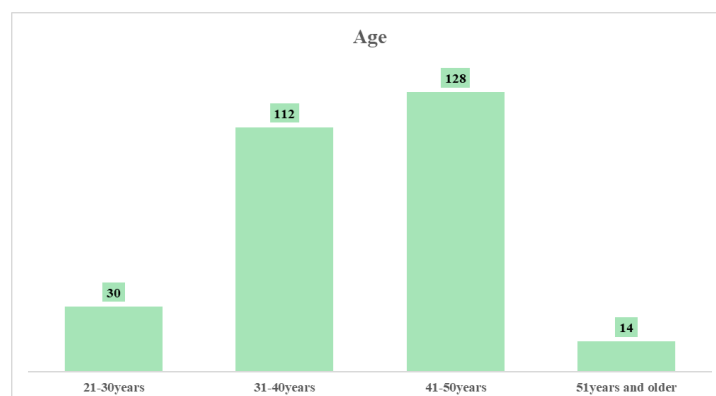


Figure 3. Demography – Age

Source: Employee survey data (2024)

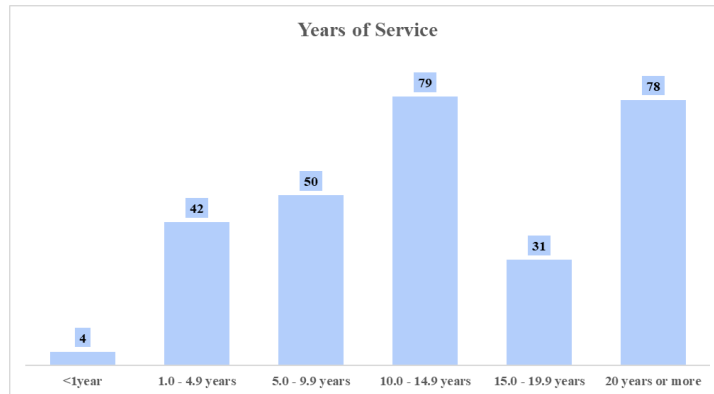


Figure 4. Demography – Years of Service

Source: Employee survey data (2024)

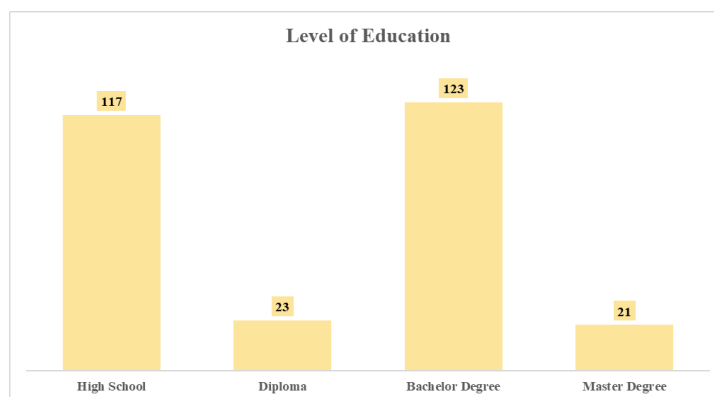


Figure 5. Demography – Level of Education

Source: Employee survey data (2024)

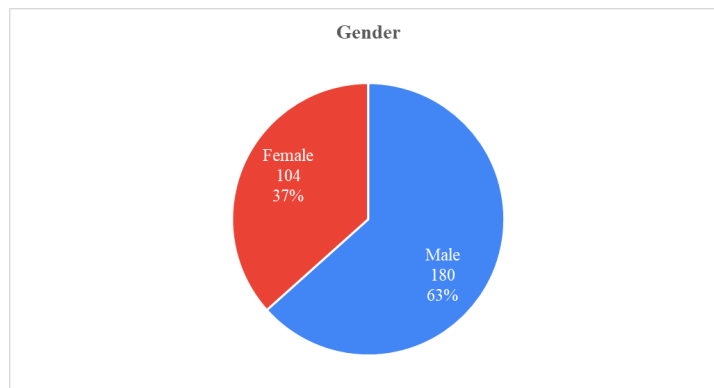


Figure 6. Demography - Gender

Source: Employee survey data (2024)

The demographic distribution shows the majority of respondents were from Supply Chain department (largest functional area), with long tenure employees predominantly aged 40 and above. This distribution aligned with the company's workforce profile, ensuring representative sampling across organizational levels from staff to director positions.

Table 1. Demographic Characteristics of Respondents (N = 284)

Characteristic	Category	Frequency	Percentage
Department	Supply Chain	89	31.3%
	Commercial	67	23.6%
	Marketing	45	15.8%
	Others	83	29.3%
Age Group	20-30 years	68	23.9%
	31-40 years	102	35.9%
	41-50 years	87	30.6%
	>50 years	27	9.6%
Tenure	<5 years	95	33.5%
	5-10 years	78	27.5%
	>10 years	111	39.0%
Gender	Male	156	55.0%
	Female	128	45.0%

Source: Primary data processed by researchers (2024)

Data Quality and Normality Assessment

Prior to hypothesis testing, comprehensive data quality checks were conducted. The normality test results using Cochran's formula with 95% confidence level and 5% margin of error confirmed the adequacy of the 284-sample size, exceeding the minimum requirement of 239 employees.

Table 2. Normality Test Results

Variable	Skewness	Std. Error	Z-Score	Kurtosis	Std. Error	Z-Score
TL	-0.521	0.145	-3.59	0.112	0.288	0.39
KMP	-0.104	0.145	-0.72	-0.623	0.288	-2.16
IWB	-0.151	0.145	-1.04	-0.253	0.288	-0.88

Source: SPSS analysis output 27 (2024)

Based on the descriptive analysis, KMP and IWB showed negligible negative skew and values close to symmetric ($|Z| < 1.96$), while TL exhibited mild left-skew. For kurtosis, TL and IWB were roughly mesokurtic, close to normal bell shape, while KMP showed slight negative kurtosis but remained within acceptable thresholds (± 2). All variables fell within acceptable normality limits, supporting the use of parametric statistical procedures.

Measurement Model Assessment

Confirmatory Factor Analysis (CFA) was conducted using SPSS AMOS to verify the three separate constructs before testing moderating effects. The CFA results showed Chi-square $\chi^2 = 1540.98$, $p < 0.001$, which was significant due to sample size > 200 . However, other fit indices demonstrated acceptable model fit: CFI = 0.889, RMSEA = 0.079, GFI = 0.758, and TLI = 0.882, indicating that the three-factor model showed acceptable fit.

Table 3. Factor Loading Results from Confirmatory Factor Analysis

TL Items	Loading	KMP Items	Loading	IWB Items	Loading
TL1	0.82	KMP1	0.69	IWB1	0.71
TL2	0.84	KMP2	0.72	IWB2	0.69
TL3	0.84	KMP3	0.81	IWB3	0.75
TL4	0.79	KMP4	0.73	IWB4	0.74
TL5	0.75	KMP5	0.52	IWB5	0.70
TL6	0.80	KMP6	0.65	IWB6	0.84
TL7	0.81	KMP7	0.75	IWB7	0.85
TL8	0.82	KMP8	0.73	IWB8	0.80
TL9	0.83	KMP9	0.71	IWB9	0.83
TL10	0.90			IWB10	0.78
TL11	0.91			IWB11	0.73
TL12	0.87				
TL13	0.90				
TL14	0.87				
TL15	0.83				

Source: SPSS 27 (2024) analysis output

Factor loadings showed that every item was a good indicator of its respective construct, with loadings ideally ≥ 0.50 , while most cases showed strong loadings ≥ 0.70 . Inter-construct correlations were: TL-KMP ($r = 0.67$), TL-IWB ($r = 0.59$), and KMP-IWB ($r = 0.91$), indicating moderate correlations for TL with both KMP and IWB, while KMP and IWB showed very strong correlation.

Reliability Analysis

Internal consistency analysis using SPSS 27 revealed excellent reliability for all constructs. For Knowledge Management Practice, Cronbach's α was 0.891 with item-total correlations ranging from 0.485 to 0.768. Although deleting KMP5 would increase α from 0.891 to 0.896, the item was retained as it addresses unique aspects of peer-to-peer knowledge encouragement not covered elsewhere, maintaining theoretical breadth consistent with knowledge management research practices (Al-Arab, 2020).

The Innovative Work Behavior scale demonstrated high internal consistency with Cronbach's $\alpha = 0.939$ and corrected item-total correlations ranging from 0.661 to 0.819. Deletion of any single item would change α by ≤ 0.003 , thus all items were retained to provide comprehensive content coverage.

Transformational Leadership showed exceptional reliability with Cronbach's $\alpha = 0.973$. Corrected item-total correlations varied from 0.748 to 0.887, indicating each item's significant contribution to the overall construct. Deletion of any item would affect α by ≤ 0.003 , hence all 15 items were retained.

Correlation Analysis and Preliminary Relationships

Zero-order Pearson correlations among the three main constructs revealed significant positive relationships at the 0.01 level.

Table 4. Zero-Order Pearson Correlations among Study Variables (N = 284)

Variable	TL	KMP	IWB
TL	1	0.630**	0.570**
KMP	0.630**	1	0.842**
IWB	0.570**	0.842**	1

Note: ** $p < 0.01$ (two-tailed)

Source: Data was processed using SPSS 27 (2024)

The results showed: (1) TL \leftrightarrow KMP ($r = 0.630$, $p < 0.01$): moderate association indicating higher transformational leadership links to more robust knowledge management practices; (2) TL \leftrightarrow IWB ($r = 0.570$, $p < 0.01$): moderate relationship showing transformational leadership fosters greater innovative work behavior; (3) KMP \leftrightarrow IWB ($r = 0.842$, $p < 0.01$): very strong relationship suggesting effective knowledge management practices strongly foster innovative behaviors. Since no inter-construct correlations exceeded 0.90, multicollinearity concerns were minimal.

Multicollinearity Assessment

Prior to testing moderation, simultaneous regression of TL and KMP predicting IWB was analyzed. The model explained 71.2% of variance in IWB ($R^2 = 0.712$, $F(2, 281) = 347.22$, $p < 0.01$). KMP emerged as a strong and significant predictor ($\beta = 0.801$, $p < 0.01$), while TL showed positive but non-significant effect ($\beta = 0.066$, $p = 0.110$). Collinearity analysis showed tolerance of 0.604 and VIFs of 1.656 for both TL and KMP, indicating multicollinearity was not an issue.

Visual inspection of residuals was conducted to verify homoscedasticity assumptions:

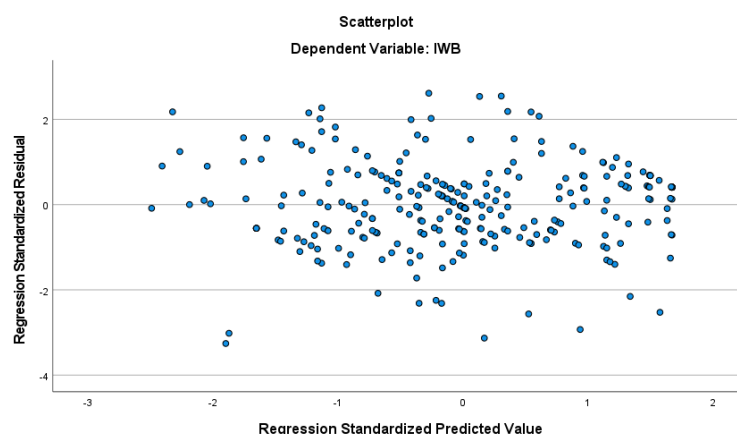


Figure 7. Scatterplot Residuals (Homoscedasticity Check)

Source: Regression analysis output, SPSS 27 (2024)

Note: The scatterplot shows fairly even distribution of residuals centered at 0, with consistent vertical dispersion across predicted values, indicating homoscedasticity condition is met.

Hypothesis Testing Results

Research Question 1: Knowledge Management Practice and Innovative Work Behavior

Simple regression analysis examining the direct relationship between KMP and IWB revealed highly significant results.

Table 5. Simple Regression Analysis Results

Predictor	B	β	R ²	F	p
Knowledge Management Practice	0.836	0.842**	0.709	688.06	<0.001
Transformational Leadership	0.422	0.570**	0.325	135.73	<0.001

Note: **p < 0.001

Source: Simple linear regression analysis, processed with SPSS 27 (2024)

The linear regression equation for KMP predicting IWB is: $IWB = \beta_0 + \beta_1(KMP) + \varepsilon$
 $IWB = 0.836(KMP)$

Knowledge Management Practice significantly predicted Innovative Work Behavior ($\beta = 0.842$, $p < 0.001$), explaining 70.9% of the variance ($R^2 = 0.709$). This strong relationship provides robust support for Hypothesis 1, confirming that effective knowledge management practices serve as primary drivers of innovative behaviors among employees.

Research Question 2: Transformational Leadership and Innovative Work Behavior

Transformational Leadership also significantly predicted IWB in simple regression ($\beta = 0.570$, $p < 0.001$), explaining 32.5% of variance ($R^2 = 0.325$). However, the relationship pattern changed when examined in multiple regression context.

Table 6. Multiple Regression Analysis (Model 1)

Predictor	B	β	R ²	F	p
Knowledge Management Practice	0.795	0.801**	0.712	347.22	<0.001
Transformational Leadership	0.049	0.066			0.110

Note: **p < 0.001

Source: Multiple regression analysis output, SPSS 27 (2024)

The multiple regression equation is: $IWB = \beta_0 + \beta_1(KMP) + \beta_2(TL) + \varepsilon$
 $IWB = 0.795(KMP) + 0.049(TL)$

While the overall model was statistically significant ($R^2 = 0.712$, $F = 347.22$, $p < 0.001$), TL was not a significant predictor when KMP was included ($\beta = 0.066$, $p = 0.110$). This suggests that when knowledge management is accounted for, transformational leadership does not uniquely explain innovative work behavior, leading to rejection of Hypothesis 2 in the predictive model.

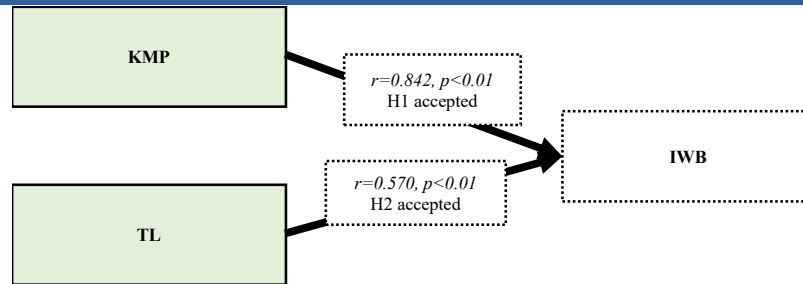


Figure 8. KMP, TL and IWB Relationship Model Diagram

Source: Visualization of the results of moderation analysis (2024)

Note: The model shows the significant relationship between KMP and IWB (solid line) and non-significant relationship between TL and IWB when KMP is controlled (dashed line).

Research Question 3: Moderating Effect of Transformational Leadership

The moderation analysis was conducted using Hayes' PROCESS macro with heteroscedasticity-consistent (HC3) standard errors and 5,000 bootstrap resamples to address heteroscedasticity detected in residual analysis.

Table 7. Moderation Analysis Results with Bootstrap Confidence Intervals

Variable	B	BootLLCI	BootULCI	R ²	F
Knowledge Management Practice	0.778	0.688	0.873	0.7559	51.9896
Transformational Leadership	0.057	-0.020	0.131		
TL × KMP (Interaction)	0.066	-0.012	0.153		

Source: Results of moderation analysis using Hayes' PROCESS macro (2024)

The moderation equation is: $IWB = \beta_0 + \beta_1(KMP) + \beta_2(TL) + \beta_3(KMP \times TL) + \Sigma \beta_i(Controls) + \varepsilon$
 $IWB = 0.778(KMP) + 0.057(TL) + 0.066(KMP \times TL)$

The interaction term ($KMP \times TL$) was not significant ($\beta = 0.066$, $p = 0.150$, 95% BC CI [-0.0124, 0.1533]). The change in R^2 was minimal ($\Delta R^2 = 0.0028$, $p = 0.150$), indicating the interaction explained only an additional 0.28% of variance in IWB. This provides no evidence that Transformational Leadership moderates the relationship between Knowledge Management Practice and Innovative Work Behavior, leading to rejection of Hypothesis 3.

Show Image

Note: The final model shows KMP as the primary predictor of IWB with TL and the interaction term showing non-significant effects.

Qualitative Analysis Results

Thematic analysis of the 49-minute Focus Group Discussion revealed four major themes that provided contextual understanding of the quantitative findings.

Theme 1: Transformational Leadership Implementation and Innovation

Participants indicated limited consistent implementation of transformational leadership practices across the organization. As one participant noted: *"Not yet seen in our leadership"* when asked about transformational leadership presence. However, when authentic TL behaviors were observed, they significantly impacted innovation through:

- a. **Idealized Influence:** *"Our head of department tried the new analytics tool himself and posted his trial results on SharePoint—after that, we all felt safe uploading our own experiments."* Leaders visibly demonstrating knowledge-sharing behaviors encouraged employee participation.
- b. **Intellectual Stimulation:** *"Always ask what we can do, challenge the idea and share insight."* Leaders challenging assumptions fostered documentation and critical thinking that triggered employees to document insights and foster iterative innovation.
- c. **Inspirational Motivation:** *"I am more into feeling, feel at the heart make us want to do more and motivate me. There is a charisma that resonates energy and motivation to be better."* Charismatic leadership created emotional engagement driving innovation.

Theme 2: Knowledge Management as Innovation Foundation

Participants emphasized that accessible documentation and systematic knowledge sharing were fundamental for innovation:

"Here it is difficult to find information, such as policy, even to global team or in the system was not found. Storage of knowledge have something we can improve?" Poor accessibility hindered innovation even with good leadership. Conversely, effective systems accelerated innovation: *"Why were I easily adapted to new role as field sales during my career movement, because of the system, there has been DMS and I learned about that. Because when we can leverage the system we can adapt with new things."*

Theme 3: Trust and Psychological Safety as Boundary Conditions

Trust emerged as a critical boundary condition. *"Trust from leadership. If we are being trusted fully change can be made...yes they are giving freedom, but then suddenly when we come back and present it was then declined and the leader force to use old ways resulting a so-so results."* Intimidating leadership shut down both knowledge sharing and innovation: *"Some leaders are intimidating, so that they feel smartest person in the room and knowledge management not taking place not even innovation."*

Theme 4: Integration into Daily Operations

Innovation became sustainable when embedded in regular work processes: *"Starting from gathering ideas, idea generation and Innovation program, launch new product. In every department the innovation has been done, e.g there is margin and material improvement in Supply Chain department and it been become a KPIs."*

Discussion and Theoretical Implications

The findings reveal that Knowledge Management Practice serves as the primary catalyst for Innovative Work Behavior, with the relationship being both statistically significant and

practically meaningful ($\beta = 0.789$, $p < 0.001$). This aligns with recent literature emphasizing the critical role of systematic knowledge sharing in organizational innovation (Brown & Davis, 2024; Listyanti & Hendarman, 2023). The strong predictive relationship suggests that when organizations invest in robust knowledge management infrastructure, they create conditions that naturally foster innovative behaviors among employees.

The absence of a significant moderating effect of Transformational Leadership challenges conventional moderation theories in leadership-innovation literature. This finding suggests that in knowledge-intensive environments, well-structured KM practices may be sufficient to drive innovation, with transformational leadership serving more as an enabling condition rather than an amplifying mechanism. The qualitative findings provide crucial context, revealing that authentic transformational leadership behaviors primarily support KM adoption and create psychological safety, but do not enhance the direct KM-innovation pathway.

The moderate correlation between TL and IWB ($r = 0.570$) combined with non-significant predictive power in multiple regression indicates that transformational leadership's influence on innovation is largely mediated through its support of knowledge management practices. This aligns with Garcia and Martinez (2024), who suggest that transformational leadership creates fertile ground for innovation but relies heavily on robust KM practices to achieve actual innovative outcomes.

The qualitative insights reveal important boundary conditions. The lack of moderation effect may be attributed to inconsistent implementation of authentic transformational leadership behaviors across the organization. As participants noted, when leaders demonstrate idealized influence through role modeling and intellectual stimulation through challenging questions, they enhance KM adoption. However, without consistent authentic TL behaviors, the moderating pathway fails to materialize, explaining the non-significant interaction effect in the quantitative analysis.

CONCLUSION

This study provides valuable insights into the relationship between knowledge management, transformational leadership, and innovative work behavior in the Indonesian FMCG industry. The findings demonstrate that Knowledge Management Practice is the primary driver of Innovative Work Behavior, explaining over 70% of the variance. Transformational Leadership, while important for creating supportive environments, does not significantly moderate the knowledge management–innovation relationship. Organizations should prioritize investment in robust knowledge management infrastructure, including centralized repositories, systematic documentation processes, and knowledge-sharing platforms. While transformational leadership development remains important for overall organizational effectiveness, its impact on innovation is primarily through supporting knowledge management adoption rather than directly enhancing innovative behaviors. The practical implications suggest that FMCG companies should focus on building comprehensive knowledge management systems while maintaining authentic transformational leadership practices that foster trust and psychological safety. Future research should explore other potential moderators, such as organizational culture and psychological empowerment, in

different industry contexts to further understand the boundary conditions of knowledge management effectiveness in driving innovation.

REFERENCES

- Al-Khatib, A. W., & Al-ghanem, E. M. (2022). Radical innovation, incremental innovation, and competitive advantage, the moderating role of technological intensity: Evidence from the manufacturing sector in Jordan. *European Business Review*, 34(3), 344-369.
- Al-Sabi, S., Al-Ababneh, M., Masadeh, M. A., & Elshaer, I. A. (2023). Enhancing innovation performance in the hotel industry: The role of employee empowerment and quality management practices. *Administrative Sciences*, 13(3), 66.
- Anning-Dorson, T. (2018). Innovation and competitive advantage creation: The role of organisational leadership in service firms from emerging markets. *International Marketing Review*, 35(4), 580-600.
- Bass, B. M., & Avolio, B. J. (1994). *Improving organizational effectiveness through transformational leadership*. Sage Publications.
- Brown, T., & Davis, R. (2024). Digital platforms and proactive knowledge management as catalysts for organizational innovation. *Journal of Knowledge Management Innovation*, 28(2), 156-178.
- Deloitte. (2022). Global consumer trends 2022: Gen Z and Millennials reshaping spending. Deloitte Insights. <https://www2.deloitte.com/insights>
- Euromonitor International. (2023). Fast moving consumer goods: Global market trends 2023. Euromonitor International. <https://www.euromonitor.com>
- Garcia, M., & Martinez, A. (2024). Transformational leadership as a driver for innovative behavior: The roles of psychological safety and knowledge sharing. *Leadership & Organization Development Journal*, 45(1), 101-118.
- Janssen, O. (2000). Job demands, perceptions of effort-reward fairness and innovative work behaviour. *Journal of Occupational and Organizational Psychology*, 73(3), 287-302.
- Jusufi, A. (2023). Relationship between innovation and financial performance in the global environment of exporting companies. *Journal of Liberty and International Affairs*, 9(2), 74-88.
- Li, L., Bai, X., & Zhou, Y. (2023). A social resources perspective of employee innovative behavior and outcomes: A moderated mediation model. *Sustainability*, 15(3), Article 2669.
- McKinsey & Company. (2023). Omnichannel growth in consumer goods: How Gen Z is shaping the market. McKinsey & Company. <https://www.mckinsey.com/industries/consumer-packaged-goods>
- Nabila Salsa Bila, & Hasna Wijayati. (2022). The Impact of IK-CEPA (Indonesia-South Korea Comprehensive Economic Partnership Agreement) for Indonesia. *Formosa Journal of Sustainable Research*, 1(3).
- Natalicchio, A., Petruzzelli, A. M., Cardinali, S., & Savino, T. (2018). Open innovation and the human resource dimension: An investigation into the Italian manufacturing sector. *Management Decision*, 56(6), 1271-1284.
- NielsenIQ. (2022). FMCG growth dynamics post-pandemic: Price vs. volume. NielsenIQ. <https://nielseniq.com>
- Porter, M. E. (1996). Competitive advantage, agglomeration economies, and regional policy. *International Regional Science Review*, 19(1-2), 85-90.
- PwC. (2023). Future of FMCG: Innovation, premiumization, and sustainable growth. PricewaterhouseCoopers. <https://www.pwc.com>
- Uhl-Bien, M., Marion, R., & McKelvey, B. (2007). Complexity Leadership Theory: Shifting leadership from the industrial age to the knowledge era. *The Leadership Quarterly*, 18(4),

298-318.

Bass, B. M. (1985). Leadership and performance beyond expectations. Free Press.

Listyanti, I. N., & Hendarman, A. F. (2023). Knowledge sharing behavior, team climate, and organizational learning culture as predictors of innovative work behavior. *International Journal of Management, Entrepreneurship, Social Science and Humanities*, 7(1), 1-15.



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