

The Role of Digital Transformation as Moderator in the Relationship Between Intellectual Capital and the Performance of Medium Enterprises Through Organizational Learning in Badung Regency

Nengah Ganawati^{1*}, Ni Nyoman Suriani², and I Made Yogiarta³
Fakultas Ekonomi dan Bisnis Universitas Warmadewa

Corresponding Author: Nengah Ganawati nengahganawati61@gmail.com

ARTICLE INFO

Keywords: Digital Transformation, Intellectual Capital, Organizational Learning, Performance of Medium Enterprises

Received : 14, August

Revised : 26, August

Accepted: 27, september

©2024 Ganawati, Suriani, Yogiarta:
This is an open-access article distributed under the terms of the [Creative Commons Atribusi 4.0 Internasional](https://creativecommons.org/licenses/by/4.0/).



ABSTRACT

The suboptimal management approach with a humanistic perspective, particularly in developing intellectual capital, contributed to the low performance of Medium Enterprises amid rapid organizational changes. Intellectual capital became crucial in adapting to globalization, where MSMEs needed to navigate external threats and opportunities. This study examined digital transformation's role in moderating the relationship between intellectual capital and medium enterprises' performance through organizational learning. Using SEM with SmartPLS 3.0, a sample of 99 medium enterprises was analyzed. Results indicated: 1) High intellectual capital improved organizational learning, 2) Neither intellectual capital nor organizational learning directly improved performance, 3) Digital transformation strengthened the impact of intellectual capital and organizational learning on performance.

INTRODUCTION

Micro, Small, and Medium Enterprises (MSMEs) are crucial for advancing a country's economic development and benefiting its community. They are instrumental in creating employment opportunities and boosting local income in their areas of operation. In Bali, MSMEs are particularly important, serving as a significant driver of economic growth, particularly in the prominent tourism sector (Pramuki & Kusumawati, 2021). The Covid-19 pandemic has severely disrupted business continuity in Indonesia, posing a substantial threat to the national economy. MSMEs, which have been central to the domestic economy and major employers in recent decades, have been particularly affected. According to a survey by the Indonesian Institute of Sciences [LIPI], 94.69% of businesses faced a decline in sales during the pandemic. Sales dropped by more than 75% for 49.01% of ultra-micro businesses, 43.3% of micro businesses, 40% of small businesses, and 45.83% of medium businesses. In terms of business age, 23.27% of businesses aged 0-5 years, 10.9% of those aged 6-10 years, and 8.84% of businesses operating for over 10 years experienced a sales decline of more than 75%. Regarding sales methods, 47.44% of offline/physical sales businesses, 40.17% of online sales businesses, and 39.41% of those using both offline and online sales methods saw a similar decline (Nugroho, 2020).

Given these circumstances, MSMEs need to adjust their business strategies to focus on knowledge-based approaches to gain a competitive edge and keep pace with technological advancements. Typically, MSMEs rely on traditional methods, resulting in outdated technology in their products. Research by Khalique et al. (2018) and Arsawan (2019) suggests that MSMEs can enhance their competitiveness by optimizing intellectual capital management, which enables them to leverage creative innovations derived from their intellectual assets.

Intellectual capital, an intangible asset, includes the collective knowledge of people, transformative processes, and customer relationships that add competitive value to a company (Astuti et al., 2019). In the MSME sector, intellectual capital is crucial for boosting organizational performance. Limited intellectual capital can hinder competitiveness against similar or larger businesses. This perspective is supported by findings from Dabić et al. (2019), Istianingsih & Suraji (2020), and Muda & Rahman (2019). However, some studies indicate that high intellectual capital does not necessarily improve organizational performance. Research by Joshi et al. (2013), Ting & Lean (2009), and Tran & Vo (2018) even shows that intellectual capital might negatively impact performance. Additionally, Nezam et al. (2016) highlight that in the Iranian industry, intellectual capital affects organizational performance not only directly but also indirectly through organizational learning, thereby enhancing overall performance.

This indicates that high levels of intellectual capital within an organization do not automatically lead to improved performance unless mediated by effective organizational learning processes. Organizational learning plays a critical role in enabling medium enterprises to continuously

enhance their knowledge management practices (Senge, 2002). To align with advancements in higher education and stakeholder expectations—including customers, the government, and other relevant parties—organizations must integrate organizational learning effectively. This can drive improved performance and productivity, as supported by Agustina et al. (2020) and Suseno et al. (2019). However, some research, such as studies by Allameh et al. (2010) and Patwary & Fauzan (2020), suggests that high levels of organizational learning may not always correlate with improved performance and might even have a negative effect. Given the mixed findings in existing research, this study re-evaluates the impact of intellectual capital and organizational learning on MSME performance. Contingency theory posits that the design and application of management control systems depend on organizational characteristics and the environmental context (Fisher, 1995). In this study, the effect of intellectual capital and organizational learning on performance is examined in the context of digital transformation across company operations.

Digital transformation represents a significant shift in technology use aimed at enhancing company performance. Effective digital transformation can optimize human capital and organizational learning processes. By influencing the mindset, attitude, and behavior of organizational members, digital transformation can improve product development, customer service, and achievement of organizational goals. High intellectual capital, when combined with effective digital transformation, can enhance organizational performance. Moreover, digital transformation can make organizational learning more effective, further improving performance. Empirical evidence supports that digital transformation can boost performance by providing a competitive edge (Widjajanti & Mm, 2009) and enhance MSME competitiveness and employee performance (Sylvana & Awaluddin, 2017; Pertiwi & Nurhikma, 2018).

The existing research highlights a gap in understanding how intellectual capital affects organizational performance through organizational learning, with varied results across studies. This study addresses this gap by incorporating digital transformation as a moderating variable, building on the work of Nezam et al. (2016) to enhance the impact of intellectual capital and organizational learning on performance. This approach, which is novel in the context of MSME performance and digital technology, aims to develop a comprehensive model to improve performance and assess the influence of intellectual capital on medium enterprises through organizational learning, moderated by organizational culture.

THEORETICAL REVIEW

Resource Based View (RBV) Theory

This theory posits that possessing resources is crucial for achieving a competitive edge and enhancing organizational performance. For MSMEs, the resources they have significantly impact their operations and their ability to serve stakeholders effectively. Consequently, it is essential for MSMEs to develop their resources to boost competitiveness and improve performance. By making informed decisions, MSMEs can build trust with clients and stakeholders. In this

study, the focus is on intellectual capital, an intangible asset that plays a key role in resource development for the company.

Contingency Theory

Key concepts from Contingency Theory include: 1) There is no one-size-fits-all approach to management, 2) Both external and internal factors must be considered, with a focus on actions tailored to specific situations, 3) Effective organizations align well with their environment and ensure coherence between subsystems, 4) Organizational needs are best addressed when designs and management approaches align with the tasks and the workgroup's nature, 5) Each managerial situation should be assessed on its own merits, and 6) Managers must cultivate skills that help identify critical situational factors (Pusparini et al., 2020).

Intellectual Capital, Organizational Learning, and Performance of Medium Enterprises

Intellectual capital refers to the intellectual assets owned, developed, and utilized to generate higher-value assets and wealth (Bontis et al., 2000). When intellectual capital is well-developed, it improves organizational learning processes and has a positive effect on performance. According to Allameh et al. (2010), ongoing development of intellectual capital through organizational learning can enhance job satisfaction. Bontis et al. (2000) examined three components of intellectual capital—human, customer, and structural capital—and their impact on performance in Canadian and Malaysian industries. The study found that while intellectual capital is related to industry performance, the specifics vary: customer and structural capital influence performance in Canada, while only structural capital affects performance in Malaysia. Dabić et al. (2019) found that key dimensions of intellectual capital are essential for SME success and are interconnected, with higher intellectual capital and an innovation culture being linked to better performance. Nezam et al. (2016) highlight that innovation and organizational learning are crucial for performance improvement and competitive advantage. Their research in Iran's automotive industry shows that human capital boosts new product development performance through organizational learning capacity. Based on these findings, the research hypotheses are formulated as follows:

H1: Better intellectual capital enhances SME performance.

H2: Better intellectual capital improves organizational learning.

H4: Better intellectual capital enhances organizational performance, mediated by organizational learning.

Organizational Learning and Medium Enterprise Performance

Senge (2002) defines organizational learning as the process of identifying and correcting errors to enhance performance. This learning occurs when organizational members respond to and adapt to both internal and external environments by recognizing and assessing errors in existing theories, which they then use to inform personal and collective organizational goals. Hasan et al. (2017) highlight that managerial commitment, system perspective, openness

and experimentation, and knowledge transfer and integration significantly influence organizational learning. Managerial commitment involves effective planning, implementation, administration, and reporting, with higher commitment leading to improved business performance. The system perspective, or an individual's viewpoint on specific issues, also contributes to better performance when it is well-developed. Increased openness and experimentation enhance business performance, as does higher knowledge transfer and integration, which encourage employee engagement and participation in achieving business objectives. Untari (2020) and Yanti et al. (2018) support the positive effects of organizational learning on performance, showing that it significantly and positively impacts performance from the employee's perspective. Organizations investing in systematic organizational learning approaches gain increased employee trust in leadership, enhanced work efficiency, greater workforce commitment, reduced labor costs per employee, improved employee satisfaction, and greater flexibility. Based on these findings, the research hypothesis is:

H3: Better organizational learning enhances organizational performance.

Digital Transformation

Digital transformation generally involves a profound and extensive shift in technology use aimed at boosting company performance. It refers to changes driven or influenced by digital technology across all facets of human life. During the COVID-19 pandemic, businesses had to adapt by using online platforms for promotions. Digital transformation demands commitment from MSME managers, including activities such as marketing products on social media, offering discounts, and more. Key aspects of digital transformation include 1) enhancing business competitiveness, 2) increasing process efficiency, 3) improving customer satisfaction, and 4) supporting strategic decision-making (Winarsih et al., 2020).

In this study, digital transformation is viewed as a moderating factor that enhances the relationship between intellectual capital and organizational learning and their effects on organizational performance. Based on various theories and research on digital transformation, it is considered essential to include digital transformation to amplify and strengthen the impact of intellectual capital on organizational performance. Additionally, digital transformation is needed to boost the effectiveness of organizational learning, leading to improved organizational performance. H6: Stronger organizational learning enhances organizational performance, moderated by digital transformation.

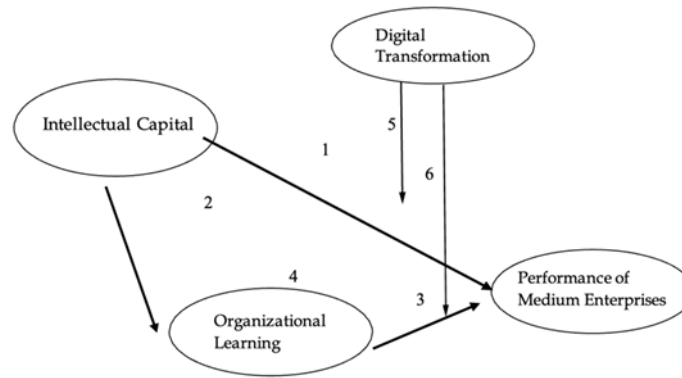


Figure 1. Conceptual Framework

METHODOLOGY

The population of this study consisted of all medium enterprises registered in Badung Regency as of November 2023, totaling 40,989 medium enterprises. The sampling method used in this study was the Slovin method. By applying a 5% margin of error, the minimum sample size that could be determined was 99.6, which was rounded to 99 samples. Generally, the reason for using the component-based Structural Equation Modeling (PLS-SEM) for this research was due to its capability to predict a series of interdependent relationships between constructs simultaneously. PLS-SEM was chosen because it is a multivariate technique that allows the simultaneous analysis of a series of latent variables, resulting in more optimal and efficient outcomes from a statistical perspective (Ghozali, 2021).

RESULTS

Descriptive Statistics

Table 1. Average Number of Scores and Rating Categories of Respondents' Answers

Construct	Indicator	Minimum	Maximum	Mean	Description
Intellectual Capital	X1.1.1	3,00	5,00	4,356	Very High
	X1.1.2	3,00	5,00	4,172	High
	X1.1.3	4,00	5,00	4,511	Very High
	X1.2.1	4,00	5,00	4,756	Very High
	X1.2.2	4,00	5,00	4,367	Very High
	X1.3.1	4,00	5,00	4,540	Very High
	X1.3.2	3,00	5,00	4,413	Very High
Mean				4,430	Very High
Organizational Learning	X2.1.1	3,00	5,00	4,310	Very Good
	X2.1.2	3,00	5,00	4,126	Good
	X2.2.1	4,00	5,00	4,258	Very Good
	X2.2.2	3,00	5,00	4,310	Very Good
	X2.3.1	4,00	5,00	4,494	Very Good
	X2.3.2	3,00	5,00	4,482	Very Good
	X2.4.1	4,00	5,00	4,339	Very Good
	X2.4.2	3,00	5,00	4,126	Good
	X2.5.1	3,00	5,00	4,431	Very High
	X2.5.2	4,00	5,00	4,413	Very High
Mean				4,387	Very High
	X3.1.1	4,00	5,00	4,149	Very High

Digital Transformation	X3.1.2	4,00	5,00	4,550	Very High
	X3.1.3	3,00	5,00	4,080	High
	X3.2.1	4,00	5,00	4,149	High
	X3.2.2	4,00	5,00	4,501	Very High
	X3.3.1	4,00	5,00	4,534	Very High
	x3.3.2	3,00	5,00	4,189	High
Mean				4,267	Very High
Performance of Medium Enterprises	Y1	4,00	5,00	4,224	Very High
	Y2	4,00	5,00	4,212	Very High
	Y3	4,00	5,00	4,471	Very High
	Y4	3,00	5,00	4,149	High
	Y5	3,00	5,00	4,005	High
Mean				4,267	Very High

Source: data processed in 2024

Outer Model

Table 2. Outer Loading Values Estimated Results After Execution

Construct	Original Sample (O)	T Statistics (O/STDEV)	P Values
X1.1.2 <- Intellectual Capital	0,837	30,719	0,000
X1.1.3 <- Intellectual Capital	0,820	27,160	0,000
X1.2.1 <- Intellectual Capital	0,767	19,670	0,000
X1.2.2 <- Intellectual Capital	0,653	10,325	0,000
X1.3.2 <- Intellectual Capital	0,757	20,344	0,000
X2.1.1 <- Organizational Learning	0,750	22,052	0,000
X2.1.2 <- Organizational Learning	0,712	19,787	0,000
X2.2.1 <- Organizational Learning	0,664	15,379	0,000
X2.4.1 <- Organizational Learning	0,745	20,558	0,000
X2.4.2 <- Organizational Learning	0,661	15,232	0,000
X2.5.1 <- Organizational Learning	0,724	17,520	0,000
X2.5.2 <- Organizational Learning	0,743	21,525	0,000
X3.1.1 <- Digital Transformation	0,793	19,734	0,000
X3.1.2 <- Digital Transformation	0,676	13,346	0,000
X3.2.2 <- Digital Transformation	0,747	15,989	0,000
X3.3.1 <- Digital Transformation	0,659	15,371	0,000
X3.3.2 <- Digital Transformation	0,692	16,624	0,000
Y.1 <- Performance of Medium Enterprises	0,743	20,636	0,000
Y.2 <- Performance of Medium Enterprises	0,732	16,795	0,000
Y.3 <- Performance of Medium Enterprises	0,741	19,902	0,000
Y.4 <- Performance of Medium Enterprises	0,679	14,472	0,000
Y.5 <- Performance of Medium Enterprises	0,720	19,086	0,000

Source: data processed in 2024

The calculation results for the outer loading values presented indicated that all indicators met the validity requirements based on the criteria of discriminant validity, specifically an outer loading value greater than 0.50 and statistically significant.

Structural Model/Inner Model

R-Square (R²)

R-Square (R²) indicated the strength or weakness of the influence exerted by the dependent variable on the independent variables. R-Square (R²) also reflected the strength or weakness of a research model. According to Chin (as cited in Lathan and Ghazali, 2012:85), an R-Square (R²) value of 0.67 represented a strong model, an R-Square (R²) value of 0.33 represented a moderate model, and an R-Square (R²) value of 0.19 represented a weak model.

Table 3. Evaluation of the Structural Model Inner

Construct	R Square	Description
Performance of Medium Enterprises	0,534	Moderate Structural Model
Organizational Learning	0,564	Moderate Structural Model

Source: data processed in 2024

Q-Square Predictive Relevance (Q²)

According to Lathan and Ghazali (2012:85), the strength of the model was assessed based on Q-Square Predictive Relevance (Q²) as follows: 0.35 for a strong model, 0.15 for a moderate model, and 0.02 for a weak model. The formula for Q-Square was: $Q^2 = 1 - (1 - R_1^2)(1 - R_2^2)$. The Q-Square value was calculated as: $Q^2 = 1 - (1 - R_1^2)(1 - R_2^2) = 1 - (1 - 0.534)(1 - 0.564) = 1 - (0.466 * 0.436) = 1 - 0.203 = 0.797$. Based on this result, the estimated model fell into the strong category, meaning that 79.7% of the variation in endogenous constructs could be predicted by the variation in exogenous constructs.

Goodness of Fit (GoF)

The criteria for evaluating the strength of the model based on the Goodness of Fit (GoF) measurement, according to Lathan and Ghazali (2012:88), were as follows: 0.36 for GoF large, 0.25 for GoF medium, and 0.10 for GoF small (Tenenhaus et al., 2004:175). The calculation with GoF yielded an average R² value of 0.549 and an average Commuality of 0.869, resulting in a GoF value of 0.477. This indicated that the global model was highly predictive (large).

Table 4. Evaluation of Goodness of Fit

Construct	Commuality	R Square	GOF
Performance of Medium Enterprises	0,775	0,534	
Intellectual Capital	0,838		
Organizational Learning	0,842	0,564	

Transf**In. Cap.	1,000		
Transform** Org. Learn.	1,000		
Digital Transformation	0,761		
Average	0,869	0,549	0,477

Source: data processed in 2024

Path Analysis and Hypothesis Testing

Path analysis and hypothesis testing were conducted with the expectation that the null hypothesis (Ho) would be rejected or the significance value would be less than 0.05 (or the t-statistic value would be greater than 1.96 at a significance level of 0.05)

Table 5. Path Analysis of Simultaneous Relationships Among Variables

Direction of Relationship Between Variables	Original Sample (O)	T Statistics (O/STDEV)	P Values
Intellectual Capital -> Performance of Medium Enterprises	0,144	1,443	0,150
Intellectual Capital -> Organizational Learning	0,751	20,125	0,000
Organizational Learning -> Performance of Medium Enterprises	0,075	0,794	0,428
Transf**In.Capt. -> Performance of Medium Enterprises	0,227	1,979	0,048
Transform**Org. Learn. -> Performance of Medium Enterprises	0,318	3,630	0,000
Digital Transformation -> Performance of Medium Enterprises	0,514	7,728	0,000
Intellectual Capital -> Organizational Learning -> Performance of Medium Enterprises	0,056	0,793	0,428

Source: data processed in 2024

Table 6. Hypothesis Testing of Direct Effects Simultaneously

Hypotheses	t-statistic	t.table	P Values	$\alpha = 0,05$	Description
H1. Intellectual Capital -> Performance of Medium Enterprises	1,443	1,96	0,150	>.0,05	Not significant
H2. Intellectual Capital -> Organizational Learning	20,125	1,96	0,000	<.0,05	Significant
H3. Organizational Learning -> Performance of Medium Enterprises	0,794	1,96	0,428	>.0,05	Not significant
H.4 Intellectual Capital -> Organizational Learning -> Performance of Medium Enterprises	0,793	1,96	0,428	>.0,05	Not significant
H.5 Transf**In. Capt. -> Performance of Medium Enterprises	1,979	1,96	0,048	<.0,05	Significant

H.6. Transform** Org. Learn. -> Performance of Medium Enterprises	3,630	1,96	0,000	<.0,05	Significant
--	-------	------	-------	--------	-------------

Source: data processed in 2024

DISCUSSION

The discussion of the research results aims to evaluate and deepen the theory of human resource management and organizational behavior, particularly focusing on the development of intellectual capital in medium enterprises in Badung Regency. This is done in relation to the research variables to assess the quality of the responses from the respondents (managers of medium enterprises) regarding the implementation and development of intellectual capital, organizational learning, organizational performance, and digital transformation as a moderating variable. This discussion aims to confirm the proposed research hypotheses against the empirical conditions observed in the field, based on the research objectives, gaps in previous research, data analysis results, and the theories of human resources and organizational behavior. It seeks to determine whether the findings reinforce or contradict previous theories and research results or represent new findings.

The Influence of Intellectual Capital on Medium Enterprise Performance

The test results for the effect of intellectual capital on medium enterprise performance show a path coefficient estimate of 0.144 with a positive direction. This positive coefficient suggests a direct relationship between intellectual capital and medium enterprise performance. However, this relationship is not statistically significant, as indicated by a P-Value of 0.150, which exceeds the α value of 0.05. Consequently, hypothesis test H1 indicates that while intellectual capital has a positive effect on medium enterprise performance, this effect is not significant. This implies that while increased intellectual capital is associated with improvements, it does not significantly enhance medium enterprise performance. The study fails to validate the hypothesis and does not reflect the observed reality of the research subject.

The lack of support for this hypothesis may be attributed to the fact that the intellectual capital variables in this study are primarily measured through human capital indicators, whereas organizational performance is more closely linked to productivity indicators. Human capital indicators, which are crucial for intellectual capital development, are largely represented by individuals with high school diplomas. This factor impacts the productivity levels of medium enterprises. Thus, despite having high capacity and innovative ideas, the lower education levels of managers suggest a lower level of intellectual capital in medium enterprises in Badung Regency. Consequently, even with substantial intellectual resources, the human capital in these enterprises does not significantly enhance productivity.

These findings contrast with previous studies, such as Bontis (2000), who reported a positive and significant impact of intellectual capital on organizational performance; Sharabatia et al. (2013), who found that intellectual capital significantly impacts business performance in Jordanian telecommunications;

Khalique et al. (2013), who noted that all indicators of intellectual capital positively influence organizational performance; Marimuthu et al. (2009), who observed a significant positive impact of human capital on company performance; and Hashim et al. (2015), who found that six indicators of intellectual capital affect company performance.

The Influence of Intellectual Capital on Organizational Learning

The test results for the effect of intellectual capital on organizational learning show a path coefficient estimate of 0.751 with a positive direction. This indicates a direct relationship between intellectual capital and organizational learning. The relationship is statistically significant, as evidenced by a P-value of 0.000, which is below the α value of 0.05. Therefore, hypothesis H2 confirms that intellectual capital has a positive and significant effect on organizational learning, meaning that increased intellectual capital substantially enhances organizational learning. The study's findings align with the observed reality, demonstrating that improved intellectual capital development correlates with more effective organizational learning processes in medium enterprises in Badung Regency. This result supports the notion that well-implemented intellectual capital development fosters better organizational learning outcomes.

These findings are consistent with previous research. For example, Amani et al. (2015) found a positive and significant relationship between all components of intellectual capital and organizational learning. Javad Jafari Farsania et al. (2012) reported a positive and significant relationship between human, structural, and relational capital and organizational learning capabilities, with human capital having the strongest impact. Similarly, Touraj Amani and Zinat Ghomi Avili (2016) observed a positive and significant relationship between all elements of intellectual capital (human, structural, and communication capital) and organizational learning.

The Influence of Organizational Learning on Organizational Performance

The test results for the impact of organizational learning on medium enterprise performance reveal a path coefficient estimate of 0.075 with a positive direction. This indicates a direct relationship between organizational learning and performance. However, the relationship is not statistically significant, as shown by the P-value of 0.428, which exceeds the α value of 0.05. Thus, hypothesis H3 indicates that organizational learning has a positive but not significant effect on medium enterprise performance. This suggests that although increased organizational learning aligns with better performance, it does not significantly improve performance. Consequently, the study cannot validate the hypothesis, and the results do not reflect the observed reality.

The demographic data of respondents reveal that most have education levels below high school, which limits their educational background. This limitation affects the organizational learning process, compounded by insufficient facilities or infrastructure, such as inadequate training and education resources for employees. This implies that managers in medium enterprises in Badung Regency are less adaptable to external changes and do not continually

enhance their capabilities or leverage learning outcomes effectively. This lack of contribution from managers may negatively impact performance. These findings support previous research by Cohen and Bacdayan (1994) and Heleblian and Finkelstein (1999), which reported a negative effect of organizational learning on performance, and align with Marsick and Watkins (2003), Moilanen (2005), and Weldy (2009), who found no effect of organizational learning on organizational performance.

The Influence of Intellectual Capital on Organizational Performance Mediated by Organizational Learning

The results for the direct effect of intellectual capital on medium enterprise performance reveal a path coefficient estimate of 0.144 with a positive direction. This positive coefficient indicates a direct link between intellectual capital and performance. However, this relationship is not statistically significant, as indicated by the P-value of 0.428, which exceeds the α value of 0.05 (H1). Similarly, the analysis of the direct effect of organizational learning on medium enterprise performance shows that this relationship is also not significant (H3). According to Ghozali (2021), if the direct effect between the mediating variable and performance is not significant, the variable cannot be considered a mediator.

Hypothesis test (H4) does not provide sufficient evidence to support the claim that intellectual capital significantly influences medium enterprise performance through organizational learning. This suggests that improvements in medium enterprise performance cannot be achieved either by directly increasing intellectual capital or by enhancing it with subsequent improvements in organizational learning. Therefore, organizational learning does not serve as a mediating variable in the relationship between intellectual capital and medium enterprise performance. These results contrast with Nezam et al. (2010), who found that intellectual capital positively and significantly affects new product development performance through mediation by organizational learning capacity.

The Influence of Intellectual Capital and Organizational Learning on Medium Enterprise Performance Moderated by Digital Transformation

Based on the path analysis results presented in Tables 5 and 6, the path coefficient estimate is 0.227, indicating a positive direction. This positive coefficient signifies a direct relationship between the interaction of digital transformation and intellectual capital with medium enterprise performance. The significance of this relationship is confirmed by a P-value of 0.048, which is below the α value of 0.05. Thus, digital transformation acts as a moderating variable in the relationship between intellectual capital and medium enterprise performance. Hypothesis H5, which proposes that enhanced intellectual capital will improve organizational performance when moderated by digital transformation, is supported. This indicates that the impact of intellectual capital on medium enterprise performance is dependent on the effective implementation of digital transformation.

The positive interaction coefficient suggests that the combination of intellectual capital and digital transformation positively influences medium

enterprise performance. Higher levels of digital transformation enhance the role of digital transformation, thereby amplifying the effect of intellectual capital on performance. Observations show that medium enterprises have begun utilizing online marketing through social media. To further boost intellectual capital, it is crucial to align digital transformation processes with consumer service needs in the digital age, especially during the COVID-19 pandemic, to refine strategies and potentially enhance business performance.

The Influence of Organizational Learning on Medium Enterprise Performance Moderated by Digital Transformation

The path analysis results shown in Tables 5 and 6 reveal a path coefficient estimate of 0.318, indicating a positive direction. This positive coefficient signifies a direct relationship between the interaction of digital transformation with organizational learning and medium enterprise performance. The relationship is statistically significant, as demonstrated by a P-value of 0.000, which is below the α value of 0.05. Thus, digital transformation serves as a moderating variable in the link between organizational learning and medium enterprise performance. Hypothesis H5, which suggests that enhanced organizational learning will improve performance when moderated by digital transformation, is supported. This implies that the effect of organizational learning on medium enterprise performance is influenced by the level of digital transformation implemented.

The positive interaction coefficient indicates that combining organizational learning with digital transformation positively impacts medium enterprise performance. Higher levels of digital transformation amplify the effect of organizational learning on performance. Observations indicate that medium enterprises have started using social media for online marketing. To further advance organizational learning, it is important to ensure that digital transformation processes align with consumer services, adjusting strategies to potentially boost business performance.

CONCLUSIONS AND RECOMMENDATIONS

Based on the research findings on the impact of intellectual capital on medium enterprise performance through organizational learning, moderated by digital transformation, in Badung Regency, several conclusions can be made: (1) High intellectual capital enhanced the effectiveness of organizational learning. (2) High intellectual capital did not yet lead to improved organizational performance. (3) Effective organizational learning did not significantly boost organizational performance. (4) Organizational learning did not act as a mediator between intellectual capital and medium enterprise performance. (5) Proper implementation of digital transformation strengthened the connection between intellectual capital and organizational performance. (6) Effective digital transformation also reinforced the link between organizational learning and medium enterprise performance.

In light of the conclusions above, the following recommendations are proposed for medium enterprise managers in Badung Regency and for future research: (1) The study's findings do not confirm that intellectual capital, whether

directly or mediated through organizational learning, improves medium enterprise performance. It is recommended that managers focus more on developing intellectual capital by enhancing human, structural, and relational capital. Surveys indicate that resources in the MSME sector remain low, which should prompt managers to invest seriously in developing all aspects of intellectual capital. (2) The study shows that effective organizational learning does not yet improve medium enterprise performance. Managers are encouraged to innovate by applying organizational learning to enhance employee competencies and sensitivity to environmental changes. (3) The findings indicate that effective digital transformation strengthens the relationship between intellectual capital, organizational learning, and enterprise performance. Managers should invest in digital transformation to enhance intangible resources through digital innovation, thereby improving service delivery and competitiveness in a competitive market.

FURTHER STUDY

Future researchers can enhance this study model by adding or replacing intellectual capital indicators to better fit the characteristics of the research object. They can also expand the performance measurement model to include additional perspectives, such as financial and non-financial ones. Additionally, broadening the research scope to encompass all sectors within MSMEs would provide a more comprehensive understanding.

REFERENCES

- Agustina, T., Gerhana, W., & , S. (2020). The Effect of Locus of Control, Learning, and Adversity Quotient towards Micro Business Success (Study on Entrepreneurship under Foster Group of the Banjarmasin Regional Government). *Journal of Wetlands Environmental Management*, 8(1). <https://doi.org/10.20527/jwem.v8i1.215>
- Allameh, S. M., Abbasi, S., & Shokrani, S. A. R. (2010). The mediating role of organizational learning capability between intellectual capital and job satisfaction. *European Journal of Social Sciences*, 17(1).
- Arsawan, I. W. E. (2019). Intellectual capital and innovation culture: evidence from SMEs performance in Indonesia. *Economics. Ecology. Socium*, 3(4). <https://doi.org/10.31520/2616-7107/2019.3.4-2>
- Astuti, P. D., Chariri, A., & Rohman, A. (2019). Association between intellectual capital and competitive advantage: A case study on the hotel industry in Bali province, Indonesia. *Humanities and Social Sciences Reviews*, 7(4), 440–449. <https://doi.org/10.18510/hssr.2019.7460>
- Bontis, N. (2001). Assessing knowledge assets: A review of the models used to measure intellectual capital. In *International Journal of Management Reviews*. <https://doi.org/10.1111/1468-2370.00053>
- Bontis, N., William Chua Chong, K., & Richardson, S. (2000). Intellectual capital and business performance in Malaysian industries. *Journal of Intellectual Capital*, 1(1), 85–100. <https://doi.org/10.1108/14691930010324188>
- Dabić, M., Lažnjak, J., Smallbone, D., & Švarc, J. (2019). Intellectual capital, organisational climate, innovation culture, and SME performance:

- Evidence from Croatia. *Journal of Small Business and Enterprise Development*, 26(4). <https://doi.org/10.1108/JSBED-04-2018-0117>
- Fisher, J. (1995). Contingency-based research on management control systems: Categorization by level of complexity. *Journal of Accounting Literature*, 14.
- Ghozali, I. (2021). *Partial Least Square: Konsep, Teknik dan Aplikasi Menggunakan Program SmartPLS 3.2.9 Untuk Penelitian Empiris* (3rd ed.). Badan Penerbit Universitas Diponegoro.
- Hasan, A., Fithri, P., & Annisa, I. Q. (2017). Pengaruh Kemampuan Pembelajaran Organisasi Terhadap Kinerja Industri Menengah Bidang Pangan di Kota Padang. *Prosiding SNTI Dan SATELIT*, 215–222.
- Istianingsih, & Suraji, R. (2020). The Impact of Competitive Strategy and Intellectual Capital on SMEs Performance. *Jurnal Manajemen*, 24(3). <https://doi.org/10.24912/jm.v24i3.677>
- Joshi, M., Cahill, D., Sidhu, J., & Kansal, M. (2013). Intellectual capital and financial performance: An evaluation of the Australian financial sector. *Journal of Intellectual Capital*. <https://doi.org/10.1108/14691931311323887>
- Khalique, M., Bontis, N., Bin Shaari, J. A. N., Yaacob, M. R., & Ngah, R. (2018). Intellectual capital and organisational performance in Malaysian knowledgeintensive SMEs. *International Journal of Learning and Intellectual Capital*, 15(1). <https://doi.org/10.1504/IJLIC.2018.088345>
- Muda, S., & Rahman, M. (2019). Sectoral Effects Of Intellectual Capital On Malaysian Sme Business Performance. *Asia-Pacific Management Accounting Journal*, 14(3).
- Nezam, M. H. K., Ataffar, A., Isfahani, A. N., & Shahin, A. (2016). Human capital and new product development performance efficiency-the mediating role of organisational learning capability. *International Journal of Innovation and Learning*, 20(1). <https://doi.org/10.1504/IJIL.2016.076670>
- Nugroho, A. E. (2020). Survei Kinerja UMKM di Masa Pandemi COVID19. Biro Kerja Sama, Hukum, Dan Humas LIPI. <http://lipi.go.id/berita/survei-kinerja-umkm-dimasa-pandemi-covid19/22071>
- Patwary, A. K., & Fauzan, F. (2020). The Impacts of Human, Structural and Relational Capital on Product Development Performance in Manufacturing Organizations in Indonesia: Mediating Role of Organizational Learning Capabilities and R&D Resources. *IRASD Journal of Management*, 2(2). <https://doi.org/10.52131/jom.2020.0202.0017>
- Pertiwi, W., & Nurhikma, F. (2018). Pengaruh Perubahan Sistem Digitalisasi Terhadap Kinerja Karyawan. *Seminar Nasional Multidisiplin 2018*, 1–5.
- Pramuki, N. M. W. A., & Kusumawati, N. P. A. (2021). The Influence of Product Innovation , Digital Marketing and Competitive Advantage in Improving the Marketing Performance of Small and Medium Industries in Bali. *Advances in Economics, Business and Management Research*, Volume 175

- "Proceedings of the 2nd International Conference on Business and Management of Technology (ICONBMT 2020)," 175, 248–254.
- Pusparini, H., Murabah, & Mariadi, Y. (2020). Faktor-Faktor Kontijensi Yang Memengaruhi Pengimplementasian Praktik Akuntansi Manajemen Pada Usaha Kecil Menengah (Ukm) Di Kota Mataram. *Jurnal Aplikasi Akuntansi*, 5(1), 72–89. <https://doi.org/10.29303/jaa.v5i1.91>
- Senge, P. M. (2002). *The Fifth Discipline: The Art and Practice of Learning Orientation*.
- Suseno, N. S., Hermina, T., Ramdhani, A., & Utari, L. (2019). The impact of intellectual capital on financial performance. *International Journal of Recent Technology and Engineering*, 8(1), 359–365.
- Sylvana, A., & Awaluddin, M. (2017). " Entrepreneurship at Global Crossroad : Challenges and Solutions ." Seminar Nasional IX Fakultas Ekonomi Universitas Terbuka, 1–17.
- Ting, I. W. K., & Lean, H. H. (2009). Intellectual capital performance of financial institutions in Malaysia. *Journal of Intellectual Capital*, 10(4), 588–599. <https://doi.org/10.1108/14691930910996661>
- Tran, D. B., & Vo, D. H. (2018). Should bankers be concerned with Intellectual capital? A study of the Thai banking sector. *Journal of Intellectual Capital*, 19(5), 897–914. <https://doi.org/10.1108/JIC-12-2017-0185>
- Untari, F. (2020). Analisis Peran Penting Gaya Kepemimpinan, Pembelajaran Organisasi, Remunerasi, dan Lingkungan Kerja terhadap Kinerja Pegawai pada Pengadilan Negeri *JEBDEKER: Jurnal Ekonomi, Manajemen*
- Widjajanti, I. K., & Mm, S. E. (2009). Transformasi Organisasional Privatisasi BUMN di Indonesia. *Jurnal Ekonomi & Bisnis*, 10(2), 322–333.
- Winarsih, B., Indriastuti, M., & Fuad, K. (2020). Impact of Covid-19 on Digital Transformation and Sustainability in Small and Medium Enterprises (SMEs): A Conceptual Framework. *Complex, Intelligent and Software Intensive Systems*, 471– 476. <https://doi.org/10.1007/978-3-030-50454-0>
- Yanti, V. A., Aminah, S., Pudji, M., & Ansgari, P. (2018). Faktor yang Mempengaruhi Keberlanjutan Usaha Mikro Kecil Menengah di Bandung dan Bogor. *Pengkajian Dan Pengembangan Teknologi Pertanian*.