“Can knowledge-based assets increase organizational performance? Evidence from village financial institutions in Bali, Indonesia”

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CAN KNOWLEDGE-BASED ASSETS INCREASE ORGANIZATIONAL PERFORMANCE? EVIDENCE FROM VILLAGE FINANCIAL INSTITUTIONS IN BALI, INDONESIA

Abstract

The purpose of this study is to examine the effect of knowledge-based assets, namely the ability to integrate knowledge and intellectual capital, on organizational performance. This study uses a survey approach with a sample of 313 LPDs (village financial institutions) in the province of Bali, represented by the heads of LPDs. The heads of LPDs were chosen because they are operational executors of LPD and are responsible for the development of LPD management. Data were collected using questionnaires distributed directly to LPD heads. The results of this study indicate that organizational performance is substantially and positively influenced by human capital and relational capital. Spiritual capital does not have a substantial influence on organizational performance, whereas structural capital has a negative effect. Further analysis revealed that knowledge integration capability can mediate the influence of human capital, structural capital, and relational capital. However, it cannot mediate the influence of spiritual capital on organizational performance. The research results strengthen the intellectual capital theory that intellectual capital can increase organizational performance if integrated with ability or dynamic knowledge.

Keywords knowledge-based assets, intellectual capital, knowledge integration capability, organizational performance

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INTRODUCTION

Every company must function well in an increasingly dynamic environment to ensure the continuity of its business. However, not all organizations are capable of achieving this. The fact that many organizations struggle to grow and finally go bankrupt becomes proof (Ying et al., 2019). Organizations in Indonesia, particularly the Lembaga Perkreditan Desa (LPD) or village financial institutions in the Province of Bali, also encounter this phenomenon. According to data from the Village Credit Institution Empowerment Agency of Bali Province in 2023, out of the 1,423 LPDs spread across almost all areas in Bali, 469 LPDs, or 33%, remain problematic. LPD is a source of development financing in Bali's Traditional Village area. Its existence is vital to the Balinese nation. The management of LPDs must be generally professional and healthy to improve its performance and strengthen the existence of village customs in Bali.

Effective organizational performance is contingent upon the administration of intangible resources and the utilization of fiscal and material assets by managers (Al-Omoush et al., 2022; Han & Li, 2015). Asiaei and Jusoh (2017) and Soewarno and Tjahjadi (2020) assert that the primary source of creation in contemporary knowledge-driven econo-

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mies has changed from tangible to non-tangible. Intellectual capital is an important intangible resource that adds value to an organization through knowledge (Rehman et al., 2021). In order to generate organizational performance, intangible resources must be utilized in conjunction with skills or knowledge to convert them into outputs (Campos et al., 2022). Knowledge integration capability is one organizational capability used to improve performance. Sufficient intellectual capital advances the capacity for integrating information, which improves the performance of organizations.

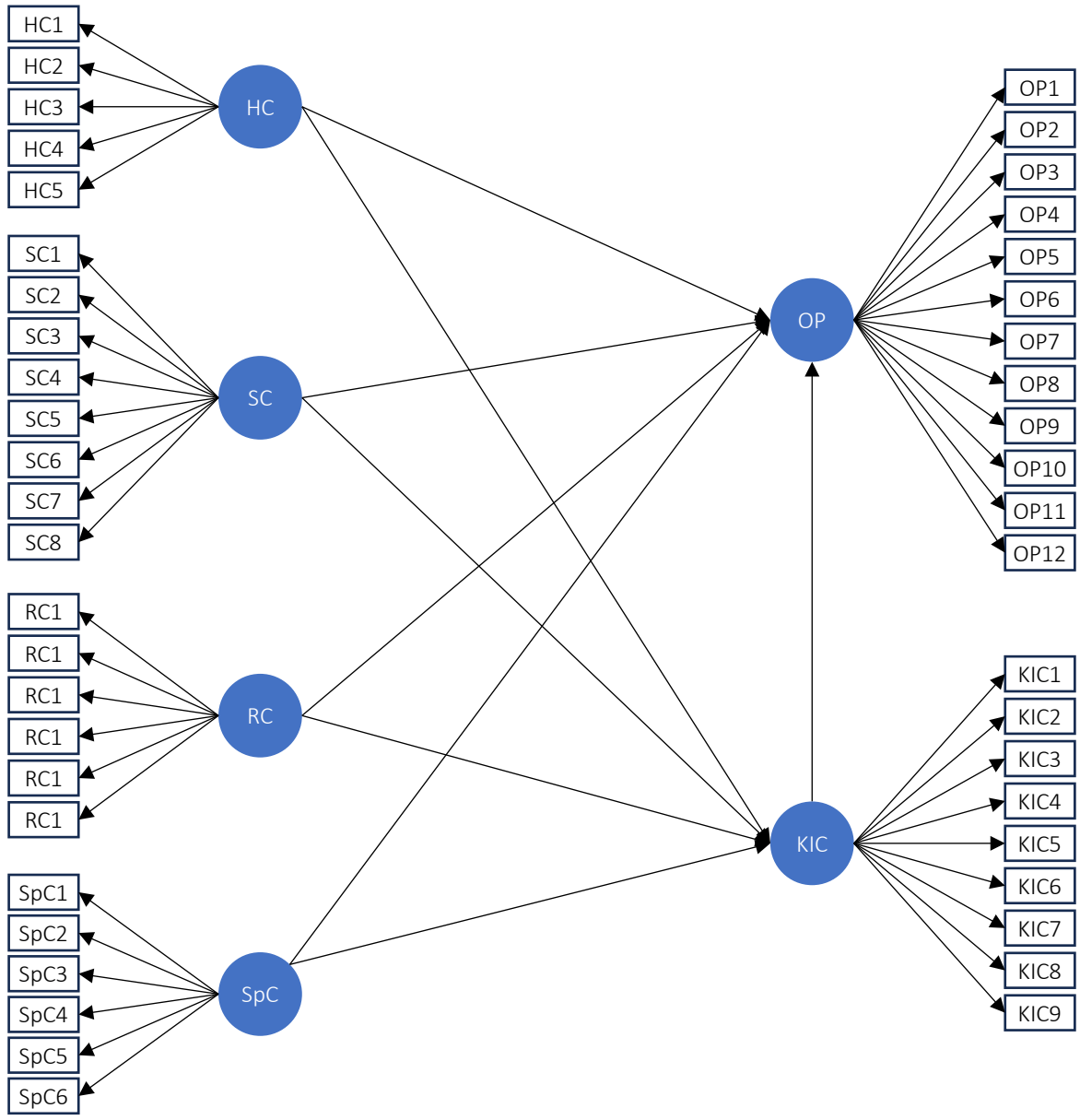
1. LITERATURE REVIEW AND HYPOTHESES

The intellectual capital theory highlights the concept of creating a value that originates from the organization's resources (Khalique et al., 2013; Pawlowsky et al., 2021). Theoretically, this underscored the significance of investigating intangible assets. Achieving a competitive advantage requires efficient intangible asset generation, management, and use. Knowledge, technology, data, rights, intellectual wealth, experience, education, and competence are all considered forms of intellectual assets. It also includes a system of communication team, customer relationships, and brands that can establish a company's reputation (Bontis, 1998). Knowledge is closely related to human capital as a human resource that is inherent in every member of the organization. Human capital consists of knowledge, skills, abilities, and education that can be used to achieve a competitive advantage (Masyhuri et al., 2024). In order to improve an organization's performance and determine whether it succeeds or fails in reaching its goals, human capital is essential. Human resources are critical to reaching performance in successful organizations (Ali et al., 2022; Alqershi et al., 2022; Asiaei & Jusoh, 2017; Bontis et al., 2018; Khalique et al., 2018; Laallam et al., 2022).

The accomplishments of an organization are inextricably linked to the contributions of both human and non-human resources it has. The infrastructure that supports the expression and empowerment of human capital, as well as the structures and culture that promote knowledge flow inside an organization, are collectively referred to as non-human organizational knowledge, or structural capital (Bai et al., 2024). In addition, a number of earlier studies have shown empirical proof of how structural assets affect an organization's success (Giampaoli et al., 2024; Khalique et al., 2015; Laallam et al., 2022; Z. Wang et al., 2016). To grow their company, organizations need external partnerships with connected parties like partners, suppliers, consumers, and local communities, or relationship-centered capital (Asiaei et al., 2018). Similarly, the organization's ability to progress its operations depends heavily on the relationships among its members. Relational capital can significantly affect organizational performance (Alqershi et al., 2022; Asiaei & Jusoh, 2017; Bontis et al., 2018; Khalique et al., 2018; Salim et al., 2022).

The component of intellectual capital plays an important role in progressing organizations as well as spiritual capital. Spiritual capital is a component of intellectual assets that is vital to the development of organizations. It describes moral, ethical, and spiritual practices that impact individuals, groups, and communities (Tjahjadi et al., 2024; Anwar et al., 2020). Neubert et al. (2017) demonstrate that spiritual capital produces dividends for a variety of stakeholders and greatly improves the performance of organizations. When an organization possesses a higher level of spiritual capital, its performance will likely improve.

Intellectual capital theory emphasizes the importance of exploring intangible assets, managing them, and developing and utilizing them in order to achieve competitive advantage (Solitander & Tidström, 2010). M. Wang et al. (2018) stated that an organization needs to build capabilities in processing and integrating knowledge. Furthermore, Salunke et al. (2019) stated that knowledge must be equipped with knowledge integration capabilities. Enhancing the performance of organizations is largely dependent on integrating knowledge abilities, which are dynamic knowledge-based capabilities (Han & Chen, 2018). Han and Li (2015) found that the knowledge-based dynamic abilities of the organization are closely linked to its intellectual assets. Zhang et al. (2018) proved that intellectual assets significantly increase supplier knowledge integration. Likewise, Al-Omoush et al. (2022)



Note: HC = human capital; SC = structural capital; RC = relational capital; SpC = spiritual capital; KIC = knowledge integration capability; OP = organizational performance.

Figure 1. Research framework

found that intellectual capital significantly influences collaborative knowledge development.

Kim et al. (2012), Parente et al. (2020), and Han and Chen (2018) demonstrate that the capacity to integrate information improves the performance of companies. Organizational performance is positively impacted by high knowledge integration capabilities (Han & Chen, 2018; Parente et al., 2020). Xie et al. (2022) indicate that teams with a greater understanding of integration skills are more likely to coordinate amongst themselves to explain the sources of information gathered from outside activities, which will improve the organization's performance. A high level of intellectual capital inside the organization will help the knowledge integration capability increase organizational performance. Intellectual capital, which comprises human capital, structural capital, relational capital, spiritual capital, and the ability to integrate information, is a knowledge-based asset that organizations possess. The performance

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of the organization will improve with sufficient knowledge-based resources. Employees' expertise, abilities, creativity, and experience will help the organization comprehend and incorporate new information with what it already knows.

Figure 1 shows a conceptual framework elaborated for this study. According to the previous explanations, the hypotheses can be stated as follows:

H1: Human capital positively influences organizational performance.

H2: Structural capital positively influences organizational performance.

H3: Relational capital positively influences organizational performance.

H4: Spiritual capital positively influences organizational performance.

H5: The impact of human capital on organizational performance is mediated by knowledge integration capabilities.

H6: The impact of structural capital on organizational performance is mediated by knowledge integration capabilities.

H7: The impact of relational capital on organizational performance is mediated by knowledge integration capabilities.

H8: The relationship between spiritual capital and organizational success is mediated by knowledge integration capabilities.

2. METHOD

This study's population consisted of active village financial institutions (LPDs), namely 1,315 LPDs spread throughout Bali's regions. Using the Krejcie and Morgan formula (Krejcie & Morgan, 1970), the minimum sample was 298. The simple random sampling method determined the sample; the respondents were the LPD heads because they serve as the operational executors of LPDs and are accountable for responding to inquiries about LPD management.

Before the questionnaire was given to the research participants, a pilot study consisting of 30 people was conducted to determine the validity and reliability of the content. Next, the questionnaire was distributed to respondents, namely to the heads of LPDs who were visited directly at their business location. Over three months, 313 of the 350 sent questionnaires were ready for the analysis, representing a 96.3% response rate. Table 1 displays the characteristics of participants.

Table 1. Respondent characteristics

Characteristics	Amount	Percentage
Gender		
Male	257	82.1%
Female	56	17.9%
Age		
≤ 30 years	2	0.6%
31–40 years	14	4.5%
41–50 years	110	35.1%
> 50 years	187	59.7%
Level of education		
Junior high school	–	–
Senior high school	152	48.6%
Diploma	9	2.9%
S1	148	47.3%
> S1	4	1.3%
Length of work		
≤ 5 years	3	1.0%
6–10 years	85	27.2%
> 10 years	225	71.9%
Total	313	100.0%

Instruments created based on the findings of earlier studies were used to measure every variable. On a 5-point Likert scale, participants were asked to rate how much they agreed with the research variables (Laallam et al., 2022). Human capital is reflected in two dimensions, namely knowledge and skills. Human capital is measured by five indicators adopted from Asiaei and Jusoh (2017). Structural capital is reflected in four dimensions: infrastructure, systems, policies, and procedures. The indicators used to measure structural capital are modified from the outcomes of Khalique et al. (2018). Relational capital is reflected in two dimensions: internal relationships and external relationships within the organization. The indicators used to measure relational capital are modified from Inkinen et al. (2017). Spiritual capital is reflected in two dimensions: religious beliefs and ethics. Spiritual capital is measured by six indicators adopted from Khalique et al. (2018). Knowledge

integration capability is made up of three qualities: information technology proficiency, learning culture, and knowledge process competency. The knowledge integration capability indicator is modified from Kim et al. (2012). Concurrently, organizational performance is evaluated using the balanced scorecard framework. Customers, internal business operations, learning and development, and money are the four aspects that comprise the balanced scorecard. The balanced scorecard indicator is modified from Tjahjadi et al. (2022). The study used partial least squares (PLS) with SmartPLS version 4.0 software for data analysis. This approach is used because it can handle intricate models, which, in this instance, comprise five variables and 46 indicators.

3. RESULTS

Table 2 presents statistical results. The descriptive section provides information about respondents' average answers to questionnaires. According to the descriptive statistics, the respondents strongly agreed with the assertions in the questionnaire.

Table 2. Descriptive statistics

Constructs	Mean	Category
Human Capital	4.250	Strongly Agree
Structural Capital	4.272	Strongly Agree
Relational Capital	4.323	Strongly Agree
Spiritual Capital	4.418	Strongly Agree
Knowledge Integration Capability	4.234	Strongly Agree
Organizational Performance	4.307	Strongly Agree

Note: Interval = (highest score–lowest score/number of scores) interval = (5–1)/5 = 0.8 criteria of the average respondents' answers: 1.00 < α < 1.79: Strongly Disagree; 1.80 < α < 2.59: Disagree; 2.60 < α < 3.39; Neutral: 3.40 < α < 4.19: Agree; 4.20 < α < 5.00: Strongly Agree.

Common Method of Variance (CMV) was tested to prevent the occurrence of error measurements, which can lead to bias in research results. The ex-ante test was conducted using several testing procedures recommended by Podsakoff et al. (2003). This involved a pilot test of the questionnaire among 30 LPD heads to confirm their comprehension of the statement items. An explanation of the questionnaire was also provided, covering anonymity, the need for honest answers, and the absence of right or wrong answers. The full collinearity VIF value was applied, declaring it free of bias if the value was less than or equal to 3.3 (Kock, 2015). This investigation produced a VIF value less than 3.3 (HC = 1.632; SC = 1.898; RC = 1.770; SpC = 1.106; KIC = 1.628). Therefore, this study has no CMV issues.

SmartPLS was used to evaluate the data. The SmartPLS model evaluates the structural (inner) and the measurement (outer) models. According to Table 3, the measurement model provided a loading factor indication higher than 0.500, and the validity test was successful. Convergent validity has, therefore, been satisfied by the indicator variable (Chin, 1998). Likewise, with average variance extracted (AVE), the results fulfill criteria testing of more than 0.500. Therefore, every variable fulfills the validity construct. Cronbach's alpha value and composite reliability were used in the reliability testing. The results satisfy the requirements of more than 0.700, as shown in Table 3. As a result, each aspect meets the dependability criteria (Hair et al., 2019).

The heterotrait-monotrait ratio (HTMT) was used to evaluate discriminant validity (Hair et al., 2019). The measurement model indicates that the quality was good if the HTMT value < 0.9. Table 4 presents all the constructs under examination in the study. This meets the established criteria, indicating that the concept successfully completed the discriminant validity assessment.

Table 3. Reliability and validity

Latent variables	Loading	AVE	Composite Reliability	Cronbach's Alpha
Human Capital				
HC1	0.734	0.545	0.799	0.793
HC2	0.738			
HC3	0.714			
HC4	0.744			
HC5	0.763			
Structural Capital				
SC1	0.738	0.542	0.886	0.880
SC2	0.749			
SC3	0.762			
SC4	0.760			
SC5	0.772			
SC6	0.772			
SC7	0.648			
SC8	0.680			

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Table 3 (cont.). Reliability and validity

Latent variables	Loading	AVE	Composite Reliability	Cronbach's Alpha
Relational Capital				
RC1	0.758	0.631	0.886	0.883
RC2	0.823			
RC3	0.853			
RC4	0.786			
RC5	0.739			
RC6	0.802			
Spiritual Capital				
SpC1	0.833	0.650	0.914	0.894
SpC2	0.758			
SpC3	0.776			
SpC4	0.827			
SpC5	0.840			
SpC6	0.801			
Knowledge Integration capability				
KIC1	0.668	0.553	0.904	0.898
KIC2	0.777			
KIC3	0.573			
KIC4	0.727			
KIC5	0.761			
KIC6	0.787			
KIC7	0.795			
KIC8	0.795			
KIC9	0.781			
Organizational Performance				
OP1	0.784	0.573	0.938	0.932
OP2	0.774			
OP3	0.827			
OP4	0.823			
OP5	0.835			
OP6	0.692			
OP7	0.703			
OP8	0.750			
OP9	0.748			
OP10	0.741			
OP11	0.718			
OP12	0.671			

Note: HC = human capital; SC = structural capital; RC = relational capital; SpC = spiritual capital; KIC = knowledge integration capability; OP = organizational performance.

Table 4. Discriminant validity

	HC	KIC	OP	RC	SC	SpC
HC						
KIC	0.536					
OP	0.556	0.716				
RC	0.577	0.590	0.608			
SC	0.661	0.593	0.323	0.653		
SpC	0.280	0.213	0.223	0.312	0.237	

Note: HC = human capital; SC = structural capital; RC = relational capital; SpC = spiritual capital; KIC = knowledge integration capability; OP = organizational performance.

The next stage is testing the hypotheses – specifically, looking at the direct and indirect effects. With a *p*-value of 0.00 and a coefficient of 0.257, Table 5 indicates that human capital has a favorable and significant influence on organizational performance. H1 was thus endorsed. The study supports H2, as relational capital has a favorable effect on organizational performance (coefficient of 0.319, *p*-value of 0.00). However, since spiritual capital had no influence on organizational performance (coefficient = –0.025, *p*-value < 0.555) and structural capital had a negative influence on organizational performance (coefficient = –0.327, *p*-value < 0.00), the findings could not support H2 and H4.

Additionally, for indirect effects, H8 was not supported since knowledge integration competence could mediate the influence of spiritual capital on organizational performance (β coefficient = 0.011, *p*-value < 0.705). Additionally, the following forms of mediation may be used by knowledge integration capabilities to mitigate the effects of other intellectual capital components on organizational performance: H5 shows complementary mediation (β coefficient = 0.088, *p*-value < 0.011), H6 shows competitive mediation (β coefficient = 0.158, *p*-value < 0.000), and H7 shows complementary mediation (β coefficient = 0.157, *p*-value < 0.001). H5, H6, and H7 were accepted.

Table 5. Hypotheses testing

	Path	Coefficient	p values	Decision
H1	HC → OP	0.257	0.000	Support
H2	SC → OP	–0.327	0.000	Reject
H3	RC → OP	0.319	0.000	Support
H4	SpC → OP	0.025	0.555	Reject
H5	HC → KIC → OP	0.088	0.011	Support
H6	SC → KIC → OP	0.158	0.000	Support
H7	RC → KIC → OP	0.157	0.001	Support
H8	SpC → KIC → OP	0.011	0.705	Reject

Note: HC = human capital; SC = structural capital; RC = relational capital; SpC = spiritual capital; KIC = knowledge integration capability; OP = organizational performance.

R square and predictive relevance (*Q* square) were used to assess the model's assessment quality. According to Table 6, intellectual capital might account for 57.4% of organizational performance, with an *R* square value of 0.574. As a result, the model was categorized as strong. In contrast, *Q* square was 0.324, which revealed that the model's predictive relevance is low.

Table 6. Model quality

Variables	R Square Adjusted	Q Square
Organizational Performance	0.574	0.324

The last analysis was a robustness check to inspect the strength of structural model parameters. Through this analysis, the resilience structural model is guaranteed to take into consideration endogeneity, nonlinear effects, and unobserved heterogeneity within the PLS-SEM framework (Sarstedt et al., 2020). The assumption of linearity is examined using a quadratic effect analysis method. Gaussian Copula analysis is applied for endogeneity testing in linear relationships. The path analysis satisfies the linearity condition and gets rid of any endogeneity problems if it produces a statistical significance value higher than 0.05 ($p > 0.05$). According to Table 7, the Gaussian Copula significance value and the quadratic impact significance value were both higher than 0.05 ($p > 0.05$) for every variable in the model. Therefore, the model exhibited linear correlations, meeting the linearity effect and being free from endogeneity issues.

Table 7. Nonlinear and endogeneity effects

Path	Quadratic Effect		Gaussian copula	
	Coefficient	P values	Coefficient	P values
HC → KIC	−0.002	0.977	−0.198	0.374
HC → OP	−0.011	0.733	−0.028	0.835
SC → KIC	−0.018	0.703	−0.240	0.173
SC → OP	−0.079	0.120	−0.411	0.211
RC → KIC	−0.001	0.980	0.182	0.093
RC → OP	0.027	0.673	0.035	0.750
SpC → KIC	−0.009	0.815	0.020	0.815
SpC → OP	−0.011	0.729	0.024	0.713
KIC → OP	0.020	0.750	0.090	0.552

Note: HC = human capital; SC = structural capital; RC = relational capital; SpC = spiritual capital; KIC = knowledge integration capability; OP = organizational performance.

According to Sarstedt et al. (2020), unobserved heterogeneity was analyzed using finite mixture (FIMIX) segmentation (FIMIX-PLS). Index results show compatibility for solution one up to four segments, as presented in Table 8, and an ambiguous picture is obtained. There is a clear answer to the question "No" because AIC3 and CAIC are the numbers of different segments; the lowest AIC3 value is in segment 4, while the lowest CAIC value is in segment 2. Next, AIC4 is the number of the same segment as BIC, which is in segment 3. Third, MDL5 is in the segment that is different, which is segment 1. Finally, the EN value is greater than 0.5. As a result, the degree of unobserved heterogeneity is not crucial, and its effect is negligible for the whole collection of data.

4. DISCUSSION

Knowledge-based assets are the primary source of innovation in the modern economy. Businesses may preserve the organization's sustainability by using knowledge-based assets. The results support the notion of intellectual capital, which maintains that an organization's dominance is derived from its expertise. Prior evidence (Ali et al., 2022; Alqershi et al., 2022; Bataineh et al., 2022; Boso et al., 2023; Faruq et al., 2023; Laallam et al., 2022; Masyhuri et al., 2024; Shazali et al., 2023) reinstated the idea that the performance of a company is positively impacted by relational and human capital. The knowledge, skills, and experience of each person in the organization and the relationships established internally and externally within the organization can encourage improved organizational performance.

Additionally, the quality of workers in a company that may improve knowledge integration capabil-

Table 8. Unobserved heterogeneity

Criteria	Segment			
	1	2	3	4
AIC (Akaike's information criterion)	1373.959	1194.361	1130.441	**1107.837**
AIC3 (modified AIC with Factor 3)	1384.959	1217.361	1165.441	**1154.837**
AIC4 (modified AIC with Factor 4)	1395.959	1240.361	**1200.441**	1201.837
BIC (Bayesian information criterion)	1415.167	1280.523	**1261.558**	1283.909
CAIC (consistent AIC)	1426.167	1303.523	**1296.558**	1330.909
HQ (Hannan-Quinn criterion)	1390.427	1228.794	1182.839	**1178.200**
MDL5 (minimum description length with factor 5)	**1668.000**	1809.174	2066.026	2364.195
EN (normed entropy statistic)	0.000	0.623	0.737	0.806

Note: The numbers in bold indicate the lowest score for each criterion from each segment.

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ity is reflected in its human capital. This is because a larger employee base can reduce misunderstandings and facilitate the acquisition of new knowledge during discussions or interactions with colleagues, thereby enhancing organizational performance. This also holds true for the connections made both within and outside the company. By combining stakeholder interests with embedded knowledge, the company may get essential knowledge or support from employees, customers, suppliers, and other stakeholders. This can expedite the process of knowledge creation and integration, ultimately improving organizational performance.

The situation differs when it comes to an organization's structural capital. This study found that structural capital has a negative effect on organizational performance. This is because, currently, not all village financial institutions (LPDs) are equipped with adequate infrastructure to access information, so this can hinder their performance. Not all LPDs have good procedures and cultures related to providing opportunities for all staff to develop themselves, express ideas/concepts, and be involved in decision-making. So, structural capital in this study is not able to contribute positively to organizational performance. However, when mediated by knowledge integration capability, it shows a significant positive mediation effect. This finding confirms that structural capital alone is not enough to make organizational performance good. The role of other variables is needed to utilize and develop structural capital so that it can produce better organizational performance. The knowledge integration process is carried out between individuals and organizations in their daily lives by communicating, discussing, and sharing information and knowledge to produce new insights useful for the organization. Combining the LPD system, procedures, and organizational culture with knowledge integration capability will produce good organizational performance.

According to the results, organizational performance was unaffected by spiritual capital. This result aligns with the investigations by Neubert et al. (2017) and Games et al. (2024), indicating that LPD's spiritual capital has not developed well. This is supported by the fact that several LPD administrators and staff do wrong deeds and commit fraud in their work, which causes losses to their LPDs. The absence of sincerity and trust in working makes them greedy and irresponsible toward their obligations. The same outcomes were also seen when knowledge integration competence acted as a mediator between spiritual capital and organizational performance. People who understand religion should be devout followers of religion and practice their understanding. However, this does not always happen. Many people are aware of religion but do not necessarily adhere to it. Individuals only know or understand religion but do not practice it (Suprayogo, 2017). As religious adherents who actively carry out religious activities, they still commit fraudulent acts (corruption), which certainly cause losses to their LPDs. Therefore, spiritual capital cannot improve organizational performance. The impact of spiritual capital on the organization's performance mediated by knowledge integration capability is not supported due to the lack of spiritual capital in a number of LPDs and the educational attainment of respondents, the majority of whom are high school graduates (48.6%).

CONCLUSION

This study aims to collect empirical data about how knowledge-based assets, namely knowledge integration capability and intellectual capital, improve the organizational performance of village financial institutions (LPDs) in Bali, Indonesia. The results support the intellectual capital theory, which argues that an organization's capacity to enhance performance is contingent upon the efficiency with which it employs its knowledge-based assets. The existence of superior human resources with characteristics such as competence, skills, experience, and uniqueness that other companies do not possess greatly influences the improvement of organizational performance. Likewise, the organizational culture and well-established cooperative relationships help organizations improve their performance. According to the findings, knowledge resources enhance organizational performance by facilitating knowledge integration. Knowledge is a crucial organizational resource for surviving in a changing environment.

However, this knowledge will not provide maximum benefits if the organization does not have the ability to identify and manage it properly.

This study may provide a more comprehensive understanding to complement empirical research on the relationship between intellectual capital and organizational performance by using knowledge integration abilities as a mediator. Practically, this investigation can be used by LPDs to consider the significance of paying attention to existing knowledge resources. LPDs must start investing in knowledge resources and developing these knowledge resources to provide maximum benefits for LPD's progress.

AUTHOR CONTRIBUTIONS

Conceptualization: Ni Made Rai Juniariani, Noorlailie Soewarno, Alfa Rahmiati.
Data curation: Ni Made Rai Juniariani, Noorlailie Soewarno, Alfa Rahmiati.
Formal analysis: Ni Made Rai Juniariani, Noorlailie Soewarno, Alfa Rahmiati.
Investigation: Ni Made Rai Juniariani.
Methodology: Ni Made Rai Juniariani.
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Visualization: Ni Made Rai Juniariani, Noorlailie Soewarno, Alfa Rahmiati.
Writing – original draft: Ni Made Rai Juniariani.
Writing – review & editing: Noorlailie Soewarno, Alfa Rahmiati.

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