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Intellectual capital on organizational performance through the mediation of intrinsic motivation in Indonesian universities

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Abstract

Research aims: This research examines how intellectual capital affects organizational performance in Indonesian universities, focusing on the mediating role of intrinsic motivation. It highlights the importance of intrinsic motivation in enhancing the influence of human capital, structural capital, and relational capital in improving organizational effectiveness.

Design/Methodology/Approach: This quantitative study used survey data from 123 employees at top-ranked Indonesian universities by webometrics, selected via simple random sampling. The data were analyzed using variance-based structural equation modeling (SEM) with a Partial Least Squares (PLS) approach.

Research findings: The findings of this study revealed a significant positive relationship between intellectual capital and organizational performance in Indonesian universities after being fully mediated by intrinsic motivation.

Theoretical contribution/Originality: The novelty of this research exhibits how intrinsic motivation from well-organized Self Determination Theory (SDT) can mediate the influence of intellectual capital on organizational performance in higher education. The results of this study provide valuable insights for increasing intrinsic motivation in strengthening intellectual capital.

Practitioner/Policy implication: This study's findings suggest that Indonesian university management and policymakers should focus on optimizing intellectual capital by fostering intrinsic motivation to enhance organizational performance.

Research limitation/Implication: The limitation of this research is that there are no differences between private and state universities in examining the effect of intrinsic capital on organizational performance. It also only considers intrinsic motivation, ignoring extrinsic motivation. Future research should include extrinsic motivation and explore other intellectual capital indicators for a comprehensive understanding of organizational performance in Indonesian higher education.

Keywords: Intellectual Capital; Organizational Performance; Intrinsic Motivation; Indonesian Universities



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Introduction

Every organization strives to achieve effective and superior performance, fulfilling the requirements of their stakeholders and customers in order to ensure sustainable growth (Almatrooshi et al., 2016). Entering the era of a knowledge-based economy, intellectual capital takes a vital role in the organizational development and growth of various institutions that

depend on a prominent level of knowledge, competence, and expertise. Intellectual capital is needed to give them a big competitive advantage (Hama & Cavusoglu, 2023). Thus, it is clear that intellectual capital is a major asset for organizational performance in higher education (Secundo et al., 2018).

Intellectual capital generates competitive advantages that represent accumulated knowledge, such as the capacity to resolve issues and generate ideas for new innovations (Mehralian et al., 2020). However, merely accumulating intellectual capital is insufficient to attain the desired outcomes, as there are organizations that have intellectual capital, but it is still not reflected in their performance (Rehman et al., 2022; Weqar et al., 2021). Intellectual capital enhances the value of intangible assets through the ability and application of knowledge, but it is the organization members or the employees who generate and utilize it (Alvino et al., 2021). This issue affects most organizations, especially higher education institutions, as they rely heavily on the accumulation of intellectual capital to create value and achieve sustainable competitive advantage (Quintero-Quintero et al., 2021).

Two main theories are relevant to understanding the concept of intellectual capital. The Knowledge-Based View (KBV) theory emphasizes that organizational resources derived from knowledge are crucial for establishing sustainable competitive advantage. This is because they promote cost efficiency and encourage more innovative and creative performance dynamics, thereby enhancing overall organizational performance (Kengatharan, 2019). However, this overlooks the fact that resources are managed and implemented by employees within the organization, highlighting the crucial role of human behavior. Hence, the Self-Determination Theory (SDT) expressed by Ryan and Deci (2017) enriches this understanding by underscoring the importance of having internal employee motivation. It is, thus, important for employees to feel competent about themselves so that this internal motivation can reduce negative aspects and increase positive aspects that help improve organizational performance.

In some previous studies during the 20th century, production equipment was regarded as the primary asset of a company (Alvino et al., 2021; Efendi & Rahardja, 2021; Quintero-Quintero et al., 2021; Ulum et al., 2019). Nevertheless, as people entered the 21st century, human resources and productivity have emerged as the most valuable assets of an organization. In other words, knowledge enhances organizational productivity (Quintero-Quintero et al., 2021). In this regard, the advancement and application of intellectual capital rely on organizational members not only possessing knowledge but also having the willingness to use it as well as disseminate it (Alvino et al., 2021). This issue is also related to some research revealed by Quintero-Quintero et al. (2021), demonstrating that most organizations, especially universities, rely more on accumulating intellectual models to generate value and attain sustainable competitive advantage. In comparison, research by Nicolò et al. (2021) revealed that intellectual capital also affects the performance of universities to meet the goals of an organization.

Therefore, this study measures the effect of intellectual capital on organizational performance in Indonesian universities through the mediating variable, namely intrinsic motivation. In the context of SDT (Self-Determination Theory), intrinsic motivation arises

from within the individual himself, without any external encouragement (Ryan & Deci, 2017). Intrinsic motivation can reduce negative aspects and enhance positive ones, thereby helping to improve productivity and performance (Ridha et al., 2022). It was also stated by Efendi and Rahardja (2021) that motivation originating from a person can have a positive or negative impact on higher education performance; in this case, universities must have factors that support the emergence of intrinsic motivation in lecturers. The selection of universities in Indonesia as a sample refers to previous research (Ulum et al., 2019). This will also contribute to a greater understanding of the advantages of intrinsic motivation in organizational performance, an area that warrants further research and how it is implemented in Indonesian universities (Efendi & Rahardja, 2021; Hama & Cavusoglu, 2023; Liu, 2021; Scales et al., 2020). Practically, the findings of this study suggest that Indonesian university management and policymakers should prioritize enhancing intellectual capital by fostering intrinsic motivation among staff and faculty. By focusing on this area, Indonesian universities can leverage intellectual capital more effectively, ultimately leading to improved organizational performance and a more competitive academic environment. In theoretical construction, the results of this study also provide valuable insights for increasing intrinsic motivation in strengthening intellectual capital.

Literature Review and Hypothesis Development

Knowledge-Based View (KBV) Theory

Knowledge-Based View (KBV) is an extension of the Resource-Based View (RBV) of a company, offering a robust theoretical foundation for supporting intellectual capital (Irawan et al., 2019). The Knowledge-Based View (KBV) on Kianto et al. (2018) highlights four key characteristics of knowledge that are important when measuring intellectual capital: its multidimensionality, the role of human agency and action, contextuality, and its temporal and dynamic nature. Intellectual capital consists of multiple dimensions, such as human capital, structural capital, and relational capital, each of which makes different contributions to an organization's value and effectiveness. Human agency and action emphasize the critical role that individuals play in creating, sharing, and utilizing knowledge, making human interactions central to the development and application of intellectual capital. In addition, contextuality refers to how an organization's specific environment, culture, and circumstances influence the creation and utilization of knowledge. Furthermore, knowledge is dynamic and evolves over time, requiring ongoing development and adaptation to changing conditions and new information. These characteristics underscore the complexity involved in measuring and managing intellectual capital in organizations.

Self-Determination Theory (SDT)

SDT is a theory expressed by Ryan and Deci (2017). SDT discusses intrinsic motivation that is driven or obtained from a person's inner will as a result of the fulfillment of innate psychological well-being, such as competence, autonomy, and other interests that serve

as the basic construction of a person's intrinsic motivation. SDT also explains that everyone can do something independently in developing, seeking, and applying new ideas or knowledge that can improve one's performance in their environment. For several years, SDT has discussed the relationship between motivation and two primary aspects, namely performance and well-being within organizations. This is because SDT explains numerous factors, such as managerial style to salary adjustments, which can support a person's autonomy and competence in the workplace.

Hypotheses Development

Based on KBV theory, intellectual capital is complex and consists of various dimensions, such as human capital, structural capital, and relational capital. Each dimension contributes differently to the overall value and effectiveness of an organization (Kianto et al., 2018). These dimensions serve as a resource that enhances employee motivation and affects organizational performance, as stated by Li et al. (2022), as heightened employee motivation correlates with improved work performance (Degbey & Pelto, 2021). Employees experience motivation when they are equipped with the resources needed to enhance their work (Deci et al., 2017). This awareness of their capabilities becomes a source of internal satisfaction and motivates them to utilize these resources in their work to achieve goals (Bhandari et al., 2020). Therefore, human capital, relational capital, and structural capital can be concluded that having the necessary power resources can stimulate employees' desire to use them. Therefore, the following hypotheses are put forward:

H_{1a}: Human capital has a positive relationship with intrinsic motivation.

H_{1b}: Relational capital has a positive relationship with intrinsic motivation.

H_{1c}: Structural capital has a positive relationship with intrinsic motivation.

According to Self-Determination Theory (SDT) by Ryan and Deci (2017), intrinsic motivation is crucial in the workplace. When an individual is intrinsically motivated, they tend to deliver high-quality performance, which significantly benefits their organization. Intrinsic motivation enhances both the quantity and quality of work output (Garbers & Kondradt, 2014). Kuvaas et al. (2017) study discovered a direct correlation between intrinsic motivation and employee performance. Ridha et al. (2022) similarly identified a direct link between intrinsic motivation and organizational performance in higher education. Motivation is crucially linked to employee dedication to the organizational goals and culture (Garbers and Kondradt (2014), as well as the capability to execute tasks effectively within an environment conducive to personal growth (Shoraj & Llaci, 2015). Furthermore, motivation fosters initiative, creativity, and development opportunities for employees, contributing to overall performance enhancement (Ryan & Deci, 2017) through heightened organizational commitment (Kuvaas et al., 2017). Thus, the subsequent hypothesis is stated:

H₂: Intrinsic motivation positively influences organizational performance in Indonesian universities.

Several studies have demonstrated the beneficial influence of human, relational, and structural dimensions of intellectual capital on organizational performance. The contribution of intellectual capital to an organization's performance will differ according to the type of industry (Benny Kuryanto, 2008). According to Kianto et al. (2018), human capital assumes that knowledge brings greater cognitive skills to individuals, thereby encouraging their productivity and efficiency potential to develop all activities that support organizational performance. Relational capital, on the other hand, focuses on individuals' capacity to derive benefits from their social networks, interpersonal relationships, and participation in organizations (Feli'cio & Couto, 2014). Meanwhile, structural capital provides efficient and quality services, resulting in better institutional performance (Hashima et al., 2015). Based on the three capitals, intellectual capital is an important tool for improving the performance of lecturer relations in higher education and a highly effective approach to enhancing the overall strength of a university (Zhang & Phromphitakkul, 2021). The existence of intellectual capital in universities can increase the credibility of achieving the university's vision and improve the image and reputation of universities, especially in Indonesia (Ulum & Fitri Wijayanti, 2019). Hence, the following hypotheses are proposed:

H_{3a}: There is a positive effect between human capital and organizational performance in Indonesian universities.

H_{3b}: There is a positive effect between relational capital and organizational performance in Indonesian universities.

H_{3c}: There is a positive effect between structural capital and organizational performance in Indonesian universities.

In an organization, motivation supports employees internally because it means considerable organizational commitment and makes them improve their professionalism by being more creative in carrying out their work (Liu, 2021). Therefore, motivation not only enables increased knowledge use but also, in a positive way, affects organizational performance (Jobira & Mohammed, 2021). As stated by Efendi and Rahardja (2021), intrinsic motivation can have a positive or negative influence on organizational performance, for example, in private universities. SDT theory by Ryan and Deci (2017) has far-reaching implications for organizations, and a number of research reports on the construct of SDT in work organizations have appeared in the empirical literature recently. Cooman et al. (2013) also mentioned that most of the research based on SDT uses motivation indicators as mediating variables between independent and dependent variables. Consequently, the following hypotheses are derived:

H_{4a}: Intrinsic motivation mediates the correlation between human capital and organizational performance in Indonesian universities.

H_{4b}: Intrinsic motivation mediates the correlation between relational capital and organizational performance in Indonesian universities.

H_{4c}: Intrinsic motivation mediates the correlation between structural capital and organizational performance in Indonesian universities.

The relationship between variables that are hypothesized is illustrated in Figure 1.

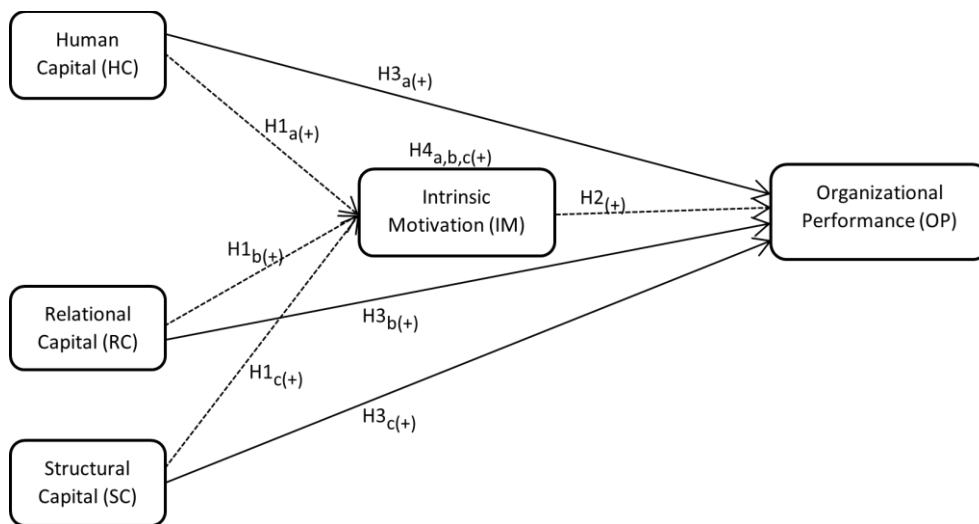


Figure 1 Research Model

Research Method

Sample

The population was taken or represented by lectures working in higher education institutions in Indonesia, i.e., lecturers and college professors who engaged in planning and administrative duties. This is because the researchers consider them to have the requisite knowledge to address the inquiries. Then, the sample was determined by simple random sampling, a technique of selecting from a group in a way that ensures every individual in the group has an equal chance of being selected. Questionnaires were sent via email, and data collection took place between March 2024 and April 2024. The overall sample amounted to 123 respondents from several universities in Indonesia that are included in the Top 100 in the 2024 *Web of University ranking* (webometrics).

Variable Operationalization

Based on the previously described phenomenon and problem formulation, the following variables were used in this study: Organizational performance was the dependent variable in this study. Organizational performance is a measure of organizational progress and development. Organizational performance in higher education can be measured by considering organizational goals, student satisfaction, university feedback, development of curriculum, and rankings of research. There are five indicators of questions that measure organizational performance variables, as presented in Table 1. Meanwhile, the independent variable in this study was Intellectual capital, encompassing three components: human capital, structural capital, and relational capital. Intellectual capital is the company's ability to create value efficiently by utilizing the three components mentioned. These three components were measured based on five indicators of human capital, seven indicators of structural capital, and five indicators of relational capital. The indicators are detailed in Table 1. In this study, intrinsic motivation was the mediating variable. Intrinsic motivation was measured as the level of individual desire to perform tasks or activities due to personal satisfaction or intrinsic interests. In this study, six indicators of questions measured intrinsic motivation as a mediating variable, as shown in Table 1.

Table 1 Disclosure items

| Disclosure Items | Sources |
|---|---------------------|
| Organizational Performance | |
| • Customer satisfaction with our college is better than other colleges. | Iqbal et al. (2019) |
| • Our college's curriculum development is better compared to other colleges. | |
| • Our college's responsiveness compares favorably with other colleges. | |
| • Our college's research productivity compares favorably with other colleges. | |
| • Our college's research ranking compares favorably with other colleges. | |
| Human Capital | |
| • Employees possess the requisite work experience to effectively carry out their responsibilities at our college. | Iqbal et al. (2019) |
| • Our college staff exhibit strong professional skills relevant to their roles and functions. | |
| • Our college offers comprehensive and well-structured training programs. | |
| • Employees at our college frequently generate new ideas and knowledge. | |
| • The employees at our college demonstrate high levels of creativity. | |
| Structural Capital | |
| • Our college's operational procedures are highly efficient. | Iqbal et al. (2019) |
| • Our college responds and adapts to changes. | |
| • Our college has an easily accessible information system. | |
| • Our college's systems and procedures foster innovation. | |
| • The culture and environment at our college are flexible and conducive. | |
| • Our college prioritizes investment in new market development. | |
| • Strong support is established across the various faculties and study programs of our college. | |

Table 1 Disclosure items (cont')

| Disclosure Items | Sources |
|--|----------------------|
| Relational Capital | |
| <ul style="list-style-type: none"> • Our college finds and solves problems through close communication and effective collaboration. | Iqbal et al. (2019) |
| <ul style="list-style-type: none"> • Our college takes great care in proper interaction with its stakeholders. | |
| <ul style="list-style-type: none"> • Our college maintains long-term relationships with students and alums. | |
| <ul style="list-style-type: none"> • Our colleges have stable and good relationships with strategic partners. | |
| Intrinsic Motivation | |
| <ul style="list-style-type: none"> • The tasks I perform at work are inherently motivating. | Kuvaas et al. (2017) |
| <ul style="list-style-type: none"> • The tasks I carry out at work are highly enjoyable. | |
| <ul style="list-style-type: none"> • My work holds significant meaning for me. | |
| <ul style="list-style-type: none"> • My work is very interesting. | |
| <ul style="list-style-type: none"> • My job is so attractive that it motivates me. | |
| <ul style="list-style-type: none"> • At times, I become so immersed in my work that I almost forget about other things around me. | |

Data for this research were gathered using questionnaires based on the indicators mentioned in Tables 1, 2, and 3, which were distributed in person to 123 employees, lecturers, and college professors from several universities in Indonesia that are included in the Top 100 in the 2024 *Web of University ranking* (webometrics). Out of 123 questionnaires distributed, 122 were returned and completed, making these 122 respondents the sample for this study. Responses were measured using a 7-point Likert scale, with 1 indicating strongly disagree and 7 indicating strongly agree. According to Lewis (1993), the 7-point Likert scale was chosen due to its stronger correlation level compared to the 5-point Likert scale.

Data Analysis

The influence of intellectual capital on organizational performance through intrinsic motivation was analyzed using variance-based SEM to determine construct scores as linear combinations of observations maximized and to validate hypotheses related to the relationship between constructs (Henseler, 2017). The structural equation model (SEM) was conducted with the Partial Least Square (PLS) 3.0 software. Then, the structural model was evaluated to measure the relationship between all variables of the theoretical model and its adjustment (Waluyo, 2016). According to Ghazali and Latan (2015), PLS is a powerful analysis method because it does not assume flow data with certain scale measurements. Before testing reliability, validity, and hypothesis, a common method bias was carried out using a collinearity test.

Result and Discussion

Results

Common method bias in this research can be seen from the collinearity test carried out on each indicator presented, and this is aimed at artificially increasing the level of

convergent validity of a model (Kock, 2015). The results of the collinearity test are shown in Table 2. Based on the VIF value, indicators with a VIF value <3.3 are considered to have no collinearity issues and are free of common method bias (Kock, 2015). Meanwhile, indicators with a VIF value on the threshold of 3.3 to 5 are considered indicative of collinearity for the arguments but with the caveat that more research is needed in the future and also as an indication that a model may be contaminated by common method bias (Kock & Lynn, 2012). Several indicators with a VIF value above 5 had to be deleted, and the rest remained used in this research. Table 2 displays that all indicators already fulfilled the requirements.

Table 2 Collinearity Statistics (VIF)

| Variables | Indicators | VIF |
|----------------------------|------------|-------|
| Human Capital | HC 1 | 1.118 |
| | HC 2 | 1.990 |
| | HC 4 | 1.883 |
| Organizational Performance | OP 1 | 3.303 |
| | OP 2 | 1.407 |
| | OP 3 | 3.698 |
| | OP 5 | 1.179 |
| Intrinsic Motivation | IM 2 | 1.348 |
| | IM 4 | 1.842 |
| | IM 5 | 2.066 |
| Structural Capital | RC 4 | 1.137 |
| | SC 1 | 2.478 |
| | SC 2 | 2.116 |
| | SC 6 | 1.724 |
| | SC 7 | 2.027 |

Based on Fuller et al. (2016), Harman’s single-factor test is most commonly used to detect the level of CMV bias under conditions commonly found in survey-based research; if the cumulative common method variance (CMV) is below 70%, the data can be considered relatively free from significant common method variance concerns. As indicated in Table 3, the result of Harman’s single-factor test only explained 38.03% of the inconsistencies, which was much less than 70%. From these results, common method variance was not a significant problem in this study.

Table 3 Harman’s Single Factor Test

| Initial Eigenvalues | | |
|-------------------------------------|---------------|--------------|
| Total | % of Variance | Cumulative % |
| 6.611 | 41.322 | 41.322 |
| Extraction Sums of Squared Loadings | | |
| Total | % of Variance | Cumulative % |
| 6.085 | 38.030 | 38.030 |

As shown in Table 4, this study had a sample of 74 men (61%) and 48 women (39%). The majority of respondents, comprising 48%, were between the ages of 41 and 50. Additionally, 32% of respondents fell within the age range of 20 to 30. A smaller percentage, 16%, were above the age of 50. Only 3% of respondents were between the

ages of 4 and 39. Judging from the type of university, 99 respondents (81%) worked at state universities, and 23 respondents (19%) worked at private universities.

Table 4 Respondent Demographics

| Characteristics | Total | (%) |
|------------------------|-------|-----|
| Gender | | |
| Men | 74 | 61 |
| Women | 48 | 39 |
| Age | | |
| 20-30 Years | 4 | 3 |
| 31-40 Years | 39 | 32 |
| 41-50 Years | 59 | 48 |
| > 50 Years | 20 | 16 |
| Type of College | | |
| State Universities | 99 | 81 |
| Private Universities | 23 | 19 |

Table 5 reveals the testing of the structural model or inner model to see the correlation between the construct, as well as ensuring that each indicator is valid and reliable. As a measure of convergent validity, the analysis was conducted on indicators with significant factor loadings exceeding 0.5 (Ghozali, 2008). The reliability test in this study was conducted by examining the composite reliability value. A construct is considered reliable if it produces a composite reliability value greater than 0.70 (Ghozali, 2008). In addition, the Average Variance Extracted (AVE) must also be taken into account, with an AVE value greater than 0.50. Indicators that did not meet the requirements had to be eliminated. For the rest, in Table 5, all indicators had an outer load value >0.5, AVE >0.5, and reliability value >0.7. Therefore, it can be said that the construct and each research indicator met the criteria.

Table 5 Loading Factor, AVE, and Reliability Composite Values

| Variables | Indicator | Loading Factor Value | AVE | Composite Values |
|----------------------------|-----------|----------------------|-------|------------------|
| Human Capital | HC 1 | 0.643 | 0.613 | 0.824 |
| | HC 2 | 0.823 | | |
| | HC 4 | 0.864 | | |
| Structural Capital | SC 1 | 0.890 | 0.661 | 0.886 |
| | SC 2 | 0.848 | | |
| | SC 6 | 0.696 | | |
| | SC 7 | 0.805 | | |
| Relational Capital | RC 3 | 0.609 | 0.642 | 0.774 |
| | RC 4 | 0.955 | | |
| Intrinsic Motivation | IM 2 | 0.817 | 0.679 | 0.864 |
| | IM 4 | 0.806 | | |
| | IM 5 | 0.848 | | |
| Organizational Performance | OP 1 | 0.887 | 0.609 | 0.857 |
| | OP 2 | 0.728 | | |
| | OP 3 | 0.909 | | |
| | OP 5 | 0.542 | | |

In Table 6, the r-square of the independent variables contained in this study is presented. The organizational performance variable had an r-square value of 0.539, indicating that this factor had a significant contribution of 54% in explaining variations in organizational performance. Meanwhile, the intrinsic motivation variable yielded an r-square value of 0.622, which means that the human capital, structural capital, and relational capital variables could explain the intrinsic motivation link that could mediate the effect of the dependent variable on organizational performance by 62%.

Table 6 R-Square

| Variables | R-Square |
|----------------------------|----------|
| Organizational Performance | 0.539 |
| Intrinsic Motivation | 0.622 |

Table 7 demonstrates the results of hypothesis testing, both the coefficients between variables and how direct and indirect effects between variables. Human capital did not have a significant effect on organizational performance because p-values > 0.05 indicate insignificance. This study also revealed that human capital had a positive yet insignificant impact on organizational performance, but human capital had a significant positive effect on intrinsic motivation, and intrinsic motivation could mediate human capital on organizational performance intentions. While relational capital had a significant positive effect on organizational performance and intrinsic motivation, as seen from its effect, intrinsic motivation could mediate the effect of relational capital on organizational performance. However, the direct effect of relational capital on organizational performance was more significant than the mediating role of intrinsic motivation seen from the t-test and the resulting p-values. Meanwhile, structural capital had a positive but insignificant effect on organizational performance but had a direct significant effect on intrinsic motivation. Intrinsic motivation, therefore, could mediate the effect of structural capital on organizational performance. The significance of this relationship could be seen from the t-values > t-table and p-value < 0.05.

Table 7 Path Coefficients between Variables and Significance Tests

| Hypothesis | Original Sample | T-Statistics | P-Values | Conclusion |
|--|-----------------|--------------|----------|-----------------|
| Direct Effect | | | | |
| HC → Organizational Performance | 0.086 | 0.626 | 0.532 | Not Supported |
| HC → Intrinsic Motivation | 0.428 | 5.699 | 0.000 | Supported |
| Intrinsic Motivation → Organizational Performance | 0.434 | 3.253 | 0.001 | Supported |
| RC → Organizational Performance | 0.596 | 6.187 | 0.000 | Supported |
| RC → Intrinsic Motivation | -0.230 | 3.346 | 0.001 | Supported |
| SC → Organizational Performance | -0.175 | 1.299 | 0.194 | Not Supported |
| SC → Intrinsic Motivation | 0.500 | 6.601 | 0.000 | Supported |
| Indirect Effect | | | | |
| HC → Intrinsic Motivation → Organizational Performance | 0.186 | 2.963 | 0.003 | Fully Mediation |
| RC → Intrinsic Motivation → Organizational Performance | -0.100 | 2.050 | 0.041 | Fully Mediation |
| SC → Intrinsic Motivation → Organizational Performance | 0.217 | 2.740 | 0.006 | Fully Mediation |

The research results also uncovered a direct correlation between intrinsic motivation and organizational performance in Indonesian universities, in accordance with previous research conducted by Iqbal et al. (2023). Over the decades, many studies have shown that motivation can encourage and provide enthusiasm that motivates employees to continue to be enthusiastic at work so that organizational performance increases (Abbas, 2013; Iqbal et al., 2023; Ridha et al., 2022). Kuvaas et al. (2017) summarized that organizations must make every effort to enhance the intrinsic motivation of their employees. This also applies to universities in Indonesia because intrinsic motivation is one of the most important factors in the educational environment (Ridha et al., 2022).

Discussion

Human capital was found to have a positive yet insignificant impact on organizational performance in Indonesian universities, but human capital coupled with good intrinsic motivation made organizational performance in Indonesian universities better. This result has proven that intrinsic motivation enhances various factors that maximize employee contributions more effectively (Kuvaas et al. (2017), especially in Indonesian universities. In addition, employees who are intrinsically motivated have higher commitment and dedication to their work, so they provide more engaging and meaningful learning experiences, which can lead to better student performance, higher retention rates, and increased university rates. Intrinsic motivation encourages employees to take initiative and be creative (Abbas, 2013). By mediating intrinsic motivation, universities in Indonesia can more effectively harness the human capital of their faculty and staff. This leads to improved educational quality and enhanced research capabilities, all of which contribute to the institution's overall performance and success.

Moreover, relational capital helps build employee trust and loyalty. Relational capital was shown to positively affect university performance, and these findings are consistent with research conducted by Sofyani and Khairunisa (2021). Relational capital coupled with intrinsic motivation made employees more dedicated to teaching, research, and services to students and alumni. Employees and lecturers are more eager to build and maintain positive relationships with external and internal stakeholders. In addition, intrinsically motivated employees are more likely to engage in activities that improve students' academic and non-academic performance, such as advising, counseling, and various other activities. Through close communication and effective collaboration, relational capital enables better collaboration that results in innovation, operational efficiency, and improved quality of university services. Building and maintaining relationships with various stakeholders, including students, alumni, and partners, should be a priority to improve employee dedication and student academic outcomes.

Structural capital also had a positive but insignificant effect on organizational performance in Indonesian universities. Nevertheless, the effect of structural capital on organizational performance in higher education could be strengthened by the mediation of intrinsic motivation. Intrinsically motivated employees work more efficiently and make the most of administrative systems, adapt to new processes, and look for ways to improve operational efficiency (Degbey & Pelto, 2021). Systems and procedures that support employee innovation and the presence of intrinsic motivation encourage employees to

make optimal use of existing structures and contribute to a positive organizational culture. The synergy between structural capital and intrinsic motivation leads to enhanced institutional performance, improved educational quality, and better research outcomes.

As seen in the results, this study unveiled that intrinsic motivation could serve as a full mediator between Intellectual capital and organizational performance in Indonesian universities by enhancing the positive effects of intellectual capital models (human capital, relational capital, structural capital) on performance outcomes. These results are relevant to the study of Ridha et al. (2022); Shoraj and Llaci (2015), stating that intrinsic motivation can reduce negative aspects and enhance positive ones, thereby helping to improve productivity and performance, especially in universities. This result also straightens SDT by Ryan and Deci (2017), proposing that intrinsic motivation can be a mediator variable between the independent variable and the dependent variable. Apart from that, this theory also assumes that when people can identify the value and importance of their work, they will show better quality work motivation. Additionally, according to the Knowledge-Based View Theory of Kianto et al. (2018), intellectual capital needs to be continuously evolved and adjusted in response to changing conditions and new information. This dynamic quality necessitates ongoing focus and management. Therefore, the impact of intellectual capital on organizational performance in universities in Indonesia could be mediated by intrinsic motivation, as intellectual capital was still not utilized optimally.

Conclusion

This study presents empirical evidence on the effect of intellectual capital consisting of human capital, relational capital, and structural capital on organizational performance mediated by intrinsic motivation. Intrinsic motivation fully mediated the influence of intellectual capital on the organizational performance of universities in Indonesia. This denotes that if human, relational, and structural capital are accompanied by good intrinsic motivation, it will make university performance much better.

Based on the research findings, this study reinforces KBV's theory that intellectual capital needs to continue to be developed, and intrinsic motivation from SDT theory is a key element in improving the influence of intellectual capital on the organizational performance of universities in Indonesia. Then, universities in Indonesia must develop strategies to improve and optimize intellectual capital properly to increase employee dedication and enhance overall performance. Some practical steps include providing regular training and development programs for lecturers and staff to keep their skills and knowledge up to date, ensuring that administrative systems support the efficient functioning of the institution, and building strong networks with staff and alums. Additionally, developing policies and practices that increase job satisfaction and intrinsic motivation, such as providing meaningful work, autonomy, and opportunities for professional growth, can be conducted.

The finding that limits this research is that it did not differentiate between various types of universities to see whether there are variations in the influence of intrinsic capital on organizational performance in both private and state universities. Apart from that, the mediating variable used from SDT was only intrinsic motivation. Accordingly, future research needs to include extrinsic motivation as a mediating variable to provide a comprehensive understanding of SDT. In addition, further research can explore other intellectual capital indicators to provide deeper insight into the factors that drive organizational performance in higher education in Indonesia. By understanding these implications, universities in Indonesia can take strategic steps that can improve overall organizational performance, ensure that all intellectual capital is optimally utilized, and create a work environment that supports the growth of intrinsic motivation.

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