

Research Article

Intellectual Capital and Company Performance with Innovation as Mediation Variables

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Abstract.

This study aims to examine the correlation between intellectual capital, innovation, and corporate performance in micro, small, and medium enterprises (MSMEs) located in East Java, Indonesia. The proxy for each variable uses a Likert scale measurement by distributing questionnaires to MSME actors. The research sample consisted of 125 MSME actors who completed a returned questionnaire, whereas the study population consisted of 500 MSME company players. The PLS 3 software program is used in the quantitative descriptive data analysis technique. The findings demonstrated that innovation has a major impact on business success and that intellectual capital has a considerable impact on both. Additionally, innovation mediates the relationship between intellectual capital and business performance. Increased innovation will eventually lead to improved company performance if the intellectual capital developed by MSME business actors is more focused on innovation. Specifically the speed and quality of innovation, such as creating new and high-quality products, high-quality services, and problem-solving strategies that are also more accurate than those of other companies. This research contributes to the implications of intellectual capital in the business world which can be carried out early on, in the sense that even though companies are on a micro scale, MSME business actors can manage intellectual capital well in creating company performance.

Keywords: intellectual capital, innovation, company performance, MSMEs

1. Introduction

Organisations function within a fiercely competitive and ever-changing landscape during the digital age; in such circumstances, human resources that are well-informed, inventive, and progressive are critical to the survival and competitive edge of such organisations. Startups continue to demonstrate diverse forms of development despite the fact that they are still surrounded by the shadow of the Covid-19 pandemic. Micro, Small, and Medium Enterprises (MSMEs) are compelled to innovate in order to maintain

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business continuity and enhance performance in the chaotic and competitive business environment of the present day. “The creation of new knowledge and ideas to facilitate new business outcomes” is what innovation entails [1]. In the contemporary economy, which is predicated on information and knowledge, the innovation process is extraordinarily reliant on intellectual capital and other proprietary internal and external capabilities [2].

In light of the expansion of a knowledge-based economy that is progressively more robust, intellectual capital has garnered considerable interest from academics and practitioners [2]. Intellectual capital is regarded as a more significant determinant of a company’s performance in comparison to conventional tangible resources [3]. Multiple studies have demonstrated that intellectual capital and its constituents have a direct impact on the performance of an organization, particularly in terms of financial performance [4, 5]. Conversely, alternative research has cast doubt on the direct correlation, contending that a company cannot ensure exceptional performance solely by possessing intellectual capital, given the unpredictability of environmental changes. Instead, intermediate results suggest that intellectual capital may exert an indirect influence on financial performance [6, 7].

Previous research has operationalized the notion of intellectual capital in a variety of ways; some have identified human capital, structural capital, and relational capital [8] as sub-constructions or dimensions of the concept, while others have developed a single construct of intellectual capital [7]. Given the widespread recognition that intellectual capital serves as the fundamental basis for a company’s competitive advantage [9], it is crucial to examine the precise impacts of individual components of intellectual capital on the overall performance of the organization.

Diverse mediators, including increased knowledge, knowledge utilization capabilities, and dynamic capabilities, have been identified in recent research as intermediaries between components of intellectual capital and firm performance [10]. Further research has revealed that intellectual capital and its constituents exhibit a strong correlation not only with the efficacy of an organization but also with innovation. Moreover, numerous research studies have demonstrated that innovation positively correlates with enhanced organizational performance [10]. As a result, it can be deduced that innovation may serve as an additional significant mediator between intellectual capital and firm performance [8], that the relationship between intellectual capital and company performance can

also be mediated by the speed and quality of innovation [11], and that innovation performance can also mediate the relationship between intellectual capital and company performance [12].

To obtain a competitive advantage, innovation is the capacity to modify or develop something novel in the form of products, services, work processes, or management procedures [12]. According to prior research, innovation results from a knowledge-driven process that is impacted by the strategic decisions of the organization [13], behavioral characteristics [13], and technology implementation [14]. In a business environment that is becoming more dynamic and complex, the two primary attributes of innovation are rapidity and quality. Research has established a strong correlation between innovation and corporate performance [10]. The higher a company's proficiency in innovation, the greater its likelihood of satisfying market demands and achieving corporate goals [15].

In addition, the viewpoint of human resources is crucial in bolstering the impact of intellectual capital on firm performance. The capacity to generate knowledge is of great importance in the banking sector, and the performance of knowledge creation has a substantial impact on the accumulation of human capital [7].

Previous researchers have identified a research gap in the literature regarding the relationship between intellectual capital, speed and quality of innovation, and company performance. To address this gap, this study aims to develop a theoretical framework that explores the mediating effect of speed and quality of innovation on the relationship between intellectual capital and company performance. This research replicates a previous study [11]. The distinction between these two research studies resides in the geographical location of the research subject. However, it is important to note that the variation in location and research subject does not necessarily eliminate the potential of obtaining different outcomes. In addition, researchers employed survey data obtained from Micro, Small, and Medium Enterprises. The purpose of this study is to empirically evaluate the hypothesis by examining the (MSMEs) in East Java Province, Indonesia. MSMEs perform an indispensable function and make a substantial contribution to Indonesia's economic growth through their production of creative products and inventions. There is a rapid and constantly changing environment that motivates MSMEs to consistently generate new ideas in order to survive in a competitive market. To be competitive, MSMEs must effectively leverage their intellectual capital to innovate rapidly and produce high-quality products or services. The rise of a robust knowledge-based economy has led to significant interest in intellectual capital from both professionals and scholars [11]. Intellectual capital is deemed a more crucial element

than conventional tangible resources in determining a company's success [2]. Several studies have demonstrated that intellectual capital and its constituent elements have a direct impact on firm success, particularly in terms of financial performance [4, 5, 11]. Nevertheless, alternative research has raised doubts about the immediate impact, arguing that a company's sole possession of intellectual capital does not ensure exceptional performance. This is because unforeseeable environmental shifts can hinder performance. However, it is worth noting that intellectual capital can indirectly influence financial performance by producing intermediate outcomes [6].

Past studies have operationalized the concept of intellectual capital in different ways. Some studies have created a single construct of intellectual capital, while others have identified different sub-constructions or dimensions of the concept, such as human capital, structural capital, and relational capital [8]. Given the widespread acceptance that intellectual capital is the fundamental basis for an organization's competitive advantage [16], The significance is in examining the precise impacts of individual components of intellectual capital on the performance of a company.

Recent studies have identified several factors that play a role in the relationship between intellectual capital and company success. These factors include enhanced knowledge, the ability to effectively use knowledge, and dynamic skills [9]. Follow-up research has discovered that intellectual capital and its individual elements are not only strongly correlated with company performance, but also intimately linked to innovation. Furthermore, numerous research on innovation have demonstrated a positive correlation between innovation and enhanced firm performance [17]. Thus, it can be inferred that innovation serves as a significant component that influences the impact of intellectual capital on company performance [8]. Additionally, the velocity and excellence of innovation can also operate as mediators in the connection between intellectual capital and firm performance [11], In addition to mediating intellectual capital with firm success, innovation performance can also play a role [12].

Innovation refers to the capacity to adjust or generate novel elements in the shape of products, services, labor practices, or management protocols in order to attain a competitive edge [12]. Prior research elucidates that innovation is the outcome of a knowledge-centric endeavor that is shaped by the strategic decisions made by the firm [13], behavioral characteristics [13], and technology implementation [14]. In the intricate and ever-evolving realm of business, the key attributes of innovation are speed and quality. Research has shown that innovation is closely linked to corporate performance

[10]. A company's proficiency in innovation directly correlates with its ability to fulfill market demands and achieve commercial goals [15].

In addition, the viewpoint of human resources is crucial in bolstering the impact of intellectual capital on firm performance. The capacity to generate knowledge is of great importance in the banking sector, and the performance of knowledge creation has a substantial impact on the accumulation of human capital [6].

This study aims to investigate the correlation between intellectual capital, the pace and quality of innovation, and company success in order to fill the research gap reported by earlier researchers. Extensive literature has examined this correlation, emphasizing the necessity for more focused investigations. Deriving inspiration from prior study conducted by [18]. The objective of this study is to enhance the discoveries made by earlier researchers through the introduction of a theoretical framework. This paradigm specifically elucidates the role of speed and quality of innovation as mediators in the relationship between intellectual capital and company success.

In contrast to Wang et al.'s research, this research shifts its focus to different locations and research objects. This recognizes that variations in these aspects may produce different results. To empirically test the proposed framework and hypotheses, the researchers collected survey data from Micro, Small and Medium Enterprises (MSMEs) in East Java Province, Indonesia. This region was chosen because of the large role of MSMEs in the country's economic growth. Given the dynamic environmental changes and competitive market scenario, MSMEs in East Java Province always face the need for innovation. Leveraging intellectual capital effectively has become critical for these companies to innovate quickly and maintain the quality of their products and services.

1.1. Intellectual capital and company performance

The intellectual capital perspective highlights the significance of knowledge in enabling firms to attain a competitive edge in the contemporary knowledge-based economy, beyond the importance of any other resource [19]. Human capital, one of the three components of intellectual capital, refers to the knowledge, skills, attitudes, competence, ingenuity, commitment, wisdom, and experience possessed by people inside a company. This combination of attributes cannot be simply replicated or utilized by other companies [20]. Human capital is essential for companies to develop new products, enhance managerial and operational efficiency, and improve quality and productivity. This is because companies require individuals with expertise, experience,

and exceptional problem-solving skills, who can also make effective decisions under time constraints [20]. Moreover, the presence of skilled individuals can significantly enhance financial outcomes as they are capable of identifying more effective strategies to boost sales and minimize expenses. Thus, firms that prioritize enhancing their people resources are more likely to accomplish their organizational objectives.

Structural capital refers to intangible resources within an organization that people cannot take with them when they are not working or leaving the company. These resources include organizational procedures, databases, hardware, software, information systems, trademarks, pictures, copyrights, patents, and other similar assets [21]. Structural capital refers to a distinctive method of carrying out tasks and activities that is difficult for competitors to replicate. Companies can enhance the quality of their products or services and efficiently solve problems by investing in structural capital to improve work procedures or processes. Furthermore, structural capital can offer direction to prevent superfluous exertion in the process of generating value, so facilitating the attainment of desired levels of staff productivity and revenue growth [22].

Relational capital encompasses the collective understanding, convictions, and mutual expectations that are present in the interactive connections between an organization and its stakeholders [23]. These elements encompass employee and manager loyalty, valuable customers, dedication and mutual trust with strategic partners, and reputation within the company's local community [24]. Relational capital supports the interchange of knowledge and resources between firms and their stakeholders, promoting learning and collaboration to develop more effective solutions to issues. Having strong relational capital enables the organization to effectively engage with partners. Hence, relational capital will not only facilitate cost reduction and enhance quality, but it will also foster productivity, responsiveness, and ultimately, profitability [24].

H1. Intellectual Capital is positively related to company performance.

1.2. Intellectual capital and innovation

The relationship between human capital and innovation is significant, as the acquisition, integration, and utilization of human capital strongly impact business innovation, including the velocity and excellence of novel products and problem-solving approaches. Highly skilled employees possess the ability to collaborate efficiently, resulting in rapid generation of novel concepts and expediting the innovation process. Human capital enhances the rate of innovation in this scenario. Therefore, enhanced human resources

enable the investigation and incorporation of knowledge, which can produce significant contributions in endeavors to enhance. Engaging in research and development endeavors ultimately leads to higher quality of innovation [25].

Furthermore, structural capital encompasses all non-human knowledge assets within the firm, including institutional cognition, values and business procedures, and behavioral patterns [23]. It promotes innovation by establishing a shared framework for the gathering, storing, transferring, analyzing, and sharing of information within enterprises. Companies with superior structural capital are more adept at leveraging their current resources to expedite the pace of innovation and enhance the caliber of invention. Consequently, this positively impacts company performance [26].

Moreover, relational capital fosters a sense of unity and cooperation between the company and its stakeholders, thereby opening up possibilities for collaborative innovation. This enables organizations to involve stakeholders outside the company, such as suppliers or clients, in research and development efforts, thus promoting thorough analysis and continuous experimentation [2]. These activities can foster the advancement of novel products, services, and work processes, enhancing their quality and ultimately resulting in improved firm success. The hypothesis put out by the research is as follows:

H2. Intellectual Capital influences Innovation

1.3. Innovation on company performance

Researchers have recently become interested in the speed and quality of innovation [10, 27]. The speed and quality of innovation have a significant impact on company performance. The pace of innovation can be measured by the duration between the initial thought of an innovation and the ultimate commercialization of the products, services, and activities that are created [28]. Companies are increasingly concerned about the speed of innovation due to the intense competition in markets, which has led to a growing demand for the development of new products, services, processes, and business models. It is crucial for organizations to sustain a higher-than-average survival rate by implementing a first-mover strategy and promptly adapting to trends. The rapid pace of innovation demonstrates the company's capacity to expedite activities and tasks associated with innovation, enabling the swift completion of the research and development process from concept generation to real implementation. The presence of a rapid pace of innovation enables businesses to effectively address evolving client needs, resulting in increased profitability and a greater market presence [29]. Fast

invention speed is crucial for gaining market share as it enables the development of early segment and customer loyalty, while minimizing the risk of product obsolescence. In essence, a fast innovation speed results in quicker response times and improved firm performance [26].

Aside from the rate of innovation, the caliber of innovation also significantly impacts company performance. The quality of innovation pertains to the company's capacity to create novel products and processes, as well as outperforming other benchmarks in terms of innovation performance. The quality of innovation can be assessed using several factors, such as inventiveness, standardization, tolerance, and methodical procedures [30]. Companies that possess a high level of innovation quality are more likely to be efficient and achieve superior performance [31]. Moreover, the rate and excellence of innovation might act as a mediator in the connection between intellectual capital and the performance of a company [11]. Innovation relies heavily on the knowledge, skills, and experience possessed by an organization and utilized by its personnel [32].

Hence, there exists a direct correlation between relational capital and the velocity and excellence of innovation, as well as the overall performance of the company. The researcher posits the following hypothesis:

H2. Innovation affects the company's performance.

H3. Innovation mediates the relationship between intellectual capital and firm performance.

The objective of this study is to examine how intellectual capital affects firm performance in small and medium-sized enterprises (SMEs) in East Java, Indonesia. Additionally, the study will explore the role of innovation speed and quality as mediating variables, as well as the impact of knowledge management techniques as moderators. See Figure 1 below.

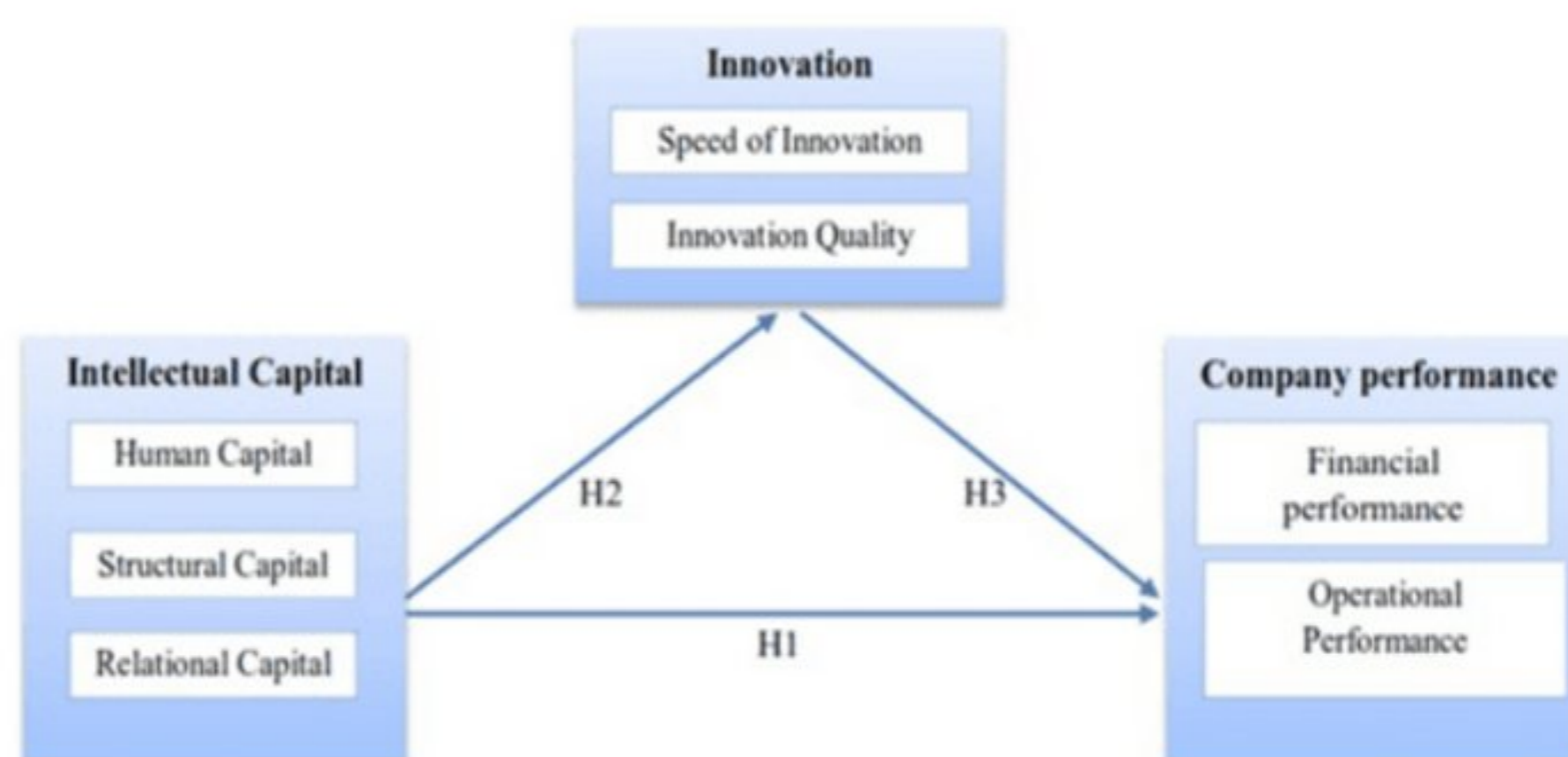


Figure 1: Research model.

2. Methods

The survey questionnaire is regarded as the most suitable quantitative method. Subsequently, the questionnaires were disseminated to the upper echelons of Micro, Small, and Medium Enterprises in Indonesia, with the anticipation that their extensive expertise within the organisation would enable them to comprehensively respond to all facets of the questionnaire. The study focused on small and medium firms because to the significant contribution of Micro, Small, and Medium firms (MSMEs) to Indonesia's total Gross Domestic Product (GDP), which amounts to 61.97%. According to data from the Ministry of Cooperatives and MSME, the number of MSME business sectors in Indonesia is projected to reach 64.19 million in 2021. These sectors are expected to contribute 61.97% to the gross domestic product (GDP), equivalent to IDR 8.6 trillion.

The data used are original data from direct information from small and medium firms in Indonesia. Based on the equation the target sample size is 500 SMEs. Thus, 500 questionnaires were issued in the hope that all of them would return. Respondent criteria in this study include MSME business actors who are still actively operational. Of the 500 questionnaires provided, 125 questionnaires were returned. The sample of this research is all individuals of the population. The data used in this research is primary data. So the sample in this study was 125.

After creating indicators to define each operational variable, the research instrument was condensed into a statement. Using a Likert interval scale with a score range of 1 to 5, each of these traits was given a score: a) Strongly Agree (SS) = 5, b) Agree (S) = 4, c) Less Agree (KS) = 3, d) Disagree (TS) = 2, e) Strongly Disagree (STS) = 1. Pilot testing was used to conduct validity and reliability testing [33]. The quantification of relational, structural, and human capital is derived from [34]. While the measurement of the pace and quality of innovation is adapted from SZ [10]. For company performance using measurement [17]. For the purpose of evaluating the efficacy of a business

In this study, data will be analyzed using a structural equation model (SEM). The structural equation model, or SEM, is a model that describes the relationship between latent variables; thus, it is also known as latent variable analysis or linear structural relationship [35]. This study's data was analyzed using multiple regression with the Smart PLS 3.0 application.

3. Results and Discussion

Micro, Small, and Medium Enterprises (MSMEs) are businesses owned by persons or entities that meet the MSME criteria outlined in Government Regulation No. 7 of 2021 on the Facilitation, Protection, and Empowerment of Cooperatives and Micro, Small, and Medium Enterprises. MSMEs play a vital role in the Indonesian economy; thus, improving MSMEs' performance will help to stabilize the Indonesian economy. The study provided questionnaires to 500 MSME actors in East Java, as well as the study population, but only 125 questionnaires were returned as samples. The companies that made up the research sample had the following characteristics. See table 1 below.

TABLE 1: Characteristics of the research sample.

Characteristic		Number of Companies	Percentage (%)
Industry	Manufacture	58	46
	Service	10	8
	Trade	37	30
	Other	20	16
Age (Years)	≤10	65	52
	≤20	36	28
	≥20	24	20
Size	Micro	93	74
	Small	25	21
	Medium	7	5

Source: Output SmartPLS 3.0 (2022).

Validity and reliability tests were performed with the goal of determining the presence of aberrant data. To guarantee that the data used is reliable and valid. See table 2 below.

In the reliability test, a minimum value is expected to be owned, with Cronbach's Alpha greater than 0,6, Composite Reliability greater than 0,8, and AVE greater than 0. 5. Table 2 demonstrates that all variables provide test values that above the preset minimum limit, indicating that each variable fits the requirements and the data is reliable and accurate.

The R-Square test is used to test the dependent variable, and the results are used to determine how much of the dependent variable's ability can be explained by independent data. R-Square has a value ranging from 0 to 1, with the closer to 1 being better

TABLE 2: Construct reliability and validity.

Variable	Cronbach's Alpha	rho_A	Composite Reliability	Average Variance Extracted (AVE)
Innovation	0,981	0,981	0,983	0,853
Speed of Innovation	0,970	0,970	0,976	0,892
Financial performance	0,982	0,982	0,985	0,916
Operational Performance	0,970	0,970	0,978	0,918
Company performance	0,983	0,983	0,985	0,868
Innovation Quality	0,972	0,972	0,978	0,898
Intellectual Capital	0,980	0,980	0,981	0,755
Human Capital	0,950	0,951	0,962	0,834
Relational Capital	0,969	0,969	0,976	0,889
Structural Capital	0,961	0,961	0,967	0,809

Source: Output SmartPLS 3.0 (2022).

[36]. In other words, the bigger the R-Squared number, the closer the link between the two variables is.

TABLE 3: R-Square.

Variable	R Square	R Adjusted Square
Innovation	0,798	0,797
Company performance	0,854	0,852

Source: Output SmartPLS 3.0 (2022).

Table 3 indicates that innovation has a R square value of 0,798, which indicates that intellectual capital influences innovation by 79,8% and other variables not included in this study influence innovation by 19,2%. Similarly, the company performance variable has a value of 0,854, indicating that innovation and intellectual capital account for 85,4% of the variation in company performance, with the remaining variables being determined by factors not included in the analys. See Figure 2 below.

Prior to assessing the indirect impact, the researcher directs the effect between factors in order to determine the magnitude of the direct and indirect effect between variables. The table 4 below shows the direct effect between factors.

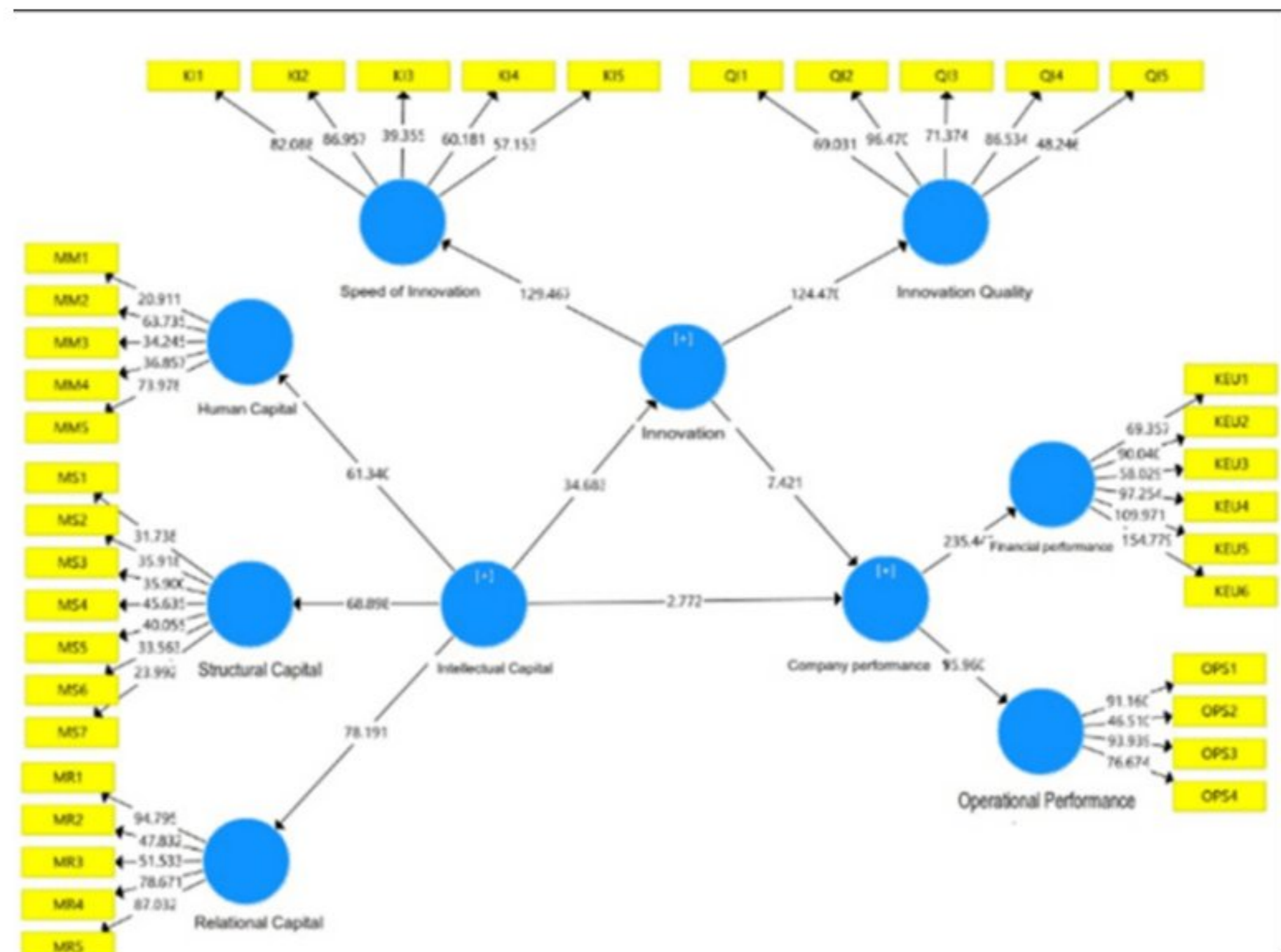


Figure 2: Outer model. Source: Output SmartPLS 3.0 (2022)

TABLE 4: Path coefficient.

	Original Sample (O)	T Statistics (O/STDEV)	P Values	Results
Intellectual Capital -> Company performance	0,262	2,772	0,006	H1 Accepted
Intellectual Capital -> Innovation	0,893	34,683	0,000	H2 Accepted
Innovation -> Company performance	0,682	7,421	0,000	H3 Accepted

Source: Output SmartPLS 3.0 (2022)

Based on the test results as outlined in Table 4, shows that the relationship between intellectual capital and company performance has a t-statistical significance level of 2,772 greater than 1,96, and a P-Value of 0,006 less than 0,05, indicating that there is a significant influence between intellectual capital and company performance. This shows that if intellectual capital has increased or decreased, the company’s performance has also increased, implying that H1 is.

The association between intellectual capital and innovation has a t-statistical significance level of 34,683, larger than 1,96, and a P-value of 0,000, less than 0,05, showing that it has a substantial impact. The original sample of 0,893 shows a favourable connection. As a result, as intellectual capital has grown, so has the company’s own innovation. This indicates that H2 is approved.

The association between innovation and corporate performance has a statistical t-value of 7,421, which is more than 1.96. A p-value of 0.000 is less than 0.05, indicating that the association between innovation and corporate performance has a significant positive effect, as indicated by the original sample value of 0.682. That is, increasing innovation leads to increased corporate performance, hence hypothesis H3 is supported.

The mediation test was used to examine the indirect, or mediating, influence of innovation on the link between intellectual capital and company performance. The observations were made in the Total Indirect Effect table as follows:

TABLE 5: Total indirect effect.

Variable	Original Sample (O)	T Statistics (IO/STDEVI)	P Values	Results
Intellectual Capital -> Innovation -> Company performance	0,609	7,240	0,000	H4 accepted

Source : Output SmartPLS 3.0 (2022).

According to the results of the PLS processing shown in Table 5, there is an indirect effect of Innovation on Intellectual Capital and Company Performance with a t-statistic significance value of 7,240 greater than 1,96 and a p-value of 0,000 less than 0,05, indicating a significant relationship. The original sample value is 0.609, demonstrating a favourable connection. As a result, it is possible to conclude that innovation plays a mediating role between intellectual capital and company performance; as intellectual capital increases, so does innovation, which, in turn, improves company performance. Therefore, H4 is accepted.

After analysing the data above, various findings are supported by test values and calculations performed with the SmartPLS 3 software tool, indicating that the study data is legitimate and credible. The statistical data suggest that intellectual capital affects firm performance. Although the bulk of the sample consists of micro-scale businesses, intellectual capital plays a significant role in affecting company performance in structural terms. This is because the structural scope is very restricted, making it easier to coordinate personnel. Furthermore, solid relationships with relational parties can have a great impact on the organisation; expanding colleagues and relationships will naturally enhance sales.

Aside from that, intellectual capital has a substantial positive impact on innovation. The existence of creative and imaginative personnel helps them to produce something

new, both in terms of speed and quality of innovation, with the Covid-19 epidemic driving MSME players to be more innovative than rival enterprises. The results of this study support the findings of the study. [37] that intellectual capital has a substantial influence on firm performance as well as the findings of studies done by [38]. This further confirms the impact of intellectual capital on corporate performance. From the research results [38]. As can be seen, intellectual capital is a very beneficial source of income creation for the organisation. [8] have also discovered a significant positive association between intellectual capital and corporate performance undertaken in China. However, this study does not support the findings undertaken by [39] Who discovered that the outcomes of intellectual capital research had no substantial effect on corporate performance due to a variety of issues, including the high expense of acquiring intellectual capital. For example, to attract quality staff, businesses must pay high salaries or incur significant training costs.

The findings of the following statistical test indicate that innovation has a major impact on firm performance. If innovation owned by MSME business participants increases, the company's financial and operational performance will also increase. This study supports the research [4, 8, 10, 18]. Do not rule out the chance that, with the rapid advancement of technology, they have realised the importance of intellectual capital in increasing firm success. Employees who are creative and imaginative in terms of generating fascinating items and material for digital promotion might attract customers, resulting in increased sales.

The job of mediating innovation from speed to quality. Innovation has been shown to mediate the relationship between intellectual capital and company performance, implying that if the intellectual capital built by MSME business actors is more oriented towards innovation, specifically the speed and quality of innovation, such as the creation of new and high-quality products and services. Furthermore, quality and problem-solving tactics are more exact than those of other organisations, resulting in higher innovation, which can have an impact on the company's performance. This promotes research [8] The pace and quality of innovation are seen to have a greater impact on business performance. Overall, the findings of this study back up the research [17]. Even though the research locations were carried out in different places, the subjects of research were not just SMEs, but also SMEs, and were carried out using different analytical methods, this study offered the same results.

4. Conclusion

This study examines the relationship between intellectual capital and company performance as mediated by innovations made available to MSMEs in East Java, using a sample of 125 MSME business actors. The study's findings indicate that intellectual capital can have an impact on innovation and corporate performance. Additionally, both the speed and quality of innovation can moderate the relationship between intellectual capital and company performance. This study adds to the implications of intellectual capital in the business world that may be carried out early on, in the sense that even though enterprises are on a micro size, MSME business players can manage intellectual capital effectively in establishing company performance. However, this study did not look into how micro, small, and medium-sized businesses recognise intellectual capital as an intangible asset. The limitations of this study are the limited observation time, which results in a small sample size, and the sample locations, which are only in East Java, despite the fact that Indonesia has thousands of MSME actors, so expanding observations is critical for future research in order to generalise the results. Because each variable is tested simultaneously, future researchers can evaluate each indicator of intellectual capital to determine whether variables are more important as indicators of human capital, structural capital, or relational capital. Or include other elements that influence innovation and financial performance.

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