



## Intellectual Capital, Innovation, and Performance of Indonesian MSMEs During the Covid-19 Pandemic

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### Abstract

This research is important in examining the determinants of performance of MSMEs in Indonesia during the COVID-19 pandemic from a non-financial perspective. This influence is meaningful for companies that non-financial intangible assets can affect the performance of MSMEs. This study looks at whether Intellectual Capital which consists of Human Capital, Structural Capital, Customer Capital, and Innovation, affects the performance of MSMEs during the COVID-19 pandemic. This study uses multiple regression analysis. The research sample is 308 MSMEs registered in Indonesia's *Gofood* and *Grabfood* applications. The results of hypothesis testing state that H1, H2, H3, and H4 are accepted. It shows that the variables of human capital, structural capital, customer capital, and innovation positively affect the performance of MSMEs. The performance of MSMEs in Indonesia during the COVID-19 pandemic from a non-financial perspective was influenced by several factors, namely human capital, structural capital, customer capital, and innovation.

**Keywords:** Customer Capital, Human Capital, Innovation, Performance, Structural Capital

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## Introduction

An MSME is a trading business managed by individuals or business entities and follows the criteria for small businesses or in the microscope. Law No. 20 of 2008 states that micro, small, and medium enterprises are business activities that can expand employment and provide general economic services to the community. Equity and increased income encourage economic growth and play a role in realizing national stability. Globalization and technological innovation have changed how companies run their business, including Micro, Small, and Medium Enterprises (MSMEs) (Serenko & Bontis, 2004). Micro, Small, and Medium Enterprises (MSMEs) must be creative and innovative in building, strengthening, and creating sustainable competitive advantage strategies to realize the benefits of economies of scale (Patel & Jayaram, 2014). One way to realize a competitive advantage is to increase intangible resources such as knowledge, technology, core competencies, and innovation, where all of these resources must exist at the beginning of the development of a new business (Lichtenstein & Brush, 2001).

In previous research, the performance of MSMEs from financial factors (Financial Technology) plays an essential role in improving the performance of MSMEs, namely in the form of increasing operational efficiency and the efficiency enjoyed by its members (Rahardjo et al., 2019). Furthermore, in research by Ferdiansyah & Bukhari (2021), financial knowledge is an essential factor in the progress of MSME performance. Similarly, according to research by Kusuma et al. (2022), Financial inclusion and financial literacy are essential to business continuity and MSME financial performance. However, non-financial factors are no less important in supporting the development of MSME performance (Hashim et al., 2015).

In previous research, MSME development focused on management strategy, finance, production and processing, marketing and design, and technology. However, this research tries to combine several essential aspects of improving MSMEs in terms of increasing performance through the development of intellectual capital and innovation so that this research focuses on the performance of MSMEs from the non-financial side. Entrepreneurs and small business owners must be continuously trained to improve non-financial performance so that they are ready to face challenges to compete and survive in the era of Technological Disruption. However, unfortunately, many managers do not know the challenges in managing the potential of the existing resources within the company (Hashim et al., 2015).

MSMEs are essential for understanding and assessing non-financial factors, including Intellectual Capital and Innovation. Therefore, this study focuses on efforts to assess the influence of Intellectual Capital and innovation components on the performance of MSMEs in Indonesia. The study's results by Bontis et al. (2000) can be a reference for a positive relationship between Intellectual Capital and a company's performance. Intellectual capital is also significant for a company, especially MSMEs. The Intellectual Capital framework has been developed by Desoky & Mousa (2020). There are three characteristics of Intellectual Capital in this study, namely (human, organizational, and relational capital). This study offers a comprehensive description and empirical analysis of Intellectual Capital, bearing in mind that there are still many previous studies that discuss Intellectual Capital concerning its definition, classification, and measurement. Little research still analyzes the relationship between Intellectual Capital, Innovation, and company performance (McDowell et al., 2018; Obeidat et al., 2017). Especially in Indonesia during the COVID-19 Pandemic, we tested whether Intellectual Capital and Innovation could affect MSME Performance.

We also see that successfully leveraging innovation is critical in demonstrating corporate capabilities (Andries & Czarnitzki, 2014; Dibrell et al., 2008; Subramaniam & Youndt, 2005). Innovation is the cornerstone of competition and the business environment and is a means of survival (Seidler-de et al., 2008; Wang & Chang, 2005). In addition, innovation is also significant in realizing the primary source of sustainable competitive advantage in

Micro, Small, and Medium Enterprises (Andries & Czarnitzki, 2014; Unger et al., 2011). Furthermore, Galbraith (1969) said that innovation can improve performance and problem-solving and add value to a company. However, a company's innovative capabilities depend highly on the intellectual assets, knowledge, and ability to position it (Amin & Aslam, 2017; Reza et al., 2021). However, MSMEs cannot compete with large companies in terms of innovation. They need more capital to compete with big companies, especially in developing countries (Daou et al., 2014). Innovation comes from company information and knowledge, employee competition, and the quality of their production processes which impact intellectual capital (Andries & Czarnitzki, 2014). This is because intellectual capital controls and harmonizes all human and non-human knowledge available in organizations to create value (Kong, 2007).

This study investigates whether the transitional stages of revolution from time to time arise due to humans continuing to look for the easiest way to do activities so that innovations and the technology sector are needed to achieve this goal. The transition to this industrial concept is one of the challenges for Micro, Small, and Medium Enterprises (MSMEs). Particularly during the COVID-19 period, MSMEs in Indonesia had to adapt or even collaborate with online service players which had sprung up to seize opportunities to improve MSMEs' performance. Call it the online transportation company Go-Jek. Go-jek has a feature called Go-Food. This feature makes it easier for consumers to buy the food they need without the mobility of these consumers. Consumers only order through the Go-Food feature, and drivers will deliver food according to the customer's order and address quickly and easily. This business activity exemplifies the successful collaboration and relationship between online transportation services and MSME food providers. The presence of Industry 4.0 among humans should be able to improve the performance of MSMEs, not the other way around, losing to the rapid development of technology and eventually dying.

Our research contributes to the literature on Intellectual Capital where strength is in business and guarantees competitive advantage in the market, Intellectual Capital which consists of three main factors, namely human capital, structural capital, and customer capital, are intangible assets or intangible assets that can create competitive and sustainable advantages for an organization through association with its resources, supported by technological innovation through third party online ordering services such as go-food. First, we found a positive relationship between Intellectual Capital and innovation in MSME performance. Second, our current study contributes to improving the performance of MSMEs from a non-financial perspective using Intellectual Capital and innovation, considering the conditions of Covid-19. Third, we see that the innovation of MSMEs using third-party services is growing during the Covid-19 period.

## Literature Review and Research Hypothesis

The concept of Intellectual Capital was first revealed by Galbraith (1969), who stated that the importance of intellectual capital, even intellectual capital is the difference between market value and book value (Hsu & Fang, 2009). The term IC was popularized again by Thomas A Steward, with defines IC as a strength in doing business and ensuring competitive advantage in the market (Bontis et al., 2000; Steward, 1991). Therefore knowledge must be increased because it is the organization's strength for the future (Kogut & Zander, 2009; Stewart & Ruckdeschel, 1998; Subramaniam & Youndt, 2005). Intellectual capital Is an intangible asset such as knowledge, information, intellectual property, and experience that can be used to make income-generating decisions (Serpeninova et al., 2022). Intellectual capital consists of three main factors, namely human capital, structural capital, and customer capital (Hashim et al., 2015; McDowell et al., 2018; Naushad, 2019; Serenko & Bontis, 2004; Shubita, 2022; Sidharta

et al., 2019; Umanto et al., 2018; Zin & Mahmood, 2014). Besides, innovation is another critical factor (Obeidat et al., 2017). Therefore, intellectual capital and innovation contribute to the company, even clearly a strategic asset in evaluating organizational performance (Hashim et al., 2015; Khaliq & Shaari, 2011).

### ***Human Capital***

Human capital or Human Capital is a combination of inheritance, genetics, attitudes, education, and experience. It can be said to be the most valuable asset in a business compared to assets in equipment and others (Andreeva & Kianto, 2011; Hashim et al., 2015; Yun & Hyo, 2006). It refers to the knowledge of everyone in the organization (Kong, 2007). In addition, humans are the most significant component that influences performance within an entity (Desoky & Mousa, 2020). Humans can be considered the most valuable asset or liability that must be owned in an organization as an addition to corporate value (Baron, 2004). Kong (2007) mentions that Human Capital is also a source of innovation and strategic change. Then, de Castro and Sáez (2008) also reported that Human Capital is useful for organizational missions because it includes knowledge, education, skills, and characteristics possessed by employees in creating value for the organization. Therefore according to Mention and Bontis (2013), Human Capital cannot be separated from the organization's vision and must be managed effectively. According to (Wang & Chen, 2013), Human Capital must also increase its investment to benefit from increased skills and knowledge. The importance of human capital also cannot be emphasized because, in the concept of Intellectual Capital, MSMEs become dependent on this human capital (F-Jardón & Susana Martos, 2009). In research by Bontis et al. (2000), Cooper et al. (1994), Desoky and Mousa (2020), Segal et al. (2010), Seidler-de Alwis and Hartmann (2008), and Sidharta et al. (2019) state that human capital has a positive effect on the performance of MSMEs in Indonesia. Therefore, we argue that Human Capital can affect performance because Human Capital is an intangible asset that can improve performance. For example, often trained employees will have more value, so employee performance impacts company performance. Based on the description above, the hypothesis in this study is:

H1: Human Capital positively affects the performance of MSMEs in Indonesia.

### ***Structural Capital***

Structural capital consists of concepts, models, patents, computers, and systems made by employees but owned by the organization or obtained from outside the organization (Bontis et al., 2000). In other words, structural capital is a combination within the organization, both from within the organization and outside the organization, whose technology must be improved and even developed (Hashim et al., 2015). Furthermore, structural capital is also interpreted as the ability of the organization to accommodate customer requests to provide efficient and quality services and improve performance in an organization (Kamaluddin & Kasim, 2013). In addition, structural capital is also interpreted as knowledge that must be owned by the company and does not depend on every employee (Bontis et al., 2000; F-Jardón & Susana Martos, 2009; Hormiga et al., 2011; Hsu & Fang, 2009; Subramaniam & Youndt, 2005). Therefore, if structural capital is difficult to evaluate, it will impact undirected creation, especially in SMEs engaged in start-ups (Alvarez & Barney, 2008; Sarasvathy et al., 2010). Furthermore, in research by Bontis et al. (2000), Desoky and Mousa (2020), F-Jardón and Susana Martos (2009), Shubita (2022), Sidharta et al. (2019), and Zin and Mahmood (2014) states that structural capital has a positive effect on the performance of MSMEs in Indonesia. Therefore, Structural Capital can affect Performance because Structural Capital is an intangible asset that can improve performance, for example with an excellent internal control system, it will minimize the occurrence of procedural weaknesses that contribute to reduced error rates so that

they can maintain company assets that directly affect the company's performance improvement. Based on the description above, the hypothesis in this study is:

H2: Structural capital has a positive effect on the performance of MSMEs in Indonesia

### ***Customer Capital***

Customer Capital refers to the institutions, relationships, and norms that shape the quality and quantity of social interaction in a society that contributes to economic and social development (Grootaert & Bastelaer, 2011). According to Zin and Mahmood (2014), social capital is essential in facilitating and overcoming the constraints of a lack of financial, human, and natural capital. In addition, customer capital also affects community productivity and welfare (Hashim et al., 2015). On the other hand, customer capital is the development of stakeholder theory which explains that companies consider not only shareholders but also stakeholders (Donaldson & Preston, 1995). Groups that own shares in the company include shareholders, employees, customers, suppliers, creditors, the government, and the public. The impact of customer capital on firm performance has been tested empirically by Brüderl and Preisendörfer (1998). In the early stages, before starting a business, the company will deal with stakeholders, and it tends to occur where the company will try to get new customers as added value for the company to add strategic information (Greve & Salaff, 2003). Research by Bontis et al. (2000), Desoky and Mousa (2020), Greve and Salaff (2003), Shubita (2022), Sidharta et al. (2019), and Zin and Mahmood (2014) mentions that customer capital has a positive effect on the performance of MSMEs in Indonesia. Therefore, customer capital can affect performance because it is interpreted as a company's ability to identify market needs and wants. In this study, for example, MSMEs can see market needs in the COVID-19 era, where customers cannot interact directly. MSMEs see opportunities to meet customer needs in other ways, such as using third-party services, namely the Go Food application. Based on the description above, the hypothesis in this research is:

H3: Customer Capital has a positive effect on the performance of MSMEs in Indonesia

### ***Innovation***

Innovation is the exploitation of knowledge developed within the company through new products, services, or other processes (Gronum et al., 2012). The knowledge-based view of firms shows that sustainable competitive advantage mainly comes from the ability to generate performance improvements, which is called innovation (Nonaka et al., 2000). According to Varis and Littunen (2010), economic progress is characterized by rapid changes and high levels of complexity and uncertainty. Therefore, companies must maintain their competitive advantage, improve their innovative performance, and be responsive to environmental challenges (Inauen & Schenker-Wicki, 2012). Furthermore, innovation must also be able to be managed in order to survive (Ortt & van der Duin, 2008). According to Barbaroux (2012) and Z. Wang et al. (2021), to manage companies, innovations must be able to coordinate their creative resources such as money, technology, human skills, marketing knowledge, and social capital. Inauen and Schenker-Wicki (2012) suggest three types of innovation: product, service, and process, while Laforet (2011) divides four types of innovation: position, process, product, and paradigm innovation. Research by Zin and Mahmood (2014) stated that innovation positively affects the performance of MSMEs in Indonesia. Therefore, we think that innovation dramatically affects the performance of MSMEs, how innovations are carried out to continue to market their products during the Covid-19 era with creativity and hard work, how innovations are carried out to maintain the stability of sales value, how innovations are carried

out to survive during the Covid-19 era, such as by selling using online applications such as Go Food. Based on the description above, the hypothesis in this study is:

H4: Innovation positively affects the performance of MSMEs in Indonesia.

## Methods

### *Measurement*

MSME performance is the dependent variable in this study. The items used as research instruments are business stability, profit increase, sales level, and investment level. This study measured MSME performance variables using a Likert scale (frequency 1 = strongly disagree, 2 = disagree, 3 = neutral, 4 = agree, and 5 = strongly agree).

The intellectual capital measurement tool in our study uses proxies for human capital, structural capital, and customer capital. The level of expertise, training programs, teamwork, employee satisfaction, and employee attitudes measure human capital. Structural capital is measured by applying working hours, developing new business ideas, using transactions, and working conditions. Finally, the level of customer satisfaction, branch expansion, service improvement, promotions by the company, and fulfillment of customer desires to measure customer capital. Intellectual capital variable measurement in this study used a Likert scale (frequency 1 = strongly disagree, 2 = disagree, 3 = neutral, 4 = agree, and 5 = strongly agree). Measuring Instruments Innovation in this study is measured by the availability of resources in creating innovations, good opportunities for employees, availability of training, development, health insurance, and work safety for employees. This study's measurement of the Innovation variable used a Likert scale (frequency 1 = strongly disagree, 2 = disagree, 3 = neutral, 4 = agree, and 5 = strongly agree).

### *Research Sample*

This research focuses on MSMEs in Indonesia who use the Go Food and Grab Food applications. We distributed it to MSMEs using online applications. After we identified 640 MSMEs who filled out questionnaires, however, we obtained a sample of 308 questionnaires representing 308 MSMEs in Indonesia who run their businesses online-based applications, namely Go Food and Grab Food. The data processing results are transformed, and outliers, so the remaining sample is 203 MSMEs in Indonesia using online-based sales applications.

### *Research Model*

To test the hypothesis that we propose, we use a multiple regression analysis model, with  $\alpha$ , which we interpret as the constant of the regression equation,  $\beta_1$ -4 as the coefficient of the independent variable, Performance as MSME Performance,  $\beta_1$  HC as Human Capital,  $\beta_2$  HS as Structural Capital,  $\beta_3$  HCs as Customer Capital,  $\beta_4$  Inv as Innovation and  $\epsilon$  for errors. With the following equation:

$$Performance = \alpha + \beta_1 HC + \beta_2 HS + \beta_3 HCs + \beta_4 Inv + \epsilon$$

## Results

### Data Normality Test

**Table 1.** The Results of The Normality Test of Human Capital, Structural Capital, Customer Capital, and Innovation on MSME Performance.

	Unstandardized Residuals	Information
N	308	Normal Distributed Data
Kolmogorov-Smirnov Z	0,045	
Asymp. Sig. (2-tailed)	0,200	

The results of the Kolmogorov-Smirnov test above, a significant value obtained is more than 0.05 or  $0.200 > 0.05$ . The regression model is normally distributed and meets the normality assumption because the significance level exceeds  $\alpha=0.05$ .

### Data Reliability Test

**Table 2.** The Results of The Reliability Test of Human Capital, Structural Capital, Customer Capital, And Innovation on MSME Performance.

Variable	Cronbach's Alpha	N of Items	Information
X1	0,766	6	Reliable
X2	0,807	5	Reliable
X3	0,770	4	Reliable
X4	0,812	5	Reliable
Y	0,714	4	Reliable

The Cronbach's Alpha test results for each variable are more than 0.60. It indicates that the questionnaire or data is declared reliable or consistent.

### Data Validity Test

The validity test in this study was carried out by comparing the calculated R-value with the R table ( $df = n - 2$ ).

**Table 3.** The Results of The Validity Test of The X1 Variable Indicator.

Item	Pearson Correlation	R tabel	Information
X1.1	0.382	0,1116	Valid data
X1.2	0.386	0,1116	Valid data
X1.3	0.412	0,1116	Valid data
X1.4	0.527	0,1116	Valid data
X1.5	0.554	0,1116	Valid data
X1.6	0.369	0,1116	Valid data

**Table 4.** The Results of The Validity Test of The X2 Variable Indicator.

Item	Pearson Correlation	R tabel	Information
X2.1	0.463	0,1116	Valid data
X2.2	0.524	0,1116	Valid data
X2.3	0.569	0,1116	Valid data
X2.4	0.475	0,1116	Valid data
X2.5	0.495	0,1116	Valid data

**Table 5.** The Results of The Validity Test of The X3 Variable Indicator.

Item	Pearson Correlation	R tabel	Information
X3.1	0.534	0,1116	Valid data
X3.2	0.425	0,1116	Valid data
X3.3	0.526	0,1116	Valid data
X3.4	0.598	0,1116	Valid data

**Table 6.** The Results of The Validity Test of The Variable X4 Indicator.

Item	Pearson Correlation	R tabel	Information
X4.1	0.377	0,1116	Valid data
X4.2	0.517	0,1116	Valid data
X4.3	0.505	0,1116	Valid data
X4.4	0.519	0,1116	Valid data
X4.5	0.526	0,1116	Valid data

**Table 7.** The Results of The Validity Test of The Y Variable Indicator.

Item	Pearson Correlation	R tabel	Information
Y.1	0.630	0,1116	Valid data
Y.2	0.594	0,1116	Valid data
Y.3	0.667	0,1116	Valid data
Y.4	0.614	0,1116	Valid data

The five tables above show that the Pearson Correlation (R count) results are more significant than the R tabel (0.1116). It shows that all the question items in the questionnaire are valid.

### *Multicollinearity Test*

**Table 8.** The Results of The Normality Test of Human Capital, Structural Capital, Customer Capital, and Innovation on MSME Performance.

Variable	Tolerance	VIF	Information
Human Capital	0,775	1,291	There is no multicollinearity
Structural Capital	0,745	1,343	
Customer Capital	0,777	1,287	
Innovation	0,830	1,205	

Based on the table above, the results of the multicollinearity test show that the overall Tolerance value of the human capital, structural capital, customer capital, and innovation variables is above 0.10 ( $> 0.10$ ). The VIF (Variance Inflation Factor) calculation results also show that the overall value of human capital, structural capital, customer capital, and innovation is below 10 ( $\leq 10$ ). Thus, it can be concluded that the equation model does not experience multicollinearity disturbances.



**Heteroscedasticity Test****Table 9.** Heteroscedasticity Test Results of Human Capital, Structural Capital, Customer Capital, Innovation on MSME Performance.

Model	T	Sig.	Information
Human Capital	1,259	0,125	There is no heteroscedasticity
Structural Capital	1,435	0,153	
Customer Capital	-1,169	0,131	
Innovation	-0,314	0,754	

Based on Table 9, the heteroscedasticity test results through the Glejser test show that the significance value of each independent variable is more significant than 0.05 (> 5%). Thus, the equation model used in this study does not contain heteroscedasticity disorders.

**Determination Coefficient Test**

The coefficient of determination (R Square) measures how far the model can explain the dependent variable's variation.

**Table 10.** Determination Coefficient Test.

Model Summary
<b>R Square</b>
<b>0,590</b>
<b>Predictors: (Constant), X4, X1, X2, X3</b>
<b>Dependent Variable: Y</b>

Table 10 shows that the value of the coefficient of determination, which shows the value of R Square, is 0.590. The MSME performance variable of 59% can be explained by human capital, structural capital, customer capital, and innovation. Meanwhile, 41% of MSME performance variables can be explained by other variables.

**Hypothesis Test Results****Table 11.** Hypothesis Test Result

	B	Standard Error	$\beta$	T	Sig.	Information
Human Capital	0,115	0,072	0,150	2,672	0,022	Accepted
Structural Capital	0,131	0,076	0,129	2,716	0,018	Accepted
Customer Capital	0,194	0,078	0,184	2,490	0,014	Accepted
Innovation	0,190	0,070	0,195	2,727	0,007	Accepted

Based on the table above, the results of testing the human capital variable on MSME performance have a variable regression coefficient value of 0.115 with a positive value. The value can see the results of data processing of t count of 2.672 while the t table at a significance of 0.05 is 1.972, so t count > t table (2.672 > 1.972). In addition, it can be seen that the significance probability value is 0.022 or less than 0.05 (0.002 < 0.05). Therefore, the hypothesis test results above show that the human capital variable positively affects the performance of SMEs. The first hypothesis, which states that the human capital variable positively affects MSME performance, is accepted.

The structural capital variable on MSME performance has a variable regression coefficient value of 0.131 with a positive value. The value can see the results of data processing of t count of 2.716 while the t table at a significance of 0.05 is 1.972, so t count > t table (2.716 > 1.972). In addition, it can be seen that the significance probability value is 0.018 or less than 0.05 (0.018 < 0.05). Therefore, the hypothesis test results above indicate that the structural capital variable positively affects SMEs' performance. This means that the second hypothesis states that structural capital variables positively affect MSME performance, is accepted.

The customer capital variable on MSME performance has a variable regression coefficient value of 0.194 with a positive value. The t count value can see the results of data processing of 2.490 while the t table at a significance of 0.05 is 1.972, so the t count > t table (2.490 > 1.972). In addition, it can be seen that the significance probability value is 0.014 or less than 0.05 (0.014 < 0.05). The results of the hypothesis test above show that the customer capital variable has a positive effect on the performance of SMEs. This means that the third hypothesis is accepted, which states that the customer capital variable positively affects MSME performance.

The innovation variable on MSME performance has a regression coefficient value of 0.190 with a positive value. The value can see the results of data processing of t count of 2.727 while the t table at a significance of 0.05 is 1.972, so t count > t table (2.727 > 1.972). In addition, it can be seen that the significance probability value is 0.007 or less than 0.05 (0.007 < 0.05). The results of the hypothesis test above show that the innovation variable has a positive effect on MSME performance. This means the fourth hypothesis states that the innovation variable positively affects MSME performance is accepted.

## Discussion

This study investigates whether Intellectual Capital and Innovation affect the performance of MSMEs in Indonesia in the Covid-19 era. Existing empirical studies have examined the influence of MSME performance from a financial perspective. In contrast, in this study, we took an approach by looking at the effect of performance from a non-financial perspective. With COVID-19, the performance of MSMEs is greatly influenced by how entities maximize Human Capital, Structural Capital, and Customer Capital, coupled with innovations made to survive in COVID-19 conditions. We made observations of 308 MSMEs in Indonesia who use the Go Food and Grab Food applications.

This study supports the research of Ahmed et al. (2020), Bontis et al. (2000), Cooper et al. (1994), Desoky and Mousa (2020), Segal et al. (2010), Shubita (2022), Sidharta et al. (2019), and Zin and Mahmood (2014) which states that human capital has a positive effect on the performance of MSMEs in Indonesia because it is an intangible asset that can improve performance, the higher a company has human capital, the higher the performance of MSMEs. Furthermore, in structural capital variables, this study supports research by Bontis et al. (2000), Desoky and Mousa (2020), F-Jardón and Susana Martos (2009), Shubita (2022), Sidharta et al. (2019), Zin and Mahmood (2014) state that structural capital has a positive effect on the performance of MSMEs in Indonesia. The higher the structural capital the company owns, the higher the performance of MSMEs in Indonesia.

Furthermore, in the customer capital variable, this study supports research by Bontis et al. (2000), Desoky and Mousa (2020), Greve and Salaff (2003), Shubita (2022), Sidharta et al. (2019), and Zin and Mahmood (2014) mentions customer capital has a positive effect on the performance of MSMEs in Indonesia, we argue that customer capital can affect performance because it is interpreted as a company's ability to identify market needs and wants. The higher the capital customers owned, the higher the performance of MSMEs in Indonesia.

Furthermore, in the Innovation variable, this study supports the research of Zin and Mahmood (2014), stating that innovation positively affects the performance of MSMEs in Indonesia. The

higher the innovation carried out by SMEs, the higher the performance of SMEs. Therefore, innovation greatly influences the performance of MSMEs, how innovation is carried out to continue to market their products during the Covid-19 era with creativity and hard work, how innovation is carried out to maintain the stability of sales values, and how innovation is carried out to survive during the covid -19 period, such as selling using online applications such as Go Food and Grab Food.

## Conclusion

Intellectual Capital and Innovation can affect MSME performance during the COVID-19 pandemic. This study used a sample of 308 MSMEs in Indonesia included in the Go Food and Grab Food features. When data processing occurred, Transformation and Outliers, the remaining samples were 203 MSMEs. The results of this study indicate that human capital, structural capital, customer capital, and innovation affect the performance of MSMEs during the Covid-19 pandemic. The limitation of this research is that the distribution of questionnaires during the Covid 19 pandemic made most of the respondents not optimal in filling out the questionnaires, including the time it took only two months to collect data, namely September and October 2022, that many MSMEs have not been registered in the Gofood and Grabfood online applications.

Suggestions for the development of this research are to add other factors that can affect the performance of MSMEs in Indonesia, including adding research samples and time to get maximum results.

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