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The role of digital literacy in mediating human capital e-readiness on the performance of coffee MSMEs in Yogyakarta

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Abstract. Digital marketing is becoming an important component for the success of MSMEs in facing competition in the digital era. However, many MSMEs in Yogyakarta still face challenges in adopting digital marketing strategies because of low digital literacy and human resource readiness (Human Capital e-Readiness). The study aimed to analyze the influence of digital literacy on MSME performance through the role of digital literacy as a mediating variable. Also, the study aimed to examine the relationship between Human Capital E-Readiness and MSME performance through digital literacy. This study used a quantitative explanatory approach. Its focus was on coffee MSMEs that actively use digital marketing. The sample consisted of 100 respondents who were selected using purposive sampling from the coffee MSMEs that use digital marketing. Data were collected through a questionnaire with a Likert scale to measure respondents' attitudes and perceptions of the phenomenon being studied. The data were analyzed using Smart PLS 3.0 using a path analysis model. The study indicates that Human Capital E-Readiness has a positive and significant effect on Digital Literacy with a path coefficient of 0.599, t-Statistics of 7.787, and P-Value of 0.00, which supports the first hypothesis. Furthermore, Human Capital E-Readiness has a positive and significant effect on Performance with a path coefficient of 0.366, t-Statistics of 4.731, and P-Value of 0.00, which supports the second hypothesis. However, the effect of Digital Literacy on Performance is insignificant (t-Statistics of 1.932 and P-value of 0.054), so the third hypothesis is rejected. Finally, although Human Capital E-Readiness has a positive effect on Performance through Digital Literacy, this effect is not significant (t-Statistics of 1.798 and P-Value of 0.073) and the fourth hypothesis is rejected. The study confirms that Human Capital E-Readiness plays an important role in improving Digital Literacy, which affects the Performance of coffee MSMEs in Yogyakarta.

Keywords. Digital Literacy, Human Capital E-Readiness, Performance, MSMEs

1. Introduction

Drinking coffee is part of the lifestyle of today's generation. The habit of drinking coffee is popular with almost all groups, either old, young, men or women. Most of them consume coffee before work, going to college, or school. In the current era of social media, drinking coffee also increases a person's social strata. The choice of places to drink coffee is also very diverse, from a place on the side of the road to coffee shops with aesthetic decorations (rri.co.id, 2023) [1].

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The trend of drinking coffee in society makes coffee consumption in the world quite large. ICO data (2023) show that coffee consumption has continued to increase over the past three years. Global coffee consumption in 2022/2023 increased by 1.7% from the previous year to 178.53 million (bags per 60 kg) [2]. In 2021/2022, coffee consumption increased by 4.2% from the previous year to 175.61 million (bags per 60 kg). Meanwhile, in 2020/2021, coffee consumption increased by 0.6% to 168.57 million (bags per 60 kg). Figure 1 shows the eight regions and countries with the largest coffee consumption in the world.

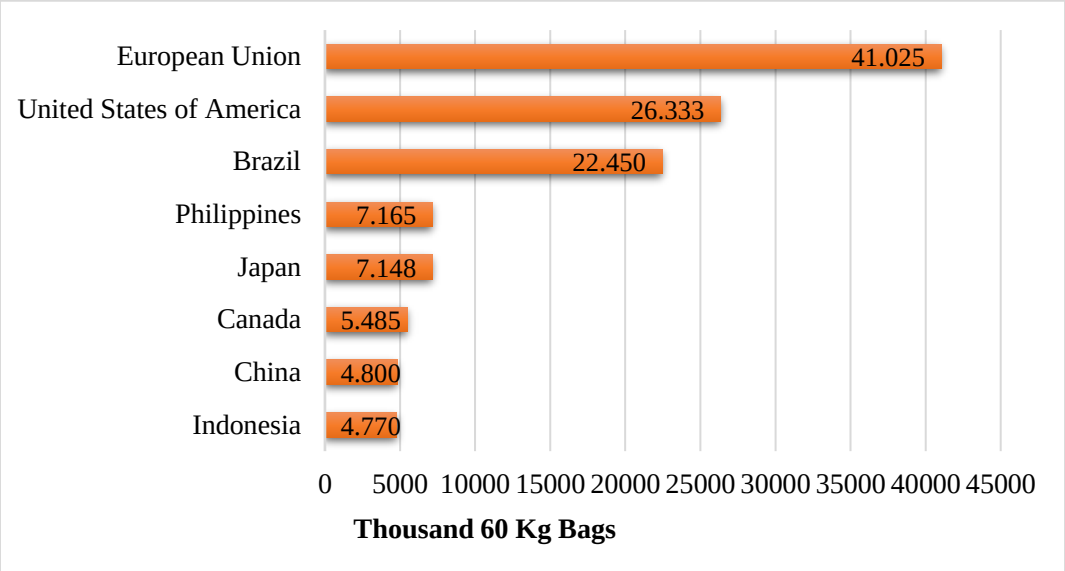

Figure 1. Region and Countries with the Largest Coffee Consumption in the World in 2023

Source: United States Department of Agriculture (Data of Indonesia, 2023) [3]

Data in **Figure 1** shows that the European Union is on the first for the region with coffee consumption of 41.03 million (bags per 60 kg). After that, it is the United States with 26.33 million (bags per 60 kg). In third place, Brazil has coffee consumption of 22.45 million bags (bags per 60 kg). The Philippines is in fourth place with coffee consumption of 7.17 million (bags per 60 kg). Meanwhile, Indonesia's coffee consumption is in eighth position with a consumption of 4.77 million (bags per 60 kg), which is neither in the top five nor the top three [3].

The large demand for coffee in the world also affects coffee production from each country to meet this demand. Based on data from the United States Department of Agriculture (US) USDA (cnbcindonesia.com, 2024) [4], Indonesia is one of the world's largest coffee producers in the world, on fifth. Figure 2 shows the data of 10 countries for the world's largest coffee producer in 2023.

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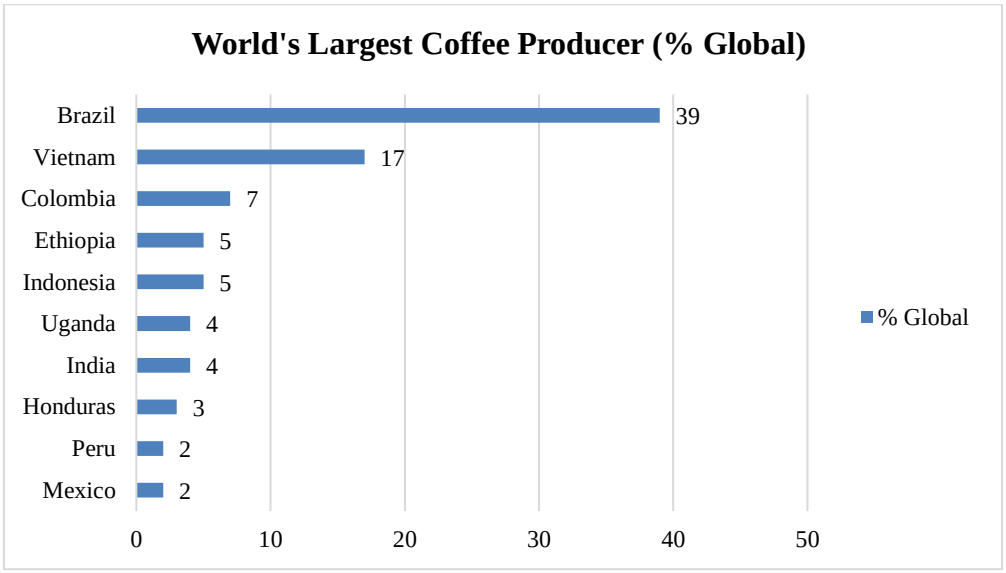

Figure 2. World's Largest Coffee Producer (% Global)

Source: United States Department of Agriculture (US) USDA data (cnbcindonesia, 2024) [4]

Data in **Figure 2** shows that Indonesia is the fifth with a total contribution of 5%. Compared to Brazil, in the first rank, Indonesia is 34% behind. The second position, Vietnam, has a difference of 12% with Indonesia. Meanwhile, it only differs by 2% with Colombia as the third rank. The fourth position, Ethiopia, has the same value as Indonesia, which is 5%. Indonesia is trying to meet the world's coffee demand by selling exports to the United States, Germany, Japan, Malaysia, Italy, Russia, Egypt, England, Belgium, Canada, and other countries. A graph of coffee export sales over the past five years is presented in Figure 3:

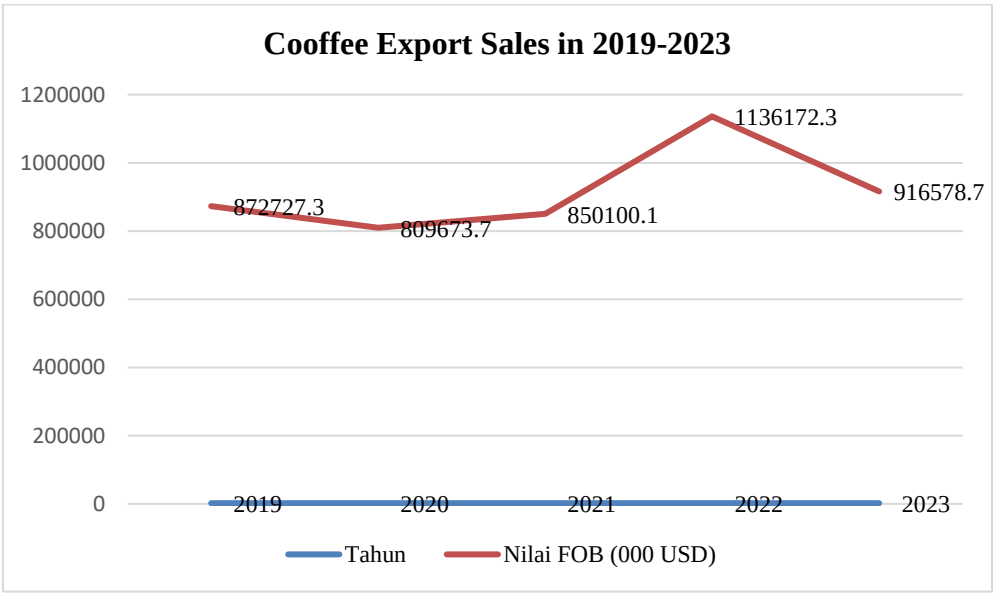

Figure 3. Coffee Export Sales in 2019-2023

Source: (BPS Indonesia, 2024) [5]

The date in **Figure 3** shows the coffee export sales during 2019-2023 that fluctuated. In 2023, the lowest export decline occurred in 2023 by -19%, compared to the previous year in 2022 of 1136172.3 to 916578.7. Then, it needs to formulate a strategy to meet the market demand. One

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of the strategies is through innovation. One of the strategies is to use technology. Data on coffee market production and sales in Indonesia over the past five years is presented in Figure 4.

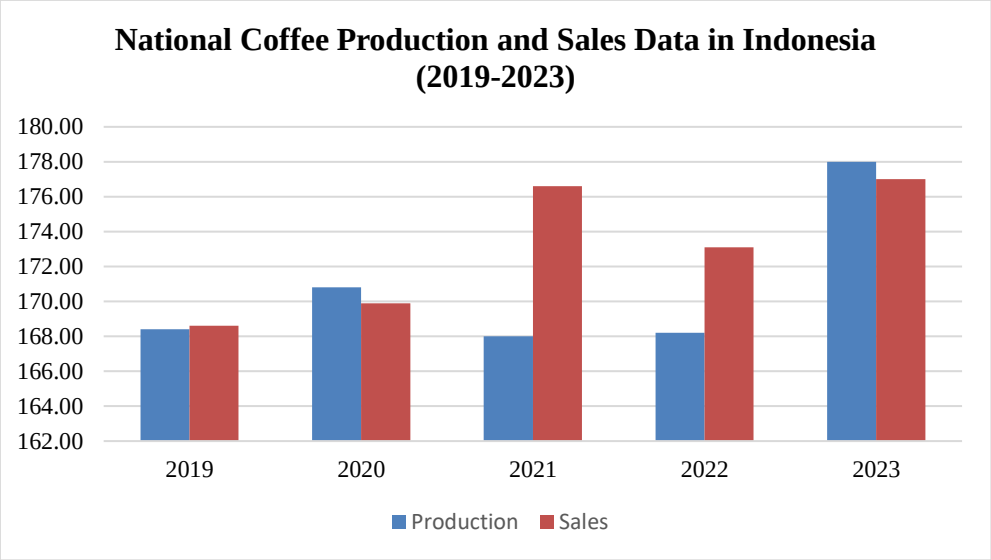

Figure. 4 Production and Sales of Coffee Market in Indonesia 2019-2023
Source: (BPS Indonesia, 2024) [5]

The data in the graph shows a fluctuation to the national coffee production and sales over the past five years. In 2019, coffee production and sales were in almost the same, around 168 thousand tons. In 2021, national coffee production has a significant decline, but sales increased, exceeding the production. This situation indicates a high demand for coffee in the middle of decreasing production. This condition continues in 2022 when production is still low, but the sales continue to be high, at 174 thousand tons. In 2023, coffee production is higher than sales. In that year, coffee production reached its highest figure in the past five years, while sales, although increasing, were still below the amount of production. This gap might serve as an indication of a problem in market absorption, where higher production is not balanced by equivalent sales. This condition may lead to overstocking, waste, and decreasing market prices, which have a negative effect on producers, including coffee MSMEs.

Yogyakarta was selected as the object of research as it found problems related to the high density of coffee shops and increasing market demand for coffee products. Research conducted by insight.toffin.id noted that the number of modern coffee shops in Indonesia, in August 2019, had reached more than 2,950 outlets. It is increasing by three times greater than in 2016, with around 1,000 shops/outlets. The Indonesian Coffee and Chocolate Entrepreneurs Association (APKCI) estimates that by 2023, the number of coffee shops in Indonesia will reach 10 thousand with an estimated revenue of IDR 80 trillion (Mone, 2023) [6]. Yogyakarta has the highest number of coffee shops in Indonesia, with more than 3,000 coffee shops across the Special Region of Yogyakarta (DIY), far above the number in other big cities, such as Semarang (700 shops) and Solo (400 shops). The increase in the number of coffee shops is reflected in the data on the development of SMEs in Yogyakarta over the past five years. From 2019 to 2023, the number of SMEs in DIY continues to show a significant increasing trend, with the number of SMEs recorded reaching 344,757 units in 2023 (DIY Diskop, 2024) [7]. This data reflects the high market demand for coffee products in Yogyakarta. It follows the local social culture of the term "ngopi," which becomes an inseparable part of daily interactions. The data on SMEs in Yogyakarta over the past 5 years is presented in Figure 5.

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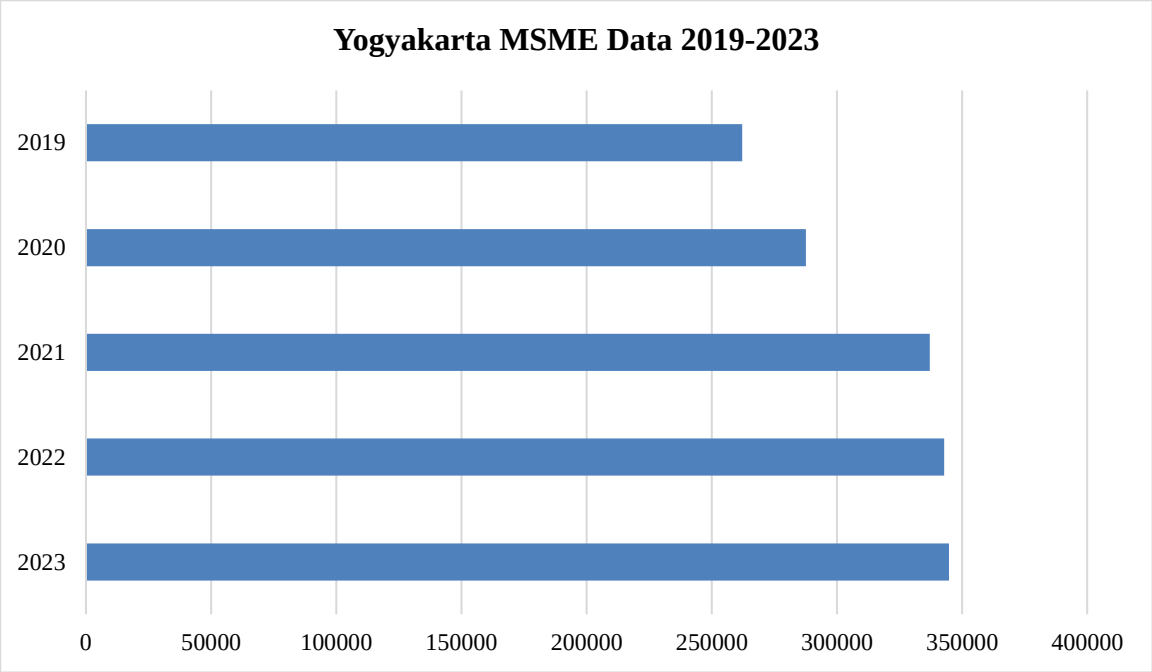

Figure. 5 Yogyakarta MSME Data 2019-2023

Source: (Diskop DIY, 2024) [7]

Based on data, the development of the number of SMEs in the Special Region of Yogyakarta (DIY) from 2019 to 2023 shows a significant increasing trend. In 2019, the number of SMEs was at 262,130 units. It continues to increase every year, reaching 287.682 units in 2020, 337.060 units in 2021, 342.924 units in 2022, and 344.757 units in 2023. The increase in the number of SMEs indicates sustainable growth in the small and medium business sector in DIY. Also, Yogyakarta has strong economic potential in driving the local economy, especially through the contribution of SMEs that are stable and continue to grow from year to year, reflecting a conducive business climate in the region. This trend shows a rapid increase in demand in the year, which can have a major impact on the management of coffee SMEs in Yogyakarta, especially in terms of marketing and distribution. This data strengthens the relevance of the research on the role of digital literacy in coffee MSMEs in Yogyakarta. A significant increase in sales can be linked to better marketing strategies and human resource readiness, especially in digital understanding. Yogyakarta has contributed to the growth of coffee shops as a centre of social activity, indicating a great opportunity for coffee business actors to use digital literacy to reach consumers who increasingly rely on digital platforms.

Technology is an innovation that can improve the standard of living, including MSMEs to increase their sales. In the current digital era, MSMEs need to transform to utilize digitalization. MSMEs must adopt digitalization to increase sales, facilitate communication between customers and MSMEs, facilitate work with digital tools, and attract consumers with a wider reach, even abroad. Industry 4.0 is a concept that has grown rapidly across the world in the past five years. It combines the physical and digital worlds to create new capabilities that impact various sectors, not merely the manufacturing industry. Many experts predict that Industry 4.0 will have a major positive impact, especially in developing countries where many low-wage jobs are found.

The COVID-19 pandemic has made digitalization and the shift towards Industry 4.0 inevitable. Moreover, it seems very important for every industry, including Small and Medium Enterprises

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(Turkyilmaz et al., 2020) [8]. SMEs need internal digital capabilities to respond quickly to market changes. In today's working world, individuals must have skills to deal with increasingly complex and interactive tasks. It encourages SMEs to adopt new perspectives and increase the demand for individual digital capabilities. Employees are required to be skilled in information, communication, and software. Interpersonal relationships based on trust, identification, and mutual obligations are important for business growth. Also, individual digital capabilities play an equally important role in triggering innovation and growth in an era of increasingly tight digital competition (Scuotto et al., 2021) [9].

MSMEs are the main pillar of the Indonesian economy, contributing 99.9% of the total business units in the country and absorbing 96.9% of the national workforce. The contribution of MSMEs to Indonesia's real GDP reaches 57.1%. The potential for MSMEs to grow in the digital platform is enormous. Although the e-commerce trend is growing rapidly, only a few numbers of MSMEs have switched to the digital. The contribution of the digital economy to Indonesia's GDP in 2021 reached US$70 billion or around 6%. This figure is much higher than neighboring countries such as Malaysia, Philippines, Singapore, Thailand, and Vietnam.

The opportunities for the growth of the MSME in the digital era are increasingly profitable, especially in the abundance of population. Digitalization has proven to be a key factor in the survival and growth of MSMEs during the pandemic, as it allows them to reach a wider range of customers. The use of e-commerce by MSMEs has advantages compared to conventional transactions. Bank Indonesia noted that 20% of MSMEs managed to survive and thrive during the pandemic adapting to digital developments. However, it found obstacles that need to be solved in the digitalization process of MSMEs, such as the level of digital literacy and logistics issues. According to data on BPS E-commerce Statistics, as of June 2021, of the total 8.2 million business units surveyed, including MSMEs, only around 29% have engaged their businesses into e-commerce. It shows a tendency to adopt marketing strategies. This phenomenon shows that MSMEs do not fully understand digital literacy to reach wider consumers, even though global and domestic markets have shifted to digital platforms.

According to BPS, the unwillingness to join e-commerce is mostly due to the preference for selling directly and the lack of interest in selling online. In addition, lack of knowledge or skills is also the third reason that prevents business units from engaging in e-commerce. The OECD Digital Economy Outlook 2020 also notes that lack of skills or expertise and the level of technology adoption are still major challenges in the process of digitizing the economy. In addition, other factors of digital economic activity, especially in e-commerce, are complex, expensive, and time-consuming cross-border business regulations and procedures. This includes customs clearance processes and shipping logistics that involve the process of receiving and sending goods. Moreover, many MSMEs feel that digitalization is not important to them. In addition, high logistics costs in Indonesia can also be an obstacle for MSMEs from penetrating wider markets, both domestically and internationally. The data on Internet transaction usage as of 2023 is presented in Figure 6.

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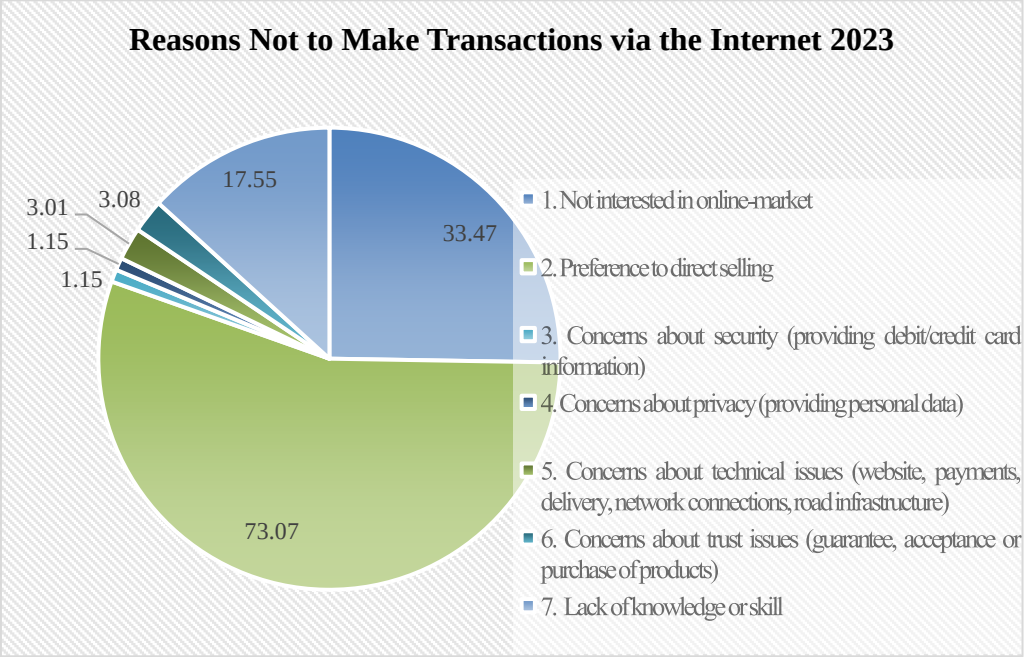

Figure. 6 Reasons Not to Make Transaction Via the Internet 2023

Source: (Statistic *E-Commerce* BPS, 2024)

Based on **Figure 6,** many MSMEs in Yogyakarta are not ready for digitalization due to the age constraints of MSME actors, which average 40 years. Then, they need extra effort for the digitalization learning process. The low level of digital literacy in MSMEs is the main challenge for digital transformation, as stated by Arif Rahman Hakim, the Secretary of the Ministry of Cooperatives and Small and Medium Enterprises (KemenKop & UMKM) of the Republic of Indonesia (rri, 2023) [1]. MSME business factors, such as not too high sales, fierce market competition, and consumer payment preferences can affect how quickly a company adopts digital technology. Newly established companies owned by younger people with internet access tend to adopt digital technology more quickly. During the COVID-19 pandemic, companies with high revenues and sales tend to be more likely to use digital technology in their operations (Trinugroho et al., 2022) [10].

Organizational performance factors can be explained through the Resource Based View (RBV) Theory. RBV consists of important company resources and capabilities because they are the core or foundation for the company's competitiveness and performance. According to (Barney & Hesterly, 2015) [11], company performance is closely related to the resources and capabilities managed by the company as a source of competitive advantage. The main factor that differentiates the performance of each company is the strategic factor related to resources and capabilities (Barney, 1991) [12]. Improving human resources is a major concern related to the Human Capital Index. Human resources include individual knowledge and skills that drive economic growth. Some experts consider it a valuable, rare, and difficult-to-match asset (Barney, 1991) [12]. Figure 7 shows the Human Capital Index 2023 for the Southeast Asia region.

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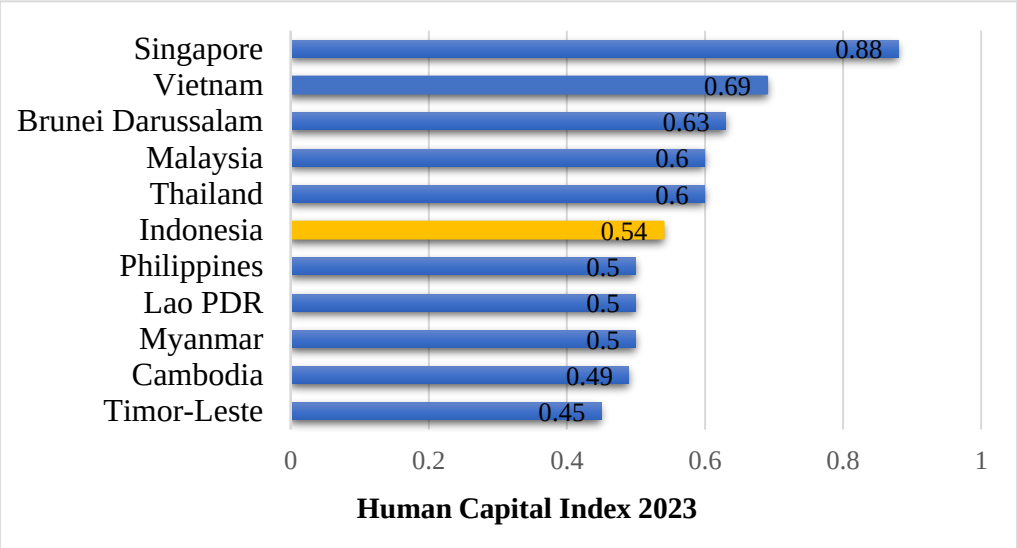

Figure. 7 *Human Capital Index* 2023
Source: (worldbank, 2024) [13]

Based on **Figure 7**, the Human Capital Index in Indonesia in 2023 is 0.54. It means that children born in Indonesia will have a work productivity of 54% if they grow up with adequate education and good health. This figure is lower than the average for the East Asia-Pacific region and high-middle-income countries (World Bank, 2020) [13]. A company's internal resources consist of three parts, according to Pearce & Robinson (2013) [15]: (1) Tangible assets are assets owned by an organization (including manufacturing facilities, raw materials, financial resources, etc.); (2) Intangible assets are assets owned by an organization (in the form of brands, reputation, corporate ethics, patents, trademarks, business experience, etc.); (3) Capacity, is the organization's expertise and ability to combine assets, human resources, and processes to transform inputs into outputs.

Human Capital is an intellectual resource and a source of skills and attitudes contributing to the company's operations (Ríos-Manríquez, 2021) [14]. From the RBV approach, Intellectual Capital is an intangible asset that meets the characteristics (Barney, 1991) [12]. Assets are also included in the company's internal resources (Pearce & Robinson, 2013) [15]. In MSMEs, current performance development requires preparation for MSME e-Readiness (Ríos-Manríquez, 2021) [14]. MSMEs can adopt innovative technologies such as artificial intelligence to thrive in international markets. However, current findings show that this might occur because constraints such as readiness level, resources, and the need for strategic focus still limit MSME actions. Although access to artificial intelligence applications is increasingly open to MSMEs, steps to act are still constrained by these factors (Denicolai et al., 2021) [16].

Suggesting digitalization requires strategic preparation and focus. It involves optimizing the use of resources and enhancing skills, especially in applications such as artificial intelligence. Organizations with limited resources can support their growth by shifting investments from digitalization to sustainability, especially as they move from domestic to international markets (Denicolai et al., 2021) [16]. However, MSMEs with limited financial and human resources face difficulties in adopting technology and problems in introducing new products and processes. Among the many factors that play as an obstacle in digitalization are the lack of understanding towards digitalization, the unwillingness of organizational culture to accept change, and an inadequate business model.

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The performance of resources owned by each company is not always the same in improving business, including physical, knowledge, and capabilities. The Resource-Based View (RBV) theory emphasizes that the resources owned by a company can be a source of competitive advantage if they have valuable, rare, difficult to imitate, and non-substitutable characteristics (Barney, 1991) [12]. Resources that meet these criteria provide a competitive advantage for companies in facing competition.

Resources, such as digital literacy and digital marketing, can be a competitive advantage when managed effectively. In line with Barney's (1991) theory [12] regarding VRIO (Valuable, Rarity, Imitability, Organization), valuable and rare digital literacy and digital marketing capabilities provide advantages for companies that can manage them well. Companies that optimize these resources will have superior performance compared to their competitors. In addition, digital literacy - when managed uniquely and efficiently- also has the potential to be a powerful resource because each company has different interactions in managing resources. Resource heterogeneity is one of the main reasons for the superiority of a company to another, even though they are in the same industry (Parinsi & Musa, 2023) [17]. Differences in how to manage resources, technological capabilities, or digital knowledge can create significant differences in company performance.

Effective and unique resource management will strengthen the company's competitiveness. One of the factors that makes resources difficult to imitate is the natural tendency of an organization to develop in a different manner based on the unique interaction between the resources they have. Competing companies cannot easily imitate the way of working or the results achieved by other companies because it is difficult to identify the key factors. Although two companies have similar resources, the interactions between individuals, organizational culture, and teamwork are often different. This makes it difficult to accurately imitate the practices carried out by market leaders. Based on the relationship in the description, the study was conducted to fill the gap in performance factors in MSMEs, by emphasizing the focus of the study on MSMEs in the coffee cluster, especially in the Yogyakarta area. This study was carried out through an analysis of the Role of Digital Literacy in Mediating Human Capital E-Readiness on the Performance of Coffee MSMEs in Yogyakarta, employing a quantitative data method using SEM-PLS.

2. Literature Review

Strategic Management refers to the Resource-Based View (RBV) as it provides an important contribution to analysing internal factors of the company, especially resources and capabilities, which are fundamental for competitiveness and company performance (Wernerfelt, 1984) [18]. RBV emphasizes that company resources and capabilities are key for performance and sustainable competitive advantage (Barney & Hesterly, 2015) [11]. Companies with resources - difficult to imitate and difficult to transfer to other companies- have the potential to have sustainable competitive advantages.

Stewart (1998) [19] argues that Human Capital (HC) is the ability of individuals to provide solutions to customers and to innovate. Ideas are free, but the organized development of constructive ideas is challenging for management. Under RBV, the concept of Human Capital E-Readiness emerges as an important factor in the digital era. Human Capital E-Readiness refers to the competence and readiness of individuals, especially organizational leaders, to master technology to support the implementation of business strategies (Ríos-Manríquez, 2021) [14]. Human Capital (HC) is a fundamental element in the digitalization process, where technological competence such as computer use, internet access, and digital communication are

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essential to improve organizational performance. The readiness of human resources in this technological aspect, according to Ríos-Manríquez (2021) [14], will affect the success of the company's digital strategy execution, especially in the growing MSME sector.

In addition, digital literacy is an important ability to use available information and resources digitally. Digital literacy is defined as the ability to understand and use various resources that are accessed through computer devices. Digital Literacy is under a capacity in the company's internal resources (Pearce & Robinson, 2013) [15]. The ability to understand, know, adapt, and use digital devices in everyday life is called digital literacy (Widiastuti et al., 2021) [20]. With good digital literacy, MSMEs are expected to be more adaptive to technological changes and more effective in accessing relevant information for their business development. This digital literacy allows MSMEs to optimize their potential in an increasingly competitive and digital-based business environment.

The RBV perspective views the main factor that differentiates performance between companies as a strategic factor related to resources and capabilities (Barney, 1991) [12]. Performance is defined as a picture of a company that shows the achievement level of company-work results during its activities. This performance is reflected in the benefits felt and expected by the integration of management in its business operations. Performance is the achieved results. In other words, performance is the abilities and skills to achieve the organizational goals (Rue & Byars, 1980) [21].

2.1 Framework of The Study

This framework illustrates the relationship between important elements in Strategic Management and their influence on the Performance (Y) of the organization, especially in the scope of MSMEs. The Resource-Based View (RBV) approach is used as a fundamental reason for identifying and utilizing unique resources and capabilities owned by the company as a source of sustainable competitive advantage. RBV emphasizes the importance of the transferability of these resources as a foundation for competitive advantage. Furthermore, RBV is closely related to the concept of Intellectual Capital (IC), which consists of Human Capital, Structural Capital, and Customer Capital. In this context, Human Capital is the focus because it represents the ability of individuals to innovate and provide added value to the company.

Human Capital E-Readiness (X) or digital readiness of human capital shows the ability of HR to master relevant technology to support the digitalization of business processes. This element is important in the digital era, where organizations need to ensure that their workforce is technologically ready to implement digital-based business strategies. This readiness supports adaptation to the digitalization process, which is part of the Dynamic Capability View (DCV). It focuses on the organization's ability to learn and develop through the integration of knowledge and strategic collaboration and partnerships.

Digital Literacy (Z) is also an important component in this framework. Digital Literacy is the ability of human resources to understand, access, and use various digital technologies effectively, including the use of digital-based information and communication. This literacy allows individuals within the organization to function more efficiently and responsively to rapid technological changes. It improves the company's ability to make decisions supported by digital data.

The combination of both Human Capital E-Readiness and Digital Literacy is expected to contribute to improve the company's Performance (Y) because these elements enable companies to optimize the use of technology and human resources in creating added value and achieving competitive advantage. This framework emphasizes that digital readiness and digital literacy of

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human resources are key factors to support the implementation of digital strategies and adaptation in a dynamic business environment, which ultimately impacts the performance of MSMEs. A schematic of the framework used in this study is presented in Figure 8.

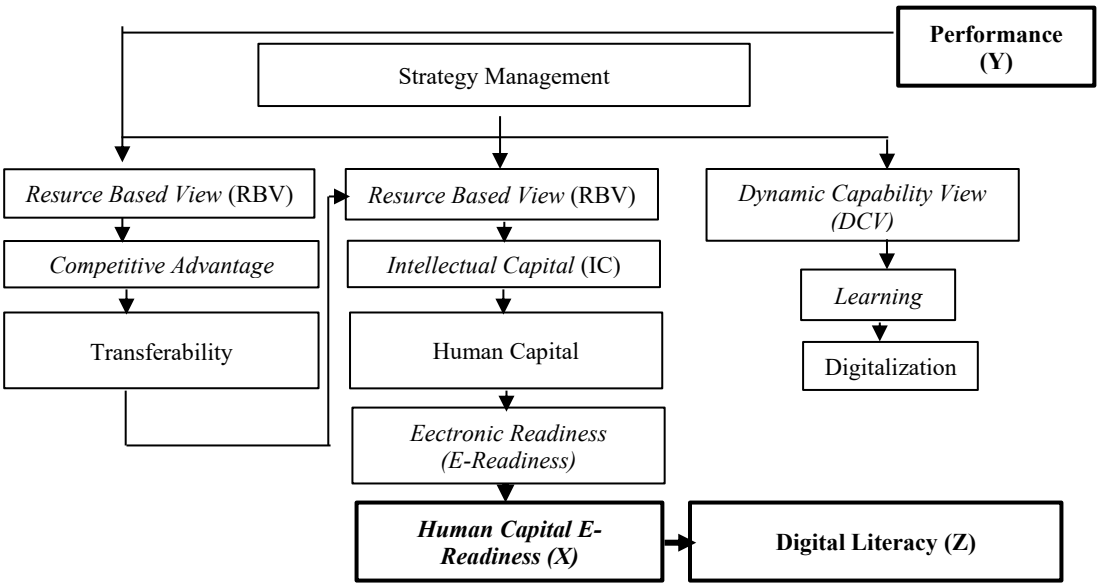

Figure. 8 Research Concept Model
Source: Primary Data

2.2 Operational Framework

Human Capital E-Readiness refers to the level of readiness and capability of human resources in an organization to adopt and use digital technologies effectively in their work. The higher the level of human capital readiness in an organization, the greater its ability to adapt to technological advances and implement digital strategies efficiently. This readiness follows the Resource-Based View (RBV), where the organization's unique resources, especially the digital competencies of its workforce, serve as the foundation for achieving competitive advantage. As human capital readiness increases, this provides a positive signal following the principles of the Dynamic Capability View (DCV), which emphasizes the organization's potential to improve performance through continuous learning and adaptation to digital change. The hypotheses in this study are as follows:

H1 : The Effect of Human Capital E-Readiness (X) on Digital Literacy (Z)
Research by Ríos-Manríquez (2021) [14] shows that Human Capital E-Readiness has a direct influence on digital literacy. When human resources in an organization are well-prepared in digital technology, they have better capability to adopt digital literacy quickly, which is very important in digital-based business transformation.

H2 : The Effect of Human Capital E-Readiness (X) on Performance (Y)
According to research by Tjahjadi et al. (2022) [22], Human Capital E-Readiness directly affects business performance. The readiness of human resources to use digital technology increases operational effectiveness and business innovation, which has a positive impact on company performance.

H3 : The Effect of Digital Literacy (Z) on Performance (Y)

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According to research by Umboh et al. (2023) [23], digital literacy plays an important role in improving the performance of MSMEs. With good digital literacy, MSMEs can more easily access wider markets and use technology for operational efficiency. Finally, it ultimately improves overall performance.

H4 : The Effect of Human Capital E-Readiness (X) on Performance (Y) through Digital Literacy (Z1)

Ríos-Manríquez (2021) [14] showed that digital literacy mediates the relationship between Human Capital E-Readiness and MSME performance. High human resource readiness allows them to develop better digital literacy, which ultimately accelerates digital business transformation and improves business performance.

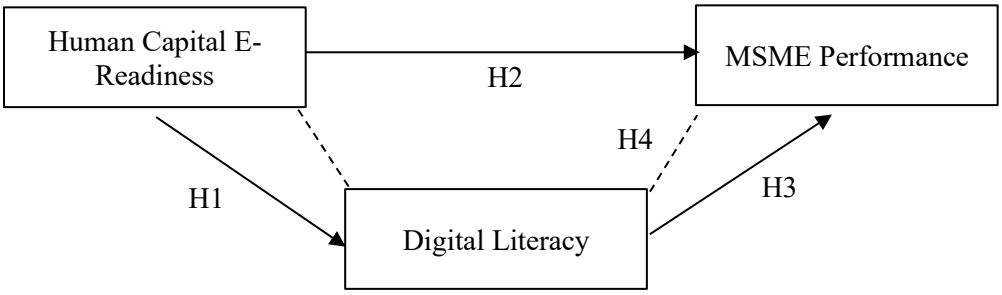

Figure. 9 Hypothesis
Source: Primary Data

3. Research Method

The study used an explanatory quantitative method with a verification approach to test the causal relationship between variables such as Human Capital E-Readiness on Performance through Digital Literacy as a mediating variable for coffee MSMEs in Yogyakarta. This study was conducted in the Special Region of Yogyakarta, focusing on coffee MSMEs that use digital marketing. The population includes coffee MSMEs in Yogyakarta, while the sample was selected using purposive sampling. The sample was MSMEs that actively use digital marketing and actively selling. The number of samples was calculated using the Lemeshow formula, which requires a minimum number of 96 respondents, rounded up to 100 respondents.

3.1 Research Instruments

The data collection technique was a questionnaire. A questionnaire is a data collection technique that is carried out by giving a set of written questions or statements to respondents (Sugiyono, 2018) [24]. The research used the questionnaire method, namely through written questions to obtain the information. The response to this question is a score using the Likert scale. The Likert scale is used to measure a person's attitude, opinion, and perception of a social phenomenon (Sugiyono, 2018) [24].

The questions in the questionnaire used closed questions. Respondents are asked to choose the available answers. The scale of respondent answers used the Agree-Disagree Scale, which produces answers strongly disagree - answers strongly agree in the following:

1.	Strongly Agree	(SS)	score 5	
2.	Agree		(S)	score 4
3.	Neutral		(C)	score 3
4.	Disagree	(TS)	score 2	
5.	Strongly Disagree	(STS)	score 1	

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3.2 Data Analysis Techniques

The study aimed to analyse the role of Digital Literacy in mediating Human capital E-Readiness on Performance in coffee MSMEs in Yogyakarta. There are 3 variables, consisting of 1 independent variable (X), 1 mediating variable (Z), and 1 dependent variable (Y). So, a more complex analysis is needed through a path equation model with Structural Equation Modelling (SEM). Hamid & Anwar (2019) define SEM as an analysis technique that combines path analysis and factor analysis. Furthermore, it used the Partial Least Square (PLS) technique which aims to test predictive relationships by seeing whether there is a relationship or influence between the constructs. Based on the formulated hypothesis, the inferential statistical data analysis was measured using PLS (Partial Least Square). Data processing was calculated with the help of SmartPLS ver3 software. PLS aims to test predictive relationships between constructs by seeing whether there is an influence or relationship between constructs. Ghozali & Latan (2015) [25] argue that the PLS measurement model includes a measurement model (outer model), feasibility (Goodness of Fit), and a structural model (inner model).

4. Result

The study used primary data, obtained through questionnaires. The questionnaire was compiled in electronic format using Google Forms media. The sample was 100 respondents, including managers and owners of coffee MSMEs in Yogyakarta. A sample size was chosen because it was considered sufficient for analysis using Smart-PLS 3. The total number of coffees MSMEs involved in this study was 100 units. The information about the workplace and demographic background of the respondents is presented in Table 2.

Table 2. Data on Respondent

Criteria	Description	Percentage
Gender	Female	60%
	Male	40%
Age	17-21 years	20%
	22-26 years	40%
	27-31 years	20%
	32-36 years	20%
Turnover of UMKM	Micro Business (<300 Juta)	20%
	Small Business (> 300 Juta-2.5 M)	60%
	Medium Business (>2.5 M- 50 M)	20%

Source: Primary Data

Respondents were dominated by women, with a small number of male respondents. This condition is quite interesting because women involved in MSMEs are likely to interact more with digital technology, including marketing. The age characteristic of respondents was 17 years to over 36 years, which shows variations in digital readiness. Respondents - aged 17-26 years – are dominated by students who are more ready to adopt digital technology as they are more familiar with technology in daily life, such as social media and online business applications. In contrast, the 32-36-year-old age group who work as private employees may need further adaptation in adopting technology, even though they have more work experience.
Data show most of the coffee MSMEs – the sample - are in the category of small businesses with a turnover of more than 300 million to 2.5 billion (60%). It indicates that most MSMEs have grown significantly and can operate at a higher level. Also, 20% of micro-businesses with

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a turnover of less than 300 million, may need more support in digital literacy and proactive digital marketing to increase their competitiveness. In addition, 20% of medium-sized businesses with a turnover of more than 2.5 billion to 50 billion reflect the established MSME actors. They may be more innovative in using technology to maintain market share.

Digital literacy plays an important role in the human resources e-readiness in MSMEs. Respondents with a higher educational background, such as lecturers or regular employees, have the potential to understand and implement effective digital marketing strategies. However, for MSME actors with a background as students or those with low incomes, digital literacy may not have been fully mastered. Then, it indicates the need for more intensive training and education. As an impact, all MSME segments can compete digitally.

4.1 Analysis of Outer Model

The research instrument must have standardized quality and follow the criteria for validity and reliability testing techniques. Figure 9 shows the output of data processing from SmartPLS 3.0, which has been eliminated from flow diagrams that do not meet the requirements. The statement consists of 26 items, which are eliminated into 17.

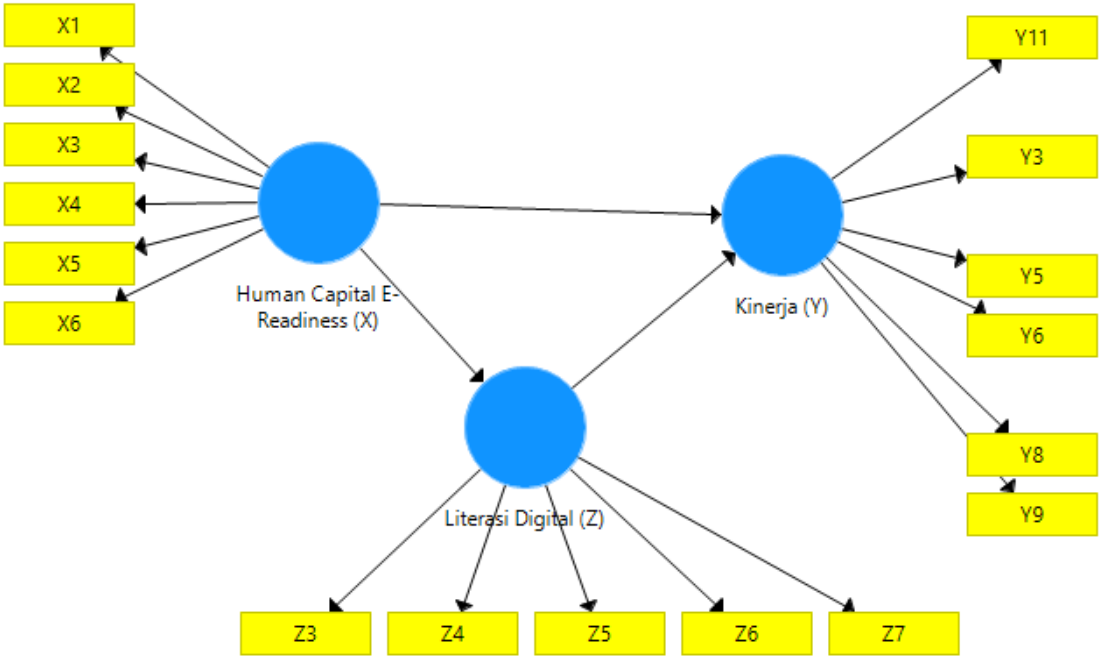

Figure. 9 Path Analysis

Source: SmartPLS Data Processing Result (2024)

a. Convergent Validity

Convergent validity is a measure of how indicators of a latent variable are positively correlated with each other. This validity is achieved when the loading factor value of each indicator is higher than 0.7. The Average Variance Extracted (AVE) value is higher than 0.5 (Ghozali & Latan, 2015) [25]. Thus, convergent validity shows that these indicators represent the latent variable well and consistently measure the same concept.

1. Loading Factor

The loading factor shows how the indicators in the model measure the latent variable effectively. A loading factor value above 0.7 is considered good as it has a significant

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contribution to the measured variable. The loading factor values of each questionnaire statement in each research variable are presented in Table 3.

Table 3. Loading Factor Value

Variable	Items	Loading Factor	Criteria
Performance (Y)	Y3	0,723	>0,7
	Y5	0,840	>0,7
	Y6	0,763	>0,7
	Y8	0,749	>0,7
	Y9	0,799	>0,7
	Y11	0,852	>0,7
Digital Literacy (Z)	Z3	0,803	>0,7
	Z4	0,841	>0,7
	Z5	0,846	>0,7
	Z6	0,852	>0,7
	Z7	0,729	>0,7
Human Capital E-Readiness (X)	X1	0,818	>0,7
	X2	0,800	>0,7
	X3	0,772	>0,7
	X4	0,845	>0,7
	X5	0,814	>0,7
	X6	0,846	>0,7

Source: Primary Data (Processed)

Based on the results of the loading factor analysis, all indicators in the Human Capital E-Readiness, Digital Literacy, and Performance variables have loading factor values of > 0.7. It indicates a strong validity in measuring latent variables. Overall, these results show that the indicators are effective in representing the measured latent variables and are feasible or valid for use in further analysis.

2. *Average Variance Extracted* (AVE)

AVE measures how variance can be explained by the latent constructs of its indicators. The expected AVE value is more than 0.5. It indicates that more than 50% of the variance of the indicators can be explained by the latent constructs (Ghozali & Latan, 2015) [25]. The AVE values are presented in Table 4.

Table 4. Value of Average Variance Extracted (AVE)

Variable	AVE Value	Criteria
Performance (Y)	0,623	>0,5
Digital Literacy (Z)	0,665	>0,5
Human Capital E-Readiness (X)	0,666	>0,5

Source: Primary Data (Processed)

The data of Average Variance Extracted (AVE) shows that all variables meet the expected validity criteria. The AVE values for the variables Performance (Y) (0.623), Digital Literacy (Z) (0.665), and Human Capital E-Readiness (X) (0.666) are all above 0.5 criteria. It indicates that more than 50% of the indicator variance in each variable can be explained by the relevant latent construct. In other words, the measured latent construct has adequate exploration power against the variance of its indicators, confirming the strength and relevance of the construct in this research model.

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b. Discriminant Validity

The cross-loading value of the Fornell-Lacker criterion is used to test discriminant validity. An indicator meets discriminant validity if the cross-loading value of the indicator on its variable is higher than other variables. To meet discriminant validity using the Fornell-Lacker Criterion analysis, the square root of the AVE of a construct must be higher than the correlation between the construct and other latent constructs (Ghozali & Latan, 2015) [25]. The Fornell-Lacker Criterion values are presented in Table 5.

Table 5. Value of Fornell-Lacker Criterion

Variable	X	Y	Z
Human Capital E-Readiness (X)	**0,816**		
Performance (Y)	0,366	**0,78**	
Digital Literacy (Z)	0,599	0,386	**0,815**

Source: Primary Data (Processed)

Analysis using the Fornell-Lacker criterion shows that the AVE square root value for each variable is higher than the correlation between other latent variables, which supports the discriminant validity of the model. These results confirm that the indicators for each latent variable are more strongly correlated with the measured variable than with other variables. Then, it meets the discriminant validity criteria.

c. Reliability

Reliability, consisting of Cronbach's Alpha and Composite Reliability, measures the consistency and reliability of indicators in measuring latent constructs with values above 0.7. (Ghozali & Latan, 2015) [25] argued that latent constructs show high stability and reliability in measuring indicators. These results show that the research model has strong consistency and reliability in measuring the variables being studied.

1. Cronbach’s Alpha

Cronbach’s Alpha measures the internal consistency of indicators in measuring latent constructs. Values above 0.7 indicate good reliability. It means the indicators consistently measure the same construct. The Cronbach's Alpha values are presented in Table 6.

Table 6. Value of *Cronbach's Alpha*

Variable	*Cronbach's Alpha*	Criteria
Human Capital E-Readiness (X)	0,900	>0,7
Performance (Y)	0,879	>0,7
Digital Literacy (Z)	0,874	>0,7

Source: Primary Data (Processed)

Analysis of Cronbach's Alpha values shows that all variables meet good reliability standards. All of these values are above 0.7. It indicates that the indicators for each latent construct consistently measure the intended construct with a high level of reliability. Thus, these results support the validity and reliability of data.

2. Composite Reliability

Composite reliability measures the overall reliability of the latent construct. Values above 0.7 indicate that the latent construct has high consistency in measuring its indicators, which supports the stability of the model in the study. The Composite Reliability values are presented in Table 7.

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Table 7. value of *Composite Reliability*

Variable	*Composite Reliability*	Criteria
Human Capital E-Readiness (X)	0,923	>0,7
Performance (Y)	0,908	>0,7
Digital Literacy (Z)	0,908	>0,7

Source: Primary Data (Processed)

The analysis result of Composite Reliability shows that all variables in this study have excellent consistency in measuring their indicators. All of these values are far above the minimum standard of 0.7. It indicates that the latent constructs show high reliability and good model stability. Thus, these results confirm that the research model has strong measurement quality.

4.2 Analysis of Inner Model

a. *Effect Size f^2*

Effect Size f^2 measures the effect of the independent construct on the dependent construct in the model. The f^2 value indicates how each independent variable contributes to the variability of the dependent variable. A value higher than 0.35 indicates a large effect. A value of 0.15 indicates a medium effect. And, a value of 0.02 indicates a small effect (Ghozali & Latan, 2015) [25]. The f^2 analysis provides insight into how significant the impact of the independent variables on the results being studied. The Effect Size f^2 values are presented in Table 8.

Table 8. Value of *Effect Size f^2*

Variable	f^2	Description
Human Capital E-readiness on performance	0,034	Medium Effect
Human Capital E-readiness on Digital Literacy	0,560	Large Effect
Digital Literacy on performance	0,053	Medium Effect

Source: Primary Data (Processed)

After the f^2 test, it obtained the value of the effect of each variable on other variables in this research model. The variable of Human Capital E-readiness has a medium effect on Performance with an f^2 value of 0.034 and a large effect on Digital Literacy with an f^2 value of 0.560. Furthermore, the Digital Literacy variable also has a medium effect on Performance, with an f^2 value of 0.053. In short, Human Capital E-readiness plays a significant role, especially in increasing Digital Literacy, which also affects the Performance of coffee MSMEs in Yogyakarta. This analysis confirms the variability and strength of the relationship between variables in the model and provides an understanding of the factors that affect the results of the study.

b. Coefficient Determination (R-Square)

Coefficient Determination (R-Square) measures how well the model explains the variability of the dependent variable. A higher R-squared value indicates that the model has good exploratory power. With values of 0.75, 0.50, and 0.25, the models with high, medium, and low power explain the variability of the dependent variable (Ghozali & Latan, 2015) [25]. It indicates how well the model can explain changes in the dependent variable. The R^2 values are presented in Table 9.

Table 9. Value of *Coefficient Determination (R-Square)*

Variable	*Coefficient Determination (R-Square)*	*R-Square Adjusted*	Description
Performance (Y)	0,177	0,160	Low
Digital Literacy (Z)	0,359	0,353	Medium

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Source: Primary Data (Processed)

The Coefficient of Determination (R-Square) test shows that the Performance (Y) variable has an R-Square value of 0.177 and an Adjusted R-Square of 0.160. Then, this model explains the effect of independent variables on Performance at a low level. Meanwhile, the Digital Literacy (Z) variable has an R-Square value of 0.359 and an Adjusted R-Square of 0.353. Then, the effect of independent variables on Digital Literacy is at a medium level.

c. *Predictive Relevance (Q-Square)*

Predictive Relevance (Q-Square) measures the ability of the model to predict the value of the dependent variable. A positive Q-Square value indicates that the model has good predictive relevance. In contrast, a negative Q-Square value indicates that the model is less relevant in predicting. $Q^2 > 0$ indicates that the model has Predictive Relevance $Q^2 < 0$ does not have Predictive Relevance (Ghozali & Latan, 2015) [25]. This measurement is important to understand how the model can be used in prediction and practical decisions. Q-square can be calculated using the following formula:

$Q^2 = 1-(1-R_1^2)\ (1-R_2^2)\ldots\ (1-Rn^2)$

Then,

$Q^2 = 1-\ (1-0{,}177^2)\ (1-0{,}359^2)$

$Q^2 = 1-\ (1-0{,}031)\ (1-0{,}128)$

$Q^2 = 1-\ (0{,}969)\ (0{,}266)$

$Q^2 = 1-\ (0{,}257)$

$Q^2 = 0{,}743$

The Q-Square value of 0.743 indicates that the model has good predictive ability. With this positive value, the model shows strong predictive relevance. This means the model can be used effectively to predict the value of the dependent variable in this study.

d. *Goodness of Fit* (GoF)

Goodness of Fit (GoF) measures how the overall model fits the existing data. A high GoF indicates that the model describes the data well, with a GoF value above 0.36 of a very good model (large), between 0.25 and 0.36 of the medium models, and a value below 0.25 indicating a low model (Ghozali & Latan, 2015) [25]. The GoF analysis provides an overview of how well the overall model reflects the relationships in the data. The average value of the Average Variance Extracted (AVE) is 0.651, and the average R2 value is 0.268. The Goodness of Fit (GoF) value can be calculated using the following formula:

GoF = $\sqrt{R^2\ x\ AVE}$

Then,

GoF = $\sqrt{0{,}268\ x\ 0{,}651}$

GoF = $\sqrt{0{,}174468}$

GoF = 0,418

The GoF value of 0.418 indicates that the model has good quality and is stated as large in reflecting the relationship between the variables in the data. Then, this model is overall adequate and reliable for further analysis.

GoF = $\sqrt{(R^2 \text{ x AVE})}$

Then,

GoF = $\sqrt{(0.268 \text{ x } 0.651)}$

GoF = $\sqrt{0.174468}$

GoF = 0.418

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4.3 Hypothesis Test

The hypothesis test is done using path coefficients, t-statistics values, and p-values to evaluate the strength and significance of the relationship between the variables. The analysis of the table is used to discuss whether each hypothesis proposed in this study is proven or not, by considering the Original Sample, Sample Mean, Standard Deviation, t-statistics, and P-Value values (Ghozali & Latan, 2015) [25]. The values of the direct influence path coefficients are presented in Table 10.

Table 10. Values of the Effect Path Coefficients Between Variables

Effects	*Original Sample (0)*	*Sample Mean (M)*	*Standard Deviation (STDEV)*	*t-Statistics (0/STDEV)*	*P-Value*
X -> Z	0,599	0,604	0,077	7,787	0,00
X -> Y	0,366	0,389	0,077	4,731	0,00
Z -> Y	0,261	0,279	0,135	1,932	0,054
X -> Z -> Y	0,156	0,169	0,087	1,798	0,073

Source: Primary Data (Processed)

H1: Human Capital E-Readiness Has a Positive Effect on Digital Literacy

Based on the calculation of the coefficient path, the effect of the Human Capital E-Readiness variable on Digital Literacy has an original sample value of 0.599, which is a positive value, with a sample mean of 0.604 and a standard deviation of 0.077. The t-statistics value is 7.787 and the P-value is 0.00. Because the t-statistics value is above 1.96 and the P-value is lower than 0.05, this indicates that Human Capital E-Readiness has a positive and significant effect on Digital Literacy at a high level. Thus, the hypothesis related to the effect of Human Capital E-Readiness on Digital Literacy is **proven and accepted**

H2: Human Capital E-Readiness Has a Positive Effect on Performance

Based on the calculation of the coefficient path, the effect of the Human Capital E-Readiness variable on Performance has an original sample value of 0.366, which is a positive value, with a sample mean of 0.389 and a standard deviation of 0.077. The t-statistics value is 4.731 and the P-value is 0.00. Because the t-statistics value is above 1.96 and the P-value is lower than 0.05, this indicates that Human Capital E-Readiness has a positive and significant effect on Performance at a high level. Thus, the hypothesis related to the effect of Human Capital E-Readiness on Performance is **proven and accepted**.

H3: Digital Literacy Has a Positive Effect on Performance

Based on the calculation of the coefficient path, the effect of the literacy digital variable on Performance has an original sample value of 0.261, which is a positive value, with a sample mean of 0.279 and a standard deviation of 0.135. The t-statistics value is 1.932 and the P-value is 0.0554. Because the t-statistics value is close to 1.96 and the P-value is higher than 0.05, this indicates that Digital Literacy does not have a significant effect on Performance at a 5% level of significance. Thus, the hypothesis related to the effect of Digital Literacy on Performance is **not proven and rejected**.

H4: Human Capital E-Readiness Has a Positive Effect on Performance Through Digital Literacy

Based on the calculation of the coefficient path, the effect of Human Capital E-Readiness on Performance through Digital Literacy has an original sample value of 0.156, which is a positive value, with a sample mean of 0.169 and a standard deviation of 0.087. The t-statistics value is

1.798 and the P-value is 0.073. Because the t-statistics value is close to 1.96 and the P-value is higher than 0.05, this indicates that it does not have a significant effect at a 5% level of significance. Thus, the hypothesis related to the mediation effect of Digital Literacy between Human Capital E-Readiness and Performance is **not proven and rejected**.

5. Conclusion

Based on the analysis results of the outer and inner model using Smart-PLS 3.0, this study shows that all indicators for the variables Human Capital E-Readiness, Digital Literacy, and Performance have good validity and reliability. The loading factor, Average Variance Extracted (AVE), and Cronbach's Alpha values for all variables are above the required standard. It indicates that these constructs can measure latent variables well. In addition, the analysis results of the effect size f^2 show that Human Capital E-Readiness has a large effect on Digital Literacy and a medium effect on Performance. Meanwhile, Digital Literacy also has a medium effect on Performance. This model can explain variations in the Performance and Digital Literacy variables with an R-Square value indicating a low effect on Performance and a medium effect on Digital Literacy. The study confirms that Human Capital E-Readiness plays an important role in improving Digital Literacy, which affects the Performance of coffee MSMEs in Yogyakarta.

References

[1] rri.co.id. (2023a). *KemenKopUKM Nilai Literasi Digital Masih Menjadi Kendala UMKM*. Rri.Co.Id. https://www.rri.co.id/umkm/208563/kemenkopukm-nilai-literasi-digital-masih-menjadi-kendala-umkm

[2] ICO. (2023). *Coffee_Report_and_Outlook_April_2023_-_ICO*.

[3] Katadata.co.id. (2023). *Indonesia Jadi Produsen Kopi Terbesar Ketiga di Dunia pada 2022/2023*. Katadata.Co.Id. https://databoks.katadata.co.id/datapublish/2023/07/06/indonesia-jadi-produsen-kopi-terbesar-ketiga-di-dunia-pada-20222023

[4] CNBC Indonesia. (2024, August 26). Ini 10 provinsi penghasil kopi terbesar di Indonesia, Lampung nomor 2. CNBC Indonesia. https://www.cnbcindonesia.com/research/20240826132329-128-566411/ini-10-provinsi-penghasil-kopi-terbesar-di-indonesia-lampung-nomor-2

[5] BPS Indonesia. (2024). *Statistik Indonesia 2024*.

[6] Mone, R. (2023). *Kopi Fest Indonesia 2023, Ajang berkumpulnya UMKM dan pecinta kopi*. Kopi Fest Indonesia Mnews.co.id. https://mnews.co.id/read/fokus/kopi-fest-indonesia-2023-ajang-berkumpulnya-umkm-dan-pecinta-kopi/#google_vignette

[7] SiBakul Jogja. (2024). *LADAKU SiBakul Jogja | Layanan Data Koperasi dan UKM DIY*. Retrieved November 11, 2024, from https://sibakuljogja.jogjaprov.go.id/ladaku/ladaku-ukm

[8] Turkyilmaz, A., Dikhanbayeva, D., Suleiman, Z., Shaikholla, S., & Shehab, E. (2020). Industry 4.0: Challenges and opportunities for Kazakhstan SMEs. *Procedia CIRP*, *96*(March), 213–218. https://doi.org/10.1016/j.procir.2021.01.077

[9] Scuotto, V., Nicotra, M., Del Giudice, M., Krueger, N., & Gregori, G. L. (2021). A microfoundational perspective on SMEs' growth in the digital transformation era. *Journal of Business Research*, *129*(January), 382–392. https://doi.org/10.1016/j.jbusres.2021.01.045

[10] Trinugroho, I., Pamungkas, P., Wiwoho, J., Damayanti, S. M., & Pramono, T. (2022). Adoption of digital technologies for micro and small business in Indonesia. *Finance Research Letters*, *45*(April 2021), 102156. https://doi.org/10.1016/j.frl.2021.102156

[11] Barney, B. J., & Hesterly, W. S. (2015). *Strategic Management and Competitive Advantage Concepts and Cases* (15th ed.). Pearson Education Limited.

[12] Barney, J. (1991). Firm Resources and Sustained Competitive Advantage. *Journal of Management*, *17*(1), 99–120. https://doi.org/10.1177/014920639101700108
[13] worldbank.org. (2020). *Human Capital Project-October 2020*. www.worldbank.org/humancapital
[14] Ríos-Manríquez, M. (2021a). Human Capital and Its Influence on The E-Readiness Of The Company: An Empirical Case. *International Journal of Innovation*, *9*(1), 79–107. https://doi.org/10.5585/iji.v9i1.17950
[15] Pearce, J. A., & Robinson, R. B. (2013). *Manajemen Strategis: Formulasi, Implementasi, dan Pengendalian*. Salemba Empat.
[16] Denicolai, S., Zucchella, A., & Magnani, G. (2021). Internationalization, digitalization, and sustainability: Are SMEs ready? A survey on synergies and substituting effects among growth paths. *Technological Forecasting and Social Change*, *166*(February), 120650. https://doi.org/10.1016/j.techfore.2021.120650
[17] Parinsi, W., & Musa, D. (2023). *Strategi pengelolaan sumber daya manusia untuk meningkatkan kinerja perusahaan yang berkelanjutan di Industri 4.0*. *Jurnal Manajemen dan Sains*, *8*(2), 1510. https://doi.org/10.33087/jmas.v8i2.1510
[18] Wernerfelt, B. (1984). A Resource-Based View of the Firm. *Strategic Management Journal*, *5*(2), 171–180.
[19] Stewart, T. (1998). Intellectual Capital: The New Wealth of Organizations. In *Work Study* (Vols. 56–59). https://doi.org/10.1108/ws.1999.07948fab.015
[20] Widiastuti, E., Kurniasih, R., & Martini, S. (2021). Can Digital Literacy Increase SME's Performance? An Evidence from SME in Banyumas. *International Sustainable Competitiveness Advantage*, *11*(1), 130–139.
[21] Rue, L. W., & Byars, LL. (1980). *Manajemen Theory and Application*. Ricard. D. Irwin Inc. Homewood IL.
[22] Tjahjadi, B., Soewarno, N., Nadyaningrum, V., & Aminy, A. (2022). Human Capital Readiness and Global Market Orientation In Indonesian Micro-, Small- And-Medium-Sized Enterprises Business Performance. *International Journal of Productivity and Performance Management*, *71*(1), 79–99. https://doi.org/10.1108/IJPPM-04-2020-0181
[23] Umboh, I. A., Didiek, V., & Aryanto, W. (2023). *Digital Marketing* Development Model Through Digital Literacy Mediation to Improve SME's Performance. *Media Ekonomi Dan Manajemen*, *38*, 94–108.
[24] Sugiyono. (2018). *Metode Penelitian Kuantitatif, Kualitatif, dan R&D*. Alfabeta.
[25] Ghozali, I., & Latan, H. (2015). *Partial Least Squares Konsep Teknik dan Aplikasi dengan Program Smart PLS 3.0*. Universitas Diponegoro Semarang.