



THE ROLE OF ACCOUNTING INFORMATION SYSTEM ON HUMAN CAPITAL AND FINTECH TO IMPROVE MSMEs PERFORMANCE

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ABSTRACT

This research aims to examine the factors of the role of accounting information systems in mediating the relationship between human capital and financial technology (fintech) on MSMEs performance in the digital era. The population in this study is the owner of MSMEs in the city of Semarang, Indonesia. This study used purposive sampling method. A total of 125 MSMEs were tested for the regression relationship of the four constructs. This study found the positive influence of human capital and accounting information systems on MSMEs performance. However, financial technology has no effect on MSMEs performance. In addition, the positive influence of human capital and financial technology on accounting information systems was found. Mediation analysis shows that accounting information systems play a role in bridging the relationship between financial technology and MSMEs performance. However, accounting information systems do not play a role in bridging the relationship between human capital and MSMEs performance.

Introduction

Micro, Small and Medium Enterprises (MSMEs) have a role in driving the wheels of Indonesian economy. Not only being the backbone, MSMEs also play a role in creating job opportunities throughout Indonesia. MSMEs are also the key to inclusive development planning, by bringing together large businesses and small businesses so that economic equality can touch all levels of society (Bappenas, 2020).

Readiness to face competition is the main obstacle in the development of creative industries which are believed to have a major contribution to improving Indonesian economy (Winarsih & Hendar, 2018). In this economic globalization, technology plays a role in encouraging the development of MSMEs, including by utilizing advances in technology, information and communication facilities, and the ease of borrowing business capital as a form of implementation of the digital economy with the aim that MSMEs can compete on the global stage. Furthermore, MSMEs are challenged with Asean Economic Community (AEC). (Imbayani & Endiana, 2016).

In July 13 2020, there was 17,599 MSMEs in Semarang (Semarang, 2020). The existence of SMEs is very potential. Based on this number, it can be said that MSMEs in Semarang City

are a contributor to the economy in the city sector. The rapid growth of MSMEs in Semarang, Indonesia requires MSME actors to create businesses with good performance.

Performance is a measure of the success of a business entity in achieving its goals. MSMEs often experience delays in the development process, the first is due to human resource capacity, the second is the limited access of MSMEs to capital, information technology and markets, as well as various other problems related to business activities. The performance of MSMEs is the estuary of business activities. However, in reality, the majority of MSME actors lack perspective and are not long-term oriented. To improve MSMEs performance, it tends to be conventional. The determination of product selling prices is often oriented only to conditions in industrial areas, while other costs such as labor and operations are rarely taken into account. Thus, MSME actors are wrong in measuring business productivity which ultimately leads to MSME performance. If these problems are not addressed, it will have an impact on MSMEs performance. Performance refers to employee achievements that are measured based on standards or criteria set by an organization, namely MSMEs. Performance is a condition that must be known and informed to MSME parties to determine the level of achievement of results of an agency related to the vision carried out by an organization and knowing the positive and negative impacts of an operational policy taken by MSMEs (Kresmawan et al., 2021)

Human capital is one of the factors that can influence MSMEs performance. MSMEs that are able to form optimal performance are usually seen from reliable human resources accompanied by work motivation as well as high commitment to achieving organizational goals. In intangible asset-based research, (Syarifah et al., 2020) explains the influence of human capital on MSMEs performance, a business will have success which can be seen from its ability to make decisions and have a communication relationship not only with internal components (employees), but also external components (stakeholders). With this statement, it shows that human capital can determine MSMEs performance. According to (III, 2021), human capital has a significant impact on economic growth, with a focus on capital obtained either through formal education or employment in the general market such as MSMEs. Thus, the better the existing human capital, the better MSMEs performance. This is also supported by research conducted by (Youth & Rahman, 2016), (Subaida & Sari, 2020), and (Zuliyati, Nita, 2017) that there is a positive influence between human capital on MSMEs performance. However, (Subaida & Sari, 2020) said that human capital through innovative work behavior does not indirectly affect MSMEs performance.

Apart from human capital, the factor that influences MSMEs performance is financial technology. Technological developments that have continued to progress accompanied by changes in the internet have succeeded in making the financial services industry's portrait brighter, namely the advancement of facilities in the form of electronic financial services, no longer manual. In addition to developments in non-cash payment instruments through e-money, various companies and/or industries are also transforming by implementing financial information and communication technology or better known as fintech (financial technology) (Mangewuri, 2018). With the existence of financial technology, everyone and business entities are able to obtain information regarding matters related to finance, without having to make physical contact, as well as start-up businesses or MSMEs. Research on the effect of financial technology on MSMEs performance has been carried out by (Rahardjo, Budi, Khairul Ikhwan, 2019);(Lestari et al., 2020);(Masocha & Dzomonda, 2018), which shows that there is an influence between fintech on MSMEs performance. Furthermore, (Romadhon, 2020) stated that in general, MSME actors consider financial technology (fintech), especially for digital payments, to be very useful for the continuity of business development, although not all MSMEs have a comprehensive understanding of financial technology (fintech). If the dynamics and transformation (fintech) are not managed properly, it is feared that it could disrupt the financial system and the economy(Ningsih, 2020). Fintech is an acronym for the words 'financial' and 'technology', namely an innovation in an activity related to finance. The innovations offered by Fintech are widely spread in all roles, whether B2B (Business to Business) to B2C (Business to Consumer)

(Saputri, 2021).

Based on some previous studies, it can be concluded that there is an underlying gap for this research. This research refers to previous research conducted by (Syarifah et al., 2020), which analyzes the effect of human capital on market orientation and MSMEs performance. The difference in this study is adding financial technology (fintech) as an independent variable and accounting information systems as a mediating variable. The use of financial technology variable is a form of implementation of the financial services sector in the digital economy which is able to improve MSMEs performance. This study only used one dependent variable, namely the MSMEs performance and eliminates market orientation variable because it is not the focus of research. In terms of location, Semarang, Indonesia, was chosen as a research location on the grounds that the growing of MSMEs in this city get faster. Human capital has criteria as a component to achieve excellence in terms of performance improvement, because in the presence of competitive resources, the organization has good performance. Meanwhile, financial technology shows that the use of financial technology makes business more efficient, so that the resulting performance is more optimal.

This study also used a mediating variable (intervening variable), namely the Accounting Information System. The Accounting Information System as a mediating variable bridges the independent variable to the dependent variable. In the research model, the independent variables (human capital and financial technology) may not have a direct effect on the dependent variable (MSMEs performance), but have an influence on the mediating variable (Accounting Information System). While the mediating variable (Accounting Information System) has an influence on the dependent variable (MSMEs performance). Thus, the independent variables (human capital and financial technology) indirectly affect the dependent variable (MSMEs performance). The Accounting Information System is able to provide added value to MSMEs by improving the quality of MSMEs performance. In addition, efforts are made to provide accurate and reliable information with the intention of serving as an alternative decision making. With the existence of an Accounting Information System, it is able to increase the competitive advantage of SMEs and is also able to improve communication (Djauhar, 2016). This is also supported by research conducted by (IM Alnajjar, 2017), that by using accounting information systems decision makers obtain useful information and as a strategy to achieve organizational goals, so as to improve MSMEs performance. The same results also show that the implementation of the Accounting Information System affects managerial performance in SMEs (Umar, 2019). Findings with different results found that the accounting information system did not have a significant effect on increasing or decreasing ROA and ROE (Wahyuni et al., 2016). The greater the ability of human capital in managing an organization, the greater the application of financial technology. Balanced with the application of accounting information systems as a form of decision-making control make a business entity have optimal performance.

Resource Based Theory

Resource-based theory provides an overview of the performance of an organization will be optimal if an entity is able to generate value with a competitive advantage. Based on the resource-based theory, the human capital variable has criteria as a component for realizing competitive advantage for an entity and ultimately being able to create value. Resources are one of the important variables in improving the performance of an organization and are one way to accelerate strategic steps to innovate (Ahammad, 2020). A work system with high involvement using optimal resources, and a work system with high commitment is one of the efforts to improve organizational performance (Salas-Vallina, 2021).

Stakeholder Theory

The implication of this stakeholder theory is to maximize the assets owned by MSMEs, including human capital, in order to obtain optimal performance for the welfare of the stakeholder group. The financial technology variable is also able to illustrate that an entity with a creative and digital economy can take advantage of digital transformation conditions in a technology-based

financial context. Such a strategy can become an opportunity to create competitive advantage so that an entity has value-added in the form of optimal performance and can make stakeholders survive in the long term.

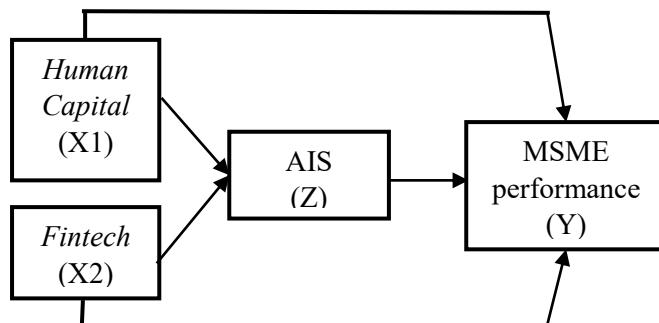
Human Capital is an added value for the organization that can be contributed in the form of competency development (Syarifah et al., 2020). Human capital has criteria as a component in realizing performance improvement excellence. This is because with competent resources, an organization will have good performance. According to (Ogbeifun & Shobande, 2021), Human capital is broadly defined in the economics literature to include education, health, and other productivity-enhancing investments. Human capital involves the distribution and realization of education and health and the development of new knowledge, which is the source of innovation and technological change that drives all factors of production. Strategic human capital is increasingly focusing on how individual-level human resources (i.e. employee knowledge and skills) develop into a valuable unit-level resource that can be used by organizations (Eckardt et al., 2021). Company-specific definition of human capital as the knowledge, skills, and abilities of employees. If an employee changes jobs, his company-specific human capital creates less value in the new company. In contrast, general human capital holds value throughout the company. The company's level of employee specificity is a function of how valuable human capital is (or not) in the new company (Kryscynski et al., 2021). Human capital and economic growth have been addressed in many studies from the past to the present. Despite the contribution to human capital, and thus to economic development and growth, human capital and economic growth have been discussed in many studies from the past to the present (Özbal, 2021). Human capital influences economic growth and can contribute to economic development by enhancing people's knowledge and skills. In most developed countries, economies are fostered by increasing their capacity to train productive and skilled workers (Gruzina et al., 2021).

Financial technology is a new financing model that is the result of a combination of financial services and technology (Rahardjo, Budi, Khairul Ikhwan, 2019). The use of financial technology as a result of technological developments makes business more efficient. Thus, SMEs performance produced is more optimal. FinTech now is the period of an activity where all activities become easy to obtain or provide with the help of technology. Currently what is felt to be very helpful in business or other activities are activities assisted by Fintech (Saputri, 2021). Fintech is a combination of financial services and technology that allows financial transactions to occur without having to have a bank account. This creates problems for the Indonesian people who are not ready to accept changes in economic activity. On the other hand, FinTech, which has been registered with Bank Indonesia, can help financial MSMEs to develop their business, by becoming a place for easy and safe lending transactions, so that all transactions made by MSMEs can be recorded and properly coordinated (Andriani & Putri, 2022). The harmony that exists between the role of fintech in business and the role of MSMEs in the economy, indicates that it is appropriate for MSMEs to continue to be supported so that they can develop through the utilization of current technological sophistication, such as digital payments which are relatively easy to reach by MSME players (Budhi Raharjo, 2019).

Accounting Information System is an information system designed for the decision-making process (Djauhar, 2016). The use of accounting information systems can be used as control and decision making which in turn can improve performance. The more competitive the ability of human capital in managing the organization, the greater the performance obtained. Therefore, an accounting information system is needed that is used as a control and decision-making process in an organization. Likewise, the greater the ability of business entities to take advantage of financial

technology opportunities, the greater the performance results obtained. Hence, we need an accounting information system as a form of control. An understanding of accounting information systems is a knowledge possessed by SMEs that information systems are important for SMEs (Ermawati & Arumsari, 2021). The accounting information system is a system for managing financial data and providing financial and non-financial information as output, so that financial data in MSMEs will be well coordinated (Suprantiningrum & Luke, 2021).

Gambar 1. Model Penelitian



Sumber: Data Penelitian

Research Hypothesis

1. Human capital is one of the intangible assets that plays a major role in improving MSMEs performance. The greater the competence possessed by human capital, the more optimal the performance obtained.

Based on resource-based theory, human capital can improve performance. With competitive resources, the organization has optimal performance.

The results of research conducted by (Youth & Rahman, 2016) mentions that investment in human capital gives SMEs an edge in value creation and performance advantage. Thus, human capital affects MSMEs performance. Looking at general human capital including education and experience from a general perspective while company-related human capital is related to education, skills and knowledge related to companies and human capital related to tasks includes knowledge, education, training, and skills related to doing work tasks. This case is same as the development of MSMEs that require positive performance from employees (Zhang, 2021). Therefore, the hypothesis proposed in this study is as follows:

H1: Human Capital positively affects MSMEs performance.

2. *Financial technology (fintech)* considered capable of making business activities operationally more efficient due to distance and time constraints, so that the resulting performance is more optimal. The greater the implementation of the use of financial technology, the higher the perceived performance.

Based on stakeholder theory, if the application of financial technology is carried out, the graphs of business entity performance reports experience a significant increase in profit. If the application is able to be achieved, then the beneficiaries are the stakeholders.

In research conducted by (Rahardjo, Budi, Khairul Ikhwan, 2019) shows that financial technology (fintech) plays an important role in improving MSMEs performance. Financial technology (fintech) has enormous potential for business development, especially micro, small and medium enterprises (MSMEs). (Lestari et al, 2020) said that the facilities offered by financial technology for MSMEs in Indonesia, namely the ease of getting loans and the ease of doing business transactions or payments as well as financial technology, makes a golden opportunity for MSME business actors in payment transaction activities with consumers, because it can increase people's purchasing power to consume MSME products (Saputri, 2021). Based on the description that has been stated previously, the hypothesis proposed in this study is as follows:

H2: *Financial technology (fintech)* has a positive effect on MSMEs performance.

3. Because the accounting information system is a decision-making process within an entity, it must be supported by quality human capital in its implementation so that the system can run according to the planned objectives. Thus, the level of human capital can affect the optimization of accounting information systems.

Based on resource-based theory, the decision-making process needs to be supported by superior resources in their fields to be more optimal. Human capital requires special training to find and hone skills within oneself so that they can compete with other organizations in various ways, especially with the speed of information (Brixiová, 2020).

Therefore, this study proposes hypothesis as follows:

H3: Human Capital positively affects accounting information system

4. MSMEs must be ready to accept changes and keep abreast of developments in the digitalization era by processing and storing data on all financial transactions using an accounting information system as supervision of all MSME activities.

Based on stakeholder theory, a business with a creative and digital economy can take advantage of the conditions of transformation in technology-based financial aspects in order to provide stakeholder welfare. Therefore, a decision-making action system is needed accompanied by business control. Financial technology is an innovative financial service that utilizes technology to increase the efficiency of financial services, with the development of financial technology that provides fast transaction services. This has a positive impact on the accounting information system (Kusumahadi & Utami, 2022).

Based on the description above, the proposed hypothesis in this study is as follows:

H4: Financial technology (fintech) has a positive effect on accounting information system.

5. The accounting information system is considered capable of having an impact on MSMEs performance because the use of accounting information systems as control and decision making can improve performance. Thus, whether or not the application of accounting information systems is optimal can influence the optimization of MSMEs performance. An accounting information system is a collection of resources such as people and equipment, designed to convert financial data within SMEs and other data into information. Accounting information systems can provide reliable information and can provide quality information for those who need it, must be free from errors, and must have clear intent and purpose (Suprantiningrum & Luke, 2021).

Based on the stakeholder theory, a business with the advantage of implementing an accounting information system is able to obtain more optimal performance for the welfare of its stakeholders. Therefore, a decision-making action system is needed accompanied by business control.

Research conducted by (Djauhar, 2016) shows that the accounting information system has a positive effect on MSMEs performance. Thus, the hypothesis proposed in this study is as follows:

H5: The accounting information system has a positive effect on MSMEs performance.

6. The role of human capital is important to determine the success of the business being run. In addition to human capital, to improve performance can be done through the application of accounting information systems. The greater the ability of human capital in managing the organization, the greater the performance results. Therefore, an accounting information system is needed as a form of control and organizational decision-making process.

Based on resource-based theory, in the presence of competitive resources, organizations have good performance that produces accounting information and can be used for decision making. It is said that resource-based theory refers to practices that make better use of employee capacities for self-management, personal development, and problem solving, and involves work practices with high commitment. Thus, when MSMEs employees have this resource base, it can be ensured that MSMEs performance is successful and optimal (Salas-Vallina, 2021).

Furthermore, the proposed hypothesis in this study is as follows:

H6: The accounting information system plays a role in mediating the relationship between human capital and MSMEs performance.

7. Financial technology plays an important role in improving MSMEs performance. Therefore, the Accounting Information System is used as a supervisor, controller and decision-making tool for all MSMEs activities. Therefore, the greater the organization's ability to take advantage of this financial technology opportunity, the greater the performance results

Based on stakeholder theory, the application of financial technology to a business aims to make it easy for people to access financial products. This can be offset by the application of accounting information systems as a form of control and decision making. Thus, optimal performance can be obtained. Based on the description above, the proposed hypothesis in this study is as follows:

H7: The accounting information system plays a role in mediating the relationship between financial technology and MSMEs performance.

Metodologi Penelitian (*Method*)

This is quantitative research using survey and questionnaire methods. According to information on the number of MSMEs in Semarang, Indonesia, there are 17,599 businesses with a total sample of 155 respondents. Furthermore, this study used a purposive sampling method in which the sample was selected using the following criteria:

- 1) MSMEs that have been established for at least two years can already see the results of their performance.
- 2) There is an implementation of the use of technology.

Variable Operational Definitions

1. MSMEs Performance (Y)

MSMEs performance is a result of achievement and a comparison is made between the results and the targets that have been determined at the beginning of a business (Wahyudiat, 2017). MSMEs performance is a goal-oriented process directed at ensuring that organizational processes are in place to maximize the productivity of employees, teams, and ultimately, the organization. Another opinion, performance is what is done or not done by employees. To be able to know the performance of employees in an organization, certain aspects are needed (Asbari et al., 2021). According to (Ocktafian, 2021), MSMEs performance is a contribution of employees given to companies which are then identified based on the work of these employees.

2. Human Capital (X1)

Human capital is an added value for the organization which can be contributed in the form of competency development (Syarifah et al., 2020). Human capital is one of the innovative objects derived from the concept of human capital because human capital is included in the construction of the production function of labor, resources and factors of production to pursue innovation (Xu, 2020). Human capital offers a basis for building unique resources and capabilities, strong human capital is intended to explain how companies can achieve and maintain competitive advantage through updating an organization's resources and capabilities (Elsharnouby, 2021). This means, how important the accumulation of human capital for the growth of MSMEs is (Han, 2020).

3. Financial Technology (X2)

Financial technology is a new financing model that is a combination of financial services and technology (Sari & Septyarini, 2018). Financial technology has technology and innovation to reach those who cannot access traditional transaction systems (Andriani & Putri, 2022). Fintech is very helpful media in business activities (Saputri, 2021)

4. Accounting Information System (X3)

Accounting Information System is an information system designed for management decision-making processes (Djauhar, 2016). An understanding of accounting information systems is a knowledge possessed by SMEs that information systems are important for SMEs. SMEs must understand that running a business must be balanced with technology for the

smooth running of their business (Ermawati & Arumsari, 2021). The accounting information system is a system for managing financial data and providing financial and non-financial information as output, so that financial data in MSMEs will be well coordinated (Suprantiningrum & Luke, 2021).

Analysis Techniques

This study used IBM SPSS Statistics 24 software for data analysis.

Descriptive Statistical Analysis

According to (Marsono, 2019), descriptive analysis is used in terms of data presentation, central measurement, and distribution size.

Data Quality Test

1. Validity Test

This test is used to measure the legitimacy or validity of a questionnaire. The decision on a question item can be considered valid if the r count is greater than the r table at the significance level of $\alpha = 0.05$ and the significance value (Sig.) is less than 0.05.

2. Reliability Test

Reliability test is a tool to measure a questionnaire which is an indicator of the variable. If it is used to collect data from research subjects to produce consistent data even though it is taken repeatedly, then the questionnaire can be said to be reliable (Hartono, 2019). Reliability test of this study used Cronbach Alpha. A variable is said to be reliable if it gives a Cronbach Alpha value of more than 0.70.

Classical assumption test

1. Normality Test

The Normality Test aims to test whether in the regression model, the confounding or residual variables have a normal distribution. There is a way to detect it by looking at the normal probability plot which compares the cumulative distribution of the normal distribution. The data is normally distributed, the significance value is above 0.05.

2. Multicollinearity Test

Multicollinearity test aims to test whether the regression model found a correlation between independent variables. A good regression model can be seen from a tolerance value greater than 0.10 or the same as a VIF value less than 10.

3. Heteroscedasticity Test

The heteroscedasticity test aims to test whether in the regression model, there is an inequality of variance from the residual in one observation to another (Ghozali, 2016). One way to detect whether there is heteroscedasticity is to do the Glejser test. The probability results are said to be significant if the significance value is above 0.05.

Multiple Linear Regression Analysis

This analysis is used to examine the relationship between the independent variables and the dependent variable.

The regression equation is formulated as follows:

Which means:

Y : MSMEs Performance

α : Constant

β_1 : Coefficient of Human Capital

β_2 : Coefficient of Financial Technology

X_1 : Human Capital

X_2 : Financial Technology

ϵ : Error

In this study, two independent variables and one mediating variable were used. The equation model used to measure the influence of accounting information systems in mediating the relationship between human capital and financial technology on MSMEs performance can be formulated as follows:

Which means:

Y : MSMEs Performance
α : Constant
c1 : Total effect coefficient (Human Capital on MSME Performance)
c2 : Total effect coefficient (Financial Technology on MSME Performance)
a1 : Path of X1 to Z
a2 : Path of X2 to Z

1. Goodness of Fit Model

1) Simultaneous Significance Test (Statistical F Test)

According to Ghazali (2016), the model feasibility test is used to measure the accuracy of the sample regression function in estimating the actual value. The F statistical test was conducted to see whether all the independent variables included in the regression model had a simultaneous or joint effect on the dependent variable.

2) Coefficient of Determination (Adjusted R²)

According to (Ghozali, 2016), the coefficient of determination (R²) measures how far the model's ability to explain the dependent variable. The coefficient of determination is between 0 and 1.

Hypothesis test

T-test is an analysis to find out how far the influence of the independent variables individually explains the dependent variable. The steps are as follows:

1) Hypothesis Formulation

- a. $H_0 : \beta \leq 0$, meaning that human capital has no effect on MSMEs performance.
 $H_{a1} : \beta > 0$, meaning that human capital has a positive effect on MSMEs performance.
- b. $H_0 : \beta \leq 0$, meaning that financial technology (fintech) has no effect on MSMEs performance.
 $H_{a2} : \beta > 0$, meaning that financial technology (fintech) has a positive effect on MSMEs performance.
- c. $H_0 : \beta \leq 0$, meaning that human capital has no effect on accounting information system.
 $H_{a3} : \beta > 0$, meaning that human capital has a positive effect on the accounting information system.
- d. $H_0 : \beta \leq 0$, meaning that financial technology (fintech) has no effect on the accounting information system.
 $H_{a4} : \beta > 0$, meaning that financial technology (fintech) has a positive effect on the accounting information system.
- e. $H_0 : \beta \leq 0$, meaning that the accounting information system has no effect on MSMEs performance.
 $H_{a5} : \beta > 0$, meaning that the accounting information system has a positive effect on MSME performance.

2) Determine the significant level (α) which is equal to 5%.

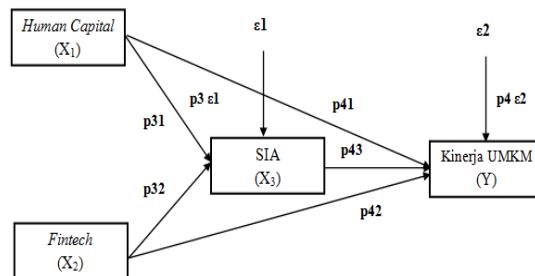
3) Determine the criteria for acceptance/rejection of H_0 , namely by looking at the significant value:

If the significance value is $< 5\%$, then H_0 is rejected or H_a is accepted.

If the significance value is $> 5\%$, then H_0 is accepted or H_a is rejected.

2. Indirect Effect Testing

Indirect testing in this study used path analysis to explain whether or not there is an indirect effect exerted by the independent variables through mediating variables on the dependent variable. The path diagram in this study is described as follows:



This Structural Equation is formulated:

$$\begin{aligned}
 X_3 &= p_{31}X_1 + p_{32}X_2 + \epsilon_1 \\
 Y &= p_{41}X_1 + p_{42}X_2 + p_{43}X_3 + \epsilon_2
 \end{aligned}$$

Result and Discussion

Descriptive Statistical Analysis

1. MSMEs performance

In the questionnaire, MSMEs Performance Variable consists of five indicators (divided into 12 statements). In MSMEs performance variable, the minimum value is 21 and the maximum is 60 with a median value of 43, the mean value of 42.74; mode value of 36, and standard deviation of 8.18

2. Human Capital

The Human Capital variable in the questionnaire consists of four indicators consisting of 9 statements. In the Human Capital variable, the minimum value is 10 and the maximum is 45 with a median value of 39, the mean average of 38.50; mode value of 45, and standard deviation value of 5.36.

3. Financial Technology (Fintech)

The Financial Technology (Fintech) variable in the questionnaire consists of four indicators consisting and 13 statements. In the Financial Technology (Fintech) variable, the minimum value is 19 and the maximum is 65 with a median value of 49, the mean value of 47.74; mode value of 53, and standard deviation value of 9.25.

4. Accounting information system

The Accounting Information System variable in the questionnaire consists of six indicators and 17 statements. In the Accounting Information System variable, the minimum value is 46 and the maximum is 85 with a median value of 67, the average mean of 67.69; mode value of 67, and standard deviation value of 10.23.

Data analysis

1. Validity Test

Validity test is used to measure the validity of a questionnaire. The results of the validity test with IBM SPSS Statistics 24 are as follows:

Tabel 1

Validity Test of MSMEs performance

Statement Points	r count	r table	Results
1	0.567		Valid
2	0.745	0.176	Valid
3	0.678		Valid
Statement Points	r count	r table	Results
4	0.740		Valid
5	0.729		Valid
6	0.570		Valid
7	0.658		Valid
8	0.538	0.176	Valid
9	0.612		Valid
10	0.487		Valid

11	0.811	Valid
12	0.759	Valid

Tabel 2
 Validity Test of Human Capital

Statement Points	r count	r table	Results
13	0.704		Valid
14	0.683		Valid
15	0.847		Valid
16	0.805		Valid
17	0.788	0.176	Valid
18	0.749		Valid
19	0.799		Valid
20	0.830		Valid
21	0.772		Valid

Tabel 3
 Validity Test of Financial Technology

Statement Points	r count	r table	Results
23	0.771		Valid
24	0.608		Valid
25	0.876		Valid
26	0.874		Valid
27	0.860		Valid
28	0.883		Valid
29	0.882	0.176	Valid
30	0.802		Valid
31	0.767		Valid
32	0.520		Valid
33	0.649		Valid
34	0.779		Valid
35	0.759		Valid

Statement Points	r count	r table	Results
36	0.620		Valid
37	0.735		Valid
38	0.783		Valid
39	0.703		Valid
40	0.728		Valid
41	0.826		Valid
42	0.770		Valid
43	0.824		Valid
44	0.803	0.176	Valid
45	0.763		Valid
46	0.802		Valid
47	0.729		Valid
48	0.817		Valid
49	0.814		Valid
50	0.566		Valid
51	0.626		Valid

The table shows the results of the validity test on all variable instruments, each item can be declared valid with a Product Moment value (r count) greater than r table, namely 0.176 (significance level of 5%). In addition, the value of all statement instruments has a significance value (Sig.) less than 0.05. Thus, it can be concluded that the data contained in the research variables can be used as research data.

2. Reliability Test

Reliability test is a tool used to measure a questionnaire. The results of the reliability test with IBM SPSS Statistics 24 in this study are as follows:

Model	Variable	Calculation	
		tolerance	VIF
1	Human Capital	0.912	1,097
	Financial Technology	0.912	1,097
2	Human Capital	0.850	1.176
	Financial Technology	0.580	1,725
	AIS	0.544	1,839

Variable	Cronbach Alpha	Results
MSMEs performance	0.883	Reliable
<i>Human Capital</i>	0.917	Reliable
Financial Technology (Fintech)	0.943	Reliable
Accounting information system	0.949	Reliable

Based on the table above, it can be concluded that the variables in this research questionnaire are declared reliable because the magnitude of Cronbach Alpha for each variable has a significance value greater than 0.70.

Classical assumption test

1. Normality Test

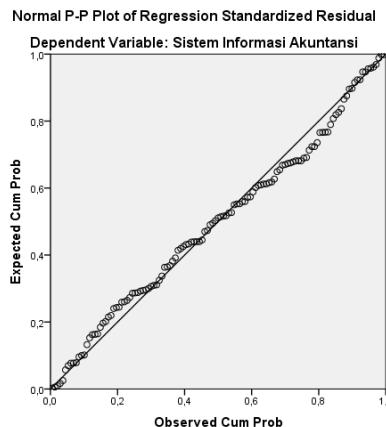
The normality test aims to test whether in the regression model, the confounding or residual variables have a normal distribution. Following are the results of the normality test with the Kolmogorov-Smirnov test in this study:

Model	Sig. (2-tailed)	Sig level.	Results
1	0.079	0.05	Normal
2	0.200	0.05	Normal

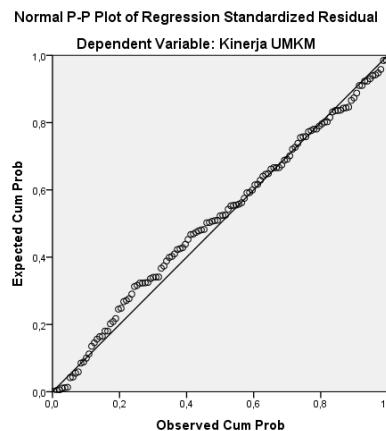
Based on the table, the Kolmogorov Smirnov value in the first model is 0.079 and the second model is 0.200 which is greater than 0.05. Thus, the residual data in both models are normally distributed.

In addition to using statistical analysis, a normally distributed data can be seen through histogram graphs and normal probability plots.

Human Capital and Fintech on Accounting Information Systems



Human Capital, Fintech, Accounting Information System and MSMEs Performance



Source: Primary data processed, 2021

The two images show the dots spread out following a diagonal line and none of them spread far. Thus, the sample data from each variable is normally distributed and meets the assumption of normality.

2. Multicollinearity Test

The multicollinearity test was used to test whether the regression model found a correlation between the independent variables. A good regression model is a regression model that has no multicollinearity symptoms. The results of the multicollinearity test are as follows:

It can be seen that all independent variables in the two models in this study did not occur multicollinearity because they have a tolerance value greater than 0.10 and VIF less than 10.

3. Heteroscedasticity Test

Heteroscedasticity Test aims to test whether in the regression model, there is an inequality of variance from one residual observation to another (Ghozali, 2016). The results of the heteroscedasticity test are as follows:

Model	Variable	Significance
1	Human Capital	0.767
	Financial Technology	0.816
	Human Capital	0.205
2	Financial Technology	0.784
	Accounting information system	0.448

It can be seen that the significance value is > 0.05 . These conditions indicate that the variable regression model does not occur heteroscedasticity or homoscedasticity occurs, meaning that there is no correlation between the data size and the residual.

Multiple Linear Regression Analysis

Multiple linear regression analysis was used to examine the relationship between the independent variables and the dependent variable. The results of multiple linear regression analysis can be shown in the following table:

Human Capital, Financial Technology (Fintech) and Accounting Information Systems

Model	Unstandardized Coefficients		Q	Sig.
	B	std. Error		
(Constant)	21,598	5,405	3,996	0.000
Human Capital	0.395	0.133	2,963	0.004
Financial Technology	0.647	0.077	8.355	0.000
(Fintech)				

From the multiple linear regression test presented in table 4.23, the following equation is obtained:

$$Y = 21.598 + 0.395X_1 + 0.647X_2$$

The constant value obtained from the regression equation is 21.598 which means that if the human capital variable, fintech value is constant, then the value of the accounting information system is 21.598 units.

In the multiple linear regression equation, it is known that the human capital coefficient is 0.395, meaning if other independent variables have a constant value and human capital has increased by 1 unit, then the Accounting Information System (AIS) has increased by 0.395. It can be said that the higher the human capital, the more optimal the application of existing accounting information systems.

In the multiple linear regression equation, it is known that the fintech coefficient value is 0.647, meaning that if the other independent variables are constant and fintech has increased by 1 unit, then Accounting Information System (AIS) has increased by 0.647. It can be said that the higher the application of Fintech, the higher the application of the required accounting information system. The results of multiple linear regression analysis can be shown in the following table:

Human Capital, Financial Technology (Fintech), Accounting Information Systems and MSMEs Performance

Model	Unstandardized Coefficients		t	Sig.
	B	Error		
(Constant)	2,416	4,903	0.493	0.623
<i>Human Capital</i>	0.754	0.118	6,402	0.000
<i>Financial Technology</i>	-0.119	0.083	-1,436	0.154
(Fintech)				
Accounting information system	0.251	0.077	3,244	0.002

Source: Primary data processed, 2021

From the multiple linear regression tests presented in the table, the following equation is obtained. It is known that the constant value obtained from the regression equation is 2.416 which means that if the variables of human capital, fintech, and accounting information systems have a constant value, then the value of MSMEs performance amounted to 2,416 units.

In the multiple linear regression equation, it is known that the coefficient value of human capital variable is 0.754, meaning that if the other independent variables have a constant value and human capital has increased by 1 unit, then MSMEs performance has increased by 0.754. It can be said that the higher the human capital, the more optimal MSMEs performance.

In the multiple linear regression equation, it is known that the coefficient value of the fintech variable is 0.119 in a negative direction, meaning that if the other independent variables have a constant value and financial technology has decreased by 1 unit, then the MSMEs performance has increased by 0.119. It can be said that the inability to transform existing fintech is one of the contributing factors.

In the multiple linear regression equation, it is known that the coefficient value of the AIS variable is 0.251, meaning that if the other independent variables have a constant value and the AIS has increased by 1 unit, then MSMEs performance has increased by 0.251. It can be said that the higher the implementation of AIS, the more optimal MSMEs performance will be.

Goodness of Fit Model

1. Simultaneous Significance Test (Statistical F Test)

According to Ghozali (2016), the model feasibility test is used to measure the accuracy of the sample regression function in estimating the actual value. The F statistical test was conducted to see whether all the independent variables included in the regression model had a simultaneous or joint effect on the dependent variable.

Human Capital, Financial Technology (Fintech), Accounting Information Systems and MSMEs Performance

Regression Models	P-Value	Results
1	0.000	Fit models

It is known that the probability value is 0.000. Due to the probability of $0.000 < 0.05$, it can be concluded that simultaneously the variables of Human Capital, Financial Technology (Fintech), and Accounting Information Systems have an effect on MSMEs performance.

2. Coefficient of Determination (R^2)

The coefficient of determination (R^2) can be seen in the Adjusted R Square column in the following table (Ghozali, 2016).

Model	R	R Square	Adjusted R Square	std. Error of the Estimation
1	0.621	0.385	0.370	6,490

It is known that the Adjusted R Square value is 0.370 or 37%. The results of these coefficients indicate that 37% of MSMEs performance is influenced by Human Capital, Financial Technology (Fintech), and Accounting Information Systems. While the remaining 63% is influenced by other variables outside of this study.

Hypothesis test

1. Partial Test (t test)

T-test is an analysis to find out how far the influence of the independent variables individually explains the dependent variable.

Human Capital, Financial Technology (Fintech), Accounting Information Systems and MSMEs Performance

Model	Unstandardized Coefficients		Q	Sig.
	B	std. Error		
(Constant)	2,416	4,903	0.493	0.623
Human Capital	0.754	0.118	6,402	0.000
Financial Technology (Fintech)	-0.119	0.083	-1,436	0.154
Accounting information system	0.251	0.077	3,244	0.002

Human Capital, Financial Technology (Fintech) and Accounting Information Systems

Model	Unstandardized Coefficients		t	Sig.
	B	std. Error		
(Constant)	21,598	5,405	3,996	0.000
Human Capital	0.395	0.133	2,963	0.004
Financial Technology (Fintech)	0.647	0.077	8.355	0.000

Based on the above table, it can be drawn as follows:

1) The Effect of Human Capital on MSME Performance

The table above shows that the coefficient value of the human capital variable is 0.754, meaning that human capital has an influence on MSMEs performance and a significant value of $0.000 < 0.05$. So that the first hypothesis (H1) which states that human capital has a positive effect on MSMEs performance is accepted.

2) The Influence of Financial Technology on MSMEs Performance

The table above shows that the fintech coefficient value is 0.119 in a negative direction, meaning that fintech has no influence on MSME performance and a significant value of 0.154 > 0.05 . Thus, it can be concluded that the second hypothesis (H2) which states that financial technology (fintech) has a positive effect on MSME performance is rejected.

3) The Influence of Human Capital on Accounting Information Systems

The table above shows that the human capital coefficient is 0.395, meaning that human capital has an influence on accounting information systems and a significant value of 0.004 < 0.05 . Thus, it can be concluded that the third hypothesis (H3) which states that human capital has a positive effect on accounting information systems is accepted.

4) The Effect of Fintech on Accounting Information Systems

Based on the table above, it shows that the fintech coefficient value is 0.647, meaning that fintech has an influence on the accounting information system and a significant value of 0.000

<0.05. Thus it can be concluded that the fourth hypothesis (H4) which states that fintech has a positive effect on accounting information systems is accepted.

4) The Effect of Accounting Information Systems on MSMEs Performance

Based on the table above, it shows that the coefficient value of the accounting information system is 0.251, meaning that the accounting information system has an influence on MSMEs performance and a significant value of 0.002 <0.05. Thus, it can be concluded that the fifth hypothesis (H5) which states that accounting information systems have a positive effect on MSME performance is accepted.

Indirect Effect Testing

1. The Role of Accounting Information Systems in Mediating Human Capital on MSMEs Performance

The direct influence exerted by Human Capital (X1) on MSMEs Performance (Y) is 0.495. While the indirect effect of Human Capital (X1) through the Accounting Information System (Z) on UMKM Performance (Y) is the multiplication of the beta value of X1 to Z with the beta value of Z to Y, namely:

$$0,584 \times 0,314 = 0,183$$

Based on the results of the calculation above, it is known that the value of the direct effect is 0.495 and the indirect effect is 0.065, which means that the value of the indirect effect is smaller than the value of the direct effect. These results indicate that indirectly, the Accounting Information System is not proven to mediate the relationship between Human Capital and MSMEs performance.

Thus, it can be concluded that the sixth hypothesis (H6) which states that Accounting Information Systems play a role in mediating the relationship between Human Capital and MSMEs Performance is rejected.

The direct influence provided by Financial Technology (X2) on MSMEs Performance (Y) is 0.134 in a negative direction. While the indirect effect of Financial Technology (X2) through Accounting Information Systems (Z) on MSMEs Performance (Y) is the multiplication of the beta value of X2 to Z with the beta value of Z to Y, namely:

$$0,207 \times 0,314 = 0,065$$

Based on the results of the calculation above, it is known that the value of the direct effect is 0.134 with a negative direction and the indirect effect is 0.183, which means that the value of the indirect effect is greater than the value of the direct effect. These results indicate that indirectly, the Accounting Information System is proven to mediate the relationship between Financial Technology (Fintech) and MSMEs performance.

Thus, it can be concluded that the seventh hypothesis (H7) which states that Accounting Information Systems play a role in mediating the relationship between Financial Technology (Fintech) and MSMEs performance is accepted.

Discussion of Research Results

1. The Effect of Human Capital on MSMEs Performance

The results of the study show that Human Capital has an influence on MSMEs performance, meaning that investment in human resources gives MSME an advantage in value creation and performance excellence. The greater the competence possessed by Human Capital, the more optimal the performance will be.

Based on resource-based theory, Human Capital has criteria as a component to realize excellence in terms of performance improvement. With competitive resources, the organization has optimal performance. This research is in line with research conducted by (Syarifah et al., 2020), (Zuliyati, Nita, 2017), and (Youth & Rahman, 2016), that the Human Capital variable has a significant effect on MSMEs performance. However, this study

contradicts research conducted by (Subaida & Sari, 2020), that Human Capital indirectly through innovative work behavior has no effect on Micro Business Performance.

2. The Effect of Financial Technology on MSMEs Performance

Based on the results, it was found that Financial Technology (Fintech) has no influence on MSMEs performance. This means that MSMEs in Semarang City, Indonesia, have their own challenges, in the context of literacy, for example. This challenge is illustrated by the low level of public trust in fintech. This is in accordance with the respondent's answer to statement number 32 indicating a low score. Fintech plays a role in helping make investments more efficient. However, this is not known by everyone. As the results of the respondents' answers to statement number 32 mean that the majority of MSME owners do not know this. With a lack of literacy as a challenge, Financial Technology (Fintech) has not been able to affect MSMEs performance.

Based on stakeholder theory, the link that exists between financial technology and MSMEs performance is that if the application of fintech is implemented, the graph of the business entity performance report experiences a significant increase in profit. If the application is able to be achieved, then the beneficiaries are the stakeholders. For the government, a significant increase in operating results means that business entities make a positive contribution to economic development and customers who are open to technology think that the intended business entity has added value because it has implemented financial technology.

This study contradicts research conducted by (Rahardjo, Budi, Khairul Ikhwan, 2019),(Lestari et al., 2020),(Masocha & Dzomonda, 2018), and(Sari & Septyarini, 2018), that Financial Technology (Fintech) has an effect on MSMEs performance.

3. The Influence of Human Capital on Accounting Information Systems

Results research shows that Human Capital has an influence on Accounting Information Systems, meaning that in MSMEs in Semarang City, Indonesia, Accounting Information Systems are influenced by Human Capital. MSMEs that are supported by competent resources in their fields make the decision-making process more optimal.

Based on resource-based theory, if an organization is supported by superior resources in its field, makes organizational activities structured and capable of being used as a basis for decision making.

4. Effect of Financial Technology on Accounting Information Systems

The results of the study state that Financial Technology (Fintech) has an influence on Accounting Information Systems, meaning that in MSMEs in Semarang City, Indonesia, Accounting Information Systems are influenced by Financial Technology (Fintech). Technological developments in the form of Financial Technology (Fintech) make business entities need a reference for processing data in a structured manner in the form of an Accounting Information System.

Based on stakeholder theory, a business with a creative and digital economy can take advantage of the conditions of transformation in technology-based financial aspects to provide stakeholder welfare. Therefore, a decision-making action system is needed accompanied by business control.

5. Effect of Information Systems on MSMEs Performance

The results of the study show that the Accounting Information System has an influence on MSMEs performance, meaning that MSMEs in Semarang City, Indonesia, is influenced by the Accounting Information System. Accounting Information System is able to provide useful information as well as a strategy to achieve organizational goals. In addition, efforts are made to provide accurate and reliable information with the intention of being used as an alternative decision making. Thus, the performance of business entities has increased.

Based on the stakeholder theory, a business with the advantage of implementing an Accounting Information System is able to get more optimal performance for the welfare of

its stakeholders. Therefore, a decision-making action system is needed accompanied by business control.

6. The Role of Accounting Information Systems in Mediating Human Capital and MSMEs Performance

The results of the study show that the Accounting Information System does not mediate the relationship between Human Capital and MSMEs Performance. This is due to the lack of data storage by coding and systematic sorting which is considered impractical and time consuming. This is in accordance with the respondents' answers to statement number 39 showing a low score, which means that the majority of MSMEs have not used this application. The lack of optimal action procedures and instructions causes supervision and control of MSMEs activities to be weak. So that it has not been able to have an impact on MSMEs performance.

Based on resource-based theory, if an organization is supported by superior resources in their field, the decision-making process will be more optimal. Human capital is very influential. With competitive resources, the organization has good performance. Performance produces accounting information that can be used as a decision making.

7. The Role of Accounting Information Systems in Mediating Financial Technology and MSMEs Performance

The results of the study show that the Accounting Information System mediates the relationship between Financial Technology (Fintech) and MSMEs Performance, meaning that MSMEs in Semarang City, Indonesia, is influenced by the Accounting Information System which mediates the Financial Technology (Fintech) variable. The implications of implementing an accounting information system can be used as an evaluation of MSME activities. Besides, the presence of the digitalization era in the form of Financial Technology (Fintech) makes activities more efficient. Therefore, no matter how good Financial Technology (Fintech) is, if it is not balanced with the application of accounting information systems, it will reduce the quality of MSMEs performance.

Based on stakeholder theory, the application of Financial Technology in a business aims to make it easier for people to access financial products. This can be offset by the application of accounting information systems as a form of control and decision making. Thus, optimal performance can be obtained.

Conclusion

Human capital has proven to have an effect on MSMEs performance, meaning that investment in human resources contributes in the form of excellence, for example in terms of creativity in reading business opportunities. Financial technology(fintech) has not proven to have an effect on the MSMEs performance, meaning that MSME players in Semarang, Indonesia, do not understand fintech. With this lack of understanding of literacy, financial technology has not been able to affect MSMEs performance. Human capital has proven to have an effect on the accounting information system, meaning that MSMEs in Semarang City, Indonesia is supported by competent resources in their fields. Thus, the decision-making process for MSME actors becomes more optimal. Financial technology (fintech) has proven to have an effect on accounting information systems, meaning that with technological developments in the form of financial technology, MSMEs need a reference for processing data in a structured manner in the form of accounting information systems. The Accounting Information System has proven to have an effect on MSMEs performance, meaning that by using the accounting information system, MSME actors can obtain useful information, as well as a strategy for achieving organizational goals, so that MSMEs performance has increased. The Accounting Information System is not proven to mediate the relationship between human capital and MSMEs performance, meaning that the lack of optimal data management procedures causes supervision and control of MSME activities to be weak. So that it has not been able to have an impact on MSMEs performance. The accounting information system is proven to mediate the relationship between financial technology and MSMEs performance, meaning that the implications of implementing an accounting information system

can be used as an evaluation of the activities of a business entity. Especially with the presence of the digitalization era in the form of financial technology which makes activities more efficient. Thus, no matter how good financial technology is, if it is not balanced with the application of accounting information systems, it will reduce the quality of MSMEs performance.

Implications

Based on the results of this study, researchers suggest that MSME owners can develop a creative attitude, in other words, switch to a more advanced attitude. Human capital that has innovative work behavior is reflected in possession of a critical mind, daring to be open to revolution, transitioning from traditional to modern. MSMEs also need to develop their innovation capabilities. Innovation that is not only limited to products, technology and markets, but also matters that are closely related to business processes, especially to its human capital.

Research Limitations

MSMEs in Semarang City in this study are dominated by businesses that have a micro scale, so understanding of the benefits of fintech is felt to be lacking. This study used questionnaire as data collection technique. It is possible that the data is subjective. In addition, it can allow the results of the data obtained to have the opportunity to occur bias.

Suggestion

For MSMEs in Semarang City, Indonesia

MSME actors can be provided with assistance, especially owners, so they can be more adaptive to technological developments, especially in the field of financial technology.

For Future Research

Future researches are expected to be able to conduct research with other variables, for example Green Product Innovation which refers to environmentally friendly products. Besides, they are also expected to be able to examine MSMEs that have products with a halal label.

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