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The Influence of Sharia Financial Literacy and Sharia Financial Inclusion Through Islamic Fintech on Sharia Financial Transactions on BUS in Indonesia

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Abstract

This research proposes a model to explain the influence of the role of Islamic financial technology and inclusion Islamic finance in moderate influence literacy Islamic finance towards transaction sharia finance at Sharia Commercial Banks in Indonesia. The results of the research state that: 1) literacy Islamic finance has a significant positive effect on transactions sharia finance; 2) Islamic financial technology moderates influence literacy Islamic finance towards transaction sharia finance; 3) inclusion Islamic finance moderates influence literacy Islamic finance towards transaction Islamic finance. In implementing digital transformation, Sharia BPRs in Indonesia must seriously consider information transparency, financial stability, and innovation capabilities, and choose different paths based on intrinsic characteristics such as property rights, scale, and growth.

Keyword: Literacy Sharia Finance, Inclusion Sharia Finance, Islamic Financial Technology, Transactions Islamic Finance

1. INTRODUCTION

The existence of sharia commercial banks is experiencing enhancement globally in five years lastly, one trigger enhancement the number of Sharia Commercial Banks is with ratification of the Sharia Commercial Bank Law. Ratified The Sharia Commercial Bank Law of 2008 which became factor pusher growth and development of Islamic banks in Indonesia (Siswanti & Cahaya, 2021). Presence constitution the expected give something encouragement performance from the Sharia Commercial Bank industry in Indonesia is more structured and directed as well as have a target for always develop. Concrete evidence from enhancement BUS development is asset

Islamic finance in five years final has reached IDR 1,048.8 trillion, total of compared to with total assets finance nationally which reached Rp. 13,092 trillion, meaning sharia market share in 2022 has reach figure 8%. Amount asset the consists on Sharia Commercial Bank assets Rp. 389.74 trillion, sharia capital market 559.59 trillion, and institutions finance non-bank 99.15 trillion (Financial Services Authority, 2022).

Next, look from rate development transaction that BUS in Indonesia is still very small compared to with Conventional Commercial Banks. Transaction roadmap finance at Sharia Commercial Banks includes various activity activity transaction sell buy like sharia demand deposits, sharia deposits, sharia savings, sukuk, sharia financing and sharia pawning (Financial Services Authority, 2022). Following for presentation comparison development Sharia Commercial Bank transactions comparison national and international as following :

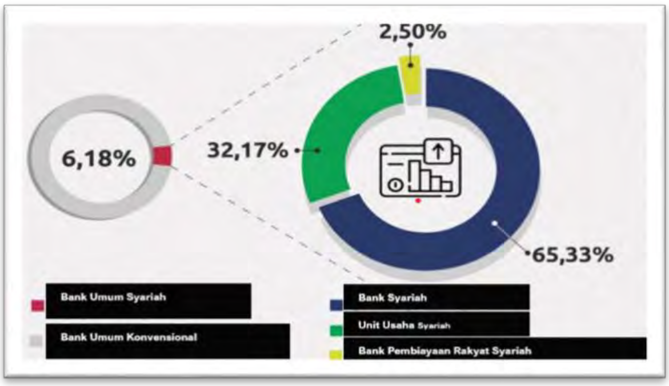


Figure 1. Comparative Development of Sharia Commercial Bank Transactions with Conventional Commercial Banks in 2022 (Nationally)

Source: Financial Services Authority Reporting Data

Viewed from figure 1. on seen that the development of Sharia Commercial Banks in Indonesia is still low that is only 6.18% compared to conventional banks which have mark percentage amounting to 93.82%. Whereas if see The potential that exists is enormous considering that Indonesia is one of the countries with resident Muslim largest in the world. Next, comparison development BUS and BUK transactions in cross interstate, as following:

Figure 2. Comparison of the Development of Sharia Commercial Bank Transactions with Conventional Commercial Banks in 2022 (Internationally)

Source: Financial Services Authority Reporting Data

Viewed from figure 2. is known that development of Sharia Commercial Banks in Indonesia, namely at the level of 6.50% at the end in 2022. In case This claimed as rate development transaction lowest if compared to with Malaysia as its neighboring country or with regional countries east middle such as Oman, Bahrain, UAE, Qatar, Kuwait and Saudi Arabia. From figure 1.2. above, then low contribution Indonesian Sharia Commercial Bank transactions globally are caused by growth transaction in scale national ones that don't significant. In fact the seen condition asymmetric, where is the percentage resident there are more Muslims in Indonesia tall that is amounting to 87.2% compared to Malaysia which only amounting to 61.3% (Financial Services Authority, 2022). And conditions the confirmed by Siswanti *et al.* (2021) that Indonesia and Malaysia have a number of similarity, majority the population in Indonesia and Malaysia are Muslim, with thereby condition the development of Islamic banks in Indonesia and Malaysia is expected own similarities, although Islamic banks in Malaysia are more fast develop compared to Indonesia. In the same tangent that amount The population in Indonesia in 2022 is as much as 277.75 million (exist increase from 2021 that is amounting to 1.13%) ie with 241.7 million the Indonesian population embraced Islam, namely equivalent with 87.02% and as much as 20.65 million soul or 7.43% are Christians, 8.5 million soul or 3.06% embrace the Catholic religion (Ministry of Home Affairs, 2022).

According to Amini *et al.* (2020) one form transaction Islamic finance is save or use Sharia Commercial Bank accounts, but the total number of accounts registered with Sharia Commercial Banks is only 11% if compared to with Conventional Commercial Banks. Amount Sharia Commercial Bank customers still said small If remember that amount The Muslim population in Indonesia is population Muslim largest in the world (Financial Services Authority, 2022). Similar thing confirmed that from amount population and majority Muslim that, however only 30 million residents who become Islamic bank customers, namely 13.1%, do so transaction finance at Sharia Commercial Banks meanwhile amounting to 86.9% of transactions at Conventional Commercial Banks (World Population Review, 2020). Following comparison of quantity data customers at Sharia and conventional Commercial Banks from 2019 – 2022 as following:

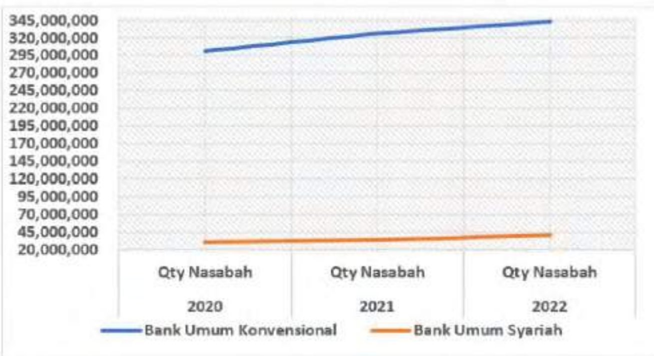


Figure 3. Comparison of the Number of Customers of Sharia Commercial Banks with Conventional Commercial Banks for 3 Periods (2020-2022)

Source: Financial Services Authority Reporting Data

From figure 3. is seen that in accumulation of 3 periods on the amount Conventional Commercial Bank customers far more high (average 300 million customers) if compared to with Sharia Commercial Banks (average 30 million). Although percentage in 3 periods at Sharia Commercial Banks shows index increase positive, however condition the assessed Still not enough significant or not balanced in size amount customers at Conventional Commercial Banks.

Based on ADB Institute research (2022), several factors that become reason low interest public to decision public in transaction Sharia finance is among the first level literacy low sharia finance where new reach amounting to 9.14% in 2022. Furthermore, regarding with the Sharia Supervisory Board (DPS) as party Sharia Commercial Bank coordinator assessed Still limited in function there is no supervision balanced will procurement of skilled human resources and competencies (dFinancial Services Authority, 2022). If the role of DPS is not optimal in do sharia supervision of sharia practices that result in violations of sharia compliance, then, the image and credibility of sharia banks in the eyes of public become negative, so can lower trust public to

Islamic banks (Ruwaidah, 2020). Lack of literacy about product Islamic finance can influence decision consumption individual (Khan *et al.*, 2020). Knowledge and skills it is the individual who makes it possible make decision informed finances with good and effective (Thilakam, 2012). In a seminar, the Financial Services Authority (2022) released that literacy sharia finance by 8.93% and Index National Sharia Economic Literacy is 16.2%. This figure show literacy sharia economics still low though Indonesia known as a resident country Muslim the most.

According to The Financial Services Authority (2022) states that level inclusion Islamic finance only reaching 12.12% in 2022 where there is enhancement than year previously of 9.10%. But although There is enhancement than year before, if rationalized level inclusion Islamic finance with inclusion finance conventional still said low or left behind far where index percentage inclusion finance conventional reached 85.10%. And achievements percentage inclusion Islamic finance yet reach rather than government targets that is by 90% (Indonesian Sharia Economic Masterplan, 2022).

The need for a good strategy in get closer institution sharia finance to public. One possible strategy used is using a through strategy digitalization in line with development revolution institution Islamic finance. Growth Islamic Fintech faces problems and challenges in its development among others, namely Still lack of instrument policies governing work processes, availability of source Power human, risk high security and yet reach to consumer class below (Rusydiana, 2019). Utilization Islamic financial technology in Indonesia is also still there low, new reached 38%. Islamic fintech organizer and the largest volume in Indonesia, but achievement usage globally Islamic fintech in Indonesia still low even globally in the positioning occupy position below Saudi Arabia and Malaysia which are scale measurement resident the Muslim more big than in Indonesia. In condition the seen asymmetric rate Islamic fintech (Indonesian Sharia Economic Masterplan, 2022).

2. METHODOLOGY AND DATA

2.1 Research Model

A research paradigm is a plan on how to collect, process and analyze data in a systematic and directed manner so that research can be carried out efficiently and effectively in accordance with the research objectives. This type of research is quantitative with an associative causality approach (Sugiyono, 2019). This research aims to determine how much influence sharia financial literacy and sharia financial inclusion have on sharia financial transactions moderated by sharia financial technology. To get an idea of the influence between these two variables, the author uses the causal associative method. This research is a cross-sectional study, namely research in which data is collected only once according to the time needed to answer the research question. This type of research seeks to study the dynamics of the relationship or correlation between risk factors and their impact or effects (Sekaran & Bougie, 2016). Both were observed at the same time, meaning that each research subject was observed only once and the risk factors and impacts were measured according to the condition or status at the time of observation. This research method was chosen because it can provide an overview of the relationship between sharia financial literacy, sharia financial inclusion, and Islamic financial technology on sharia financial transactions. Data collection for this research used a structured questionnaire, the questionnaire was created to explore information related to the perceptions of Sharia Commercial Bank customers regarding sharia financial literacy, sharia financial inclusion, and sharia financial technology in carrying out sharia financial transactions. Data analysis used SEM-PLS version 4.0.0.

2.2 Data

The population in this research is all Sharia Commercial Banks in DKI Jakarta as many 39.9 million with a sample size of 200 respondents above the minimum limit according to calculations of Hair *et al.* (2017) that the minimum sample is the number of indicators multiplied by 10. Research data collection starts from March to August 2023 with direct measurements through questionnaires, surveys and documentation on respondents directly in the field.

3. RESULTS AND DISCUSSION

3.1 Results

3.1.1 Test the Outer Model

Table 1. Descriptive Statistics

Measurement	Y	X1	X2	Z
Mean	4.780	4.715	4.770	4.725
Median	5	5	5	5
Min	3	3	3	3
Max	5	5	5	5
Std. Deviation	0.334027778	0.370138889	0.352083333	0.410416667
Excess Kurtosis	3.880	2.106	3.898	5.332
Skewness	-2.138	-1.728	-2.167	-2.322

(Y: Transaction sharia finance ; X: literacy sharia finance ; Z1 : Islamic fintech ; Z 2 : inclusion sharia finance)

Source: Data Processed from SEM PLS Version 4.0.0 from The BUS Customer Questionnaire

Descriptive statistics of the variables used in this research are presented in Table 1. Based on the table above, transaction variables Islamic finance has an average value range of 4,780 and a standard deviation amounting to 0.334027778. Based on these findings, there are quite significant differences between transaction values lowest and largest sharia finance, and the standard deviation value is lower than the average value. Based on Table 1., the Islamic literacy technology variable has value the average is 4,715 and the standard deviation is 0.370138889. Based on these findings, it can be said that there are quite large differences between literacy levels the lowest and largest sharia finance, with a standard deviation value that is smaller than the average value.

Based on Table 1, the Islamic financial inclusion variable has value the average is 4,770 and the standard deviation is 0.352083333. Based on these findings, it can be said that there is quite a big difference between the levels of Islamic financial technology lowest and largest, with a standard deviation value that is smaller than the average value.

Based on Table 1, the Islamic financial technologhy variable has value of the average is 4.725 and the standard deviation is 0.410416667. Based on these findings, it can be said that there is a fairly large difference between the lowest and highest level of inclusion in Islamic finance, with a standard deviation value that is smaller than the average value.

Table 2. Convergent Validity Test

Variabel	Indikator	Outer Loading
Literasi Keuangan Syariah	X1.1	0.880
	X1.2	0.801
	X1.3	0.870
	X1.4	0.898
Inklusi Keuangan Syariah	X2.1	0.910
	X2.2	0.851
	X2.3	0.845
	X2.4	0.876
Islamic Fintech	Z.1	0.887
	Z.2	0.957
	Z.3	0.900
	Z.4	0.858
	Z.5	0.883
	Z.6	0.832
Transaksi Keuangan Syariah	Y.1	0.962
	Y.2	0.963
	Y.3	0.925
	Y.4	0.993
	Y.5	0.985

Source: Data processed from SEM PLS Version 4.0.0 from the BUS Customer Questionnaire

Then a convergent validity test was carried out, it was found that each research variable indicator as a whole had an outer loading value of > 0.70. So, it can be stated that all indicators are suitable or valid for research use and can be used for further analysis.

Table 3. Discriminant Validity Test

	Inklusi Keuangan Syariah	Islamic Fintech	Literasi Keuangan Syariah	Transaksi Keuangan Syariah
Inklusi Keuangan Syariah	0.871			
Islamic Fintech	0.820	0.887		
Literasi Keuangan Syariah	0.386	0.416	0.863	
Transaksi Keuangan Syariah	0.779	0.855	0.380	0.966

Source: Data processed from SEM PLS version 4.0.0 from the BUS customer questionnaire

Table 3 shows that each indicator has the largest FLC value on its own latent construct compared to the FLC value on other constructs. This explains that the indicators used in this research have good discriminant validity.

Table 4. Average Variant Extracted (AVE) Test

Variabel	Nilai AVE
Literasi Keuangan Syariah	0.745
Inklusi Keuangan Syariah	0.758
Islamic Fintech	0.786
Transaksi Keuangan Syariah	0.933

Source: Data processed from SEM PLS version 4.0.0 from the BUS customer questionnaire

Table 4 shows all variables have an AVE value > 0.50, so it can be concluded that each indicator of the latent construct is able to explain 50% or more of the variance. And thus, each variable has good discriminant validity.

Table 5. Composite Reliability Test

Variabel	Nilai *Composite Reliability*
Literasi Keuangan Syariah	0.921
Inklusi Keuangan Syariah	0.926
Islamic Fintech	0.957
Transaksi Keuangan Syariah	0.982

Source: Data processed from SEM PLS Version 4.0.0 from the BUS Customer Questionnaire

Table 5 shows that the composite reliability value for all research variables is > 0.70. These results indicate that each variable has met composite reliability so it can be concluded that all variables have a high level of reliability.

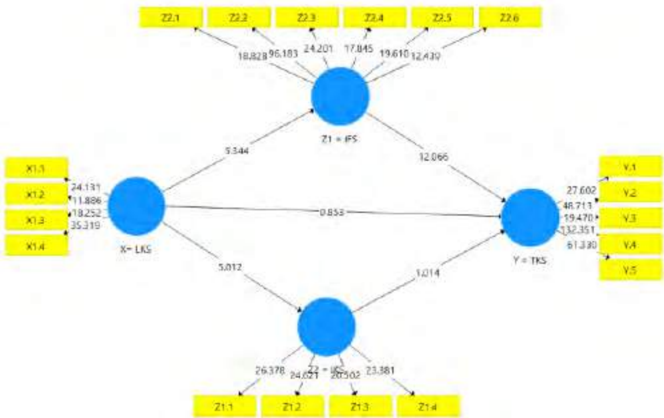
Table 6. Cronbach's Alpha Test

Variabel	Nilai *Cronbach's Alpha*
Literasi Keuangan Syariah	0.901
Inklusi Keuangan Syariah	0.893
Islamic Fintech	0.945
Transaksi Keuangan Syariah	0.982

Source: Data processed from SEM PLS Version 4.0.0 from the BUS Customer Questionnaire

Table 6 known that the Cronbach's alpha value of each research variable is > 0.70. Thus, these results can show that each research variable has met the requirements for Cronbach's alpha value, so it can be concluded that all variables have a high level of reliabilit.

3.1.2 Test the Inner Model



Fugure 4. Path Coefficient Test Results of Output SEM PLS Version 4.0.0 from the BUS Customer Questionnaire

Figure 4 known all variables in this model have path coefficients with positive numbers. This shows that if the greater the p ath coefficient value on an independent variable on the dependent variable, the stronger the influence between the independent variables on the dependent variable.

Table 7. Q-Square Test

	SSO	SSE	Q²=1-SSE/SSO	Kriteria
Inklusi Keuangan Syariah	760.000	760.00		
Islamic Fintech	1140.000	391.003	0.657	Baik/Relevan
Literasi Keuangan Syariah	760.000	760.000		
Transaksi Keuangan Syariah	950.000	155.906	0.836	Baik/Relevan

Source: Data processed from SEM PLS Version 4.0.0 from the BUS Customer Questionnaire

Table 7 shows that the Q-Square value for both endogenous variables is positive and above 0.35, namely the endogenous variable Islamic fintech is 0.436, sharia financial inclusion is 0.418 and sharia financial transactions is 0.789, so it can be said that the model is worthy of being said to have value. relevant predictive.

Table 8. F-Square Test

	Inklusi Keuangan Syariah	Islamic Fintech	Literasi Keuangan Syariah	Transaksi Keuangan Syariah
Inklusi Keuangan Syariah		4.528		1.000
Islamic Fintech				1.545
Literasi Keuangan Syariah		1.029		1.004
Transaksi Keuangan Syariah				

Source: Data processed from SEM PLS Version 4.0.0 from the BUS Customer Questionnaire

Table 8 shows:

a. Sharia financial literacy has a weak effect on sharia financial transactions, namely 0.005

b. Sharia financial literacy has a weak effect on sharia financial transactions, namely 0.005

c. Islamic fintech has a very strong influence on sharia financial transactions, namely 1,421

d. Sharia financial inclusion on sharia financial transactions has a weak effect, namely 0.012

Table 9. R-Square Test

Variabel	Nilai *R-Square*	Kriteria
Islamic Fintech	0.849	Baik
Transaksi Keuangan Syariah	0.910	Baik

Source: Data processed from SEM PLS Version 4.0.0 from the BUS Customer Questionnaire

Table 9 shows that the R-Square value for sharia financial transactions (Y) is 0.849, meaning that 84.9% of the sharia financial transaction variable is influenced by sharia financial literacy (X), Islamic fintech (Z1) and sharia financial inclusion (Z2). The remaining 15.1% is explained by other factors not observed in the research. Then, the result for the Islamic fintech variable is 0.185, meaning that 18.5% of the Islamic fintech variable is influenced by sharia financial literacy (X), the remaining 91.5% is explained by other factors not observed in the research. Next, on the variable results Islamic financial inclusion (Z2) is 0.168, meaning that 16.8% of the Islamic financial inclusion variable is influenced by Islamic financial literacy (X). The remaining 83.2% is explained by other factors not observed in the research.

3.1.3 Model Fit

In the model suitability test, it can be seen from the SMRM value of the model. The PLS model is declared to have met the model fit test criteria if the SMRM value is <0.10 and the model is declared perfect fit if the SRMR value is <0.08 (Henseler *et al.*, 2014). The following are the results of the fit model test for this research, namely the SRRM value of 0.059 < 0.08. So, the fit model for this research is declared perfect fit.

3.1.4 Hypothesis Results

For direct hypothesis testing results are :

a. H1= H0 is rejected and Ha is accepted. This is because the T-Statistic value > T-Table (4,244 > 1,960) and the p-value < 0.05 (0.000 < 0.05). So, it can be concluded that there is a positive and significant influence of sharia financial literacy on sharia financial transactions.

b. H2= H0 is rejected and Ha is accepted. This is because the T-Statistic value > T-Table (5,166 > 1,960) and the p-value < 0.05 (0.000 < 0.05). So, it can be concluded that there is a positive and significant influence of sharia financial inclusion on Islamic fintech.

c. H3= H0 is rejected and Ha is accepted. This is because the T-Statistic value > T-Table (4,944 > 1,960) and the p-value < 0.05 (0.000 < 0.05). So, it can be concluded that there is a positive and significant influence on sharia financial literacy Islamic financial inclusion .

d. H4= H0 is rejected and Ha is accepted. This is because the T-Statistic value > T-Table (11,067 > 1,960) and the p-value < 0.05 (0.000 < 0.05). So, it can be concluded that there is a positive and significant influence of Islamic fintech sharia on sharia financial transactions.

For indirect hypothesis testing results are :

a. H6= H0 is rejected and Ha is accepted. This is because the T-Statistic value > T-Table (4,373 > 1,960) and the p-value < 0.05 (0.000 < 0.05). So, it can be concluded that Islamic fintech moderates sharia financial literacy on sharia financial transactions with a positive and significant influence.

b. H7= H0 is rejected and Ha is accepted. This is because the T-Statistic value > T-Table (2,932 > 1,960) and the p-value < 0.05 (0.000 < 0.05). So, it can be concluded that sharia financial inclusion moderates sharia financial literacy on sharia financial transactions with a positive and significant influence.

3.2 Discussion

3.2.1 The Influence of Literacy Sharia Finance on Transactions Sharia Finance

Based on the results of the influence test direct state literacy Islamic finance is influential positive significant to Islamic financial technology, accepted. Financial literacy is one factor that can influence awareness of financial products and financial service providers. This condition creates many new and varied financial products and requires people to understand them more deeply if they want to take advantage of them when will transaction. In terms of this is important a public literacy or understanding in financial management and to avoid making bad financial decisions. It is relevant that financial decisions taken now have implications in the next few years (Sihombing, 2018).

The results of this research are in line with research by Ansori (2019), Wijanarko & Rachmawati (2020), Fristyaningrum *et al.* (2021), Puji & Hakim (2021), Putri *et al.* (2022), Tan & Syahwildan (2022) which states that sharia financial literacy has a positive and significant effect on sharia financial transactions.

3.2.2 The Influence Inclusion Finance Sharia Technology To Transaction Sharia Finance

The results of hypothesis testing conclude that sharia financial inclusion has a positive and significant effect on sharia financial transactions in sharia commercial banks in Indonesia. Thus, the first hypothesis (H2) which states that sharia financial inclusion has a significant positive effect on sharia financial transactions, is accepted. This means that the sharia financial inclusion variable is able to have a big influence on sharia financial transactions. In other words, sharia financial inclusion in this research is a main element in influencing sharia financial transactions with Sharia Commercial Banks in Indonesia.

In this research, the sharia financial inclusion variable has a positive relationship, which means that if sharia financial literacy increases, financial transaction activities at sharia commercial banks will also increase. Financial inclusion is one of the factors that can influence awareness of financial products and financial service providers. This condition creates many new and varied financial products and requires people to understand them more deeply if they want to take advantage of them. Sharia financial inclusion is an activity that aims to eliminate all forms of financial barriers, to access sharia financial services (Salam Dz, 2018). The results of this research also support the Theory of Reasoned Action and the Theory of Planned Behavior, where a person has a perspective or perception regarding the openness of various sharia financial services which are considered to make it easier to determine the best choice for their life in making preferences that are felt to provide more appropriate value and benefits. Islamic law. They then of course carry out decision-making behavior, one of which is carrying out financial transaction activities at Sharia Commercial Banks which they feel can provide beneficial values, namely the good of this world and the hereafter.

The results of this research are in line with the results of previous research conducted by Salam Dz (2018), Ansori (2019), Fristyaningrum *et al.* (2021), Putri *et al.* (2022), Tan & Syahwildan (2022) which states that sharia financial inclusion has a positive and significant effect on sharia financial transactions.

3.2.3 The Influence of Sharia Financial Literacy on Islamic Fintech

The results of hypothesis testing conclude that Islamic financial literacy has a positive and significant effect on Islamic fintech. Thus, the first hypothesis (H3) which states that Islamic financial literacy has a significant positive effect on Islamic Fintech, is accepted. This means that the Islamic financial literacy variable is able to have a big influence on Islamic fintech. In other words, sharia financial literacy in this research is a main element in influencing sharia financial transactions with Sharia Commercial Banks in Indonesia.

In this research, the Islamic financial literacy variable has a positive relationship, which means that if Islamic financial literacy increases, access and use of Islamic fintech in Sharia Commercial Banks will also increase. Access and financial services available at institutions, products and financial services have the aim of improving people's welfare (Financial Services Authority, 2022). The results of this research also support the Theory of Reasoned Action and the Theory of Acceptance Model, where a person has a perspective or perception regarding experience or ability in choosing a specific decision so that they strongly believe in the decision or opinion which is considered to provide value and benefits, especially in being open to accepting various things. digitalization or technology in Sharia Commercial Banks, especially in the perception of usefulness, usefulness and convenience in accordance with good teachings based on sharia principles.

The results of this research are in line with the results of previous research conducted by Ansori (2019), Handida & Sholeh (2019), Fristyaningrum *et al.* (2021), Putri *et al.* (2022), Tan & Syahwildan (2022) who state that sharia financial inclusion has a positive and significant effect on Islamic fintech.

3.2.4 The Influence of Sharia Financial Inclusion on Islamic Fintech

The results of hypothesis testing conclude that Islamic financial inclusion has a positive and significant effect on Islamic fintech in Sharia Commercial Banks in Indonesia. Thus, the first hypothesis (H4) which states that Islamic financial inclusion has a significant positive effect on Islamic fintech, is accepted. This means that the Islamic financial inclusion variable is able to have a big influence on Islamic fintech. In other words, sharia financial inclusion in this research is an important element that has the potential to influence the use of Islamic fintech in Sharia Commercial Banks in Indonesia.

In this research, the sharia financial inclusion variable has a positive relationship, which means that if sharia financial inclusion increases, the use of Islamic fintech in sharia commercial banks will also increase. Financial inclusion is one factor that can influence awareness of access to financial products and services. These conditions make sharia financial institutions expand their sharia financial products and services to the public. Fintech also plays a role in accelerating the expansion of the reach of sharia financial services. With Fintech, remote communities can also use technology-based financial services, without having to travel long distances to get financial services (Ansori, 2019). In these conditions, the ease and increased accessibility of sharia financial products and services continues to improve. The results of this research also support the Theory of Acceptance Model, where a person accepts changes in digitalization and technology as factors that make it easier to carry out financial activities, namely sharia financial transactions with digital services or applications from Sharia Commercial Banks in Indonesia. Next, they make decisions, one of which is choosing the right digital products and/or services that can provide more good value by using digital access, especially sharia financial products and/or services that are perceived in their financial activities as being based on Islamic sharia principles.

The results of this research are in line with the results of previous research conducted by Ansori (2019), Fristyaningrum *et al.* (2021), Putri *et al.* (2022), Tan & Syahwildan (2022) who state that sharia financial inclusion has a positive and significant effect on Islamic fintech.

3.2.5 The Influence of Islamic Fintech on Sharia Financial Transactions

The results of hypothesis testing conclude that Islamic fintech has a positive and significant effect on sharia financial transactions with Sharia Commercial Banks in Indonesia. Thus, the first hypothesis (H5) which states that Islamic fintech has a significant positive effect on sharia financial transactions, is accepted. This means that the Islamic fintech variable is able to have a big influence on sharia financial transactions. In other words, Islamic fintech in this research is an important element and has great potential in influencing sharia financial transaction decisions at Sharia Commercial Banks in Indonesia.

In this research, the Islamic fintech variable has a positive relationship, which means that if Islamic fintech increases, financial transaction activities at Sharia Commercial Banks will also increase. Fintech has brought significant changes in various sectors of the financial industry (Susanto *et al.*, 2023). Sharia fintech is also a technology-based financing service based on sharia principles which is defined as the provision of financial services in accordance with sharia principles that bring together or connect financing providers with financing with the aim of carrying out financing transactions through electronic systems. Sharia fintech has provided new opportunities to increase economic activities more efficiently and effectively (DSN-MUI, 2018). The results of this research also support the Theory of Acceptance Model, that the presence of developments in digitalization of sharia financial services provides a level of ease for a person or society in choosing variant and optional financial activities or services. By looking at the value factors and benefits obtained, the presence of fintech digitalization really helps someone in making decisions about financial transactions at Sharia Commercial Banks whose digital services are believed to be based on the sharia financial system where all operations are guided by Islamic principles.

The results of this research are in line with the results of previous research conducted by Ansori (2019), Fristyaningrum *et al.* (2021), Putri *et al.* (2022), Tan & Syahwildan (2022), Susanto *et al.* (2023) which states that Islamic fintech has a positive and significant influence on Islamic fintech.

3.2.6 Islamic Fintech Mediates the Influence of Sharia Financial Literacy on Sharia Financial Transactions

The results of hypothesis testing conclude that Islamic fintech moderates the influence of sharia financial literacy on sharia financial transactions at sharia commercial banks in Indonesia. Thus, the first hypothesis (H6) which states that Islamic fintech moderates the influence of Islamic financial literacy on Islamic financial transactions, is accepted. This means that the Islamic fintech variable is able to have a big influence on sharia financial literacy on sharia financial transactions. In other words, Islamic fintech in this research is an important element and has great potential to influence sharia financial literacy on sharia financial transaction decisions at Sharia Commercial Banks in Indonesia.

In this research, the Islamic fintech variable has a positive relationship, which means that if Islamic fintech increases, sharia financial literacy and financial transaction activities in Sharia Commercial Banks will also increase. Fintech has brought significant changes in various sectors of the financial industry Susanto *et al.* (2023). Sharia fintech is also a technology-based financing service based on sharia principles which is defined as the provision of financial services in accordance with sharia principles that bring together or connect financing providers with financing with the aim of carrying out financing transactions through electronic systems. Sharia fintech has provided new opportunities to increase economic activities more efficiently and effectively (DSN-MUI, 2018). The development of technology and fintech in Indonesia must also be balanced with digital literacy which is defined as the ability to understand and use information from various digital sources. In these conditions, sharia financial inclusion is also needed, aimed at eliminating all forms of obstacles, both in the form of price and non-price, to public access to use or utilize formal financial services in accordance with sharia (Fristyaningrum, 2021).

The results of this research also support the three theories, namely the Theory of Reasoned Action, Theory of Behavior Planned and Theory of Acceptance Model, that the presence of developments in digitalization of sharia financial services increases a person's level of ability to manage their finances well and increases their ability and good knowledge to take appropriate actions. The best option to choose is digital-based sharia financial transactions through available financial products and/or services. Apart from that, open accessibility supports providing an easy factor for the public and other related parties to perceive, make preferences and make the best decisions based on information that is considered very appropriate, one of which is transaction activities on Sharia Commercial Bank financial products and/or services which are assumed to be specific in accordance with Islamic Sharia principles.

The results of this research are in line with the results of previous research conducted by Ansori (2019), Fristyaningrum *et al.* (2021), Putri *et al.* (2022), Tan & Syahwildan (2022) which states that Islamic fintech moderates the positive and significant influence of Islamic financial literacy on Islamic financial transactions.

3.2.7 Islamic Fintech Mediates the Influence of Sharia Financial Inclusion on Sharia Financial Transactions

The results of hypothesis testing conclude that Islamic fintech moderates the influence of sharia financial inclusion on sharia financial transactions at Sharia Commercial Banks in Indonesia. Thus, the first hypothesis (H7) which states that Islamic fintech moderates the influence of sharia financial inclusion on sharia financial transactions, is accepted. This means that the Islamic fintech variable is able to have a big influence on sharia financial inclusion on sharia financial transactions. In other words, Islamic fintech in this research is an important element and has great potential in influencing sharia financial inclusion in increasing sharia financial transactions at Sharia Commercial Banks in Indonesia.

In this research, the Islamic fintech variable has a positive relationship, which means that if Islamic fintech increases, sharia financial inclusion and financial transaction activities in Sharia Commercial Banks will also increase. Fintech has brought significant changes in various sectors of the financial industry Susanto *et al.* (2023). Sharia fintech is also a technology-based financing service based on sharia principles which is defined as the provision of financial services in accordance with sharia principles that bring together or connect financing providers with financing with the aim of carrying out financing transactions through electronic systems. Sharia fintech has provided new opportunities to increase economic activities more efficiently and effectively (DSN-MUI, 2018). The development of technology and fintech in Indonesia must also be balanced with digital literacy which is defined as the ability to understand and use information from various digital sources. In these conditions, sharia financial inclusion is also needed, aimed at eliminating all forms of obstacles, both in the form of price and non-price, to public access to use or utilize formal financial services in accordance with sharia (Fristyaningrum, 2021).

The results of this research also support the three theories, namely the Theory of Reasoned Action, the Theory of Planned Behavior and the Theory of Acceptance Model, that supportive openness of accessibility provides an easy factor for society to implement inclusive finance. Not only that, the wide range of financial accessibility is increasing and can be easily accessed very flexibly, so the public and/or other related parties can perceive, make preferences and make the best decisions based on information that is considered very appropriate, one of which is transaction activities on financial products and/or services. Sharia Commercial Bank, which is a form of digitalization based on an operational system in accordance with sharia principles.

The results of this research are in line with the results of previous research conducted by Ansori (2019), Fristyaningrum *et al.* (2021), Putri *et al.* (2022), Tan & Syahwildan (2022) which states that Islamic fintech moderates the positive and significant influence of sharia financial inclusion on sharia financial transactions.

4. CONCLUSION

1. Sharia financial literacy has a significant positive effect on sharia financial transactions. This proves that sharia financial literacy has a direct role that is quite large in influencing sharia financial transactions. So it can be concluded that sharia financial literacy is the main factor that can influence financial transactions at Sharia Commercial Banks in Indonesia.

2. Sharia financial inclusion has a significant positive effect on sharia financial transactions. This proves that sharia financial inclusion has a direct role that is quite large in influencing sharia financial transactions. So it can be concluded that sharia financial inclusion is the main factor that can influence financial transactions at Sharia Commercial Banks in Indonesia.

3. Sharia financial literacy has a significant positive effect on Islamic fintech. This proves that sharia financial literacy has a direct role that is quite large in influencing Islamic Fintech. So it can be concluded that sharia financial literacy is the main factor that can influence Sharia Commercial Bank fintech in Indonesia.

4. Sharia financial inclusion has a significant positive effect on Islamic fintech. This proves that sharia financial inclusion has a direct role that is quite large in influencing Islamic fintech. So it can be concluded that sharia financial inclusion is the main factor that can influence Sharia Commercial Bank fintech in Indonesia.

5. Islamic fintech has a significant positive influence on sharia financial transactions. This proves that Islamic fintech has a large direct role in influencing sharia financial transactions. So it can be concluded that Islamic fintech is the main factor that can influence financial transactions at Sharia Commercial Banks in Indonesia.

6. Islamic fintech is able to mediate the influence of Islamic financial literacy on Islamic financial transactions. This proves that Islamic fintech has a large mediating role in influencing sharia financial literacy on sharia financial transactions. So it can be concluded that Islamic fintech is the main factor that can influence sharia financial literacy on financial transactions at Sharia Commercial Banks in Indonesia.

7. Islamic fintech is able to mediate the influence of Islamic financial inclusion on Islamic financial transactions. This proves that Islamic fintech has a large mediating role in influencing sharia financial inclusion in sharia financial transactions. So it can be concluded that Islamic fintech is the main factor that can influence sharia financial inclusion in financial transactions at Sharia Commercial Banks in Indonesia.

And, and what is very important in this conclusion is that it is important to improve sharia financial transactions by comprehensively involving related parties such as sharia banking, regulators, the public and other community members. From the sharia banking side, it is important to provide education, outreach and orientation to the community, it is important to support efforts and several sharia financial transaction programs so that they behave in sharia finance. From the support of the government to create wise and supportive regulations in creating market cadres for sharia financial products and services, and it is even very important to be encouraged to restructure regulations in the academic or educational sector or non-formal institutions to be obliged to implement sharia financial education in their daily behavior by public. Community synergy here requires participation in supporting companies and programs in efforts to accelerate literacy and inclusive sharia finance. By covering the conditions of togetherness, it can form a successful acceleration of sharia financial transactions with more stable conditions in the future and the strength of the sharia financial ecosystem is forme

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The Effect of Sustainability Reporting Disclosure, Environment, Social and Governance Rating, and Digital Banking Transactions on Firm Value with Financial Performance as an Intervening Variable (Case Study on Commercial Bank in Indonesia)

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Abstract

The purpose of this study is to examine the effect of disclosure on sustainability reporting (SR), environmental, social, and governance (ESG) ratings, and digital banking transactions on firm value (PBV) with financial performance (ROA) as an intervening variable. This study's population consists of eight Indonesian commercial banks listed on the Indonesia Stock Exchange and classified as KBMI 3 or 4 that released financial and sustainability reports between 2018 and 2022. The data analysis approach of this study is quantitative, with a casual design processed using Eviews 12. The result of this study shows that disclosure of sustainability reporting has a positive and significant influence on firm value of KBMI 3 and 4 category banks, whereas ESG ratings, digital banking transactions, and company performance have no effect.

Keywords: Sustainability Reporting Disclosure, ESG Rating, Digital Banking Transactions, PBV, ROA.

1. INTRODUCTION

Fundamentally, the value of a company, such as banking, can be assessed by calculating Price to Book Value (PBV), in which the valuation of share prices on the market compares to their book value. PBV reflects market confidence, where an increase in the PBV ratio reflects profits for the company which is automatically a profit for investors. (Harahap et al., 2020). PBV at Commercial Banks in Indonesia increased between 2018-2020 due to economic improvements in Indonesia which had an impact on the banking industry. The number of banking sector companies carrying out mergers and acquisitions has increased public confidence in the market. (CNBC Indonesia, 2019). Meanwhile, the Covid-19 pandemic caused a fall in Commercial Bank's PBV from 2020 to 2021. The significant increase of Covid-19 cases has had an impact on reducing the bank profits throughout 2020, because the majority of people tend to save rather than spend, as well as feeling excessive fear over the uncertain situation. (CNBC Indonesia, 2021). Because of this incident, market confidence fell, causing many bank share prices to fall and resulting in a decrease in PBV values. In 2021-2022, even though Covid-19 cases have leveled off, the economy has not yet fully recovered. The acceleration of the national economy slowed down due to political risks from the Russian and Ukrainian wars, high inflation, sharp increases in global monetary benchmark interest rates, and the cash is the king phenomena which made investors withdraw their funds from developing countries. (Kompas.com, 2023). Even if the Commercial Banks's PBV remains above 1 in 2022, this decline reflects the fall of public confidence in the market.

One way for banks to address this challenge is by implementing sustainable business practices that align with government programs to achieve the 2030 Sustainable Development Goals (SDGs), which are agreements based on human rights and equality to promote social, economic, and environmental development. This is reflected through the application of sustainable financial principles and ESG aspects in the financial services companies' operations, where ESG is known as one of the parameters for implementing SDGs development. (USAID & OJK, 2017). Previous study has proven that the implementation of ESG by companies is critical for business continuity, since ESG may have a wide range of beneficial effects on a company's business performance. (Hastalona & Sadalia, 2021). Furthermore, in 2017, the Financial Services Authority Regulations (POJK), through the policy number 51/2017, requires the financial institutions to disclose ESG activities through a Sustainability Report, with the hope that it will have an impact on increasing the company's performance because it has run the business well and provided a sustainable impact for future generations.

In its reporting mechanism, SR in Indonesia use the Global Reporting Initiative (GRI) guidelines and framework of reference, where there are three minimum aspects that need to be considered in this report, namely: economic, environmental, and social. The GRI Standards create a common language for organizations and their stakeholders, so that the economic, environmental, and social impacts of organizations can be communicated and understood. This standard is designed to improve global comparability and quality of information on these impacts, thereby enabling greater organizational transparency and accountability. However, not all Commercial Banks disclose their SR available to the public. This can be seen from the growth in SR disclosures by Commercial Banks listed on the IDX during 2018-2021 which is not comparable to the number of Commercial Banks listed on the IDX. The disclosure of SR to the OJK is still low, only 8 to 11 Commercial Banks out of a total of 43 to 45 Commercial Banks listed on the IDX, reporting ESG activities in their business. This phenomenon occurs due to difficulties in providing company data related to practices that have environmental, social, and corporate governance impacts. According to OJK data, disclosure of the SR in Indonesia is still voluntary. (Damayanti & Hardiningsih, 2016). In 2021, 29 SR were reported to the OJK. This is thought to be due to the influence of the implementation of POJK 51/2017, which enforces the disclosure of SR in stages according to the characteristics and complexity of the business, starting from the banking sector in 2019, issuers and public companies in 2021 and the capital market in 2022.

Another way for banks to boost the value of their business is through ESG activities, which is significant for the banking industry since it allows consumers to consider this aspect when utilizing their financial products. The aim is that the products used not only have an economic impact, but also on the social and environment, as well as to promote the achievement of the SDGs. Aside from that, ESG enables competitive returns and diversification of investments based on the financial products used. ESG-based companies are more robust or have high resilience during times of crisis, and they may generate long-term value and profitability. (OJK, 2023). One of the ways the company promotes the ESG practice achievement is by disclosing the ESG ratings information to the public. A good ESG rating is the result of a strong ESG strategy and a company-wide commitment to implementation and continuous improvement. ESG strategies can also be an answer to corporate sustainability challenges and a means of opening up attractive opportunities for businesses and stakeholders. (Beritasatu.com, 2023). It has been empirically validated that companies with higher ESG rating tend to outperform companies with lower ESG rating in terms of stock performance and underlying financial metrics. (Steinhaeuser, 2022). Supported by Jeanice & Kim 's (2023) research, which states that individuals will tend to place more trust in companies that have good ESG ratings. In contrast to companies that do not have an ESG rating, these companies will have more questionable credibility. However, contrary to this statement, Ningwati et al. (2022), and Whitelock (2015), and Mutmainnah & Asiah (2022), found a negative relationship between ESG reporting and company performance. Where previous research arguments are based on the fact that ESG-oriented companies, usually sacrifice their financial resources, which facing the disapproval from the stakeholders. According to the agency theory, an effective corporate governance mechanism must be capable of balancing the interests of managers and shareholders. Banks, in particular, have regulators who play an essential role in putting pressure to create corporate governance structures that are right on target, as well as the reporting.

According to Suharna (2022), banking digitalization has an important role in implementing sustainability business initiatives, for example digitalization facilitates support for economic recovery during the pandemic, development of small and medium businesses and economic inclusion of marginalized communities. Apart from that, digitalization also supports efforts to protect the environment by reducing the use of paper and fuel. Sustainable development and digitalization go hand in hand: to revive the economy, protect the environment and improve people's well-being. This digitalization has also proven to be very important in implementing sustainability initiatives and has an impact on bank financial performance. (Suharna, 2022). According to OJK (2016), digital banking transactions are activities that include independent banking services, including registration, transactions (cash, transfers, payments) and various other services, up to closing accounts.

In terms of the relationship between banking performance and digital banking carried out by banks, the author still discovered differences in earlier study. This is consistent with the findings of Wijayanti et al. (2021), who determined that internet banking had a negative and insignificant influence on banking performance in Indonesia based on financial reports from 2010-2019. However, Menicucci & Paolucci (2022) found a significant positive relationship with financial performance, as measured by Return on Equity (ROE), Return on Assets (ROA), and the bank's Sustainability Report.

Based on the agency theory, better corporate governance contributes to higher performance. Governance quality is the combined effect of a set of factors such as cultural diversity and gender equality within the board, board size, director competency and expertise, director independence, CEO-chairman duality, executive remuneration, and risk governance. (Suharna, 2022). In this research, company performance is proxied by Return on Assets (ROA). This can show the company's ability to generate net profits from asset management. According to Sihombing (2018:29) ROA is able to measure a company's ability to generate net profits based on a certain level of assets, where is a high ROA ratio indicates better efficiency and effectiveness in asset management. The banking performance ratio in Indonesia fell in 2018-2019, because there was a slowdown in profit growth caused by poor credit growth which had an impact on banking profits not being maximized. (Rasdianto, 2020). Then, there was another decrease in 2019-2020 due to the Covid-19 pandemic which hit all business sectors including banking. This caused many banks to be affected and experience a decline in profits in 2020. For example, BCA's net profit fell by 5%, BRI fell by 45.46% and Bank Mandiri fell by 37.71%. However, banking performance has increased again in 2021-2022 as a result of economic improvements in Indonesia, which are supported by regulatory measures from regulators which provide a conducive economic situation and conditions. Among other challenges, mitigating the impact of the Covid-19 pandemic, global supply chain disruption, rising global interest rates, and capital outflow as well as fulfilling public demands for banking products and services. (OJK, 2023). Fluctuations in banking performance can be caused by many things.

2. LITERATURE REVIEW

2.1 The Effect of Sustainability Reporting (SR) Disclosure on Company Value (PBV)

Profit is not the only measurement used to assess the company's ability in today's competitive climate; social and environmental factors also play a role. This statement is supported by Hidayat's (2021) research which proves that Corporate Social Responsibility (CSR) disclosure has a positive effect on company's value. This was also expressed in Kusumawardani's (2019) research, which stated that the SR requires a detailed and complex analysis of the relationship between ecology, resources, habitat and society so as to enable organizations to evaluate their contribution to the economy, environment and social both at the local, regional and global. According Lyan et al. (2021) compensation for the environment is as important as technology, economics and governance, this is a concern for many stakeholders, therefore the results of their research prove that SR disclosure has a positive effect on company value, which in line with research by Kurniawan et al. (2018). Based on the description and previous research, the hypothesis proposed is: *H1: SR disclosure has a positive effect on company value (PBV).*

2.2 The Influence of Environmental, Social and Governance (ESG) Ratings on Company Value (PBV)

ESG generally means a broad set of environmental, social and corporate governance considerations that have the potential to have an impact on a company's ability to implement its business strategy and build long-term value. (Ningwati et al., 2022). Apart from that, ESG can also be interpreted as a concept that prioritizes sustainable investment or business development activities with three main factors or criteria, namely environmental, social and governance. (Kompas.com, 2023). Differences in the interests of management and shareholders can lead to internal and external conflicts called agency conflicts. This is caused by company managers who prioritize interests that are not in line with the interests of shareholders. (Hendra et al., 2022). According to some studies, ESG activities are a catalyst for agency conflict between management and shareholders. Sadiq et al. (2020), Aras & Kazak (2022) and Yoon et al. (2018) found that ESG ratings have a positive effect on company value. Based on the description and previous research, the hypothesis proposed is: *H2: ESG rating has a positive effect on company value (PBV).*

2.3 The Effect of Digital Banking Transactions on Company Value (PBV)

The internet, marked the beginning of the growth of financial transaction features in banking, and the freedom of access is one of the things that is attractive to customers. (Moridu et al., 2020). Digital Banking is an electronic banking service that was developed in order to maximize the use of customer data in order to serve and provide information to customers more easily, quickly and according to their needs (customer experience), and it can be carried out independently by customers while taking security aspects into account. (Moridu et al., 2020). With the growth of digital banking transactions, company profits will increase, causing a positive reaction among investors and affecting company value. (Moridu et al., 2020). The influence of digital banking on company value is in line with the research by Moeljadi et al. (2021), which states that the banking industry is a critical component of the Indonesian economy in the current industry 4.0, with an influence on company value. This is in line with research by Nuraini et al. (2022). Based on the description and previous research, the hypothesis proposed is: *H3: Digital banking transactions have a positive effect on company value (PBV).*

2.4 The Effect of Sustainability Reporting (SR) Disclosure on the Financial Performance (ROA)

SR is a medium for companies to inform all stakeholders about organizational performance in economic, social and environmental aspects. (Tarigan & Semuel, 2015). ESG disclosure can provide benefits for companies and stakeholders. SR will lead to good decision making, transparency and sustainable financial stability. (Husada & Handayani, 2016). This is in line with research by Danika & Faradynawati (2018) which states that there is a significant positive relationship between ESG and financial performance. Meanwhile, the research results of Husada & Handayani (2016) show that ESG disclosure simultaneously influences ROA. Likewise with the research results of Nugroho & Hersugondo (2022) as well as Almeyda & Darmansya (2019). Based on the description and previous research, the hypothesis proposed is: *H4: SR disclosure has a positive effect on the company performance (ROA).*

2.5 The Effect of Environmental, Social and Governance (ESG) Ratings on the Financial Performance (ROA)

In Safriani & Utomo (2020) research, ESG disclosure, which includes non-financial information on a company's environment, social responsibility, and corporate governance, can be a favorable signal to investors. Engelhardt et al. (2021) stated that companies with better ESG performance had much higher cumulative earnings and showed much lower volatility at the start of the Covid-19 Pandemic in 2020. In line with the statement above, Pertiwi & Hersugondo (2023) states that ESG performance has a positive relationship with company performance. Likewise, research results from Vlaviorine & Widianingsih (2023) and Aditama (2022). Based on the description and previous research, the hypothesis proposed is: *H5: ESG Rating has a positive effect on the company performance (ROA).*

2.6 The Effect of Digital Banking Transactions on the Financial Performance (ROA)

Indonesia's digital economy will remain a key driver of inclusive growth in the years to come; with nearly three-quarters of the population connected, digital tools can expand access to health services, education, and employment. Fintech offers a route to reliable credit access, especially for unbanked MSMEs that also supports gender equality. Implementing existing solutions will empower Indonesian people throughout the archipelago, increase productivity results and improve socio-economic conditions. This provides the basis for further innovation to support ESG targets. (PWC & Oxford Business Group, 2021). According to Moridu et al. (2020) digital-based financial transaction features are widely used by customers in payment transactions, whether transfers, payments, credit, or purchasing products or other financial transactions. These various features of digital-based financial transactions cannot be separated from state-owned commercial banks, where the majority of their customers carry out digital-based financial transactions. With the increase in digital banking transaction activities, bank profitability also increases. In line with the statement above, Wijayanti et al. (2021) states that some digital banking transactions have an influence on bank performance. Likewise, the research results of Khadafi & Ruslan (2020) and Otieno (2020). Based on the description and previous research, the hypothesis proposed is: *H6: Digital banking transactions have a positive effect on the company performance (ROA).*

2.7 The Effect of Financial Performance (ROA) on the Company Value (PBV)

According to Pujarini (2020), a company’s long-term objective is to maximizes its value. The higher the company value, the more shareholder prosperity will increase. The company's main goal is to increase its value by increasing their revenue. (Mulyawati et al., 2015). This is in line with research by Nafasati & Hilal (2021) which states that financial performance influences company value. Likewise, the results of Pujarini (2020), Siswanti et al. (2015) and Siswanti &

Cahaya (2019) research stated that a company's financial performance influences company value. Based on the description and previous research, the hypothesis proposed is: *H7: The company performance (ROA) has a positive effect on company value (PBV).*

2.8 The Effect of Sustainability Reporting (SR) Disclosure on Company Value (PBV) Through Financial Performance (ROA)

According to Ningwati et al. (2022) financial performance describes the company's ability to manage and allocate its resources so that it is something that must be achieved by every business actor. It can be concluded that company performance is what the company has achieved in a certain period which is related to predetermined criteria. One of them is managing the company by publishing a SR which will maintain its legitimacy in the community as a form of accountability and openness of company operations. (Mutmainnah & Asiah, 2022). By disclosing the SR in accordance with the standards chosen by the company, especially in the economic category, it will be useful for increasing the value of the company in the eyes of investors. (Kurniawan et al., 2018). This is in line with the research results of Lyan et al. (2021) and Yulianty & Nugrahanti (2020). Based on the description and previous research, the hypothesis proposed is: *H8: SR disclosure has a positive effect on company value (PBV) which is influenced by company performance (ROA).*

2.9 The Influence of Environmental, Social and Governance (ESG) Ratings on Company Value (PBV) through Financial Performance (ROA)

According to Hastalona & Sadalia (2021) companies must pay more attention to social and environmental responsibility so that they can gain legitimacy for the role of social and environmental care carried out by the company, so that the company will gain trust and support from the community. This will have an impact on the company's survival in the future. This is a practice to measure, disclose and be accountable to all stakeholders both inside and outside the company. A company's ESG rating reports their performance towards sustainable development goals. ESG reports cover a company's use of resources, natural resources, human rights, and their level of corruption, how they invest in public relations, and more. Shareholders often look at ESG reports because they relate to a company's strength, risk management, and effectiveness. (Almeyda & Darmansya, 2019). Previous research found a relationship between ESG ratings and company value, like Sadiq et al. (2020) and Yoon et al. (2018), as well as a relationship between ESG ratings and company performance, researched by Pertiwi & Hersugondo (2023), Vlaviorine & Widianingsih (2023), and Zhou et al.'s (2022). Based on the description and previous research, the hypothesis proposed is: *H9: ESG rating has a positive effect on company value (PBV) which is influenced by the company performance (ROA).*

2.10 The Influence of Digital Banking Transactions on Company Value (PBV) Through Financial Performance (ROA)

Digital banking, when used by banks with appropriate management policies, has been shown to reduce unnecessary operational and labor costs. Apart from that, the use of documents is also reduced, and the level of efficiency and profits increases. The study shows that other aspects of digital banking and economic achievement can be researched. (Hakizimana et al., 2023). The application of information technology and digital transformation in digital banking services is expected to minimize time, distance, space and costs to expand access to affordable financial services. (Wijayanti et al., 2021). With the convenience provided by banks to customers, they can increase the volume of digital banking transactions. According to Khadafi & Ruslan (2020), the volume of digital banking transactions influences bank performance, as well as Moridu et al. (2020) and Fernando & Dharmastuti's (2021), stated that digital banking influences company value. Based on the description and previous research, the hypothesis proposed is: *H10: Digital Banking transactions have a positive effect on company value (PBV) which is influenced by the company value (ROA).*

2.11 Conceptual Framework

Based on the description and hypothesis above, the conceptual framework for this research is as follows:

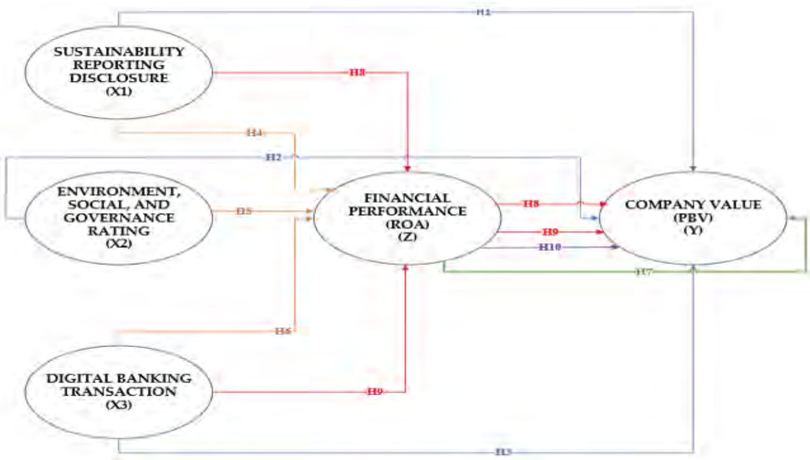

Figure 1. Conceptual Framework

3. METHODOLOGY

This research is quantitative research using a causality research design. Quantitative research is research that is based on positivity or uses concrete data, research data in the form of numbers measured using statistics as a calculation test tool, related to the problem being studied to produce a conclusion. (Sugiyono, 2013:7). Meanwhile, causality research design, namely measuring the strength of the relationship between two or more variables, also shows the direction of the relationship between the independent variable and the dependent variable. According to Sugiyono (2013:7), casual research aims to determine the cause-and-effect relationship between the independent variable and the dependent variable. In this study, the dependent variable is company value (PBV), while the independent variables include SR disclosure, ESG rating, and digital banking transactions. The author also includes an intervening variable, financial performance (ROA), which is considered to affect the relationship between the independent and dependent variables.

Disclosure of company data relating to activities carried out by the company includes Economics (EC), Environment (EN) and Social aspects. The social aspect consists of four sub-dimensions, namely: Labor, Human Rights, Society, and Product Responsibility. These three aspects are measured using a score on the Sustainability Report performance value which is in accordance with GRI standards. (GRI, 2011) which can be formulated as follows:

$$\text{Sustainability Reporting Disclosure Index (SRDI)} = \frac{\sum \text{disclosed item}}{\sum \text{items that are expected to be disclosed}}$$

Source: GRI (2011)

ESG refers to three main factors for measuring the impact of sustainability and ethics in investment decision making, namely: Environmental, Social and Governance where the preparation of ESG rating is an important part in evaluating the implementation of ESG practices in companies. (IDX, 2022). Furthermore, based on the Sustainalystics's grading framework, listed companies are grouped into one of 5 categories, as follows.

Table 1. Sustainalystics Grading Framework

Risk Score	Category	Description
0-10	Negligible	Considered to have negligible ESG risk
10-20	Low	Considered to have low ESG risk
20-30	Medium	Considered to have moderate ESG risk
30-40	High	Considered to have a high ESG risk
>40	Severe	Considered to have a severe ESG risk

Source: IDX (2022)

Activities that include independent banking services include registration, transactions (cash, transfers, payments) and various other services, including closing the bank accounts. (OJK, 2016). The number of digital banking transaction activities supported by several devices can be explained as: 1. Automated Teller Machine (ATM); 2. Electronic Data Capture (EDC); 3. Internet Banking; 4. Short Message Service (SMS) Banking; 5. Mobile Banking; 6. Electronic Commerce (e-commerce); 7. Phone Banking; and 8. Video Banking. (OJK, 2016).

Company value reflects the company's current value or present value. It is an indicator of how the market assesses the company as a whole. High company value can be a reflection of a good company and is related to high shareholder prosperity. (Pujarini, 2020). Likewise, a low company value describes a company that is not good and reflects low shareholder prosperity. In this research, company value is proxied by book value or PBV. According to Sihombing (2018:30) the PBV ratio is quite significant in predicting future stock returns. This is strengthened by the opinion of Fama and French (1992) who observed that the PBV ratio is the best predictor of future stock returns. Companies with low PBV consistently have lower returns compared to companies with high PBV. The PBV ratio value can be calculated using the following formula:

$$Price\ to\ Book\ Value = \frac{Price\ of\ Share}{Book\ Value\ per\ Share}$$

Source: Sihombing (2018:30)

According to Sihombing (2018) profitability ratios are measured using the link between net profit and assets. In other words, ROA measures a company's ability to generate net profits based on a certain level of assets. A high ROA ratio indicates increasingly efficient and effective asset management. ROA is used to measure bank profitability performance by looking at how effectively bank assets are used to generate profits. The greater the ROA, the greater the level of profit achieved by the bank and the better the bank's position in using assets. (Wijayanti et al., 2021). In banking, ROA is a useful measure of how well a bank manager does his job because it shows how well the bank's assets are used to generate profits, taking into account profit after tax, namely the current year's net profit after tax with the average total assets obtained from the sum of total assets each month divided by the number of months. (OJK, 2020). The ROA formula can be written as follows:

$$ROA = \frac{Earning\ After\ Tax}{Total\ Asset}$$

Source: Sihombing (2018:29)

The population in this research is commercial banks listed on the Indonesia Stock Exchange (IDX) for the 2018-2022 period. The total population obtained in this research was 46 companies. The sample in this research is commercial banks listed on the Indonesia Stock Exchange for the 2018-2022 period which report complete financial reports along with published sustainability reports. Determining the sample in this study used purposive sampling, namely the sample was selected according to the criteria determined by the author. The following is a sample list of Commercial Bank companies:

Table 2. List of Sample

No.	Code	Bank
1.	BBRI	Bank Rakyat Indonesia (Persero) Tbk.
2.	BMRI	Bank Mandiri (Persero) Tbk.
3.	BBNI	Bank Negara Indonesia (Persero) Tbk.
4.	BBCA	Bank Central Asia Tbk.
5.	BBTN	Bank Tabungan Negara (Persero) Tbk.
6.	BNGA	Bank CIMB Niaga Tbk.
7.	NISP	Bank OCBC NISP Tbk.
8.	BJBR	Bank Pembangunan Daerah Jawa Barat dan Banten Tbk.

Source: Data Processed (2023)

Based on the table 2 above, the criteria of the research sample size were 8 companies from a total population of 46 Commercial Bank companies listed on the Indonesia Stock Exchange in 2022. The Commercial Bank Company above is a company listed on the Indonesia Stock Exchange for the 2022 period which is included in Bank Group Based on Core Capital (KBMI) 3 and 4, issues and publishes financial reports as well as a stand-alone Sustainability Report using the GRI-G4 standard for 5 years. consecutively in 2018-2022.

This research uses a panel data regression testing model, which is a method used to model the influence of predictor variables (influencing variables or independent variables) on response variables (influenced variables or dependent variables) in several sectors observed from a research object over a certain period. Apart from that, panel data regression is also used to forecast response variables in each existing sector. However, to predict it, it is necessary to forecast the predictor variables in each sector first. Panel data regression analysis and testing will be carried out using the EViews 12 program tools.

4. RESULTS

4.1 Descriptive Statistical Analysis

Table 3. Descriptive Statistical Analysis Result

	SR Disclosure	ESG Rating	Transaction Digital Banking	PBV	ROA
Mean	0.294231	27.282250	3.580000	1.199101	0.016054
Median	0.307692	28.895000	1.880000	0.861483	0.013611
Maximum	0.604396	40.000000	3.270000	4.740204	0.031344
Minimum	0.076923	9.000000	7.720000	0.443609	0.000670

Source: Data processed Eviews 12 (2023)

The SR disclosure variable mean obtained was 0.29, explaining that on average, the banks had a SR Disclosure Index (SRDI) of 0.29, namely 26 disclosure items out of the 91 expected disclosure items. Meanwhile, the maximum value is 0.60, which explains that the highest SRDI is 0.60, namely that there are 55 disclosure items out of the 91 expected disclosure items. In the object of this research, the highest SR disclosure is the activities carried out by PT Bank Tabungan Negara (Persero) Tbk. in 2022. The minimum value of SR disclosure is 0.076, namely there are 7 disclosure items out of the 91 expected disclosure items. In the object of this research, the lowest SR disclosure is activities carried out by PT Bank Negara Indonesia (Persero) Tbk. in 2019.

The ESG Rating variable has a minimum value of 9.00. This value explains the negligible category for the bank, meanwhile, the maximum value is obtained at 40.0 or high risk. The maximum value was obtained by PT Bank Pembangunan Daerah West Java and Banten Tbk. in 2021 with a value of 40.0 or high risk, and a minimum of 9.0 or low risk at PT Bank Negara Indonesia (Persero) Tbk. in 2019. The average ESG rating for banks for 2018-2022 is 28.9, which means that banks are generally in the medium risk category or can be interpreted as implementing ESG practices that provide sustainability and ethical impacts in investment decision making, namely: ESG which is a factor in the preparation of ESG scores not being optimally carried out by commercial banks in Indonesia.

The digital banking transaction variable has a mean of 3.58, which explains that the average digital banking transaction for the bank that was the object of research was IDR 35.775 billion during 2018-2022, with a minimum transaction value of 7.72 or IDR 772 billion at PT Bank Pembangunan. West Java and Banten Tbk. in 2020 where this value fell by -54% from the previous year's digital transaction value. Meanwhile, the maximum value was 3.27 or IDR 326.552 billion obtained by PT Bank Mandiri (Persero) Tbk. in 2020, or an increase of 4% from the previous year.

The PBV has a mean value of 1.2. This means that the average company value in this study has a PBV of more than 1 (> 1) or has a higher share price (overvalued) relative to the company's book value. Meanwhile, the maximum value of 4.74 was obtained by PT Bank Central Asia Tbk. in 2019. In contrast to PT Bank Central Asia Tbk., PT Bank OCBC NISP Tbk. was undervalued in 2021 with a PBV value of 0.44, even though it posted a net profit of IDR 2.5 trillion, an increase of 20% from the previous year's net profit of IDR 2.1 trillion. Meanwhile, ROA variable has the mean value of 0.016 or 1.6%, which means that the Composite Rating according to the bank's health level by the OJK is at Rank 1 (PK-1). The minimum and maximum ROA were obtained sequentially by PT Bank Tabungan Negara (Persero) Tbk. in 2019 it was 0.000670 or 0.07% and PT Bank Central Asia Tbk. of 0.031 or 3.1% in 2022.

4.2 Regression Model Selection Test

This research has three dependent variables, one independent variable and one intervening variable, so that in conducting data analysis, two tests were carried out for direct effects and one test for indirect effects between variables. In the direct effect test, Structure I, to test the influence between SR Disclosure, ESG Rating, Digital Banking Transactions and ROA, and Structure II, to test influence between SR Disclosure, ESG Rating, Digital Banking Transactions, ROA and PBV. Meanwhile, for indirect effects, a path analysis is carried out.

The selection of panel data regression estimates is carried out using the Chow test, Hausman test and Lagrange multiplier test to find out which estimation model is the best. The estimation models in question are the common effect model, fixed effect model and random effect model. The following are the results of the panel data regression estimation:

Table 4. Panel Data Regression Model Selection Result

Testing	Hypothesis	Structure I Result	Structure II Result
Chow Test	Common Effect Model vs Fixed Effect Model	Fixed Effect Model	Fixed Effect Model
Hausman Test	Random Effect Model vs Fixed Effect Model	Random Effect Model	Fixed Effect Model
LM Test	Common Effect Model vs Random Effect Model	Random Effect Model	Not tested

Source: Data processed Eviews 12 (2023)

4.3 Normality Test

Based on the normality test Structure I results; the probability is 0.577895 with a significance level of 0.57 > 0.05. Meanwhile, based on the normality test Structure II results, a probability of 0.351088 was obtained with a significance level of 0.35 > 0.05. So, it can be concluded that the results of the normality test for both Structure I and II are normally distributed.

4.4 Multicollinearity Test

Based on the test results between independent variables, the Pearson product moment r correlation coefficient between variables has a correlation value of < 0.8, so it can be concluded that there is no multicollinearity. The following are the results of the multicollinearity test Structure I and II:

Table 5. Multicollinearity Test Structure I and II Result

Variable	Structure I			Structure II			
	SR Disclosure	ESG Rating	Digital Banking Transcation	SR Disclosure	ESG Rating	Digital Banking Transcation	ROA
SR Disclosure	1.000000	0.063631	-0.243286	1.000000	-0.340111	-0.306023	-0.221909
ESG Rating	0.063631	1.000000	-0.196505	-0.340111	1.000000	0.152154	0.175418
Digital Banking Transcation	-0.243286	-0.196505	1.000000	-0.306023	0.152154	1.000000	0.513675
ROA				-0.022191	0.175418	0.513675	1.000000

Source: Data processed Eviews 12 (2023)

4.5 Heteroscedasticity Test

The results of the heteroscedasticity test for Structure I and II state that all independent variables, have a probability of > 0.05, so there is no heteroscedasticity problem. The following are the results of the heteroscedasticity test Structure I and II:

Table 6. Heteroscedasticity Test Structure I and II

Variable	Structure I Probability	Structure II Probability
SR Disclosure	0.1485	0.8979
ESG Rating	0.6402	0.7489
Digital Banking Transaction	0.6663	0.0622
ROA	Not assessed	0.0622

Source: Data processed Eviews 12 (2023)

4.6 Goodness of Fit Test

4.6.1 Coefficient of determinant R2 (R-Square)

The Adjusted R-squared value for Structure I is 0.137095. This means that the independent variables, namely SR Disclosure, ESG Rating and Digital Banking Transactions can explain the dependent variable ROA is 0.137 or 13.7% while the remaining 86.3% is explained by other variables. Meanwhile, Structure II, the Adjusted R-squared value is 0.977914. This means that the independent variables, namely SR Disclosure, ESG Rating and Digital Banking Transactions and ROA, together can explain the dependent variable PBV of 0.98 or 98% while the remaining 2% is explained by other variables.

4.6.2 F-Statistic Test

The results of the F statistical test for Structure I, were obtained with a probability of F of 0.040201 < 0.05, meaning, all independent variables, namely SR Disclosure, ESG Rating and Digital

Banking Transactions, together have a significant effect on ROA. Meanwhile, in Structure II, the results of the F statistical test were obtained with a probability of F 0.0000 < 0.05, meaning that all independent variables, namely SR Disclosure, ESG Rating, Digital Banking Transactions and ROA together have a significant effect on the PBV.

4.7 Hypothesis Test (t)

Table 7. Hypothesis Test (t) Result Structure I and II

Influence Between Variables	Probability	t-stastic (t-table = 1.6)	Results
Structure I			
The effect of SR Disclosure on ROA	0.1212	1.587324	has no positive and significant effect
The effect of ESG Rating on ROA	0.0193	2.449631	has a positive and significant effect
The effect of Digital Banking Transactions on ROA	0.0500	2.023787	has a positive and significant effect
Structure II			
The effect of ROA on PBV	0.3298	0.991797	has no positive and significant effect
The effect of SR Disclosure on PBV	0.0001	4.755324	has a positive and significant effect
The effect of ESG Rating on PBV	0.4701	0.732261	has no positive and significant effect
The effect of Digital Banking Transactions on PBV	0.7155	0.368256	has no positive and significant effect

Source: Data processed Eviews 12 (2023)

The t-test result for Structure I shows that the SR disclosure has no positive and significant effect on the ROA. Meanwhile ESG rating and digital banking transactions has positive and significant effect on the ROA. Furthermore, the t-test result for Structure II shows that the ROA, ESG rating and digital banking has no positive and significant effect of PBV. Meanwhile, SR disclosure has positive and significant effect on PBV.

4.8 Path Analysis

Based on the Sobel test, the SR Disclosure has no significant effect on PBV through ROA in Commercial Banks in Indonesia. That means indirectly, ROA is unable to mediate the influence of SR Disclosure on PBV. Meanwhile, the ESG Rating and Digital Banking Transactions has a significant effect on PBV through ROA in Commercial Banks in Indonesia. That means indirectly, ROA can mediate the influence of the ESG Rating and Digital Banking Transactions on PBV. The findings of path analysis using the Sobel test are as follows:

Table 8. Sobel Test Result

Indirect Influence Effect	Calculated t Value (t-table = 1.6)	Result
The effect of SR Disclosure on PBV through ROA	1.42	unable to mediate
The effect of ESG Rating on PBV through ROA	3.14	able to mediate
The effect of Digital Banking Transactions on PBV through ROA	1.60	able to mediate

Source: Data processed author (2023)

5. DISCUSSION and CONCLUSION

One way a company shows its commitment to social and environmental issues is through Sustainability Reporting (SR) disclosures. Company management runs a business that pays attention to three important aspects, namely planet, people, and profit, with the aim of increasing public trust in the hope of having an impact on increasing company value. Facts prove that the mindset of investors is starting to shift, from only prioritizing economic aspects or profit, to considering people and planet aspects as important things for assessing a business. In addition, investors assess that SR disclosures made by companies are the basis for consideration in making investment decisions.

Based on this explanation, the results of this research are in line with the agency theory and signaling theory. Management carries out sustainability business activities and discloses them publicly through credible publication media such as the company's official website, organizational websites such as IDX, in order to provide positive signals to investors, so that SR can change the market assessment of the company for the better. This is in line with Lyan et al. (2021) Kurniawan et al. (2018), and Hidayat (2021).

According to this research, ESG ratings do not have an effect and positive on company value. This might be because, integrating ESG aspects requires sufficient resources, both financial and expert staff. Due to limited resources, companies have not implemented ESG practices optimally, so they have not been able to demonstrate their involvement in sustainable business practices, so stakeholders are skeptical about the company's ESG rating and do not believe that entrepreneurs have implemented sustainable business practices in accordance with the standards applied. The results of this research do not support legitimacy theory, which states that company activities are able to influence the way stakeholders see the company. It could be that other variables have an influence, or only some of the ESG aspects have an influence on company value. Jeanice & Kim (2023) and Ponce & Wibowo's (2023) findings prove that only some ESG practices have an effect on company value and the rest have no effect. Based on these findings, the author argues that Bowen's (1953) article is valid in defining CSR as a company's voluntary commitment to sustainable development that exceeds legal criteria. So, if entrepreneurs are unwilling to engage in activities that promote sustainable business, achieving the aim of acquiring sustainable operational standards, such as those used to assess the ESG rating methodology, would be challenging.

As for digital banking transactions, this research proves that, although the number of digital banking transactions increases every year, it does not affect company value. Based on data, this is caused by uneven digital banking transaction activities. For example, the total number of Automated Teller Machine (ATM) transactions from the eight banks in this research sample was the highest compared to Mobile Banking and Electronic Data Capture (EDC) transactions. This could be due to digital banking transaction activities not running simultaneously with infrastructure development that helps digital banking transaction activities. Such as limited ATM outlets, unstable internet networks in some areas, administration costs which are still considered expensive for some groups, and lack of support from business actors in providing digital banking transaction tools that are easily accessible to consumers, as well as uneven knowledge regarding the use of transactions. digital banking in society. The results of this study are in line with research by Moridu et al. (2020) and Fernando & Dharmastuti (2021).

This research proves that SR disclosure does not have a significant and positive effect on ROA, which means that sustainable business activities carried out by the company have no effect on the company's profit growth. The reason is, among other things, because in Indonesia, based on BI and OJK, only one SR reporting standard is recognized, namely GRI. Meanwhile, the nature of the business activities of each company operating in Indonesia is different, such as financial institutions, banking, mining, communications, and so on. Furthermore, some SR disclosure indicators, such as those in the environmental category (EN-14), states, "number of species included in national conservation data and habitats in affected areas operations, based on the risk of extinction," are out of line with the nature of the company's industry because GRI standards are general in nature. This category is not in accordance with the business nature of the banking industry and is difficult to fulfill. Things like this are what cause the SDRI value of a company to be low because it is unable to apply these activities to the implementation of its sustainable business activities. The lack of uniformity in running a sustainable business, between economic, environmental, and social aspects in one the company makes SR disclosures not optimal. Furthermore, the company's sustainable business activities should be able to increase the company's assets, both tangible and intangible. However, reporting of intangible assets from the financial reporting side (SAK & IFRS) is only goodwill and tends to be used as a periodic expense. (Tarigan & Semuel, 2015). This is in line with this research, Hastalona & Sadalia (2021), Tarigan & Semuel (2015), and Kusumawardani's (2019).

Based on the analysis, ESG rating has a positive and significant effect on ROA. ESG rating is the result of an evaluation of the company's management commitment and the company's concrete actions in dealing with ESG issues through various company policies and work programs. Because the ESG rating of commercial banks listed on the IDX is published publicly, therefore, this can be used as a positive signal for the market, especially potential investors. According to signaling theory, ESG disclosure, including ESG ratings, can be a positive signal for investors. (Engelhardt et al., 2021). This is in line with research by Pulino et al. (2022), Husada & Handayani (2016), Almeyda & Darmansya (2019), and Zhou et al. (2022).

As for digital banking transactions, it has a positive and significant effect on ROA. In this case, banks see financial technology (fintech) as something that influences their financial performance, because the development of digital banking transactions makes it easier for customers to apply for loans without collateral, make transactions anywhere and anytime. This increases the growth of customer credit to banks and simultaneously increases bank profits, one of which is through fee-based income contributions from digital banking transactions. Therefore, many banks are implementing digital banking optimally by increasing infrastructure development and maintenance. The development of fintech has been welcomed positively by investors, even though large investments are needed to build technological infrastructure, banks are competing to improve customer service in digital form. This research is in line with Wijayanti et al. (2021) and Otieno (2020).

Based on the research results, it is stated that ROA does not have a positive and significant effect on PBV. The ROA describes the profitability factor (earnings) which reflects the health level of commercial banks. (OJK, 2016). Significantly, the level of bank health has an influence on increasing company value. However, there was a time when the company value had no effect on the company's performance because there were anomalous factors such as the Covid-19 pandemic, massive business closures, increasing unemployment which reduced people's purchasing power, which led to a decline in company income. Furthermore, due to income loss, many people are unable to pay their obligations, resulting in rising levels of bad credit or Non-Performing Loans (NPLs) in banks. As a result, investors recognise that profit is no longer the sole indicator of a company's health, and that other aspects must be considered. Such as management resilience in dealing with pandemics, implementing sustainable economics so that businesses survive in the long term, and others. This is in line with Sihombing et al. (2023a), Sihombing et al. (2023b), Parahdila et al. (2022), Kharisma et al. (2022), and Saputri et al. (2022).

ROA is unable to mediate the effect of SR disclosure on PBV, because SR is a stand-alone report and is separate from the financial reports. Financial reports are able to display a company's profit and loss which is one of the standards for company performance based on financial reporting standards such as PSAK and IFRS, while SR stands alone which shows a company's sustainable business activities based on GRI standards. It is proven in this research, as explained in the discussion of the results of hypotheses 1, 4 and 7, that investors no longer see profit as the only thing that can provide a positive signal, but also consider people and planet. The results of this research are in line with the research of Kharisma et al. (2022), Santoso et al. (2023), and Parahdila et al. (2022).

Compared to other variable, ROA is able to mediate the influence of ESG ratings on PBV, because in running a sustainable business, companies need capital to meet the standards set by rating agents, such as Sustainalytics. So, there is an economic tradeoff between the capital provided by the company to carry out sustainable business activities to obtain a good ESG rating. These results are in line with signaling and legitimacy theory according to Suchman (1995) which states that an entity's actions are desirable, appropriate, or appropriate within some system of socially constructed norms, values, beliefs, and definitions. ESG rating is information generally obtained by stakeholders where exposure to material ESG risks faced by the company is informed and becomes proof of the company's commitment and real actions in dealing with ESG issues through various company policies and work programs. Furthermore, this study is in line with research by Zhou et al. (2022), Aditama (2022), Lyan et al. (2021), and Yoon et al. (2018).

The result of this research proves that ROA is able to mediate digital banking transactions on PBV. This is because digital banking transactions make it easier for customers to make transactions, thereby increasing potential sources of income for banks such as fee-based income. Because it makes it easier for customers to make transactions, the higher the number of transactions carried out by customers using digital, the bank is able to expand its market share and expand its product range efficiently, which reduces bank operational costs and thus increases profitability. (Arofany & Tandika, 2019). This convenience and the increase in services that make it easier for customers to connect with banks can provide a positive signal to investors and potential investors to provide their investments to the bank, thereby increasing company value. In addition, the results of this research are in line with signaling and agency theory which states that management as an agent is contracted by shareholders who act as principals and work to fulfill the interests of shareholders. The results of this research is in line with research by Fernando & Dharmastuti (2021), Arofany & Tandika (2019), and Okon & Amaegberi (2018).

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The Implementation of Green Human Resource Management: A Survey on the Manufacturing Industry in Indonesia

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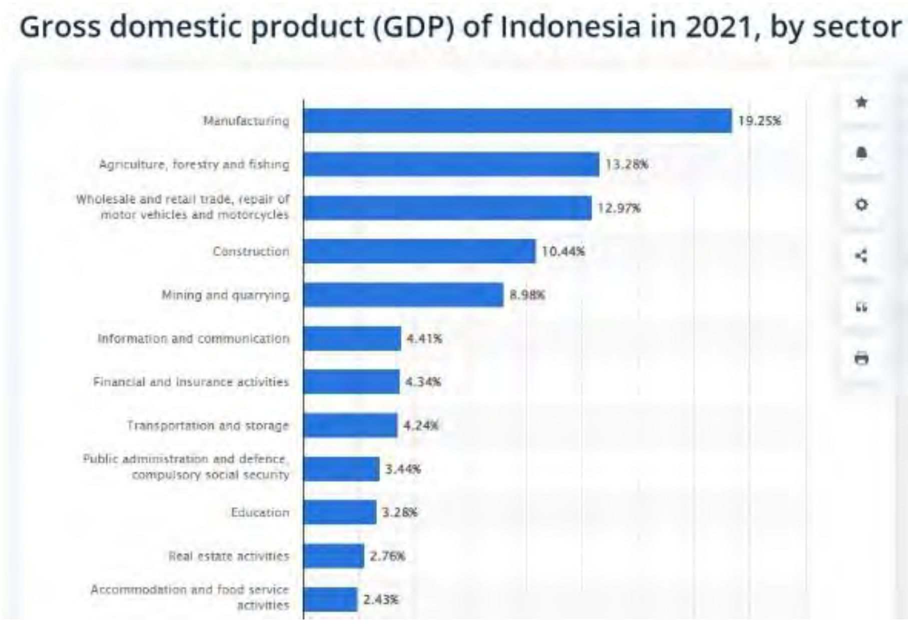
Abstract

This study investigates the implementation of Green Human Resource Management (GHRM) in the manufacturing industry in Indonesia, with a focus on achieving sustainable organizational performance. It addresses a research gap and develops conceptual models to advance sustainable development goals (SDGs), particularly in Indonesia, encompassing social, economic, educational, health, and environmental aspects. A survey method was employed, utilizing an associative quantitative approach with multivariate statistical techniques, specifically structural equation modeling partial least squares (SEM-PLS). The study involved 75 manufacturing enterprises in Indonesia's Karawang industrial district, with Managers or Supervisors serving as respondents. Data was collected using a questionnaire as the primary measurement instrument. The research falls under TKT 2 in terms of technology readiness, involving the formulation of a research model concept. Key findings suggest that the implementation of GHRM practices in the manufacturing industry positively impacts Green Intellectual Capital and contributes to sustainable organizational performance. Furthermore, the study underscores the importance of GHRM in enhancing environmental sustainability and organizational competitiveness within the Indonesian manufacturing sector.

Keywords: Green Intelectual Capital (GIC), Green Human Resource Management (GHRM), Sustainability Organizational Performance (SOP)

1. INTRODUCTION

Indonesia, as a United Nations member, is dedicated to fulfilling the Sustainable Development Goals (SDGs) established by the UN in 2015. With its status as a developing nation characterized by a sizable population and abundant natural resources, Indonesia holds a pivotal role in the pursuit of the SDGs. This places Indonesia in a significant position to propel sustainable development not only within Asia but on a global scale. Achieving the SDGs unquestionably demands the active participation of various stakeholders, encompassing governmental bodies, the private sector, and the general public. Among the private sector, the manufacturing industry stands out as a particularly compelling area of focus.



Gambar 1. PDB Indonesia 2021 Sumber: *www.statista.com (diakses 2023)*

Manufacturing industry contributes at least 19.25% to Indonesia's GDP or the top three industries that have a significant impact on economic growth in Indonesia, making this industry play a crucial role in environmental sustainability. Therefore, it is important for manufacturing companies in Indonesia to intensify the implementation of a green economy. The implementation of a green economy is not only beneficial for environmental sustainability but also has a positive impact on organizational or company performance (Kim et al., 2019; Bombiak & Marciniuk-Kluska, 2018; Pham et al., 2020; Mousa & Othman, 2020). For the successful implementation of a green economy in a company, strong support from internal factors such as top management commitment, green human resource management (GHRM) practices, and green intellectual capital (GIC) is essential, ultimately improving company performance and its sustainability (Abbas & Sağsan, 2019; Yu et al., 2020; El-Kassar & Singh, 2019; Amrutha & Geetha, 2020; Yong et al., 2019; Yusliza et al., 2019). The lack of empirical evidence regarding the implementation of GHRM in the manufacturing industry in Indonesia can hinder the achievement of sustainable company performance and SDGs. Based on the bibliometric analysis of 200 articles extracted from the SCOPUS database from 2017 to 2023 using the keyword "GHRM," the visualization is as follows:

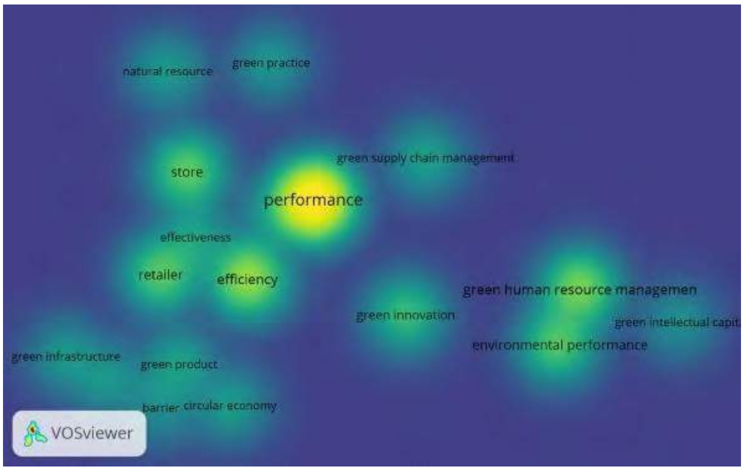


Figure 2. Density Visualization in GHRM Study

Figure 2 shows the results of density visualization using VOS Viewer, indicating that keywords such as 'green human resource management' are closely related to 'green intellectual capital,' 'green innovation,' and 'environmental performance.' However, the density level in Figure 2 reveals that the keywords GHRM and GIC have a low density, indicating a lack of research conducted on these keywords. This finding is further supported by the co-occurrence mapping analysis in Table 1, which demonstrates that 'green human resource management' has a high level of relevance and occurrence, while 'green intellectual capital' has a high level of relevance but a low occurrence, highlighting the urgency to fill the gap in empirical studies. Furthermore, this research is relevant to the National Research and Innovation Roadmap (RIRN) 2017-2045 in the field of economics and human resources, specifically in the theme of industry and manufacturing.

Tabel 1. Scores for Occurrence And Relevance From The GHRM Study

id	Term	occurences	relevance score
1	Barrier	5	1.3513
2	Green Intellectual Capital	5	1.7588
3	Green Technology	5	0.6216
4	Energy Efficiency	6	1.4252
5	Green Infrastructure	6	1.1239
6	Green Practice	6	0.4645
7	Circular Econnomy	7	0.9754
8	Natural Resource	7	0.434
9	Effectiveness	8	2.2174
10	Green Product	8	1.5421
11	Green Supply Chain Management Practice	8	0.9094
12	Green Innovation	14	0.3521
13	Environmental Performance	18	1.1418
14	Industry	19	0.4618
15	Manufacture	20	1.0898
16	Green Human Resource Management	24	1.1621
17	Efficiency	30	0.3198
18	Performance	76	0.6491

Source: Data that has been processed (2023)

Green Human Resource Management (GHRM) is a concept of human resource management that focuses on practices aimed at improving organizational performance in terms of environmental sustainability (Bombiak & Marciniuk-Kluska, 2018). GHRM encompasses various practices such as recruitment and selection, training and development, performance management, and compensation that integrate environmental and social considerations into human resource management decision-making (Zaid et al., 2018). Some manufacturing industries in Indonesia have begun to implement green human resource management (GHRM) practices to enhance their organizational performance while also considering the sustainability of the surrounding environment. However, it is undeniable that there are various challenges in implementing GHRM practices. These challenges include the lack of awareness and understanding of GHRM, the lack of awareness of the importance of GHRM practices for environmental sustainability and organizational performance (Singh et al., 2018). Secondly, there is a lack of investment related to infrastructure and available technologies in Indonesia, such as the use of renewable energy and green technologies (Song et al., 2019). Thirdly, there may be resistance to cultural and organizational behavior change due to the shift towards environmentally friendly practices in daily activities (Pan et al., 2018).

Moreover, the limited knowledge, skills, and experience related to environmentally friendly practices, also known as green intellectual capital (GIC), possessed by individuals and organizations can make it challenging for organizations to implement GHRM. GIC also includes understanding how to manage natural resources efficiently, reduce waste and emissions, and promote socially and environmentally responsible business practices (Singh et al., 2018). Green intellectual capital also encompasses the ability to design and develop environmentally friendly products and services, as well as to apply technologies and innovations that support sustainability (Fernando et al., 2019). This is important for companies and organizations in various sectors to manage environmental risks and meet the demands of increasingly environmentally conscious consumers. By having strong green intellectual capital, companies and organizations can gain a competitive advantage in an increasingly sustainable market (Yusliza et al., 2020).

2. LITERATURE REVIEW

2.1 Green Intelectual Capital (GIC)

GIC is defined as a combination of resources related to knowledge, intellectual wealth, capabilities, and infrastructure that determine an organization's competitive ability (Sharabati et al., 2010). GIC focuses on all intangible resources that can be utilized by a company to achieve competitive advantage (Roos & Roos, 1997; Stewart, 2010; Sullivan, 1998). In scholarly literature, intellectual capital is often defined as the sum of three interrelated and mutually supportive components: human capital, structural capital (sometimes referred to as organizational capital), and relational capital or customer capital (Atkočiūnienė & Praspaliauskytė, 2018). When analyzing intellectual capital and its components, it should be noted that intellectual capital is intangible and difficult to measure; therefore, there is no measurement model that can be universally applied to all organizations (Marr et al., 2004). Human capital, as a central component, serves as a driver for the structural and relational aspects of GIC (Li & Chang, 2010). According to Chahal and Bakshi (2015), human capital is an organization's ability to create value through the use of its employees' experiences, learning, skills, education, competencies, and creativity (Iqbal et al., 2019). Furthermore, relational capital is related to the knowledge and learning capabilities generated not only from the relationships between an organization's employees and stakeholders but also from other relational resources such as customer loyalty, brand, and reputation (Agostini et al., 2017).

2.2. Green Human Resource Management (GHRM)

GHRM is a human resource management concept that focuses on practices aimed at improving organizational performance in terms of environmental sustainability (Bombiak & Marciniuk-Kluska, 2018). GHRM encompasses various practices such as recruitment and selection, training and development, performance management, and compensation that integrate environmental and social considerations into human resource management decision-making (Zaid et al., 2018). Some manufacturing industries in Indonesia have started implementing green human resource management (GHRM) practices to enhance their organizational performance while ensuring the sustainability of the surrounding environment. However, it cannot be denied that there are various challenges in implementing GHRM practices. These challenges include the lack of awareness and understanding of GHRM, insufficient awareness of the importance of GHRM practices for environmental sustainability and company performance (Singh et al., 2018). Secondly, there is a lack of investment in infrastructure and technology related to renewable energy and green technologies available in Indonesia (Song et al., 2019). Thirdly, there is resistance to cultural and organizational behavior change that may occur due to a shift towards incorporating environmentally friendly practices in daily activities (Pan et al., 2018)."

2.3. Sustainability Organizational Performance (SOP)

Company performance is a measure of how well a company can achieve its goals and objectives compared to its main competitors (Kurniawan, 2021; Cao & Zhang, 2011). Generally, superior company performance is typically characterized by profitability, growth, and market value (Cho & Pucik, 2005). Venkatraman & Ramanujam (1986) proposed that organizational performance is a hierarchical construct that indicates both financial performance and operational performance, such as market share and quality (Rajapathirana & Hui, 2018). Organizational performance serves as the dependent variable or criterion in the field of management and has been one of the most extensively researched variables to measure organizational success. As expected, significant scholarly attention has been directed towards understanding the causal structure of company performance and explaining performance variations among competing businesses (March & Sutton, 1997).

3. RESEARCH METHOD

"Green Intellectual Capital also requires knowledge of how to effectively manage environmental resources, reduce waste and pollution, and support ethical corporate practices (Singh et al., 2018). The ability to create and develop environmentally friendly goods and services and to implement new ideas and technologies to support sustainability is an example of having 'green intellectual capital' (Fernando et al., 2019). It is crucial for businesses and organizations in all industries to manage environmental hazards and meet the demands of increasingly environmentally conscious customers. Companies and organizations can gain a competitive advantage in a more sustainable market by having strong green intellectual capital (Yusliza et al., 2020). Therefore, in this study, the author expects the following relationship:

H1: There is a positive relationship between Green Intellectual Capital and Sustainability Organizational Performance.

To integrate environmental and social factors into human resource management decision-making, GHRM consists of various techniques, including recruitment and selection, training and development, performance management, and compensation (Zaid et al., 2018). In order to boost organizational performance while still considering the preservation of the surrounding environment, several manufacturing sectors in Indonesia have begun implementing green human resource management (GHRM) techniques. However, there are several challenges in implementing GHRM practices. These include a lack of knowledge and understanding of GHRM, failure to recognize the importance of GHRM practices for both business performance and environmental preservation (Singh et al., 2018). The adoption of renewable energy sources is an example of the lack of investment in technology and infrastructure in Indonesia, such as the implementation of green technology and renewable energy (Song et al., 2019). Third, resistance to behavioral and organizational changes that can arise from prioritizing environmentally friendly practices in daily activities (Pan et al., 2018). Therefore, in this study, the author expects the following relationship:

H2: There is a positive relationship between Green Intellectual Capital and Green Human Resource Management.

Several previous studies have explained that GIC and GHRM are two important sources of competitive advantage and organizational performance (e.g., Lerro et al., 2014; Mills & Smith, 2011; Shih et al., 2010). Much literature has recognized the role of GIC processes in the development of GHRM (Gold et al., 2001; Ramadan et al., 2017; Schiuma et al., 2012). Furthermore, researchers have emphasized the close relationship between GIC and GHRM (Seleim & Khalil, 2011; Serenko et al., 2010; Serenko & Bontis, 2004) and when combined in organizational strategy, they can yield desired performance outcomes (Cao & Zhang, 2011; Lerro et al., 2014; Wang & Chen, 2013). Furthermore, a study conducted by Atkočiūnienė & Praspaliauskytė (2018) supports the findings of previous research by explaining the correlation between Knowledge Management and intellectual capital in enhancing company performance. Therefore, in this study, the author expects the following relationship:

H3: There is a positive relationship between Green Human Resource Management and Sustainability Organizational Performance."

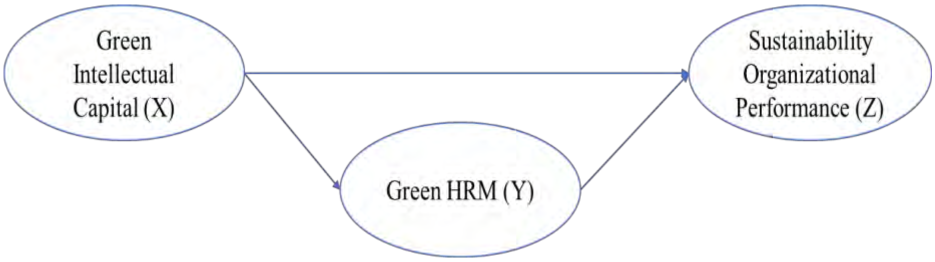


Figure 2. Conseptual Models

Population and Sample

The population in this study consisted of 75 Manufacturing Companies in the Karawang Industrial Area, Indonesia. The target respondents were Managers or Supervisors in these companies. Data collection was conducted through a survey distributed via email to the respondents. Data collection took place from March to May 2023.

Measurement

To measure Green Intellectual Capital, a scale adapted from Hussinki et al. (2017) was used, consisting of 7 dimensions with 22 indicators. Respondents were asked to rate their agreement level with each indicator using a 5-point Likert scale.

To measure Green Human Resource Management, indicators adapted from Hussinki et al. (2017) were used, consisting of 10 dimensions with 27 indicators. Respondents were asked to rate their agreement level with 27 statements using a 5-point Likert scale.

Sustainability Organizational Performance consisted of two dimensions: market performance and innovation performance, also adapted from Hussinki et al. (2017). Respondents were asked to compare their company's position with other companies in the same sector, ranging from very poor (1) to very good (5). Market performance was assessed based on net sales growth and profitability, while innovation performance was assessed based on three indicators: products, marketing, and business models.

Data Collection and Analysis

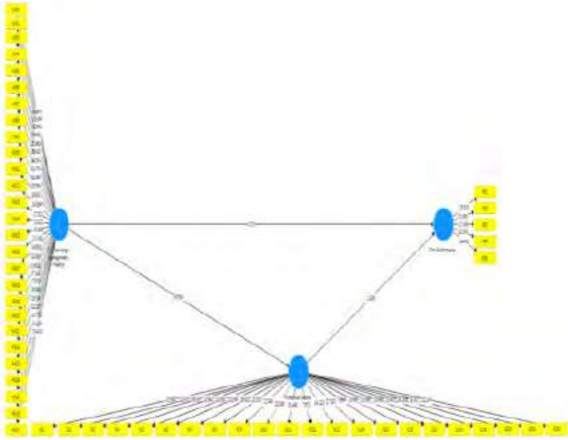
The analysis technique used in this study was partial least squares (PLS-SEM) to estimate the structural equation model (Chin, 1998; Hair et al., 2017). PLS-SEM has been proven to be useful for analyzing models that are relatively complex with a relatively small sample size (Reinartz et al., 2009).

4. RESULTS

4.1. Data Analysis Results

Outer Model Evaluation

In this stage, testing was conducted using SmartPLS version 3.0. The validity testing performed was construct validity. Construct validity testing can be done by examining the strength of the correlation between constructs and the indicators that form the constructs, as well as their weak relationship with other constructs. Construct validity consists of two parts: convergent validity and discriminant validity.



a. Validity Testing

Convergent validity testing of each construct's indicators, according to Chin in Ghozali & Latan (2015), states that an indicator is considered valid if its value is greater than 0.5.

Convergent Validity

Convergent validity can be assessed through the loading factor of each construct's indicators. The rule of thumb used to evaluate convergent validity is that the loading factor should be greater than 0.5. Based on the conducted testing, it is found that all loading factor values are above 0.5, indicating that all indicators in this study are valid.

Based on the calculations performed by the PLS Algorithm for the indicators, the values of AVE and squared AVE are obtained as shown in Table 4.1.

Table 4.1 Results of Average Variance Extracted (AVE) Values

Variabel	*Average Variance Extracted* (AVE)	Keterangan
Green Intelectual Capital	0.624	Valid
Green Human Resource Management	0.672	Valid
Sustainability Organizational Performance	0.741	Valid

Source: Data Processing Results from SmartPLS (2023)

From Table 4.1, it can be observed that the AVE values for all variables meet the required criterion, which is above 0.5. The lowest AVE value is found in the Intellectual Capital variable with a value of 0.624. Considering the loading factor values and AVE values in Table 4.1, it can be concluded that the data from this study meet the requirements for convergent validity testing.

Discriminant Validity

Another method to assess discriminant validity is by comparing the cross-loading values for each construct with the correlations between constructs in the model. The model shows discriminant validity.From the conducted testing, it is indicated that the cross-loading values of each item on its construct are higher than the loading values with other constructs. Based on these results, it can be concluded that there are no issues with discriminant validity.

b. Reliability Testing

Composite Reliability (CR)

After testing construct validity, the next step is to assess the reliability of the constructs, measured by two criteria: Composite Reliability (CR) and Cronbach's Alpha (CA) of the indicator block measuring the construct. CR is used to indicate good reliability. A construct is considered reliable if the composite reliability value is >0.7.

Table 4.2 *Composite Reliability* (CR)

Variabel	*Composite Reliability*	Keterangan
Green Intelectual Capital	0.973	*Reliable*
Green Human Resource Management	0.982	*Reliable*
Sustainability Organizational Performance	0.935	*Reliable*

Sumber: Olah data Output SmartPLS

Based on Table 4.2, the results of the composite reliability testing show values >0.7, indicating that each instrument's values are reliable.

Cronbach's Alpha

A construct is considered reliable if both the composite reliability value and Cronbach's Alpha value are >0.6.

Table 4.3 Cronbach's Alpha

Variabel	*Cronbach's Alpha*	Keterangan
Green Intelectual Capital	0.971	*Reliable*
Green Human Resource Management	0.981	*Reliable*
Sustainability Organizational Performance	0.913	*Reliable*

Source: SmartPLS Output Data Processing

Based on Table 4.3, the Cronbach's Alpha testing results show values> 0.7, indicating that each instrument's values are reliable.

Evaluasi Struktural Model (Inner Model)

After evaluating the model and confirming that each construct meets the requirements of Convergent Validity, Discriminant Validity, and Composite Reliability, the next step is to evaluate the structural model, which includes testing path coefficients and R2.

The inner model (inner relationship, structural model, and substantive theory) depicts the relationships between latent variables based on the substantive theory. The structural model is evaluated using R-square for dependent constructs and the Stone-Geiser Q-square test for predictive relevance. The R2 value can be used to assess the influence of specific independent latent variables on dependent latent variables in terms of substantive effects (Ghozali, 2014). A higher R2 value indicates a greater ability of the independent latent variables to explain the dependent latent variables. The R2 results of 0.67, 0.33, and 0.19 indicate that the model is "good," "moderate," and "weak" (Ghozali, 2014).

Table 4.4 *R*-Squared Coefficients

	R Square
Green Human Resource Management	0.477
Sustainability Organizational Performance	0.722

Source: SmartPLS Output Data Processing

Based on Table 4.4, the R-Square value for the Green Human Resource Management variable is 0.477, which means that 47.7% of the variation or changes in Green Human Resource Management are influenced by Green Intellectual Capital, while the remaining 52.3% is explained by other factors. Based on this, the R2 calculation indicates a moderate level. Based on Table 4.4, the R-Square value for the Sustainability Organizational Performance variable is 0.722, which means that 72.2% of the variation or changes in Sustainability Organizational Performance are influenced by Green Intellectual Capital and Green Human Resource Management, while the remaining 27.8% is explained by other factors. Based on this, the R2 calculation indicates a good level.

In addition to looking at the R-square values, the model is also evaluated by examining the Q-square for predictive relevance in the constructive model. Q-square measures how well the observed values are produced by the model and its parameter estimations. The Q2 value ranges from 0 to 1, where a value closer to 1 indicates a better model. This Q2 value is equivalent to the total determination coefficient in path analysis. A Q2 value > 0 indicates that the model has predictive relevance, while a Q2 value ≤ 0 indicates that the model lacks predictive relevance.

The calculation of Q2 for the total Sustainability Organizational Performance variable is performed using the formula:

$Q^2 = 1 – [(1- R^2) * (1- R^2)\}$

$Q^2 = 1 – [(1-477)* (1-722)]$

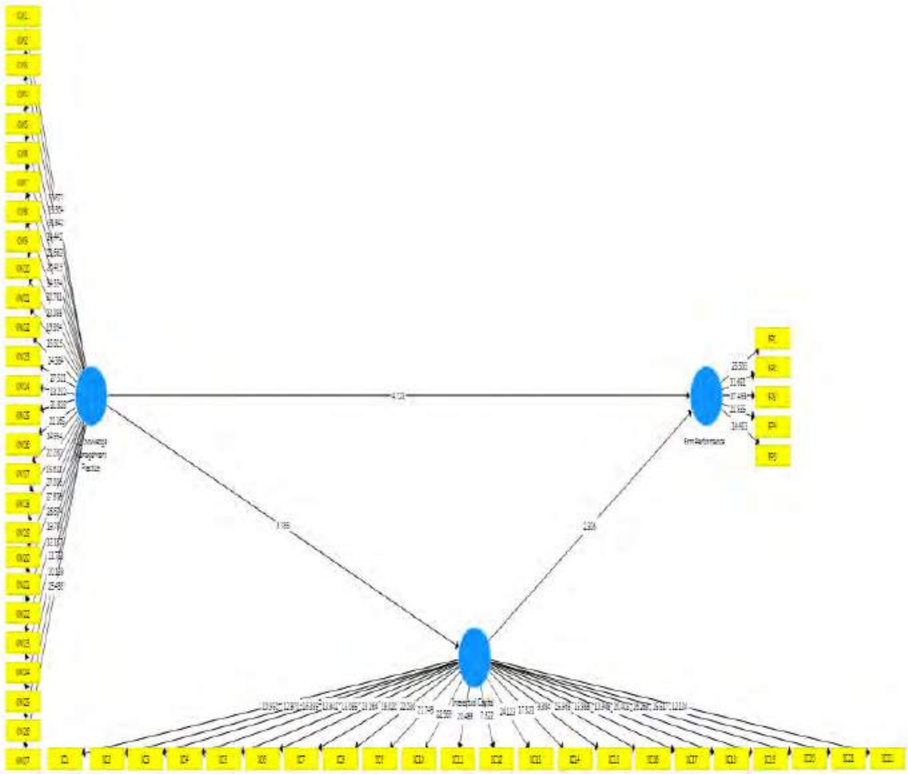
$Q^2 = 1-0.145$

$Q^2 = 0.855$

This value indicates that 85.5% of the information contained in the data can be explained by the model, while 14.5% is explained by other variables (not included in the model) and error components.

Bootstrapping Results

In PLS, testing each relationship is done by using simulation with the bootstrapping method on the sample. This testing aims to minimize the issue of non-normality in the research. The results of the bootstrapping method from PLS are as follows:



Gambar 4.1 *Path Diagram*

Source: SmartPLS Output Data Processing

Meanwhile, the calculation results can be seen based on the direct effects as shown below.

Direct Effects Analysis

Table 4.5 Direct Effects

	T Statistics (|O/STDEV|)	P Values
Green Intelectual Capital -> Sustainability Organizational Performance	4.723	0.000
Green Intelectual Capital -> Green Human Resource Management	8.785	0.000
Green Human Resource Management -> Sustainability Organizational Performance	2.306	0.022

Source: SmartPLS output data analysis

Based on table 4.5, it shows the results of PLS calculations indicating the direct influence between variables. It is said to have a direct influence if the T Statistics value > 1.96, and it is said to have no influence if T Statistics < 1.96. Based on table 4.7, the following can be stated:

1. The Green Intellectual Capital variable significantly influences the Sustainability Organizational Performance variable with a T Statistics value of 4.723 > 1.96.
2. The Green Intellectual Capital variable significantly influences the Green Human Resource Management variable with a T Statistics value of 2.306 > 1.96.

3. The Green Human Resource Management variable significantly influences the Sustainability Organizational Performance variable with a T Statistics value of 8.785 > 1.96.

4.2. Hypothesis Testing

Hypothesis testing is done by examining the probability values and t-statistics. For the probability value, the t-table value for a 5% alpha level is 1.96. Therefore, the acceptance criterion for the hypothesis is when the t-statistic > t-table. This testing is intended to test the following three hypotheses:

Hypothesis 1:

H1: There is a positive relationship between Green Intellectual Capital and Sustainability Organizational Performance.

Based on table 4.7, with a T-statistics value of 4.723, which is > 1.96, H1 is accepted. This means that Green Intellectual Capital has a positive and significant influence on Sustainability Organizational Performance. In other words, changes in Green Intellectual Capital have a direct impact on changes in Sustainability Organizational Performance, or in other words, if Green Intellectual Capital is performing well, there will be an increase in Sustainability Organizational Performance, and statistically, it has a significant influence. Based on the data analysis using SmartPLS version 3.0, it is known that the path coefficient value of Green Intellectual Capital to Sustainability Organizational Performance is 0.605, which means that Green Intellectual Capital has a positive relationship with Sustainability Organizational Performance with a moderate degree of relationship strength.

Hypothesis 2:

H2: There is a positive relationship between Green Intellectual Capital and Green Human Resource Management.

Based on table 4.7, with a T-statistics value of 2.306, which is > 1.96, H2 is accepted. This means that Green Intellectual Capital has a positive and significant influence on Green Human Resource Management. In other words, changes in Green Intellectual Capital have a direct impact on changes in Green Human Resource Management, or in other words, if Green Intellectual Capital is performing well, there will be an increase in Green Human Resource Management, and statistically, it has a significant influence. Based on the data analysis using SmartPLS version 3.0, it is known that the path coefficient value of Green Intellectual Capital to Green Human Resource Management is 0.311, which means that Green Intellectual Capital has a positive relationship with Green Human Resource Management with a strong degree of relationship strength.

Hypothesis 3:

H3: There is a positive relationship between Green Human Resource Management and Sustainability Organizational Performance.

Based on Table 4.7, with a T-statistics value of 8.785, which is greater than 1.96, H3 is accepted. This indicates that Green Human Resource Management has a positive and significant influence on Sustainability Organizational Performance. It means that changes in Green Human Resource Management have a positive impact on changes in Sustainability Organizational Performance. In other words, if Green Human Resource Management is implemented effectively, there will be an increase in Sustainability Organizational Performance, and this influence is statistically significant. The data analysis using SmartPLS version 3.0 reveals that the path coefficient value of Sustainability Organizational Performance on Intellectual Capital is 0.691, indicating a positive relationship between Green Human Resource Management and Sustainability Organizational Performance with a strong level of association.

5. Discussion of Research Findings

a. Influence of Green Intellectual Capital on Sustainability Organizational Performance

Based on the calculation results, a T-statistics value of 4.723 is obtained, which is greater than 1.96, and a significance value of 0.000 below 0.05. Therefore, H1 is accepted, indicating that Green Intellectual Capital has a positive and significant influence on Sustainability Organizational Performance. This means that changes in Green Intellectual Capital have a positive impact on changes in Sustainability Organizational Performance. In other words, an increase in Green Intellectual Capital will lead to an increase in Sustainability Organizational Performance, and this influence is statistically significant. Based on the data analysis using SmartPLS version 3.0, the path coefficient value of Green Intellectual Capital on Sustainability Organizational Performance is 0.605, indicating a positive relationship between Green Intellectual Capital and Sustainability Organizational Performance.

b. Influence of Green Intellectual Capital on Green Human Resource Management

Based on the calculation results, a T-statistics value of 2.305 is obtained, which is greater than 1.96, and a significance value of 0.022 below 0.05. Therefore, H2 is accepted, indicating that Green Intellectual Capital has a positive and significant influence on Green Human Resource Management. This means that changes in Green Intellectual Capital have a positive impact on changes in Green Human Resource Management. In other words, an increase in Green Intellectual Capital will lead to an increase in the level of Green Human Resource Management, and this influence is statistically significant. Based on the data analysis using SmartPLS version 3.0, the path coefficient value of Green Intellectual Capital on Green Human Resource Management is 0.311, indicating a positive relationship between Green Intellectual Capital and Green Human Resource Management.

c. Influence of Green Human Resource Management on Sustainability Organizational Performance

Based on the calculation results, a T-statistics value of 8.785 is obtained, which is greater than 1.96, and a significance value of 0.000 below 0.05. Therefore, H3 is accepted, indicating that Green Human Resource Management has a positive and significant influence on Sustainability Organizational Performance. This means that changes in Green Human Resource Management have a positive impact on changes in Sustainability Organizational Performance. In other words, an increase in Green Human Resource Management will lead to an increase in Sustainability Organizational Performance, and this influence is statistically significant. Based on the data analysis using SmartPLS version 3.0, the path coefficient value of Green Human Resource Management on Sustainability Organizational Performance is 0.691, indicating a positive relationship between Green Human Resource Management and Sustainability Organizational Performance.

6. DISCUSSION and CONCLUSION

This research aimed to understand the relationship between Green Intellectual Capital, Green Human Resource Management, and Sustainability Organizational Performance in the manufacturing industry. From the two factors studied, it is evident that both have an influence on Sustainability Organizational Performance. The model used in this study was proven to be good based on the Q2 value of 85.5%. Green Intellectual Capital and Green Human Resource Management were found to have a 72.2% influence on Sustainability Organizational Performance, meaning that both variables are substantial in explaining Sustainability

Organizational Performance or, in this case, the performance of the manufacturing industry in the Karawang Industrial Zone, West Java, Indonesia. These findings contribute significantly to improving the performance of the manufacturing industry. The results of this study can be used as a further step for manufacturing industries to enhance Sustainability Organizational Performance through the variables examined in this research.

These findings support the research by Malik et al. (2020), which found that companies with high levels of GIC and GHRM tend to outperform companies with lower overall levels of GIC and GHRM. Interestingly, this study also showed that companies with high GIC and GHRM characteristics but low utilization of GHRM can match the innovation performance of companies with high levels of GIC and GHRM. Similarly, Iqbal et al. (2019) found that the GHRM process directly and indirectly affects Sustainability Organizational Performance through innovation and GIC. Therefore, these findings contribute to theoretical advancements in enriching knowledge about Green Human Resource Management. This research adds to the body of knowledge on manufacturing industries, especially in Indonesia, where there is limited research on the influence of Green Intellectual Capital and Green Human Resource Management. Thus, this study contributes to the business literature in the manufacturing industry.

Green Intellectual Capital and Green Human Resource Management are essential factors that can enhance Sustainability Organizational Performance. Both factors have been proven to have an impact on improving the Sustainability Organizational Performance of the manufacturing industry in Indonesia. Therefore, these two factors deserve more attention from executives and managers to be implemented in companies, as they can contribute positively to enhancing Sustainability Organizational Performance. The model used in this research has shown good predictability. From the hypothesis testing results, it was found that the factor with the most dominant influence on Sustainability Organizational Performance is Green Human Resource Management. Based on these findings, managerial implications for improvement are that the Green Intellectual Capital process itself needs to be enhanced up to the level of Green Human Resource Management to optimize the improvement of Sustainability Organizational Performance. This implies that there are still areas that can be improved or enhanced to contribute to the future improvement of Sustainability Organizational Performance. This research provides original contributions in empirically proving the significance of Green Intellectual Capital and Green Human Resource Management in the manufacturing industry in Indonesia.

The results of this study have practical implications as a guide for manufacturing industries in Indonesia to improve their performance by considering Green Intellectual Capital and Green Human Resource Management factors to enhance their Sustainability Organizational Performance

Some limitations of this study are, first, the research scope only sampled manufacturing industries located in the Karawang Industrial Area in West Java province. Therefore, further research is needed to examine this topic in order to provide a comprehensive overview of the manufacturing industry in Indonesia. Second, the phenomenon of Green Human Resource Management itself has not been widely implemented by manufacturing industries in Indonesia, thus requiring further research to explore this topic in the future.

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The Influence of Training and Competency Development on Employee Performance at the Manpower and Transmigration Service of Musi Banyuasin Regency

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Abstract

The objective of this study is to examine the impact of training and competency development on the performance of employees within the Department of Labor and Transmigration of Musi Banyuasin Regency. The research adopts a quantitative descriptive approach, encompassing a population of 71 participants. A saturated sample is employed, encompassing the entire employee population of the Department of Labor and Transmigration of Musi Banyuasin Regency. Data is collected through questionnaires and interviews, and the analysis involves multiple linear regression. The findings reveal that training significantly affects employee performance, while competency development exhibits a positive but statistically non-significant influence on performance. Furthermore, when combined, training and competency development significantly influence employee performance.

Keywords: Training, Competency Development, Employee Performance.

1. INTRODUCTION

The performance of an employee refers to the individual's level of achievement and effectiveness in the workplace success in achieving predetermined work targets. Factors that are usually evaluated to assess employee performance include the quality and quantity of work performed, productivity, initiative, cooperation, compliance with organizational policies and procedures, and the ability to adapt and learn (Dessler 2020). The optimal operational efficiency of an organization depends on the extent to which the performance of the individuals within it is effective, this will significantly influence the organization's overall effectiveness. According to Syahputra and Tanjung (2020), Multiple intricate and diverse elements may contribute to diminished employee performance. Among the primary factors frequently responsible is the suboptimal training provided to employees.

Training is a planned and structured process to improve an individual's understanding, skills and capabilities in a particular field. Training aims to improve employee performance and productivity and help them face demands and changes in the work environment (Kasmir 2019). According to Istiantara (2019) Apart from training, improving employee performance is also important. A method that can be applied is through developing employee competency.

Employee competency development is the process of planning and implementing programs to expand knowledge, improve skills, shape attitudes and change employee behavior. and adapt it to job and organizational needs. By strengthening competencies, employees can face challenges better, perform at high levels, and make greater contributions to the organization (Mondy and Martocchio 2016).

In accordance with the provisions included in the Musi Banyuasin Regency Regulation Number 296 of the Year 2021, the Manpower and Transmigration Service is recognized as a government agency that has the responsibility to manage and regulate policies related to employment and transmigration. The Department of Manpower and Transmigration is required to have good performance to support the implementation of regional development goals. The performance of the Manpower and Transmigration Service is closely related to the success of achieving goals and implementing organizational programs.

According to the findings outlined in the Government Agency Performance Accountability System report on the Performance of Regional Apparatus Organizations in Musi Banyuasin Regency in 2022, it can be seen that the Manpower and Transmigration Service has an average achievement rate of 79% or is in the good category. However, this achievement value is lower than other Regional Apparatus Organizations such as the National Unity and Politics Agency (117%), the Communication and Information Service (93%), and the Public Works and Public Housing Service (81%). The low performance of the Department of Manpower and Transmigration can be indicated as being related to the performance of its employees which is also not optimal. Several indicators of the performance of the Manpower and Transmigration Service, such as workers placed (70%), working population ratio (78%), and worker disputes resolved (27%) are still in the adequate or insufficient category. This shows that employees have not been optimal in implementing employment-related programs and activities.

The 2022 Employee Performance Report shows that the average "Good" assessment value ranges from 27 to 35 employees, the average "Fair" assessment interval ranges from 36 to 43 employees, while there are no employees who have poor or poor performance. The majority of employees receive performance assessments in the "Fair" category, which ranges from 36 to 43 employees each month, while the organization's expectations for employee performance are in the "Good" category. So, it shows that employee performance has not met the expectations desired by the organization.

Lack of employee performance can be caused by less-than-optimal training held at the Musi Banyuasin Regency Manpower Office. Dessler (2020) explains that proper training can increase employee productivity.

Table 1. Types of Employee Training in 2022

No.	Type of Training	Month	Participants	Percentage
1.	Technical Guidance for Employment Program Management	January	9	13%
2.	Technical Guidance on the Use of Information and Communication Technology (ICT)	March	6	8%
3.	Employment Law Training	June	12	17%
4.	Technical Guidance on the Implementation of the Occupational Safety and Health Management System	August	7	10%
5.	Human Resources Management Training	September	8	11%
Total			**42**	**59%**

Source: Secretariat of the Manpower and Transmigration Service, 2022

The table shows that employees do not evenly participate in training. This can be seen in the percentage of employees who took part in training ranging from 8% to 17% of the total 71 employees. The smallest percentage was in March, 6 employees participated. This is because employees are often faced with work tasks that take a lot of time and responsibilities that must be completed within a certain time limit. So that employees do not participate optimally in training, they prioritize completing work tasks

According to Istiantara (2019) Describes that effective employee performance relies on possessing competencies aligned with the requirements outlined in the job description. It can be seen that according to employee competency there are 64 employees who have the required abilities. Apart from that, there are still 7 employees who do not have the skills according to the criteria for each field. This shows that there is potential for development that can be increased so that all employees can achieve the expected competency standards. So, there is a need for employee competency development which involves providing education, training, experience and resources needed to be more effective at work. Training and competency development is an effective means of establishing good employee performance. By increasing employee knowledge, skills and abilities, organizations can achieve higher performance (Darmadi 2022).

The objective of this study is to assess the impact of training and development in enhancing the performance of employees within the Musi Banyuasin Regency Manpower and Transmigration Service. It is important to note that certain limitations exist in this research, including the finding that the competency development variable exhibits a positive yet statistically insignificant effect on performance. These limitations also pertain to the number of respondents, analysis methods, and types of variables considered. Future researchers are encouraged to broaden their analytical approaches and incorporate additional research variables, such as work motivation, work discipline, leadership style, and work environment, as these factors have the potential to significantly influence employee performance. The hope is that this study can serve as a valuable point of reference for subsequent research endeavors.

2. LITERATURE REVIEW

2.1 Organizational Learning Theory

Organizational Learning Theory was developed by M. Peter Senge in 1990. This theory explains how organizations learn and adapt to environmental changes. According to Hsu and Lamb

(2020), Organizational Learning is an approach that examines how organizations as a whole can learn from past experiences and apply the knowledge gained to improve their performance and efficiency. This theory emphasizes the importance of learning as a fundamental process in organizations, where organizations are considered as entities that can learn, adapt and innovate continuously.

Organizational Learning Theory focuses on the collection, storage, and utilization of knowledge in organizations (Reese 2020). In this scope, employee job training is an important aspect for generating and accumulating new knowledge in the organization. According to Ilma et al (2022), Organizational learning involves collaboration between employees, sharing knowledge, and creating an environment that encourages experimentation and innovation.

Job training is a learning process that is more than just the transfer of knowledge, but is also part of a broader organizational learning process. Through organizational learning programs, employees can access a variety of training and skills development relevant to their work. This training covers technical aspects as well as social skills such as communication, leadership and time management. With increased skills and knowledge, employees can be more confident and effective in completing their tasks, which in turn will improve their performance(Larasati 2019).

2.2 Spencer's Competency Theory

Spencer's competency theory was developed by Lyle Spencer and Signe Spencer in 1993. This theory explains that individual performance is determined by the competencies they possess. Competency means a person's fundamental characteristics that have a cause and effect relationship with a standard and that enable employees to work effectively or more optimally in certain jobs and situations (Arnika, Adys, and Tahir 2022). Spencer's competency theory is divided into two groups of competencies, namely threshold competencies and differentiation competencies (Spencer and Spencer 1993). Threshold competencies are essential characteristics that all employees must have in order to be able to do basic work. Differentiation competencies are characteristics that differentiate average performance from superior performance. This differentiation competency is what makes someone a superior performer. Spencer's competency theory also differentiates competency into five types, namely motive, trait, self-concept, knowledge, and skill (Spencer and Spencer 1993). Motivation is something that is continuously done by someone that triggers behavior. Attributes refer to tangible features and suitable reactions to circumstances. Self-concept is a person's views, values, or image of oneself. Knowledge is the insight that an individual has in a particular situation. Skills are capabilities in carrying out a task.

Spencer's competency theory has several assumptions that performance is a function of competency. This means that performance is influenced and can be predicted by individual competence, then competence can be defined and measured. Competencies are identified through job analysis and divided into threshold and differentiation competencies and competencies that can be developed. Competence is not innate, but can be developed through various efforts, such as education, training and experience

2.3 Employee Performance

Performance is the result obtained from the efforts and actions of a person or organization in achieving its goals. Performance is often used as a measure of the effectiveness and efficiency of an individual or organization in achieving desired results. Performance can be seen from various aspects, such as productivity, quality, efficiency and responsibility (Aidah and Ratnasari 2020). Another explanation is defined by Kasmir that performance is the level of achievement of an employee or an organization that does a job (Kasmir 2019). Meanwhile, according to Dessler

(2020), performance is the level of employee effectiveness and efficiency in completing tasks. Hasibuan (2019) stated that performance refers to the achievements achieved by individuals or teams while continuing to carry out their duties and responsibilities according to predetermined benchmarks. Performance assessment can be carried out by considering aspects such as efficiency, effectiveness and level of job satisfaction.

Based on this definition, it can be concluded that performance is a measure or result achieved by individuals and organizations in achieving predetermined targets. Performance includes aspects of quality, efficiency and effectiveness in carrying out duties and responsibilities. Performance can be measured by considering criteria such as output, results, and level of fulfillment of established standards. Factors such as ability, motivation, and work environment conditions influence individual performance (Larasati 2019).

Evaluation of employee performance can be carried out based on several aspects, namely work quality, quantity, timeliness, effectiveness and independence. work quality which refers to the quality of work results, quantity which refers to the amount of output, timeliness which is the ability to complete work according to deadlines, effectiveness which is the ability to produce maximum output with minimum resources, and independence which is the ability to complete work without depending on other people (Robbins and Timothy 2019).

2.4 Training

Job training is an important process designed to help employees acquire skills as well as the knowledge needed to carry out work duties and responsibilities more optimally. Job training can help increase employee motivation, performance and productivity, as well as help employees reach their potential. Job training is a process designed and implemented with the aim of helping individuals or groups to acquire the skills necessary to better perform job duties and responsibilities (Marlina et al. 2022). In another definition, training is a learning process that aims to improve individual skills and knowledge so that they can achieve better performance in their work (Larasati 2019). Job training not only focuses on improving employee skills and knowledge, but also helps employees understand their tasks and improve their performance (Andayani and Hirawati 2021).

Based on several definitions, it can be concluded that training is a learning process that helps individuals to improve skills, knowledge and achievements at work. Training helps individuals to acquire new skills or strengthen existing skills, understand and practice organizational norms and values, and achieve higher levels of achievement.

The dimensions for measuring training are instructor, participants, material, location, environment and training time. Job training dimensions are a measure used to determine the level of effectiveness of job training. Therefore, job training can play an important role in helping employees to reach their potential and make a positive contribution to the organization (Kasmir 2019).

2.5 Competency Development

Competency development is a strategic approach that aims to improve the quality, skills, knowledge and capabilities of individuals in an organization. HR development is a process that focuses on optimal utilization of human resources through education, training and work experience to improve performance and achieve organizational goals (Marlina et al. 2022).

Human resource development is a form of long-term investment for the organization (Effendi 2021). The goal is to create employees who are competent, talented, and able to adapt quickly to changes in the organizational environment that continues to change. Aldi and Ananda (2023) defines employee competency development as a systematic and continuous process that aims to improve the qualifications, knowledge, skills and work attitudes of employees in an organization. Kafiar et al. (2022) explains that employee competency development is carried out by taking into account the needs and strategies of the organization, so that it can help achieve long-term goals and function as a long-term investment for the organization.

Based on these several definitions, it can be concluded that competency development is a strategic approach aimed at improving the quality and capabilities of individuals within the organization. This development process includes education, training and work experience to improve performance and achieve organizational goals optimally.

Dimensions for measuring competency development are creativity, values that reflect beliefs, ethics and principles that guide a person's actions and behavior in the workplace, intuitive skills, namely the ability to make decisions based on strong feelings and instincts, without the need to rely on data or in-depth analysis, emotional skills which include the ability to recognize, manage and communicate effectively and rational analytical power which includes the employee's ability to analyze information (Sudarmanto 2020)

3. CONCEPTUAL FRAMEWORK

Derived from the findings of the theoretical analysis, the conceptual structure of this investigation can be outlined as follows.

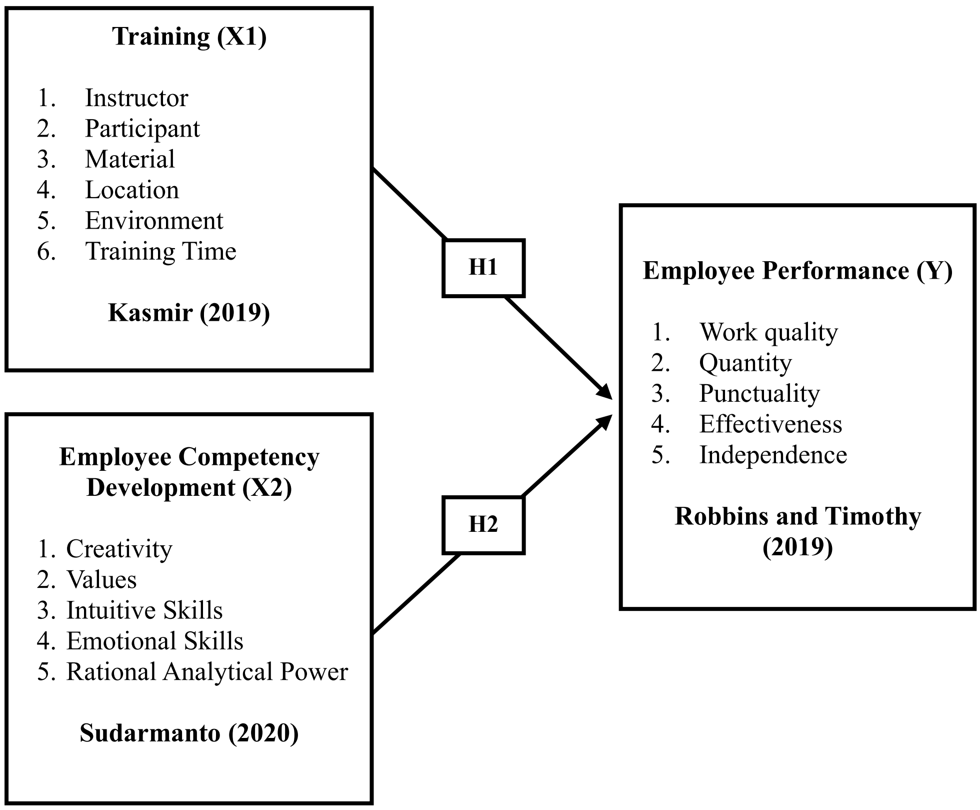

Figure 1. Conceptual Framework of Research

4. RESEARCH HYPOTHESIS

Based on the theoretical basis, research hypotheses can be drawn as follows.

1. Training has a positive and significant effect on employee performance at the Musi Banyuasin Regency Manpower and Transmigration Service.
2. Employee competency development has a positive and significant effect on employee performance at the Musi Banyuasin Regency Manpower and Transmigration Service.

5. RESEARCH METHODS

5.1 Population and Sample

All State Civil Service Employees (ASN) and TKS at the Musi Banyuasin Regency Manpower and Transmigration Service, totaling 71 people, constitute the population in this research. This research used a sampling technique, namely using non-probability sampling with a saturated sampling method, so that all 71 employees at the Musi Banyuasin Regency Manpower and Transmigration Service became the research sample.

5.2 Method of Collecting Data

This research collects data from two sources, namely primary and secondary data. Primary data refers to information obtained directly from sources, such as through interviews and questionnaires distributed to sample respondents, namely employees of the Manpower and Transmigration Service. Meanwhile, secondary data includes information that has been previously collected by other parties for certain purposes and is now being reused in this research, including in the categories of archives, publications and electronic sources.

5.3 Analytical Instruments and Techniques

To measure each variable, research instruments that can be used include:

1. Training: The technique for collecting data on training variables is a questionnaire. According to Kasmir (2019) There are 6 dimensions consisting of instructor, participants, material, location, environment and training time. This research questionnaire consists of 12 statements using a Likert scale.
2. Competency Development: The research instrument used for the competency development variable is a questionnaire. According to Sudarmanto (2020) There are 5 dimensions, namely creativity, values, intuitive skills, emotional skills and rational analytical power. This research questionnaire consists of 10 statements which are measured using a Likert scale.
3. Employee Performance The tool used to assess variables related to employee performance is a survey. In accordance with the findings of Robbins and Timothy (2019), there are 5 aspects which include quality, quantity, timeliness, effectiveness and work independence. This survey consists of 10 statements which are measured through the application of a Likert scale.

The questionnaire data has been tested for instrument validation and reliability. Next, classical assumptions and research hypotheses will be tested using the Statistical Package for Social Science (SPSS) version 26.

6. RESULTS AND DISCUSSION

6.1 Results

This research describes Training and Competency Development on Employee Performance at the Manpower and Transmigration Service of Musi Banyuasin Regency. The respondents in this research were 71 employees from various fields at the Manpower and Transmigration Office of Musi Banyuasin Regency. Respondents were then identified based on gender, age, length of work, marital status and education level.

Table 2. Respondent Profile Based on Gender

No.	Gender	Number of Employees (People)	Percentage (%)
1.	Man	42	59.2
2.	Woman	29	40.8
Total		**71**	**100**

Source: Primary data that has been processed with SPSS, 2023

Based on table 2, it can be concluded that the majority of respondents to this study came from male employees, totaling 42 people or 59.2%, while female employees numbered 29 people or 40.8%. This shows that the majority of employees in the research agency are male.

Table 3. Respondent Profile Based on Age

No.	Age (Years)	Number of Employees (People)	Percentage (%)
1.	21-30	21	29.6
2.	31-40	23	32.4
3.	>40	27	38.0
Total		**71**	100

Source: Primary data that has been processed with SPSS, 2023

Based on the table 3, it can be concluded that the majority of respondents who work at the Musi Banyuasin Regency Manpower and Transmigration Service are in the age range >40 years, namely 27 people or 38.0%. Then followed by an age range of 31-40 years with 23 people or 32.4%, and a minimum age range of 21-30 years with 21 people or 29.6%.

Table 4. Profile of Respondents Based on Length of Work

No.	Length of Work (Years)	Number of Employees (People)	Percentage (%)
1.	1-3	21	29.6
2.	4-5	23	32.4
3.	>5	27	38.0
Total		**71**	**100**

Source: Primary data that has been processed with SPSS, 2023

Based on the table 4, it can be seen that the majority of employees at the Musi Banyuasin Regency Manpower and Transmigration Service have worked for >5 years, namely 27 people or 38.0%. Then continued by employees with 4-5 years of service as many as 23 people or 32.4%, and the least were employees with 1-3 years of service, namely 21 people or 29.6%.

Table 5. Respondent Profile Based on Education Level

No.	Level of education	Number of Employees (People)	Percentage (%)
1.	Senior High School	20	28.2
2.	D3	7	9.9
3.	S1	29	40.8
4.	S2	15	21.1
Total		**71**	**100**

Source: Primary data that has been processed with SPSS, 2023

Based on the table 5, it can be seen that the majority of Musi Banyuasin Regency Manpower and Transmigration Service employees have a bachelor's degree, namely 29 people or 40.8%. Then followed by 20 employees with high school education or 28.2%, 15 employees with master's degrees or 21.1%, and at least 7 people with D3 graduates or 9.9%.

Table 6. Validity Test Results

Variable	Number of Item	r-value	r-table	Conclusion
Training (X_1)	Item 1	0,687	0,2335	Valid
	Item 2	0,753	0,2335	Valid
	Item 3	0,745	0,2335	Valid
	Item 4	0,675	0,2335	Valid
	Item 5	0,669	0,2335	Valid
	Item 6	0,631	0,2335	Valid
	Item 7	0,549	0,2335	Valid
	Item 8	0,694	0,2335	Valid
	Item 9	0,409	0,2335	Valid
	Item 10	0,499	0,2335	Valid
	Item 11	0,753	0,2335	Valid
	Item 12	0,695	0,2335	Valid
Competency Development (X_2)	Item 13	0,628	0,2335	Valid
	Item 14	0,638	0,2335	Valid
	Item 15	0,479	0,2335	Valid
	Item 16	0,588	0,2335	Valid
	Item 17	0,554	0,2335	Valid
	Item 18	0,54	0,2335	Valid
	Item 19	0,529	0,2335	Valid
	Item 20	0,583	0,2335	Valid
	Item 21	0,433	0,2335	Valid
	Item 22	0,446	0,2335	Valid
Performance (Y)	Item 1	0,762	0,2335	Valid
	Item 2	0,653	0,2335	Valid
	Item 3	0,549	0,2335	Valid
	Item 4	0,515	0,2335	Valid
	Item 5	0,486	0,2335	Valid
	Item 6	0,621	0,2335	Valid
	Item 7	0,525	0,2335	Valid
	Item 8	0,598	0,2335	Valid
	Item 9	0,654	0,2335	Valid
	Item 10	0,704	0,2335	Valid

Source: Primary data that has been processed with SPSS, 2023

Based on the table 6, it shows that all statement items in the questionnaire instrument for training variables, employee competency development and employee performance are declared valid, because the calculated r-value is greater than the r-table value of 0.2335. Next, the research instrument will be tested for reliability. An instrument is said to be reliable if the Cronbach's Alpha value is greater than 0.70.

Table 7. Reliability Test Results

Variable	***Cronbach's Alpha***	**Results**
Training (X1)	0.872	Reliable
Competency Development (X2)	0.733	Reliable
Performance (Y)	0.810	Reliable

Source: Primary data that has been processed with SPSS, 2023

It can be concluded that all instruments used in research to measure training, competency development and performance variables show a reliability level of more than 0.70. After going through validity and reliability tests, the next step involves testing classical assumptions, including normality, multicollinearity and heteroscedasticity tests.

Table 8. Normality Test Results

		Unstandardized Residuals
N		71
Normal Parameters, b	Mean	0,0000000
	Std. Deviation	4.12260109
Most Extreme Differences	Absolute	0,090
	Positive	0,068
	Negative	-0,090
Statistical Tests		0,090
Asymp. Sig. (2-tailed)		**0,200**

Source: Primary data that has been processed with SPSS, 2023

Based on the table above, the results of the normality test with the One-Sample Kolmogorov-Smirnov Test show a significance value or Asymp. Sig. (2-tailed) of 0.200 which is greater than 0.05. This means that the data is normally distributed because the significance value is above 0.05.

Table 9. Multicollinearity Test Results

Model		**Collinearity Statistics**	
		Tolerance	**VIF**
1	Training	,993	1,007
	Competency Development	,993	1,007

Source: Primary data that has been processed with SPSS, 2023

Referring to the provided table 9, both the Training and Competency Development variables exhibit a tolerance value of 0.993 each, surpassing the threshold of 0.10. Simultaneously, their VIF value stands at 1.007, which falls below 10. The inference drawn from these findings is that there is an absence of multicollinearity among the independent variables in the regression model employed in this study, as the tolerance exceeds 0.10 and the VIF remains under 10.

Table 10. Heteroscedasticity Test Results

Model		Sig.
1	(Constant)	0,037
	Training	0,958
	Competency Development	0,175

Source: Primary data that has been processed with SPSS, 2023

Referring to the findings in table 10 from the Glejser Test, it is evident that the significance value for the independent variable Training is 0.958, while the significance value for the Competency Development variable is 0.175. Both of these values exceed the threshold of 0.05. Consequently, it suggests that there is no statistically significant correlation between the independent variables and the absolute values of their residuals. In conclusion, the regression model employed in this study is free from heteroscedasticity.

Table 11. Multiple linear regression results

Model		Partial t test			Anova		R	R Square
		B	t	Sig.	F	Sig.		
1	(Constant)	8,841	2,168	0.034	28,200	0,000	0.673	0.453
	Training	0.526	7,474	0,000				
	Competency Development	0.136	1,348	0.182				

Source: Primary data that has been processed with SPSS, 2023

From Table 11, you can see the results of the regression test of the independent variable on the dependent variable. By referring to the t table value for degrees of freedom (df) of 69 at a significance level of 5%, namely 1.994, and the F table value of 3.13. By detailing the data from Table 10, it can be concluded that the results of the hypothesis test are as follows.

1. Training has a positive and significant effect on employee performance, with the calculated t value (2.168) greater than the t table (1.994) and a significance value of 0.000 smaller than 0.05.

2. Competency development has a positive and insignificant effect on employee performance, with the calculated t value (1.348) being smaller than the t table (1.994) and the significance value of 0.182 being greater than 0.05.

3. The correlation coefficient (r) value is 0.673, this figure illustrates that training and competency development have a strong relationship or level of closeness to influence employee performance, namely in the coefficient interval of 0.60 – 0.79 (Strong).

4. The R Square value is 0.453, meaning that the influence of training and competency development on employee performance is 45.3%. The remaining 54.7% is influenced by other variables outside this research.

6.2 Discussion

In light of the findings from the study, it can be inferred that the proposed hypothesis (H1) is accepted, indicating that partial training has a noteworthy and positive impact on the performance of the employees at the Manpower and Transmigration Service in Musi Banyuasin Regency. This is shown from the results of the t test where the calculated t value of the training variable is 7.474 which is greater than the t table value (1.994) with a significance level of 0.000 (less than 0.05). The results of this research are in line with the theory presented by Peter M.

Senge, namely Organizational Learning theory. According to this theory, organizations that want to survive and develop must become learning organizations, namely organizations that continuously improve their capabilities to create their future.(Hsu dan Lamb 2020). This is in line with the principle of organizational learning, where training is an important form of learning for organizations to improve the abilities and skills of their employees. Through training, employees gain new knowledge, skills and behaviors needed to better complete their duties and responsibilities. So, it can be said that an organization that frequently provides training for its employees is a learning organization that continues to strive to improve the capabilities of its human resources.

Training is a core form of learning for organizations to face changing and evolving environmental dynamics. The results of this research are also in line with the research of Hadjri et al. (2019), Setiawan et al. (2021) and Cik (2021) who also found a positive and significant effect of training on employee performance. However, there are previous studies that are not in line, namely Syahputra (2020), Andayani (2020) and Lubis et al. (2023) who found that training did not have a significant effect on employee performance.

The research results also show that competency development has a positive and insignificant effect on employee performance. Based on Spencer's competency theory (1993), there are 5 main characteristics of competence, namely motive, personal characteristics, self-concept, knowledge and skills. The research results show that the competency development program has been quite effective in improving aspects of employee knowledge and skills. However, the application of these competencies is less than optimal in the workplace due to a lack of appreciation for the creative ideas proposed. This indicates that aspects of employee motives and personal characteristics related to creativity and innovation need to be improved, not only cognitively but also affectively. Apart from that, improving employees' self-concept so that they are more confident in proposing creative ideas needs to be the focus of attention.

Based on the results of interviews with the Head of General and Civil Service Subdivision, Mr. M. Effendi, S.Kom, M.Si, that less than optimal competency development can also be caused by employees who think that competency development is not the main thing. They are of the view that carrying out daily tasks is enough and prioritize completing work targets rather than improving their own competence. This view is certainly not correct, considering the importance of competency development to improve the quality of performance in the long term. Employees who regularly and consistently participate in training, education and other competency development programs tend to have higher performance than employees who do not (Mannayong dan Haerul 2019). The results of this research are also in line with research conducted by (Rusdi 2020), (Kelana 2022) and (Dunir, Fatkhurahman, and Supeno 2023) which shows the results, namely that human resource development which focuses on competency development has a negative and insignificant effect on employee performance.

7. CONCLUSION

Derived from the conducted research and analysis, it can be inferred that training exerts a beneficial and substantial impact on the efficiency of employees at the Manpower and Transmigration Service in Musi Banyuasin Regency. Meanwhile, competency development is found to have a positive but inconsequential influence on the performance of employees within the same service.

8. LIMITATIONS AND FUTURE OF RESEARCH

The present study is constrained by the finding that the impact of competency development on performance is positive yet statistically insignificant. Additionally, limitations are evident in terms of the sample size, analytical methods employed, and the range of variables considered. It is recommended that future researchers extend their analysis techniques and broaden the scope of research variables to include factors like work motivation, work discipline, leadership style, and work environment, as these may play a significant role in influencing employee performance.

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Role of Human Capital Development in Firm Performance: The Mediating Effect of Innovation. A Case of Manufacturing Firms in Plateau State, Nigeria

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Abstract

An organization's competitive strategy is strengthened when it has a greater specialized human expertise above its competitors. The main objective of this study is to examine the role of human capital development on firm performance in Plateau State, Nigeria and the mediating effect of innovation. A cross-sectional and ex-post factor research design was used for the study. The population consists of 231 owners/managers of MSMEs in Plateau State, Nigeria. A sample size of 146 was used. The partial least square structural equation model (PLS-SEM) was used. The findings of the study revealed that although there is no significant direct relationship between human capital development and firm performance, there is a significant relationship between human capital development and innovation and between innovation and firm performance. Innovation was also found to mediate the effect of human capital development on performance. The study recommended, amongst other things, that organizations should be innovative.

Keywords: Human Capital Development, Innovation, Performance

1. INTRODUCTION

The assessment of a firm's performance is a prominent concept in the realm of business, particularly in strategic management research worldwide. Over the past few years, the pursuit of continuous improvement in performance has become the primary objective of any given firm. This is due to the fact that progress and growth can only be achieved through performance. The measurement and evaluation of a company's performance hold significant importance, as businesses are constantly striving for effective and efficient outcomes. As a result, the manufacturing industry is viewed as the catalyst for economic advancement and poverty reduction (Afolabi & Laseinde, 2019). In the light of this, most companies are exploring various avenues to enhance their performance.

The Nigerian manufacturing sector is one of the largest in Africa (Nigeria Economic Summit Group NESG, 2021). Manufacturing is Nigeria's third largest sector in terms of employment, after Agriculture and Trade. Before the year 2020, the sector has incessantly faced structural challenges causing manufacturing organizations to shut down which limits investments and growth in the sector (NESG, 2021). In years past Nigeria has not given the needed attention to human capital development which could be linked to its poor economic growth rate (Anyanwu, et al., 2015).

An organization's competitive strategy is strengthened when it has a greater specialized human expertise (Rozman et al, 2023) which will help them establish and maintain meaningful differences between their organization and that of their competitors. A firm's internal sources of competitive advantages have been considered as a relevant factor to attaining superior firm performance. Some empirical evidences reveal that human capital development is a crucial factor to firms' performance (Alqershi et al., 2019; Banabo & Wariowei, 2021). While some studies show that no nation can develop without investing in its human capital which is a vital index for economic growth because for every increase in human capital development, there is an increase in economic performance. The winning card can be held by those who endeavor to innovate, to obtain and sustain performance. Thus, competing in a continuously changing environment is very necessary to comprehend and monitor performance (Taouab & Issor, 2019) and this cannot be achieved without developing human capital.

Human Capital Development (HCD) is the process of adding values to human beings in a nation in order to have a qualified, knowledgeable and healthy workforce that can give solution to national economic challenges on a continuous basis. It is the process by which organizations help their employees in a continuous and planned way in order to: acquire or sharpen the abilities required to perform various functions associated with their present or expected future roles; develop their general skills as individuals, discover and utilize their inner potential for their own and/or organizational development purposes (Alnachef & Alnajjar 2015).

Human capital is the genetic product of learning which translates into special talents, capacities and technical know-how found in a nation's labor force for national economic expansion. It consists of knowledge, skills, and wealth that people accumulate throughout their lives, enabling them to realize their potential as productive members of society (the world bank, 2023).

In recent years, there has been a noticeable trend among manufacturers in developed markets to engage in service-led innovation in order to establish a foundation for sustainable growth and to enhance their competitive stance. Innovation enriches opportunities to respond to the changes created by the environment and discover new changes that significantly benefit the firm's survival. It can further stimulate competitive advantage because it enables the firm to produce and market new or better products; as a result, satisfying customer needs. In firms, innovation-related practices facilitate robust culture for life-long learning, growth and personal advancement (Mathushan & Kengatharan, 2022).

By reviewing results of several empirical studies, a gap has been identified that is based on the insufficient literature on the mediating effect of innovation on firm performance and human capital development among manufacturing firms in Plateau State, Nigeria. Again, this study is unique in the sense that most studies on human capital development are linked to education and very few are related to manufacturing firm performance. There is also a geographical gap because no such precise studies have been known to be carried out in Plateau State, hence the need for this study. Accordingly, the aim of this research article is to explain the effect of innovation, as a mediator of the relationship between human capital components and manufacturing firm performance in Plateau State, Nigeria.

1.1 Research Question

Based on the foregoing, the study sought answers to the following questions:

i. What is the effect of human capital development on manufacturing firm performance in Plateau State, Nigeria?

ii. What is the effect of Human capital development on innovation amongst manufacturing firms in Plateau State, Nigeria?
iii. What is the effect of innovation on manufacturing firm performance in Plateau State, Nigeria?
iv. Does innovation mediate the relationship between human capital development and firm performance of manufacturing firms in Plateau State, Nigeria?

1.2 Research Objective

The main objective of the study is to examine the role of human capital development on firm performance in Plateau State, the mediating effect of innovation.

However, the specific objectives are to:

i. examine the effect of human capital development on manufacturing firm performance in Plateau State, Nigeria;
ii. establish the effect of human capital development on innovation amongst manufacturing firms in Plateau State, Nigeria;
iii. ascertain the effect of innovation on manufacturing firm performance in Plateau State, Nigeria; and
iv. evaluate the mediating role of innovation in the effect of Human capital development on manufacturing firm performance in Plateau State, Nigeria.

1.3 Hypotheses

The following research hypotheses were formulated and tested: -

Ho_1: There is no significant effect of human capital development on manufacturing firm performance in Plateau State, Nigeria.

Ho_2: There is no significant effect of human capital development on innovation among manufacturing firms in Plateau State, Nigeria.

Ho_3: There is no significant effect of innovation on manufacturing firm performance in Plateau State, Nigeria.

Ho_4: innovation does not significantly mediate the relationship between Human capital development and manufacturing firm performance in Plateau State.

2. LITERATURE REVIEW

2.1 Conceptual Framework

2.1.1 Manufacturing Firm Performance

Assessing the performance of organizations has always been of interest to management teams and researchers. Measuring business performance in today’s economic environment is a critical issue for academic scholars and practicing managers. Researchers have extended efforts to determine measures for the concept of performance. In this regard, there are conflicting findings and an on-going debate on the issue of firms’ performance (Taouab & Issor, 2019).

The manufacturing industry focuses on the development and processing of raw materials and indulges in either the creation of new commodities or value addition. In his analysis of the factors that affect the manufacturing sector's performance in Nigeria between 1994 and 2019, Olusegun (2021) found that the real exchange rate, tax rate, and trade openness all had a direct and significant impact on the sector's production. While interest rate and money supply were found to be insignificant, the study found that increases in consumption taxes, real exchange rates, and economic liberation were the factors that most significantly affected the performance of the manufacturing sector. Okoror, et al. (2022) investigated the impact of working capital policy on firm performance using publicly traded manufacturing/industrial firms in Nigeria and found out that the cash conversion cycle has a positive and significant impact on financial performance.

It is also vital to note that the performance of a company is an important consideration by investors; it also determines the monetary value of a company (Makwe, et al., 2021). They posit that strengthening of the Naira and increase in tax rates with equivalent improvements in infrastructure and human capital development must be maintained to preserve the performance of manufacturing enterprise.

2.1.2 Human Capital Development

Studies on human capital in organisations focus on the way employees and managers accumulate knowledge and skills and how such stock of knowledge and skills enable organisations to improve performance (Timothy, 2022). Sisodia et al. (2021) stated that it is difficult for a firm to create competitive advantage without efficient labour force, even when the firm has adequate financial resources, advanced technologies and sophisticated infrastructure. Human capital aids in the achievement of organizational goals with the overarching goal of fostering regional and national development. The knowledge, abilities, and attitudes acquired through the building of human capital are direct results of conscious investments in people. The higher a person's ability to create more relevant intellectual capital, the higher they are considered as being of higher human capital (Ameyau et al., 2019).

2.1.3 Innovation

The Global Innovation Index (2022) shows that Nigeria performed better in innovation outputs (knowledge and technology-based products; creative products) than innovation inputs (institutions, human resources and market research, infrastructure, market sophistication, and business sophistication). It ranked Nigeria as 113th in innovation input and 107th implying that Nigeria is performing just moderately enough to compete favorably with the highly industrialized nations of the World. Although against other lower middle group economies and sub-Saharan Africa, Nigeria performs above the regional average in three pillars; Human Capital and research, business sophistication and creative outputs but that is not enough because it is expected that manufacturing firms perform above expectations if they must compete.

Innovative businesses incorporate cutting-edge technology into their systems and procedures to boost cost effectiveness and added value capable of generating more efficient work processes that lead to higher productivity and performance levels (Tuamyil et al., 2022). In comparison to their counterparts, introducing innovation within a business setting can result in considerable time and cost savings, thereby conferring a competitive edge that augments the enterprise's position in the marketplace (Zhu et al., 2023).

Dehbi (2018) reveals that innovation is intrinsically linked to productivity, as evidenced by a comprehensive analysis of the interconnection between the two. Measuring the correlation between productivity and various drivers of innovation such as human capital, research and development, and machinery and equipment investments (Dani & Gandhi, 2021) indicate that innovation is a fundamental impetus for productivity in both micro and macro environments. There are three types of innovation which include; product innovation, which entails generating revenue, process innovation which offers a way to preserve and improve quality and reduce costs, and market innovation, which broadens the target market mix and selects the best market to take into account served by the business (Mckinsey Quarterly, 2015).

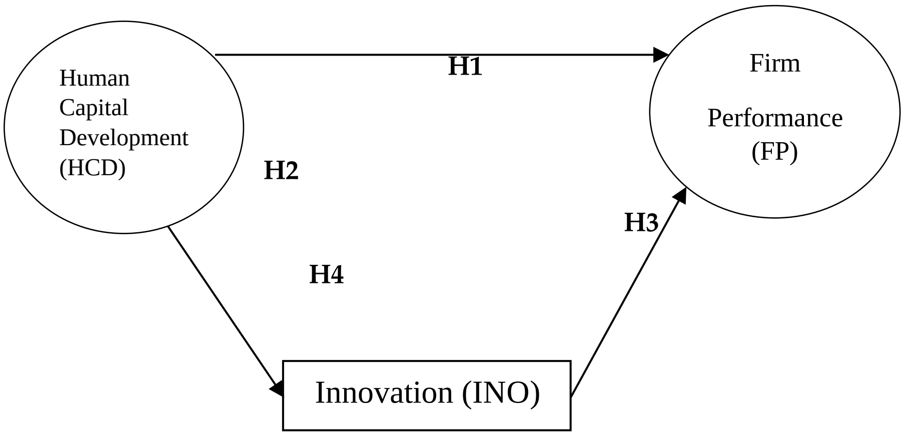

Figure 1: A Model of Conceptual Framework

2.2 Theoretical Review

Human Capital Theory (Becker, 1962)

This theory was propounded by Becker in 1962. According to the human capital idea, a country's ability to prosper economically depends on its people. People in the labor market bring varying degrees of education, knowledge, skill, and ability, as well as their expectations, to the office. An organization relies on employees' talent, knowledge, and ability as a major idea of value creation hence the importance of human capital theory is widely recognized to boost organizational performance (Wuttaphan, 2017). This study therefore hinges on this theory.

2.3 Empirical Review

2.3.1 Human Capital Development and Firm Performance

Amma-Ullah (2022), using partial least square structural equation modelling, demonstrates that human capital capacity, human capital knowledge and human capital skills have a significant positive relationship with organizational performance. The results also confirmed the moderating effect of innovative leadership between human capital knowledge and organizational performance.

Aman-Ullah (2022) also demonstrates a notable correlation between human skills and organizational performance in the banking industry. Similarly, in the SME industry, the relationship between human knowledge and organizational performance has been explored (Marijana, et al., 2020). Marchiori, et al. (2022) examined the relationship between human capital, IT capability, innovativeness and organizational performance. Data was analyzed using IBM SPSS, and the findings indicated that human capital indirectly impacts organizational performance through the mediating effect of entrepreneurial leadership.

2.3.2 Human Capital Development and Innovation

Xia et al. (2012), using survey data, analysed the path relationship between human capital and technological innovation using regression analysis. The findings reveal that human capital has positive impact on technological innovation.

Fonseca et al, (2019) suggested that more attention needs to be given to how advancement in technology affects innovation activities and eventually results in outputs. The decision to undertake innovation activities is primarily contingent on a firm's creative organization and aptitude for knowledge conversion (Anderson et al., 2014), while a firm's success in innovation is determined by its efficacy in translating innovation activities into market triumph (Baik & Kang, 2020), Their study investigated the relationship between Small Knowledge-Intensive Firms' Innovation and Performance with the moderating effects of organizational change in south Korean small firms and result show that innovation has a positive influence on long-term performance.

Even with constant invention generation, a company may not be successful in the market. When human capital investment is given more consideration, the creativeness of an organization has a considerable impact on its capacity for innovation (Aljuboori, et al., 2022). Firms can explore new position by using an innovative approach, which helps them deal with highly complicated, unexpected, and uncertain settings better (Lartey et al., 2020).

2.3.3 Innovation and Firm Performance

Innovation is widely regarded as one of the most important sources of firm's competitiveness because it allows continuous improvement in products, services and processes that helps firms to survive and grow (Timothy, 2022), he further asserts that Studies that examine the relation between firm innovativeness and performance generally find positive association. Throughout the course of history, there have been numerous attempts at innovation, many of which have proven to be unsuccessful. Even highly regarded organizations that were once pioneers and leaders in their respective industries have struggled to maintain their competitive edge in the face of major technological advancements.

Results presented by Vixathep (2014) from their study of 179 MSMEs in Laos in South East Asia, suggests that a greater degree of human capital, when combined with innovation, has a positive impact on productivity levels within Lao MSMEs. This observation is consistent with previous research in the field of business innovation, which has generated considerable evidence highlighting the positive correlation between innovation and performance (Alqershi et al., 2019; Ameyau et al., 2019, Tuamyil et al., 2022)).

2.3.4 Mediating Role of Innovation in the Relationship between Human Capital Development and Firm Performance

Using an extensive database comprising 6,331 firms from 78 countries, Kuzey et al. (2021) conducted a study of the influence of investments in human capital, specifically employee training and development, on firm financial performance and the impact of research and development intensity of innovation capital which reveals that innovation capital played a partial mediating role in the relationship between human capital investment and firm performance, as determined by accounting-based return on assets. However, when market-based Tobin's Q was utilized for performance measurement, the role of innovation capital was observed to fully mediate performance. Fratiwi and Fanani (2019) examined the mediating role of innovation on the relationship between organizational learning and company performance. The result shows that innovation can mediate the influence of organizational learning on company.

The degree of openness of the innovation process always plays a role of partial mediator in the relationship between strategic vision and overall performance (Chabbouh & Boujelbene, 2020). Conversely, Aljuboori et al. (2022) investigated the relationship between intellectual capital, and firm performance with the mediating role of innovation capability in manufacturing SMEs in Malaysia, result indicated that the higher the level of innovation capability within a firm, the greater the performance that can be achieved by the firm.

3. METHODOLOGY

3.1 Research Design

A cross-sectional research design and ex-post factor was used for this study. The design is appropriate because it includes descriptive elements and further identifies and explores the causes behind effects and nature of relationships between the independent and dependent variable. The study investigated the causal relationship between the variables: - Human Capital Development (HDC), Firm Performance (FP) and Innovation. This study employed quantitative research to examine the relationships between human capital development, manufacturing firm performance and innovation within the scope of structural equation modeling.

3.2 Population and Sampling

The population of this study is made up of manufacturing firms in Plateau State totaling 231. The sampling technique used in this study was purposive sampling technique which helps the researcher focus on respondents with the information needed for the study**.** The units of analysis are managers of manufacturing firms at the organizational level.

3.2.1 Sample Size

Sample size is representative of the population and it is used to make inferences about a population after some statistical analysis (Smith, 2013). The sampling technique is nonprobability sampling in order to select a sample that matches the characteristics of the population. The sample size was determined using Taro Yamene's formula. This enabled the researcher to get data about the population that can be generalized. The Taro Yamene's formula is used to compute the sample size at 5% (0.05) margin of error (ME) and 95% (0.95) confidence interval (CI).

$$n = \frac{N}{1+N(e)^2}$$

Where: n = The Sample size

N = the population of the study

e = level of significance (0.05)

$$n = \frac{231}{1+231(0.05)^2}$$

n = 146

Therefore, the sample size is 146. The sample size for each stratum of Manufacturing Firms is estimated using Bowley's (1906) proportional statistical technique which is given below:

$$nh = \frac{nNh}{N}$$

Where:

nh	=	Number of units allocated to each stratum of Manufacturing Firms
Nh	=	Number of staff in each stratum of the population
n	=	Sample size
N	=	The actual or total population under study.

Table 1: Calculation of the Sample size for each Category of Manufacturing Firms in Plateau State

Manufacturing Firms	**Population Size**	**Sample size Computation**	**Sample Size**
Flower Millers	71	nh = $\frac{146 \times 71}{231}$	45
Oil Crushers	62	nh = $\frac{146 \times 62}{231}$	39
Steel	34	nh = $\frac{146 \times 34}{231}$	22
Confectioneries	64	nh = $\frac{146 \times 64}{231}$	40
Total	**231**	**146**	**146**

3.3 Data Collection Methods

Primary data are obtained directly from the respondents. The questionnaire items are designed to address the purpose of the study. This gives the researcher the expected information about human capital development, innovation and firms' performance. These variables were measured using a five-point Likert-Scale.

3.4 Validity and Reliability

Reliability is a test of how consistently a measuring instrument measures whatever variable it is measuring, whereas validity is a test of how well an instrument that is developed measures the particular variable it is intended to measure (Dhawan, 2010). The validity and reliability of instruments used in this study were tested using composite reliability and convergent Validity through Average Variance Extracted (AVE) as shown below.

Table 2: Construct Reliability and Validity (AVE)

Variables	Cronbach's alpha	Composite reliability (rho_a)	Composite reliability (rho_c)	Average variance extracted (AVE)
Firm Performance	0.766	0.781	0.850	0.586
Human Capital Development	0.849	0.855	0.898	0.688
Innovation	0.875	0.876	0.915	0.728

Source: SmartPLS v. 4.0.9.6

Table 2 indicates that the Average Variance Extracted (AVE) of all the constructs being measured which are all above the threshold of 0.5 indicating a high convergent validity. Convergent validity of a construct according to Hair et al, (2014), is the extent to which an indicator correlates with other items within the same construct. Table 1 also show that the composite reliability coefficient for all the variables for this study which are all greater than or equal to 0.7.

Table 3: Assessment of Discriminant Validity- Fornell and Larcker Criterion

Variables	1	2	3
1. Firm Performance	**0.766**		
2. Human Capital Development	0.493	**0.829**	
3. Innovation	0.846	0.540	**0.853**

Source: SmartPLS v. 4.0.9.6

Table 3 shows that discriminant validity is established, since the square root of the AVEs as highlighted in the diagonal are greater than the correlations within the row and the column. Discriminant validity as the name implies, is conducted to establish that a construct as used in a given study is dissimilar to another construct (Henseler, et al., 2016) within the same framework.

3.5 Data Analysis Methods

The partial least square structural equation model (PLS-SEM) was used to model the regression analysis used to test the hypothesis to determine if there is an effect relationship between each of the independent construct and the dependent construct. PLS-SEM is a non-parametric method that does not require that the data meet certain distributional assumptions and it has been found to be reliable since the focus is on the changes in the dependent variable when examining a model as in this study. The study made use of SmartPLS application software package v. 4.0.9.6.

3.5.1 Model Specification

The following model is developed to form a linear equation. $Y = \beta_1 X_1 + \beta_2 X_2 + B_3 X_{..}\varepsilon$, where: Y = Firm Performance, ε = Error term, β_1 to β_3= Beta coefficient of variable X which measure, whether there is responsiveness of Y to changes in X. X_1 = Human Capital Development, X_2 =Human Capital Development, X_3 = Innovation.

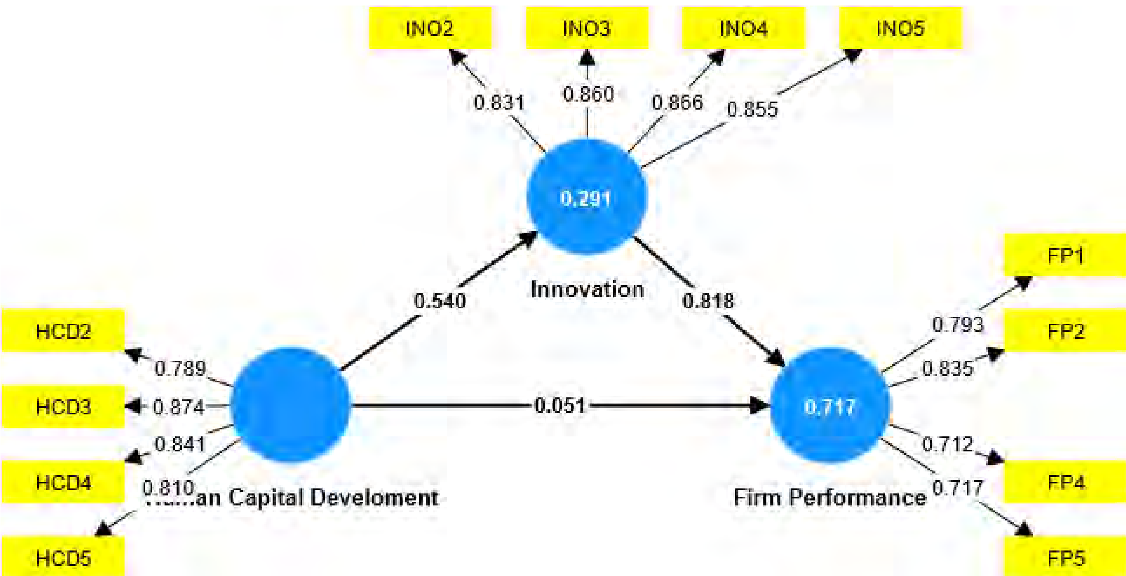

Figure 2: Structural Model

Source: SmartPLS v. 4.0.9.6

The coefficient of determination (R square) in Figure 2 showed that 71.7% (0.717) variance in firm performance is explained by Human Capital Development and Innovation and the remaining 28% variation could be explained by other factors not included in the study. The R-square is considered suitable based on Hair et al. (2019).

Table 4: Model Fit

	Saturated model	Estimated Model
SRMR	0.084	0.084
d_ULS	0.556	0.556
d_G	0.244	0.244
Chi-square	191.763	191.763
NFI	0.806	0.806

Source: SmartPLS v. 4.0.9.6

Hair et al. (2017) suggested that there is need to assess the goodness of fit of the model in order to validate the PLS model using the standardized root mean square residual (SMRM) because it provides the absolute fit measure where a value of zero indicates a perfect fit. The SMRM of 0.084 approaches zero indicating an acceptable Goodness of Fit.

4. RESULTS

Table 5: Internal Consistency and Convergent Validity Report

Variables	Indicators	Factor Loading	VIF-OUTER Model	Composite Reliability	Convergent Validity (AVE)
Human Capital Development	HCD2	0.789	1.557	0.850	0.586
	HCD3	0.874	2.263		
	HCD4	0.841	2.126		
	HCD5	0.810	1.855		
Innovation	INO2	0.831	1.915	0.898	0.688
	INO3	0.860	2.283		
	INO4	0.866	2.263		
	INO5	0.855	2.229		
Firm Performance	FP1	0.793	1.734	0.915	0.728
	FP2	0.835	1.826		
	FP4	0.712	1.499		
	FP5	0.717	1.545		

Source: SmartPLS v. 4.0.9.6 Criteria: composite Reliability>0.70 (Farrel & Rudd, 2009) AVE> 0.5 (Hair et al., 2014)

Table 6: Showing Path Coefficient

HYP.	Relationships	Original sample (O)	Sample mean (M)	Standard deviation (STDEV)	T statistics (|O/STDEV|)	P values	Decision
HO_1	HCD -> FP	0.051	0.053	0.066	0.769	0.440	Fail to Reject the null hyp.
HO_2	HCD-> Innovation	0.540	0.541	0.08	6.781	0.000	Reject the null Hyp
HO_3	Innovation -> FP	0.818	0.820	0.040	20.591	0.000	Reject the null Hyp

Source: SmartPLS v. 4.0.9.6

In order to assess the path coefficient in line with the hypotheses postulated in this study, a bootstrapping command was carried out using SmartPLS v. 4.0.9.6 and the result displayed the path coefficient in table 1 based on the direct relationships on two tailed-tests at 95% confidence level and 5% margin of error as postulated in the hypotheses. However, table 4 revealed that human capital development had no significant relationship on manufacturing firm performance; on the other hand, human capital development had a significant relationship on innovation, and innovation also had a significant relationship on Manufacturing firm performance.

4.1 Decision Criterion

Reject the null hypothesis (HO) when p-value < 0.05 significance level, fail to reject the null hypothesis (HO) when p-value > 0.05 significance level.

5. DISCUSSION AND CONCLUSION

5.1 Summary of Findings

The findings of the study revealed that there is no significant relationship between human capital development and firm performance. This decision was reached based on the t-value of 0.769 and a p-value of 0.44

The findings of the study indicated that there is a significant relationship between human capital development and innovation with a t-statistic of 6.781 and a p-value of 0.000

The findings of the study showed that there is a significant relationship between innovation and firm performance with a t-statistic of 20.591 and a p-value of 0.000.

5.2 Discussion of Findings

The manufacturing sector in Nigeria has not performed creditably (Gado, 2013; Afolabi and Laseinde, 2019). Gado (2012) had shown the place of innovative strategy in the poor performance of the textile industry in the North West zone of Nigeria. The findings of this study to the effect that human capital development devoid of innovation is not enough to improve performance supports theses earlier works. In a globalized and fast-changing World, human capital development supported by innovation appears to be key to improved performance. Innovation is so central that on its own it improves performance.

The aim of human capital development should be to improve innovation. This explains why countries that are high in innovation appear to be doing well. The emphasis of human development by way of formal education, training and capacity building should be to improve innovation. This explains why producers of primary products without any innovative value addition have remained poor. This has also validated the theory of the 'natural resource course' (Auty, 1994). Natural resources when used innovatively, however, can be a blessing (Algharabali & Al-Thaqeb 2023)

5.3 Conclusion

The findings of the study concluded that human capital development alone does not lead to increase in firm performance.The findings of the study also concluded that human capital development led to improvement in innovation.The findings of the study further concluded that innovation led to improvement in firm performance.

Also the study recommends that management of business organizations need to rethink on the particular aspect of human capital to develop in order not to waste resources without any improvement in its performance

The management of manufacturing firms should channel their resources more on particular aspects of human capital that will have an impact on innovation because it is a good predictor of firm performance.

The management of manufacturing firms should adopt a technology that is well suited for the organization and is scalable to meet future needs.

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The Influence of Brand Ambassadors on Impulse Buying and Brand Trust As Intervening on Azarine Products Through Shopee E-Commerce

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Abstract

The purpose of this study is to identify the impact of brand ambassadors on impulse buying behavior through brand trust as an intermediary. The approach used in this study is a quantitative method by collecting data through the distribution of questionnaires to respondents through social media direct messages. The research was conducted on 300 female respondents who live in several regions of Indonesia, namely Lampung, Jabodetabek, West Java and Jogja and have purchased Azarine products. The sample was taken by non probability sampling using online purposive sampling method. The data collected was then analyzed using the SmartPLS 3.2.9 analysis tool using the Structural Equation Modeling (SEM)-PLS method. The findings of the study indicate a positive and significant effect of brand ambassadors on impulse buying behavior, with brand trust acting as a mediator.

Keywords : Brand Ambassador, Brand Trust, Impulse Buying, E-commerce

1. INTRODUTION

The advancement of technology has significantly altered people's lifestyles (Purnama & Putri 2021). Particularly in Indonesia, the surge in e-commerce has prompted merchants to embrace online platforms for transactions (Rahayua & Daya 2015). Indonesia ranks fifth globally in online shopping, with Shopee emerging as the leading platform (Databooks 2023). In this digital era, marketing strategies, especially those involving brand ambassadors and trust-building efforts, play a pivotal role (Heryanti 2022).

The beauty sector in Indonesia is flourishing, largely influenced by the rising popularity of Korean culture (Jeong, Lee, & Lee 2017). This phenomenon has spurred a global interest in Korean skincare practices, inspiring local brands to follow suit (A Suwuh, Kindangen, & Saerang 2022). Skin and body care products are now considered essential (Wardani, Kriestian, & Adhi 2022). Companies leverage famous personalities as brand ambassadors to capitalize on their popularity and credibility (Rahman, Afwa, & Agusven 2022). Azarine, a skincare brand in Indonesia, has seen success by aligning with Korean celebrity Lee Min Hoo as their brand ambassador, effectively leveraging his influence to build consumer trust #AzarineXLeeMinHoo announcement on Instagram and expanding their market through Shopee.

While utilizing brand ambassadors can yield positive outcomes, criticism from detractors poses risks to brand trust (Pratami & Sari 2020). Azarine must tread carefully to mitigate adverse effects on consumer confidence, particularly addressing any rumors regarding product quality promptly and transparently (Kankam & Charnor 2023). By providing laboratory test results and consumer reviews, Azarine reinforces trust and influences repurchase decisions based on product experience.

In the realm of beauty products, trust in quality, safety, and effectiveness significantly impacts repurchase behavior (Bernarto et al. 2020). Azarine successfully stimulates impulse purchases through brand ambassadors and online engagement, thereby bolstering consumer trust and fostering repeat sales (Chalil 2021). Maintaining a positive brand reputation is crucial for attracting and retaining customers, as negative perceptions can erode consumer confidence (Putri et al. 2021).

This study aims to examine the impact of brand ambassadors on impulse buying behavior, with brand trust serving as a mediating factor.

2. LITERATUR REVIEW

2.1 Marketing

According to (Kotler & Keller, 2021) Marketing management involves a combination of scientific skills and knowledge to set target markets, and acquire, retain, and increase the number of customers through efforts to create and deliver superior values to consumers. According to (Indrasari 2019), Marketing Management involves evaluating, strategic planning, and implementing marketing initiatives to achieve company goals effectively and efficiently. It is also a system for evaluating, designing strategies, implementing, and supervising programs in organizations aimed at driving transactions, building relationships, and generating profits.

2.2 Brand Ambassador

According to (Wang & Hariandja 2016) Brand ambassadors help strengthen the emotional bond between the brand/company and consumers, which in turn improves product perception and positively influences purchase decisions and product usage. Measuring the personality of a brand ambassador is considered a method of determining their suitability for the brand, as it helps in assessing the credibility of the company (Alamsyah et al. 2020). The utilization of brand ambassadors in the business sphere has become a common practice to increase the attractiveness of product brands, with the hope of attracting consumer interest in buying marketed products (Musyadat Cholil, 2023).

According to (Royan 2004 in Firmansyah, 2023) to evaluate brand ambassadors can use the following indicators:

1. Attraction: The phenomenon of attraction arises when consumers are impressed by the appeal and influence of a prominent figure, which triggers their interest in buying the product. These aspects of attraction can be categorized into two parts, namely personal appeal and similarity.
2. Trustworthiness: This idea relates to the extent of reliance and trust in individuals who have high credibility.
3. Expertise: Expertise refers to the knowledge, practical understanding, or skills possessed by an advocate in relation to the objective to be achieved. When selecting brand ambassadors, product marketers need to consider these factors, as they can have an effect on the effectiveness of the support they provide.

2.3 Brand Trust

Brand trust is the perception that consumers or the public have of a brand, which reflects the results of the assessment of the brand (Pandiangan, Masiyono, & Dwi Atmogo 2021). Brand trust is built through consistency and confidence, requiring a high level of consistency across all aspects of the business, including price and value (Alhaddad 2015). Brand trust is formed & strengthened through consumers' direct experience with the brand (KOÇAK ALAN & KABADAYI 2012).

Menurut (Fatih Geçti & Hayrettin Zengin in Firmansyah, 2023) there are three indicators of brand trust, namely:

1. Trust in a company brand
    - Many individuals are familiar with the brand.
    - Many people are familiar with the brand.
2. This product guarantees brand safety
    - Copying a brand is a difficult task.
    - Brands are legally protected.
3. This company can be trusted for brand integrity
    - Product advantages.
    - Safety of the product.

2.4 Impulse Buying

According to (Chen & Zhang 2015) after investigating research related to impulse buying and the factors that influence the phenomenon, this study integrates information about the factors that influence impulse buying online, especially in the context of online shopping in the real world. Impulse buying refers to the large number of purchases made without prior planning, appearing suddenly, motivated by a strong urge, happiness, and a feeling of pleasure in the moment (Abdelsalam et al. 2020). There are two components of impulse buying: cognitive and emotional (Verplanken & Herabadi, 2001 in Pandrianto et al., 2020). Conflicts that arise in individual cognition are the focus of the cognitive component, which includes :

- Cannot evaluate the purchase of a product without taking into account its price and benefits.
- Not comparing the desired item with a more useful item.

While the emotional component concentrates on the emotional state of the consumer, such as :

- The urge to make an immediate purchase.
- After the purchase, happiness and satisfaction dominate.

2.5 E-commerce

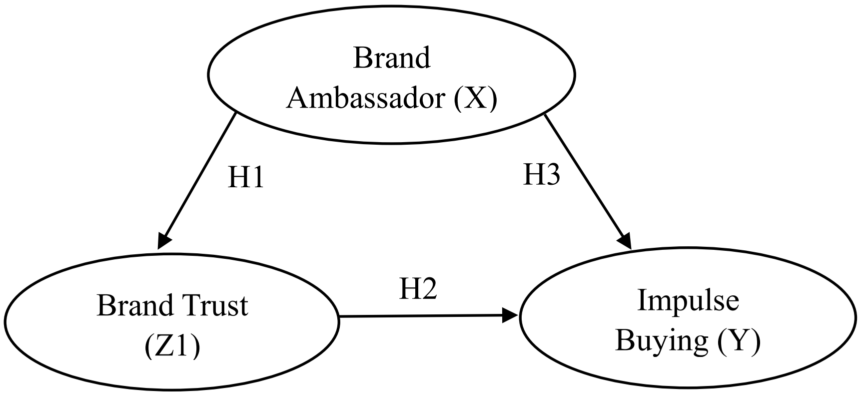
E-commerce involves the utilization of electronic communication and digital information processing technologies in business transaction activities (Jain, Malviya, & Arya 2021). The success of e-commerce is often determined by efficient marketing strategies, ease of use of websites, security of payment methods, and reliability of software (Ujung, Adisa, & Nurbaiti 2023). The goal is to create, transform, and remodel relationships in creating value, both between organizations, between individuals, and between organizations and individuals (Gupta 2014).

According to (Anggraeni et al., 2022) E-commerce is divided into six groups, as follows :

- *Business to Business (B2B)*
- *Business to Consumer (B2C)*
- *Consumer to Consumer (C2C)*
- *Consumer to Business (C2B)*

- *Business to Public Administration (B2A)*
- *Consumer to Public Administration (C2A)*

3. RESEARCH FRAMEWORK



Research hypothesis :

H1 : Brand Ambassador affects Brand Trust

A brand ambassador is a visual representation of the brand, reflecting the impression of the brand in the consumer's mind which reflects the consumer's ability to identify the brand in different situations. Brand awareness describes how easily a brand can be recognized by potential consumers (Maharani & Widodo 2023). Consumer trust in a brand can grow through the efforts of brand ambassadors in influencing consumer interest through various promotional programs such as cooperation with brand ambassadors (Aisyah 2023). Brand ambassadors can also increase emotional H1 H3 H2 Brand Ambassador (X) Impulse Buying (Y) Brand Trust (Z1) attachment between brands and consumers, building trust that influences purchasing decisions (Sa'adah & Mardhotillah 2023).

H2 : Brand Ambassador affects Impulse buying

The presence of a brand ambassador can change the way consumers perceive a brand or product, resulting in a strong and emotional urge to immediately purchase the product he or she is promoting. This often triggers impulse buying behavior among affected consumers (Chen et al. 2021). A strong association between the brand ambassador and the product increases consumer trust, increasing the likelihood of impulse purchases (Siburian & Anggrainie 2022). An effective strategy is to choose brand ambassadors who are credible and in line with the brand values (Wirasti, Puspita, & Gunandi 2023).

H3 : Brand Trust affects Impulse Buying

Trust can be interpreted as a consumer's evaluation of the loyalty and morality of a brand (Suhyar & Pratminingsih 2023). The level of trust in a brand can strengthen the tendency to make impulse purchases because basically, before buying, consumers tend to analyze the products to be purchased. (Adriansyah & Rahman 2022). By building trust among customers, businesses have the potential to increase loyalty and consumption of the products or services offered (Aprilian, Putri, & Furkan 2023).

4. RESEARCH METHODS

This research uses a quantitative approach with a focus on associative methods. The purposive sampling approach was chosen because of the difficulty in determining the exact existence of the sample, so that the sample selection was carried out based on certain criteria. This research was conducted in several regions of Indonesia, namely Lampung, Jabodetabek, West Java and Jogja with the object of research, namely consumers of Azarine products. The research sample was obtained through a questionnaire designed by considering the criteria and research needs, using purposive sampling technique. The data collected will be analyzed using the Partial Least Square (PLS) - Structural Equation Modeling (SEM) method, with a total of 300 respondents. The selection of SEM-PLS is considered because of its ability to test predictive relationships between variables and examine the influence between variables used in this study.

5. RESULTS AND DISCUSSION

5.1 Validity and Reliability Test

Table 1. Convergent Validity Result

Indicator	Brand Ambassador	Brand Trust	Impulse Buying
BA1.1	0.824		
BA1.2	0.817		
BA1.3	0.796		
BA1.4	0.821		
BA1.5	0.841		
BA1.6	0.796		
BA1.7	0.816		
BA1.8	0.790		
BT2.1		0.798	
BT2.2		0.751	
BT2.3		0.767	
BT2.4		0.795	
BT2.5		0.846	
BT2.6		0.861	
IB3.1			0.843
IB3.2			0.876
IB3.3			0.782
IB3.4			0.837

The Outer Loading above has a value > 0.7 so that the above indicators can be said to be valid. After processing the data on outer loading, further processing is carried out on the AVE value and the following results are obtained :

Table 2. Average Variance Extracted Result

Variabel	AVE	Nilai Krisis	Evaluasi Model
Brand Ambassador	0.661		VALID
Brand Trust	0.646	>0,5	VALID
Impulse Buying	0.698		VALID

The AVE value can be said to be valid if it has a value > 0.5 (Sholihin and Ratmono 2020). The table above shows that all variables have an AVE value > 0.5 so that all variables meet the convergent validity requirements and are said to be valid.

Table 3. Discriminat Validity Result

Indicator	Brand Ambassador	Brand Trust	Impulse Buying
BA1.1	0.824	0.542	0.545
BA1.2	0.817	0.623	0.460
BA1.3	0.796	0.571	0.516
BA1.4	0.821	0.594	0.421
BA1.5	0.841	0.637	0.482
BA1.6	0.796	0.622	0.614
BA1.7	0.816	0.598	0.492
BA1.8	0.790	0.543	0.361
BT2.1	0.567	0.798	0.542
BT2.2	0.581	0.751	0.555
BT2.3	0.586	0.767	0.423
BT2.4	0.594	0.795	0.445
BT2.5	0.563	0.846	0.601
BT2.6	0.629	0.861	0.561
IB3.1	0.446	0.445	0.843
IB3.2	0.452	0.469	0.876
IB3.3	0.481	0.524	0.782
IB3.4	0.599	0.680	0.837

The discriminat validity criteria table above is met by the estimated constructs. So that the square root value of the AVE of each indicator is greater than the correlation value between variables, so that the indicators used have met the requirements.

Table 4. Fornell-Lacker Criterion Result

	Brand Ambassador	Brand Trust	Impulse Buying
Brand Ambassador	0.813		
Brand Trust	0.729	0.804	
Impulse Buying	0.605	0.652	0.835

The value owned by the variable itself is greater than the variable. This shows that the Fornell Lacker has been fulfilled and is said to pass the requirements

Table 5. Reliability Test Result

Variables	**Composite Reliability**	**Critical Value**	**Cronbach's Alpha**	**Critical Value**	**Model Evaluation**
Brand Ambassador	0.940	>0,7	0.927	>0,7	Reliable
Brand Trust	0.916		0.890		
Impulse Buying	0.902		0.857		

From the table above, it can be said that the value of composite reliability and Conbach Alpha's has a value> 0.7 so it is concluded that the data is reliable.

6. HYPOTHESIS TEST

The hypothesis is a temporary answer to the formulation of research problems, where the formulation of research problems has been stated in the form of a question sentence (Sugiyono 2019). Hypothesis testing in this study uses the t-statistic test with the aim of assessing whether there is an effect of the independent variable on the dependent variable. The relationship that has been formulated in the hypothesis will be tested using the bootstrapping method. The research hypothesis is considered accepted if the t-statistic value is greater than the t-table value at the 5% error rate, which is 1.960.

In testing the hypothesis, the t-statistic value must be compared with the t-table value. (t0) with the t-table value with the following hypothesis acceptance conditions :

1. If the value $t_0 \geq (t\alpha)$, then H_0 rejected and Hα accepted.
2. If the value $t_0 \leq (t\alpha)$, then H_0 is accepted and Hα rejected.

Table 6. Hypothesis Test Results

Hypothesis	Variables	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics (|O/STDEV|)	P Values	Description
H1	Brand Ambassador -> Brand Trust	0.729	0.730	0.038	19.443	0.000	Positive and significant
H2	Brand Ambassador -> Impulse Buying	0.276	0.274	0.079	3.482	0.001	Positive and significant
H3	Brand Trust -> Impulse Buying	0.451	0.457	0.075	5.994	0.000	Positive and significant

Based on the results of the indirect effect test in the table shows that:

H1 : Based on the results of testing the first hypothesis (H1), it can be stated that the brand ambassador variable has a positive and significant effect on the brand trust variable. This statement is obtained based on the original sample value of the first hypothesis testing results, which is 0.729, the t-statistic value obtained of 19.443 is greater than the t-table value of 1.960, and also obtained a significance value of 0.000 which is smaller than the error rate (α) determined at 0.05 or 5%. The results of this study indicate that brand ambassadors are a representation of the brand image in the minds of consumers, making it easier to form consumer confidence in the brand through various promotional programs, which aim to influence consumer interest.

H2 : Based on the results of testing the second hypothesis (H2), it can be stated that the brand ambassador variable has a positive and significant effect on the impulse buying variable. This statement is obtained based on the original sample value from the results of testing the first hypothesis, which is 0.276, the t-statistic value obtained is 3.482 which is greater than the t-table value of 1.960, and also obtained a significance value of 0.001 which is smaller than the error rate (α) determined at 0.05 or 5%. The results of this study indicate that the presence of a brand ambassador has a positive impact on impulse purchases because they strengthen consumers' memories of the product, which in turn increases consumers' motivation to make spontaneous purchases again.

H3 : Based on the results of testing the first hypothesis (H3), it can be stated that the brand trust variable has a positive and significant effect on the impulse buying variable. This statement is obtained based on the original sample value of the first hypothesis testing results, which is 0.451, the t-statistic value obtained of 5.994 is greater than the t-table value of 1.960, and also obtained a significance value of 0.000 which is smaller than the error rate (α) determined at 0.05 or 5%. The results of this study indicate that trust in a brand can increase the likelihood of impulse buying because most consumers generally conduct product analysis before making a purchase.

Table 7. Indirect Effect Results

Hypothesis	Variables	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics (|O/STDEV|)	P Values	Description
H4	Brand Ambassador -> Brand Trust -> Impulse Buying	0.329	0.334	0.061	5.392	0.000	Positive and significant

H4 : Based on the results of the indirect effect of the fourth hypothesis (H4), it can be stated that the brand ambassador variable has a positive and significant effect on the impulse buying variable mediated by brand trust. This statement is obtained based on the original sample value of the first hypothesis testing results, which is 0.329, the t-statistic value obtained of 5.392 is greater than the t-table value of 1.960, and also obtained a significance value of 0.000 which is smaller than the error rate (α) determined at 0.05 or 5%. This shows that there is a positive and significant indirect relationship between brand ambassadors and impulse purchases, with brand trust as a mediator. Thus, the more positive the influence of a brand ambassador on consumer confidence in a product, the stronger the possibility of impulse purchases of that brand.

7. CONCLUSION

Based on these findings, it can be concluded that there is a favorable relationship between the presence of Brand Ambassadors and the level of consumer trust in Azarine products in the context of impulse purchases through the Shopee platform. The role of Brand Ambassadors turns out to have a significant impact on the company's performance, because the more effective their performance, the stronger the impression that is embedded in the consumer's memory regarding the brand. This impact ultimately increases consumer trust in the brand. Thus, the level of trust built in the brand can encourage impulse buying behavior associated with certain products, reflecting the complex relationship between the presence of Brand Ambassadors and consumer trust in the context of consumer behavior that tends to make impulse purchases through e-commerce platforms.

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Personal Observations on Qualitative Research Data Collection and Publications: Positivity, Problems, and Challenges

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Abstract

The study intends to write the viewpoint based on the author's research experience in dealing with his PhD journey and several projects' data collection. Specifically, this paper aims to outline the personal observations of the researcher in qualitative research and publications highlighting the positivity, problems, and challenges. The argument draws upon personal experience and observations on the contemporary debates about qualitative research data collection in the context of Bangladesh and publication among academicians and researchers. It is not easy to collect data in qualitative research. Respondents are not interested in spending their time as they are concerned about their time, potential risk, and any uncertain difficulties. In addition, they do not understand the benefits of the research and their benefits. They asked, "Is there any benefit for them or there are any problems if they participate in the research?" Some of the respondents are aware of their institutional problems. They try to raise their voice to solve the issue and for the betterment of the industry. Moreover, some of the respondents are very flexible and openhearted in providing the responses and welcoming the research. Some of the editors and reviewers are more flexible in qualitative research and some are not interested in qualitative research. Thus, selecting a good journal makes it difficult to publish qualitative research papers. The paper is the perceptions of the author's data collection experiences and research publications.

Keywords: Qualitative Research, Data Collection, Publications, Positivity, Problems

1. INTRODUCTION

Qualitative research is better suited for comprehending the true nature of human interactions, meanings, and procedures that create actual organizational settings since it is more likely to depict and investigate social concerns than social structures. In addition to examining the "why" and "how" of a phenomenon in greater detail, qualitative research and case studies may also investigate the "what" questions (Alam, 2021). The goal of qualitative research is to collect as much information as possible from a limited sample size. Compared to quantitative research, this method is more adaptable because it allows participants to express themselves while contributing data.

However, researchers faced challenges when pursuing the path of qualitative research in their academic endeavors in data collection. The researcher faced problems in data collection and challenges in publications. However, this study intended to write the viewpoint based on the author's research experience in dealing with his PhD journey and several projects' data collection in Bangladesh. It is not easy to collect data in qualitative research (Sutton, & Austin, 2015). Respondents are not interested in spending their time as they are concerned about their time, potential risk, and any uncertain difficulties (Watt, 2007). In addition, they do not understand the benefits of the research and their benefits. They asked, "Is there any benefit for them or there are any problems if they participate in the research?" Some of the respondents are aware of their institutional problems. They try to raise their voice to solve the issue and for the betterment of the industry. Moreover, some of the respondents are very flexible and openhearted in providing the responses and welcoming the research (Trinh, 2019).

2. METHOD

Although qualitative and quantitative methods are frequently seen as distinct approaches, it has been suggested that distinct study concepts and data collection procedures be combined to get unique results. Previous investigations have indicated that this is advantageous for the comprehensive examination of difficult studies (Decuir-Gunby & Schutz, 2017). More specifically, a real experimental design includes at least two independent, parallel groups, randomly assigns individuals to the groups, and evaluates treatments prospectively, according to quantitative research (Slack & Draugalis, 2001). When used in qualitative research, an open and interpretivist methodology supports the study and analysis (Robinson & Mendelson, 2012). Investigating processes and behaviors in the social sciences appears to benefit greatly from the combination of a qualitative and experimental approach (Kleining & Witt, 2000; Wagoner, 2015).

This research employed an experimental design. The researcher made use of his observations about the procedures involved in gathering data and publishing it. Nine methodological strategies can be used to address the three types of validity requirements (interpretivist, internal, and external) that were defined based on a survey of both quantitative and qualitative literature (Steils, 2021). It has been demonstrated that qualitative experiments help analyze behaviors and processes (Kleining, 1986). Since these research streams are particularly and increasingly interested in examining the activities and behaviors (Steils, 2021), this study compares the value of qualitative experiments to investigate key processes and behaviors in data collection (information search & learning, and decision-making) (Cho, Fu & Wu, 2017).

3. RESULT

3.1 Observational Notes - As an Enumerator

As a data enumerator, when I tried to collect data from the participants who wished to be part of the research, here, from my point of view, I noticed the power of the relationship between the researcher and the participants. There are positive outcomes as well as negative results in terms of collecting the data. The known participants help a lot by giving the data in a very friendly manner and in most cases, they do not have a fear of being disclosed for their interviews which leads them to give the proper actual answers without any bias. It is related to both quantitative and qualitative research. It is also a cost-effective way, for example, when I spread out my survey form through social media to my known friends, families, or my selected samples who are related to the research topic can be able to give the data, it does not take money or other benefits which is a cost-effective way. Similar things also happened, when I took interviews of my known sample participants. The biggest advantage of it is, that I can get higher quality data, which did not get from unknown participants in similar research. This is the positive side of data collection.

From known participants, the disadvantage I noticed is data manipulation unintentionally. When I ask some questions to my known one, he or she asks me the very first why is this question and what is I am supposed to do with the data; after that, he or she gives their opinions, and experiences as data to me. After listening to my research idea, he/she makes a generalization to answer the questions and gives the answers from those perspectives and it sometimes doesn’t give me the actual data which might be supposed to answer differently.

Here, the main problem arises when I try to collect data from unknown participants. The first problem I faced to reaching out to the participants and making them agree to participate in my research to help me by giving their data and by sharing their experiences. Some of them, do agree and some of them do not. It makes a huge time loss; it means, it's hard to collect data from unknown participants as a researcher. On the other hand, if someone agrees to share his/her experiences, he/she does not take it seriously which results in the vogue research paper with vogue data sets. The low-quality data with higher cost issues make the researchers, like me, so frustrated.

Qualitative research's dynamic nature can also provide some difficulties and data-collecting techniques such as interviews and observation cannot be guaranteed by qualitative researchers (Houghton et al., 2010). Besides, for this sort of study, one-off consent may not be appropriate (McDonnell, Jones, and Read, 2000).

It's generally hard to anticipate the risk-benefit ratio in qualitative research (Ramcharan and Cutcliffe, 2001). Researchers, on the other hand, have a responsibility to foresee and balance the rewards and risks of data gathering; for instance, if the participant feels upset during an interview, I must be prepared to admit that the interview's usefulness does not exceed the participant's suffering. As a result, I have to be ready to end the discussion immediately without causing any harm to the participant's mental health.

Some of the participants do not understand the meaning of research and the benefits of the research. They asked how it would impact their industry and how we benefit from your research. Sometimes, they are not intending to share the inherent scenario due to their job security as well as due to the image damage of the industry. Some of the participants are not interested in interview recording as they are scared.

In contrast, some of the participants are very welcoming in providing information and conducting more research on the respective topics. Some of them provided gifts to the enumerator along with detailed information about the research topic. Some of the participants suggested some other relevant participants of the research topic. Some participants suggested showing the findings positively so that the policymakers can utilize the research output.

3.2 Observational Notes - As an Author

Some topmost journal editors were soft/flexible in scrutinizing the paper and the editorial review process. Some of the accounting journal editors are not interested in qualitative papers. They initially desk rejected the manuscript without having the justifications. Even though, after publishing my methodology paper in a top-ranked Emerald journal I faced difficulties in publishing the manuscript as I mentioned in the cover letter. In addition, some last-quartile ranked journals and newer journals were not interested in sending the paper to review and rejected the paper due to methodology.

The reviewer's opinion and review response were mixed. Some of the reviewers were experts in quantitative methodology and some of the reviewers were experts in qualitative research. Some reviewers do not find the methodology in a suitable approach and some recommended adding a hypothesis and justifying the results. Where were the study's hypothetical assumptions and results for each hypothesis? Another challenge was to manage the response of the reviewers while asking for the quantitative data. Sometimes, it was difficult to manage the qualitative reviewers while asking for additional data and responses. Finally, I mentioned in the response letter that the project methodology was already published in a reputed Scopus-indexed journal published by Emerald.

Another difficulty in obtaining permission to observe the data collection is determining whether text-based and verbal approval is necessary (Houghton et al., 2010). We know that before beginning data collection, genuine qualitative research needs the same level of investigation as any effective quantitative study. But, sometimes, the editors do not adequately measure the qualitative researchers. For example, many of my qualitative research papers were rejected because of measuring those with quantitative research methods instead of qualitative which is different in ways. We know that quantitative research has a lack of details whereas qualitative researches have a detailed, subjectivity with no generalizations. Some of the editors search for information like quantitative research and reject those papers.

Moreover, because of the extensive details utilized in qualitative research, maintaining confidentiality while maintaining research ethics is sometimes more difficult. Researchers may have to employ different identifications and be judicious when reporting participants' identifying traits, and rigorous means for ensuring confidentiality must be built into the study's design (Houghton et al., 2010). Besides, establishing and maintaining a trustworthy relationship with the participants is a research ethic that I have to maintain the relationship as a researcher to get in-depth information easily which leads to a high-quality research paper.

Sometimes, I have also seen that some editors do not recommend the problem of the paper. Though some of them are very friendly and help a lot. But, in some cases, it is not happening. It is tough to get where the actual problem I have occurred and which thing I have to remember for further research studies. As a result, it becomes very depressing when I put full effort into a paper with my valuable time. So, getting proper feedback is another difficulty I have seen from my experiences. Though, rejection is a normal process in research publications. It would be flexible to have more qualitative research journals or editors may be flexible in considering the qualitative papers.

3.3 Observational Notes - As a Reviewer

Some procedures must be maintained in qualitative research by the reviewer, which is necessary for fairness. Case study, grounded theory, historical model, ethnographic model, narrative model (which incorporates textual analysis), and phenomenological are six forms of concepts or types of qualitative research commonly acknowledged by editors. If they get the justified research and methodology maintaining all research ethics by substantial grounds, they accept the paper. I have seen that so many researchers take huge numbers of interviews which have no justifications in real life though and those papers are rejected by editors. But it goes through a long screening procedure. Besides, they also provide corrections to the researcher if something is missing in the qualitative research paper. For example, I reviewed some of the qualitative papers and found that data has been collected from more than hindered participants but the findings are not rigorous and in-depth.

When a journal editor receives a qualitative manuscript that fails to clearly distinguish which of the typologies the study follows, the editor immediately assumes that the researcher is unfamiliar with the 'research guardrails' and expectations that should be followed in conducting robust qualitative research; It is very easy to expose research naivety by failing to clarify which research paradigm, from within the qualitative family of alternatives, a researcher is adhering to (Editage Insights, 2019).

Ensuring that bias is not mistakenly ingrained in data-gathering procedures and a strategy that necessitates the use of a hypothesis study design. So, when the editorial board finds biases that happened in a paper, they reject those, as the research ethics allows the researchers to avoid 'bias' in terms of qualitative research studies.

Confirmation bias is another type of bias that refers to the propensity to perceive knowledge in a manner that supports one's assumptions. When some writers cleverly misinterpret their blueprint for a research method, an editor is skeptical since one of the main concerns for an editor is that the findings cannot be repeated or hide the truth of the author's confirmation bias. I have realized from the standpoint of a journal editor that they accept a qualitative article, the authors clearly state the actions were taken first from start to the finish of the research which is the most important responsibility is to do as a researcher.

According to an editor, to maintain a higher standard of researches, an editor expects an author 5 things and those are- (1) clearly state research paper; (2) reveal the conceptual underpinning; (3) specify with adequate clarity what happened in the investigation so that replication is possible; (4) refer to the 'guardrails' to avoid confirmation bias; and (5) illustrate an overall level of adequacy (Editage Insights, 2019) and these are also matched with my real life experiences.

Furthermore, I reviewed some of the interesting qualitative methodology papers. The authors rationalized the study topic very well. They systematically followed the methodology and showed the findings as per research questions. In those cases, there were minor comments and suggestions before the publication of the manuscript.

Importantly, the respondent numbers are not a barrier in terms of qualitative research. As I have already mentioned above sometimes the huge number of respondents without proper justification may lead to a vague failed research paper. Here, if I have very few such as 15 or 20 respondents but all are justified with the research properly by giving the saturated evidence, then those qualitative researches with the quality data do not make any barrier in terms of publishing in high quality journals.

4. CONCLUSION

This study highlights the perception of the researcher in qualitative research. It illustrates the positivity as well as the problem with higher complications and challenges in terms of qualitative research and publications. These are based on the author's experience as a qualitative researcher. The argument draws upon personal experience and observations on the contemporary debates about qualitative research data collection in the context of Bangladesh and publication among academicians and researchers. The study finds that data collection in qualitative research is not an easy process (Sutton & Austin, 2015). Respondents are not interested in spending their time as they are concerned about their time, potential risk, and any uncertain difficulties (Watt, 2007).

In addition, respondents do not understand the benefits of the research. They asked, "Is there any benefit for them or there are any problems if they participate in the research?" Some of the respondents are aware of their institutional problems. They try to raise their voice to solve the issue and for the betterment of the industry. Moreover, some of the respondents are very flexible and openhearted in providing the responses and welcoming the research. Some of the editors and reviewers are more flexible in qualitative research and some are not interested in qualitative research. Thus, selecting a good journal makes it difficult to publish qualitative research papers. The paper is the perceptions of the author's data collection experiences and research publications.

This study is limited to the personal observation of the researcher in data collection. This study outlined the challenges and perceptions of individuals rather than collecting empirical data and validating the findings. Researchers can outline their own experience in data collection as well as research publications. The challenges and positive perceptions would be helpful for novice researchers.

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