

# The Journal of Financial, Accounting, and Economics

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## **The Influence of Financial Literacy and Lifestyle on Student Financial Management Behavior**

Afrizna Kurnia Putri, Didin Fatihudin, Rieska Maharani

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## **The Meaning of Industrial Revolution 5.0 For The Accountant Profession**

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## **The Influence of Financial Literacy and Financial Technology Payment on Udayana University Management Students' Interest in Transactions**

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### **ABOUT JOURNAL**

**The Journal of Financial, Accounting, and Economics (JFAE)** is a scientific journal published by the Global World Scientific which aims to publish articles of empirical and theoretical studies in the field of Accounting, Finance, and Economics. Editors accept articles in English or Bahasa and were not delivered or published in another journal. Determination of the article that appeared determined by expert editors review results through double blind review process. JFAE focuses related on various themes, topics and aspects financial, Accounting, and Economics, including (but not limited) to the following topics: Financial Management, Behavioral Finance, Sharia Banking, Conventional Banking, Capital Market, Accounting, Behavioral Accounting, Economics Development, and Behavioral Economics.

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## **EDITOR'S INTRODUCTION**

Dear readers,

The Journal of Financial, Accounting, and Economics (JFAE) is published twice a year, in January, and July. JFAE is published with reference to the Periodical Accreditation Guidelines (Permenristek Dikti RI No. 9 Tahun 2018) as well as the JFAE Article Writing Guidelines included at the end of this journal. JMBDE aims as a media of information and exchange of scientific articles between teaching staff, alumni, students, practitioners and observers of science in the fields of Financial, Accounting, and Economics. The JFAE editorial staff received various scientific articles as a result of empirical research and theoretical studies related to Financial, Accounting, and Economics, which of course have never been published in other media.

JFAE Volume 1, Issue 1, January 2024 published five scientific articles on various interesting topics with quantitative analysis and teoritical review. Journal topics published in this number consist of The Influence of Financial Literacy and Lifestyle on Student Financial Management Behavior, The Meaning of Industrial Revolution 5.0 For The Accountant Profession, The Influence of Financial Literacy and Financial Technology Payment on Udayana University Management Students' Interest in Transactions, Income Diversification and Financial Sustainability of Microfinance Institutions In Kenya, and The Influence of Dividend Policy, Earnings Volatility and Leverage On Volatility of Jakarta Islamic Index (JII) Stock Prices

The Journal of Financial, Accounting, and Economics (JFAE) is in the process of being indexed by crossref, SINTA Riset Dikti, IPI, GoogleScholar, and Directory of Open Access Journals (DOAJ), Dimension, Road, One Search. We are waiting for the participation of readers to submit the best articles for us to publish in subsequent editions.

Happy reading,

Editorial Team

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### The Influence of Financial Literacy and Lifestyle on Students' Financial Management Behavior

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ARTICLE INFO	ABSTRACT
<p><i>Article History:</i> Submitted: 22 February 2023 Reviewed: 29 August 2023 Revision : 4 September 2023 Accepted : 5 September 2023 Available online: 5 September 2023</p> <hr/> <p><i>Keywords:</i> Financial Literacy; Lifestyle; Financial Management Behavior</p> <hr/> <p><i>Corresponding Author:</i> Didin Fatihudin email: diaenafdloka@gmail.com</p>	<p>The purpose of this research is for test and analyze the effect of financial literacy and lifestyle on financial management behavior of management students at the University of Muhammadiyah Surabaya. The following research uses a quantitative approach and multiple linear regression analysis methods. The data collection technique in this study used a questionnaire with a sample of 181 respondents. Results from research show that financial literacy and lifestyle simultaneously have a positive effect on the financial management behavior of management students at the Muhammadiyah University of Surabaya. While partially the variable that really influences is financial literacy, lifestyle variables have no effect on the financial management behavior of management students at the Muhammadiyah University of Surabaya. So with financial literacy a person can manage their finances appropriately and efficiently.</p>

#### INTRODUCTION

National Financial Literacy Survey (SNLIK) 2019 conducted by OJK show there has been an increase in public financial understanding by 8.33% in the last 3 years. There are 5 indicators that are measured for know level of financial literacy, namely knowledge, skills and confidence in financial service institutions, as well as financial attitudes and behavior to assess efforts to improve the quality of decision making and individual financial management (SNLIK 2019). Financial education is a long process that encourages individuals to have financial plans for the future in order to gain prosperity in accordance with the lifestyle patterns and life styles they live (Mendari and Kewal, 2013) in (Yushita, 2017). Studying is a process to become an independent and responsible person in carrying out various aspects of life, including financial management. Students prefer to spend time being active on social media and visiting entertainment and shopping centers.

On average, students do not keep records of expenses, so financial deficits often occur (Suryanto, 2017). Education does not affect his understanding of financial literacy (Fatihudin et al., 2018). Based on the researchers' research, the phenomenon that occurs is that students do not understand financial literacy, the level of financial literacy is low and this is supported by the high level of lifestyle tendencies. This has an impact on financial management behavior among students. Sholeh, B. (2019) that there is an influence financial literacy on student financial behavior, then Sundjaja et al. (2011) state that lifestyle affects family finances.

Thus the hypothesis in This research is as follows. The first hypothesis is that financial literacy has a positive effect on financial management of management students at Muhammadiyah University, Surabaya. The second hypothesis is that lifestyle has a negative effect on the financial management of management students at the Muhammadiyah University of Surabaya. Researcher This is very interesting to do to test and analyze the influence of financial literacy and lifestyle on the financial management behavior of university management students Muhammadiyah Surabaya.

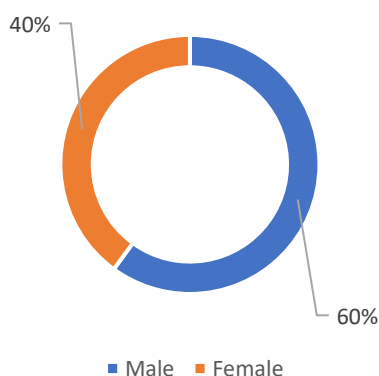
## RESEARCH METHOD

This research uses a quantitative approach, which is a study whose approach is objective in nature, includes data collection and analysis and uses statistical testing methods (Fatihudin, 2020). In this study, the population was the 6<sup>th</sup> and 8<sup>th</sup> semester students of the Management Study Program, Faculty of Economics and Business, Muhammadiyah University of Surabaya. In the sample determined by the researcher, out of 355 populations, there were 181 students who became the research sample and used simple random sampling. This research was conducted using a questionnaire via Google form which was distributed through the whatsapp group of Management Study Program Students at the University of Muhammadiyah Surabaya. Then the data is processed using the SPSS (Statistical Product and Service Solution) program version 25.

## RESULTS AND DISCUSSION

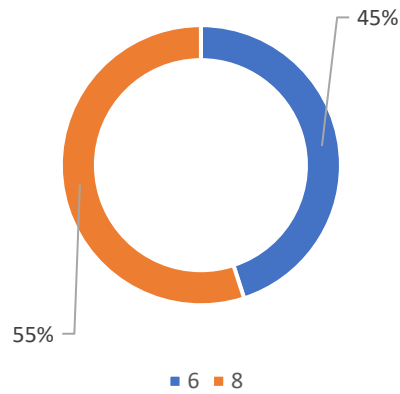
Based on the results of filling out the questionnaire by respondents, it can be grouped by gender, semester level, source of income and amount of income. The following is the result of the characteristics of respondents by group. Based on Figure 1 it can be seen that the number of respondents' characteristics based on gender is male, namely 60% and female by 40%.

Figure 1 Student Characteristics Based on Gender



Source: data processed by researchers, 2023

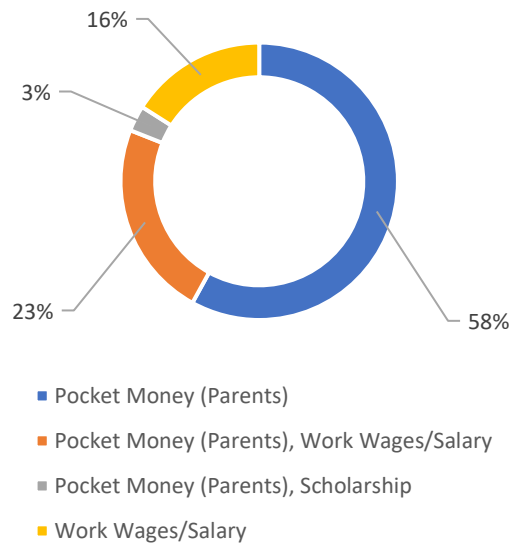
Figure 2 Characteristics of Respondents Based on Semester Level



Source: data processed by researchers, 2023

Based on Figure 2 it is explained that the number of respondents is based on semester level, namely semester 8 of 55% and semester 6 of 45%.

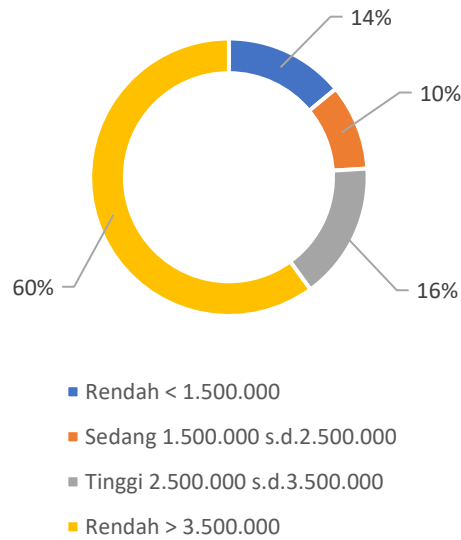
**Figure 3 Characteristics of Respondents Based on Source of Income**



Source: data processed by researchers, 2023

Based on Figure 3 it can be explained that the most sources of income are pocket money (parents) 58%, pocket money (parents), work wages/salary 23%, pocket money (parents), scholarships 3% and work wages/salary 16%.

**Figure 4 Characteristics of Respondents Based on Income**



Source: data processed by researchers, 2023

Based on Figure 4 it can be explained that as many as 60.2% of respondents had an income greater than Rp. 3,500,000 which is categorized as very high income, 15.5% of respondents are in the high income category, 14.4% of respondents are in the low category, and 9.9% of respondents are in the low category, namely less than Rp. 1,500,000.

**Validity test**

**Table 1 Validity Test Financial Literacy (x<sub>1</sub>)**

Financial Literacy Validity Test Results (x <sub>1</sub> )			
Item X <sub>1</sub>	R-Count	R-Table	Status
1.1	0.459	0.148	Valid
1.2	0.354	0.148	Valid
1.3	0.388	0.148	Valid
1.4	0.576	0.148	Valid
1.5	0.586	0.148	Valid
1.6	0.411	0.148	Valid
1.7	0.576	0.148	Valid
1.8	0.517	0.148	Valid
1.9	0.556	0.148	Valid
1.10	0.506	0.148	Valid

Source: data processed by researchers, 2023

**Table 2. Lifestyle Validity Test (x<sub>2</sub>)**

Financial Literacy Validity Test Results (x <sub>1</sub> )			
Item X <sub>2</sub>	R-Count	R-Table	Status
2.1	0.733	0.148	Valid
2.2	0.751	0.148	Valid
2.3	0,708	0.148	Valid
2.4	0,609	0.148	Valid
2.5	0,803	0.148	Valid

Source: data processed by researchers, 2023

**Table 3 Validity Test Financial Management Behavior(y)**

Financial Literacy Validity Test Results (y)			
Item Y	R-Count	R-Table	Status
3.1	0.508	0.148	Valid
3.2	0.646	0.148	Valid
3.3	0.704	0.148	Valid
3.4	0.648	0.148	Valid
3.5	0,631	0.148	Valid

Source: data processed by researchers, 2023

Based on Table 1, Table 2, and Table 3 results validity test of Financial Literacy (X<sub>1</sub>), Lifestyle (X<sub>2</sub>) and Financial Management Behavior (Y) show question items on these variables status valid, because degree of freedom (df)= n-2= 181-2 then df significant a=5%, then R-table in this study 0.148. From this result is that R-Count greater than R-Table.

### Reliability Test

**Table 4 Reliability Test**

Reliability Test Results		
Variable	Reliability Coefficient	Decision
X <sub>1</sub>	0.656	Reliable
X <sub>2</sub>	0.769	Reliable
y	0,607	Reliable

Source: data processed by researchers, 2023

This research uses the Cronbach's Alpha measuring instrument with measurements carried out only once and then the correlation between the score results on the same question instrument is measured. If the value of Cronbach's Alpha ( $\alpha$ ) > 0.60, it can be concluded that the instrument is reliable. Conversely, if the value of Cronbach's Alpha ( $\alpha$ ) < 0.60, it can be concluded that the instrument used is not reliable.

**Normality test**

**Table 5 Kolmogorov-Smirnov test**

<b>One-Sample Kolmogorov-Smirnov Test</b>		Unstandardi-zed Residual	
N		181	
Normal Parameters <sup>a,b</sup>	Mean	,0000000	
	Std. Deviation	2,22260502	
Most Extreme Differences	Absolute	,072	
	Positive	,038	
	Negative	-,072	
Test Statistic		,072	
Asymp. Sig. (2-tailed)		,025 <sup>c</sup>	
Monte Carlo Sig. (2-tailed)	Sig.	,293 <sup>d</sup>	
	99% Confidence Interval	Lower Bound	,281
		Upper Bound	,305

a. Test distribution is Normal.

b. Calculated from data.

c. Lilliefors Significance Correction.

d. Based on 10000 sampled tables with starting seed 2000000.

Source: data processed by researchers, 2023

Tabel 5 results of Kolmogrov-Smirnov test results obtained output Monte Carlo Sig. (2-tailed) of 0.293 is greater than 0.05 and less than 1 which indicates that the data is normally distributed.

**Multicollinearity Test**

Based on the multicollinearity test results table, it states that X1 and X2, as explained above, have a tolerance value greater than 0.1 and a VIF value less than 10.

**Table 6 Multicollinearity Test**

Variable	Tolerance Value	VIF
Financial literacy (X1)	0.891	Reliable
Lifestyle (X2)	0.891	Reliable

Source: data processed by researchers, 2023

**Heteroscedasticity Test**

**Table 7 Heteroscedasticity Test**

<b>Heteroscedasticity Test Results</b>					
Model	Coefficientsa			t	Sig
	Unstandardized Coefficients		Standardized Coefficients		
	B	Std. Error	Betas		
(Contant)	3,234	1,044		3,097	,002
Financial literacy (x1)	-.036	,021	-,131	-1,668	,097
Lifestyle (x2)	,003	,023	,024	,113	,910

a. Dependent Variable: Abs\_RES

Source: data processed by researchers, 2023

In the heteroscedasticity test on Table 7 explained that there is no heteroscedasticity because the two variables are greater than 0.05. The significance value (Sig.) for the financial literacy variable (X1) is 0.097 and for the lifestyle variable (X2) is 0.910.

**Multiple Linear Regression Test**

**Table 8 Multiple Linear Regression Test**

<b>Coefficientsa</b>					
Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig
	B	Std. Error	Betas		
	(Contant)	4,443	1.863		
Financial literacy (x1)	,350	,038	-,584	9.155	,000
Lifestyle (x2)	,020	,043	,030	-,476	,634

a. Dependent Variables: Student Financial Management (Y)

Source: data processed by researchers, 2023

Based on the Table 8, it can be seen that the regression equation formed in the regression test is as follows:

$$Y = 5.443 + 0.350X1 - 0.020X2$$

The interpretation of the above model is as follows:

1. Constant (a) is 5.443, meaning that if the independent variables financial literacy and lifestyle are constant, then the dependent variable financial management behavior has a value of 5.443 units.
2. Financial Literacy (X1) has a coefficient value of 0.350. This shows that financial literacy (X1) has a positive influence on financial management (Y). If work stress increases by one unit, it means that the higher the work stress value, the higher the financial management.
3. Lifestyle (X2) has a coefficient value of -0.020. This shows that lifestyle (X2) has a negative influence on financial management (Y). If the lifestyle value increases by one unit, it means that the higher the lifestyle value, the lower the financial management.

**Hypothesis testing**

**Table 9 Hypothesis testing**

hypothesis	Influence	Sig	Findings
H1	Positive 9.155	Significant 0.000	Accepted
H2	Negative -0.476	Not significant 0.634	Rejected

Source: data processed by researchers, 2023

Financial literacy partially has a positive effect on financial management behavior. Partial life style Nonegative influence on financial management behavior.

**DISCUSSION / DISCUSSION**

The first hypothesis is accepted because the results of the partial test show that the effect value of financial literacy (9.155) and its significance value (0.000 < 0.05) are means there is a positive influence between financial literacy and financial management behavior. The test results means that the higher the financial literacy you have, the more Good financial management behavior. This is in line with previous research where financial literacy has an influence positive towards financial management (Fatihudin et al., 2018; Fatimah, 2018; Resma et a., 2018). Financial literacy influences a person's way of thinking in making strategic decisions in financial matters and better financial management (Anggraeni, 2015). The higher a person's level of financial literacy, the better that person is at managing their finances (Resma et al, 2018). Therefore, Financial management behavior cannot be separated from financial literacy, namely the various ways an individual can achieve financial prosperity with the knowledge, abilities and financial experience they have in order to avoid financial problems.

The second hypothesis was rejected because the partial test results showed that the influence value of financial literacy was (-0.471) and the significance value (0.638 > 0.05) was means that the higher the lifestyle one has, the lower one's financial management behavior will be and vice versa, the lower a person's lifestyle, the more Good financial management behavior. However, in this research there is no influence negative between lifestyle and financial management behavior. This is not in accordance with previous studies where lifestyle has a positive effect on financial management behavior (Dwi et al., 2018 and Pulungan et al., 2018), different in research (Kosyu et al., 2014); Nurvitria, 2015; and Paramita, 2015) who found a negative influence between lifestyle and personal financial management. The results of this study are in line with research conducted by (Izza, 2020 and Mutahanah et al., 2021) that lifestyle has no effect negative on financial management behavior. This is due to the condition of the respondents whose basic criteria were taken from undergraduate level management students who had taken semesters 6 and 8 and had also received financial management courses, so understand the principles of good financial management.

H-test results simultaneously shows the coefficient of determination as 48,753 and value. Matter This shows that financial literacy, and life style collectively can influence the financial management behavior of University of Muhammadiyah Surabaya students. Or 48.73 percent of management students' financial management behavior at Muhammadiyah University Surabaya is influenced by financial literacy and lifestyle, and the remaining 51,27 percent of financial management behavior of Muhammadiyah University Surabaya management students is influenced by other variables not included in the model.

## CONCLUSION

Results research shows that financial literacy and lifestyle simultaneously have a positive effect on the financial management behavior of Muhammadiyah University Surabaya students. Partially, the variable that really influences is financial literacy, while lifestyle variables have no influence negative on financial management behavior. Students need to know and increase their financial literacy, because with good financial literacy, students can manage their finances better, so they can avoid financial problems in the future.

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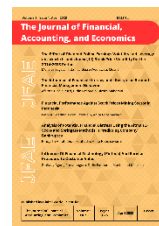
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### The Meaning of Technological Developments In The Society 5.0 Era For The Accountant Profession

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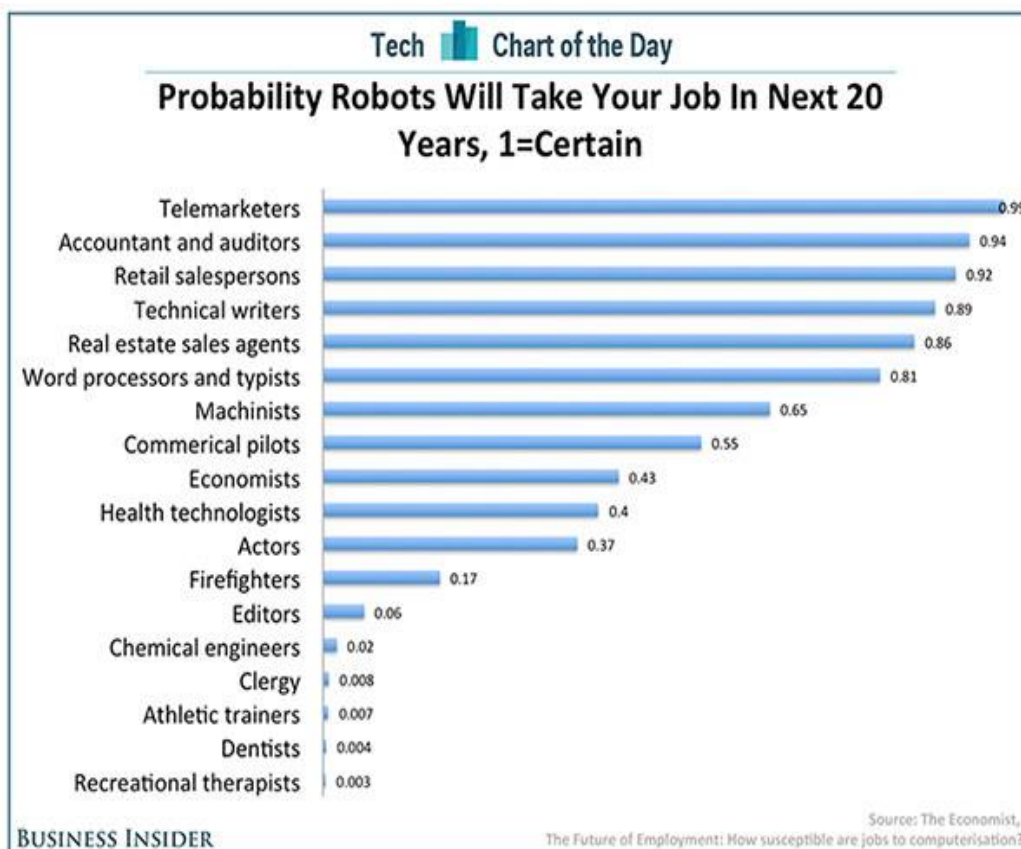
#### ABSTRACT

The widespread use of digitalization and the dominance of technology and artificial intelligence in all areas of life marks the era of society 5.0. This condition requires society to be able to adapt by creating innovation and self-development. Even though it broadly has a positive impact on human life, on the other hand, if it is not controlled correctly, it will cause unrest. There are predictions that several jobs will become extinct and be replaced by technology, one of which is accounting. This prediction gives concern, a pessimistic attitude, and even a feeling of threat to the accounting profession regarding its existence in the future. Is it true that the accounting profession will no longer be relevant? This article discusses how the accounting profession should interpret technological developments in the era of Society 5.0. The research method used in this research is qualitative, with a literature study. Based on the research results, it is concluded that practitioners in the accounting profession should be able to respond more openly to the revolution in the era of society 5.0 so that feelings of worry, pessimism or threat are better addressed as encouragement to be good as an effort to maintain their existence in the future. Thus, the revolution in the era of Society 5.0 is a promising opportunity for accountants to develop their careers.

#### INTRODUCTION

The revolution in the era of Society 5.0 provides a new discourse for industrial development worldwide, especially in Indonesia. According to predictions made by the World Economic Forum, 75 million jobs will change in the next four years, and 133 million

new jobs will emerge due to technological developments. Based on this statement, the accounting profession is predicted to be part of the work that will change in the next four years (Saraswati & Arif Widodo Nugroho, 2021). Several fields of work are believed to be replaced by technology, including accountants. This has ultimately become a topic of discussion in various circles related to the future sustainability of the accounting profession. It is believed that the emergence of big data can erode and take over accountants' work, such as recording and processing information (Mahbubah & Yunida, 2019).



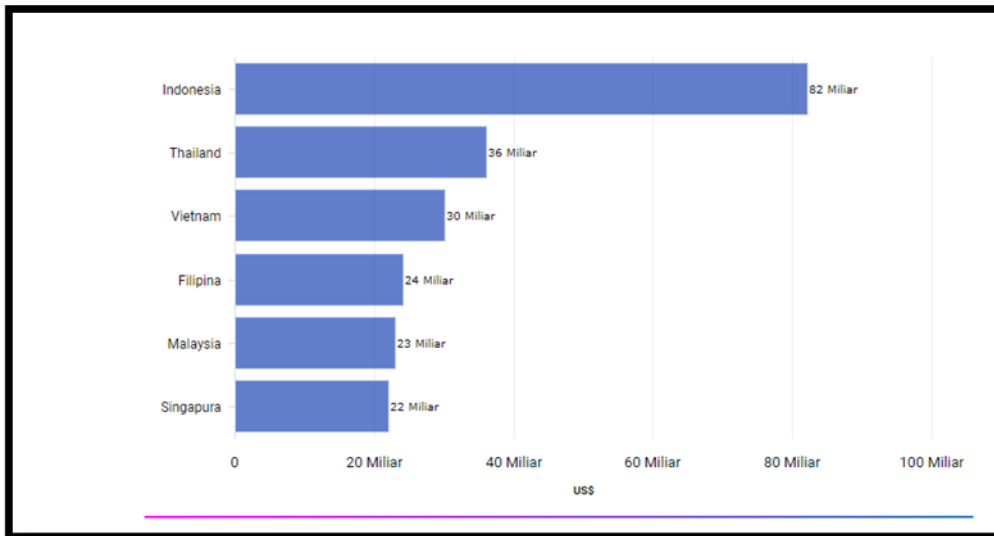
Picture 1.1

Jobs that are believed to be replaced by technological developments

Source : <https://feb.ugm.ac.id/en/research/lecturer-s-article/2886-benarkah-peran-akuntan-digantikan-oleh-teknologi-informasi> (accessed 2023)

The current phenomenon is that many companies in Indonesia and around the world prefer to take advantage of technological developments in running their business. Data obtained from Google, Temasek and Bain & Company shows that the gross merchandise value (GMV) of the digital economy in Southeast Asia will reach US\$ 218 billion in 2023. This condition has increased by 11% compared to the previous year. According to this data, Indonesia has the highest digital economy GMV in Southeast Asia in 2023. Figure 1.2 shows the GMV figure for Indonesia's digital economy at US\$ 82 billion. Thailand,

Vietnam, the Philippines, Malaysia and Singapore followed this. This condition shows that the use of technology in economic activities in Indonesia is very high.



Picture 1.2

*Gross Merchandise Value (GMV) Digital Economic in Southeast Asian Country (2023)*

Source : <https://databoks.katadata.co.id/datapublish/2023/11/03/indonesia-masih-rajai-ekonomi-digital-di-asia-tenggara-pada-2023> (accessed, 2023)

Utilizing technology in business is now an option for large-scale companies. Small and medium-scale companies, or MSMEs, in Indonesia, are already considering using digital technology to support their business activities. Digitalization is the primary key to developing MSMEs today. Data published by the MSME Empowerment Report in 2022 shows that 83% of MSMEs in Indonesia have utilized technology in business activities (Margareta, 2023). Apart from that, various applications have emerged that can be used specifically to carry out accountant tasks such as journaling, creating ledgers, and compiling financial reports automatically without requiring much knowledge about financial report preparation techniques. Each application has advantages that make it easier to carry out accounting tasks. Apart from that, the costs incurred to use the application can be more affordable than paying an accountant. This condition raises several questions. Is it no longer necessary for business actors to know accounting? Do companies no longer need to employ an accountant to support their business? Is the existence of accountants still relevant today or in the next few years?

This article tries to review matters related to this question. The problem that can be formulated is how the accounting profession interprets the development of information technology amidst issues stating that accounting work will be replaced by digitalization along with the entry of the era of society 5.0. The focus of the discussion is on how an accountant should interpret the development of information technology, which is linked to the existence of his profession. This is a response to the disappearance of the accounting profession, which is being replaced by technology. Similar research was previously conducted by (Soepriyanto et al., 2023) regarding the challenges faced by the

accounting profession in the era of the Industrial Revolution 5.0. Apart from that (Arwani, 2020) discusses the views of the Industrial Revolution 4.0 and the Societal Revolution Era 5.0 from the perspective of the Islamic financial accounting profession. Next (Botelho et al., 2022) discuss the perspective of the Industrial Revolution 4.0 from the perspective of the accounting profession and accounting students at UEMG. This article is directed more toward describing professional accountants' attitudes to responding to the digitalization phenomenon in the Era of Society 5.0. The discussion in this article summarizes the results of previous research to convince readers (both prospective accountants and professional accountants) further that the existence of the accounting profession is not just believed in but requires struggle from the professional practitioners themselves.

## **RESEARCH METHOD**

The research design uses a qualitative approach because this research was conducted to look more deeply at a social phenomenon from various literature related to the research topic (Fadli, 2021). The social phenomenon referred to in this research is the sustainability of the accounting profession in the era of Society 5.0, which is rumoured to be replaced by the existence of technology. The type of research used is literature study, which is carried out by deepening an understanding of the contents of books, documents, journals, scientific articles or other document sources appropriate to the topic of research discussion. The data used is secondary data. The data collection technique is carried out by searching for sources and reconstructing what is obtained from the mass media in the form of news, research journals, and book theories, both electronically and in print. The data analysis technique in this research was carried out using descriptive analysis. Based on the data that has been obtained, a critical and in-depth analysis is then carried out so that it can support the proportions and ideas. The stages of data analysis are formulating research questions, sampling selected data sources, creating categories in the analysis, collecting document sample data and coding, and creating scales and items based on certain criteria for data collection and data interpretation/interpretation (Sitasari, 2022).

## **RESULTS AND DISCUSSION**

### **Accounting And Technology**

Digital technology was developed to make human activities easier. Many industries have used technology rather than accepting new employees, considering effectiveness and efficiency. Apart from that, technology can also improve company performance and productivity compared to human labour because the involvement of technology can reduce errors and increase quality and speed (Soepriyanto et al., 2023). With technology's many benefits, it can replace human labour so that human resources can do other work that machines cannot do.

Like a double-edged sword, technology can provide both convenience and threat to its users (Sari et al., 2020). The use of technology in the industrial world can have both a positive and a negative influence. Technological capabilities in performance, speed, precision and accuracy cannot be compared with humans. Robots do not feel tired, do not need rest time and do not have a psychological side like humans so that they can perform tasks beyond human capabilities. However, on the other hand, if technology is not

controlled, it is feared that it could threaten the existence of humans accustomed to using their manual abilities at work. In line with this condition, practitioners in this profession must begin to open their minds in interpreting the existence of technology.

According to their definition, economic experts such as Littleton, Sudibyo and Giffikin think that accounting is a technology. Just like technology, accounting is constantly developing. Accounting, which was initially an activity of collecting, grouping and recording transactions in a journal, is considered a technical and repetitive activity. As the needs of the industrial world develop, accounting now places more emphasis on analyzing financial data. The accounting profession is no longer synonymous with providing financial data but rather with providing financial information for decision-makers.

The role of accountants today is not limited to technical activities; accountants play more of a role in internal control and analysis of managerial information, especially in company financial strategies. Accounting and financial analysis will shift from a past to a future-oriented perspective. Cloud-based and big data are starting to support data integration, so accountants' work becomes more efficient and mobile. Through this logic, accountants can be considered expert professionals in providing financial information. Therefore, information technology is closely related and is an essential requirement for the sustainability of the accounting profession (Ariyani, 2021).

### **Opportunities for Accountants in the Era of Society 5.0**

According to their characteristics, accountants must continually develop and innovate, so this profession has many challenges in maintaining its existence. According to the public's perspective, this profession is seen as playing a role in creating public trust in reporting company performance. Of course, this position is strategic rather than just carrying out technical activities as reported. A professional accountant should also have full awareness of his existence and that a shift in roles must be carried out at this time. This role shift is not a prediction that can only be believed. However, it can be a reminder for professional practitioners about what steps they can take later.

Data analysis skills must be one of the areas of skill that accountants have. A business consultant can use his analytical skills to identify consumers and company target markets to be used in making investment decisions to generate high profits. Likewise, a public accountant can utilize analytical skills to conduct ongoing audits to understand the sustainability of the client's business. It is time for the accounting profession to be able to anticipate business conditions in global competition. The strategic position of accountants is to support in providing analysis of the impact of company management policies. This can be seen when public accountants carry out audits of financial reports. The audit results will be used by management as a form of company accountability to its investors, especially when facing changes in the business environment.

A professional accountant can take many strategic positions. As a support specialist, accountants are expected to be able and skilled in communicating and understanding company functions. An accountant who takes on the role of a high-level decision support specialist will be more involved in financial analysis activities than just providing accounting data. Therefore, apart from carrying out financial and accounting functions, a professional accountant is expected to be able to master marketing functions so that he can detect market situations in future global competition. The ability to think strategically is a

necessity for professional accountants. Accountants in the future must have adequate skills, broad knowledge, and quality, continuously develop themselves and innovate with technology. Efforts to support all of this can be done through collaboration. This collaboration is related to using conventional data owned by the company. These resources can later be developed through data processing and innovative early warning systems so that they can produce solutions to determine company policy (Ariyani, 2021).

The more widespread the use of technology in accounting and finance, the higher the transparency. Thus, an increasingly important trend to focus attention on is data security. The involvement of technology in the accounting field provides a gap for the public to access financial data more efficiently and widely. So far, financial data is sensitive data that is only for internal consumption. Not all financial data can be disseminated to the public freely. Transparency and security are two parts that are interrelated with each other. This is a new opportunity for the accounting profession in data control. Accountants are directly involved in maintaining the security of company data. Accountants are essential in designing a company's data security control system, so it is always necessary to follow the latest security systems.

The increasing incidence of violations of the code of ethics has reduced the image of public trust and credibility towards the accounting profession. It takes hard work to restore the good name of the profession. This condition has led to demands for companies to increase financial transparency, which ultimately affects the reporting process. Companies must fully report their financial conditions to the public and reduce market uncertainty. Once again, accountants are responsible for the company's financial data security. Apart from that, an accountant must be a professional and maintain good values and ethics by upholding the professional code of ethics in carrying out every activity in the profession's name. This is important because by committing to implementing a professional code of ethics, accountants collectively protect the good name and existence of the profession. Without this, accountants will be abandoned by society. The excellent image built to gain public trust will only end in vain if professional actors are not committed to maintaining it.

### **The Meaning of the Society Era 5.0 for Accountants**

The prediction that the accounting profession will disappear and be replaced by machines can be interpreted from various points of view. Whether or not these predictions come true is up to each individual. Suppose professional actors remain silent without trying to develop themselves and adapt to technological developments. In that case, it is only a matter of time before these predictions come true. However, the accounting profession regularly follows technological developments and always carries out self-development. In that case, the existence of technology will no longer be a threat. Using technology, the accounting profession can create innovations that can support the ease of their work (Tampubolon, 2022).

A professional accountant not only needs to master general and specific skills in the field of finance but also must equip himself to master several additional skills that can support market needs so that his expertise remains relevant to current developments and can maintain a competitive advantage in the workplace (Miller, 2019). An accountant must be able to follow the development of the times. Professional needs require accountants to continue developing themselves to provide services to ongoing business development needs. Likewise, with technology, which is currently starting to dominate the industrial world, it can be seen that accountants are expected to adapt by being directly involved.

For accountants who feel they need to get used to using technology, they should give themselves suggestions to continue developing themselves, especially in the field of technology. For educational institutions committed to producing accountant graduates, it is time to provide facilities for their students to upgrade their curriculum, which is tailored to the needs of the world of work. Provides more learning related to logical skills, analysis and business judgment. Moreover, it can provide provisions for students to develop skills in using technology so that graduates will not be technologically illiterate.

## **CONCLUSION**

Professional accountants must have far-sightedness. The future of accountants depends significantly on their competence to meet the needs of the times. Technological advances such as today, which have entered the era of society 5.0, are not an obstacle for accountants to continue to exist in the industrial world. The issue that states that accountants' jobs will be replaced by technology can be addressed from another perspective, namely by using it as an opportunity to take on another job. Accountant jobs that machines can replace are more technical jobs, such as providing accounting data.

Meanwhile, many other jobs cannot be done by machines, such as providing accounting information, which is more analytical and involves logic. Apart from that, accountants can also work in financial data security. The accounting profession must also be aware of this shift in role to prepare itself with appropriate skills enhancement. Behind it all, the accounting profession must continue to pay attention to the code of ethics to maintain its image in society.

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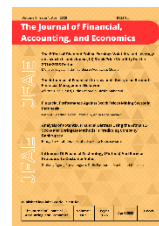
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### The Influence of Financial Literacy and Financial Technology Payment on Udayana University Management Students' Interest in Transactions

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email: <sup>1)</sup> [tikayantii04@gmail.com](mailto:tikayantii04@gmail.com), <sup>2)</sup> [lauwalda@gmail.com](mailto:lauwalda@gmail.com), <sup>3)</sup> [suryanegara@unud.ac.id](mailto:suryanegara@unud.ac.id)

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ARTICLE INFO	ABSTRACT
<p><i>Article History:</i> Submitted: 02 January 2024 Reviewed: 05 January 2024 Revision : 06 January 2024 Accepted : 09 January 2024 Available online: 09 January 2024</p> <hr/> <p><i>Keywords:</i> Financial Literacy, Financial Technology Payment, Interest in Transactions</p> <hr/> <p><i>Corresponding Author:</i> I Made Surya Negara Sudirman email: <a href="mailto:suryanegara@unud.ac.id">suryanegara@unud.ac.id</a></p>	<p>This research aims to determine the influence of financial literacy and the use of Financial Technology (Fintech) Payment on the transaction interest of Management students at Udayana University. This study was conducted to understand the level of students' understanding of finance and the extent of the influence of Fintech Payments in shaping their transaction interest. The survey method was used to collect data from 94 respondents who were students of the Management Study Program at Udayana University. Data analysis used statistical techniques, including multiple regression and descriptive analysis. This study shows that financial literacy and financial payment technology have a positive impact on students' interest in making transactions. It is hoped that the results of this research will provide further insight into the relationship between financial literacy, the use of Fintech Payments, and the transaction interest of Management students, which can be the basis for developing financial literacy programs and increasing acceptance of Fintech Payments among students.</p>

#### INTRODUCTION

According to Mandiri Utama Finance (2023), financial literacy is an individual's ability to carry out the basic principles of financial management. Financial literacy is knowledge and skills in managing finances (BFI Finance, 2022). Based on a survey conducted by the Financial Services Authority (OJK) in 2022, the financial literacy index of the Indonesian population was 49.68 percent, an increase compared to 2013, 2016, and 2019, which were only 21.84 percent and 29.70 percent, respectively. and 38.03 percent. Chief Executive for Supervising the Behavior of Financial Services Business Actors, Education, and Consumer Protection of the Financial Services Authority (OJK) Friderica Widayarsi Dewi said that the

literacy index has currently reached 49 percent, her party is targeting the financial literacy index to reach 53 percent by the end of 2023

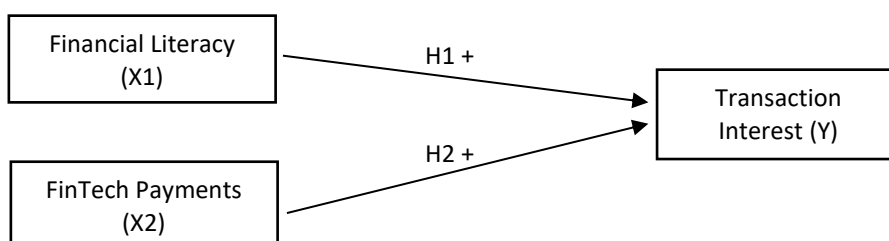
According to Bank Indonesia (2018), Financial technology or FinTech is the result of a combination of financial services and technology, which ultimately changed the business model from conventional to moderate, where initially, to pay, you had to meet face to face and bring a certain amount of cash, and now you can make transactions remotely by making payments that can be done in just seconds. Fintech, or financial technology, is a term used to describe any technology that provides financial services through software, such as online banking, mobile payment applications, or even cryptocurrencies (U.S. Chamber, 2020). In the summary of the 2022/2023 AFTECH AMS Report, it is known that as of Q3 2022, the fintech industry in Indonesia dominates around 33% of the total funding of fintech companies in Southeast Asia, the second largest after Singapore, which received 43% of total financing. The World Bank report states that there are 97.74 million adults in Indonesia still categorized as not having access to banking financial services.

Financial literacy education is a government program supported by financial institutions nationally, which is implemented through various activities and publications in the mass media carried out independently or in collaboration with the OJK (Mandiri et al., 2023). According to the National Strategy for Inclusive Finance or SNKI (2018), financial education is a policy strategy to increase capabilities in managing finances, which starts with increasing public understanding (knowledge) and awareness regarding financial products and services. The scope of this financial education includes: a) knowledge and awareness about various financial products and services; b) knowledge and awareness of the risks associated with financial products; c) customer protection; and d) financial management skills. Based on Mekari (2023), it is reported that for every 100 Indonesian residents, only 46 people have a bank account, while only 15 people own life insurance policies for each product. Users of finance companies or multi-finance services are still considered limited; 7 out of every 100 Indonesians.

Meanwhile, for pension fund participants, only 1 in every 100 residents. An even smaller number was found among people who became investors in the capital market; only 0.15 people were recorded in the capital market. From the various data above, we can conclude that not all Indonesian people need a sufficient or high level of literacy.

H1: Financial literacy has a positive effect on interest in transactions

H2: Financial technology payments have a positive effect on transaction interest



**Figure 1. Conceptual Framework**

Seeing the importance of transaction interest and the factors that influence it, this research aims to determine how financial literacy and financial technology payments affect transaction interest, focusing on management study program students at Udayana University. The conceptual framework of this research is displayed in Figure 1.

## RESEARCH METHOD

This research uses quantitative methods with a survey approach. This quantitative approach aims to measure data and apply statistical analysis to analyze the data. The research population is management students at Udayana University actively studying in the odd semester of the 2023/2024 academic year. The research sample was taken from 10% of the population with the following calculation.

$$\begin{aligned} \text{Number of Samples (n)} &= N / (1 + N \times e^2) \\ &= 1540 / (1 + 1540 \times 0.10^2) \\ &= 93.9 \text{ (rounded to 94)} \end{aligned}$$

So, the sample used was 94 respondents who were selected using a sampling technique, namely probability sampling.

This research uses primary data with data collection methods using questionnaire distribution media using an interval scale in the form of a Likert scale, which produces answers of strongly agree to strongly disagree with a value range of 1-5 (Sugiyono, 2018). The analytical tool used in this research is multiple regression analysis to quantitatively estimate the direct and indirect influence of the independent variable, which consists of two variables, namely financial literacy and financial technology payment, on the dependent variable, namely transaction interest. Questionnaires were distributed to respondents via Google Forms.

In this study, a questionnaire was used according to the following table, which contains questions about the extent to which they know financial literacy and financial payment technology in influencing Udayana University management students' interest in transactions, as Table 1.

Each question in the questionnaire in Table 1 was given to 93 respondents who were active students of the Bachelor of Management study program at Udayana University at all levels/semesters to test the validity and reliability of this research. This questionnaire uses a Linkert scale. The Linkert scale measures attitudes, opinions, and perceptions of a person or group of people about social phenomena (Sugiono, 2018). Where with the Linkert scale, a scoring stage is carried out or giving a value to each respondent's answer with a predetermined scoring system, namely:

- Score 5 for the answer strongly agree (T.S.)
- Score 4 for agree answer (S)
- Score 3 for a neutral answer or quite agree (N)
- Score 2 for disagreeing answer (T.S.)
- Score 1 for the answer strongly disagree (STS)

**Table 1. Research Questionnaire on the Effect of Financial Literacy and Financial Technology Payment on Transaction Interest of Management Students at Udayana University**

No	Indicator	Answer
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		STS	T.S.	N	S	S.S.
1.	I understand the importance of financial planning to achieve my financial goals.					
2.	I understand the risks and benefits of various financial products and services.					
3.	I know how to budget and track my expenses.					
4.	I know what savings, loans, and investments are					
5.	I can compare various financial products and services.					
6.	I feel comfortable using financial technology payments.					
7.	I believe that financial technology payments are safe and reliable.					
8.	I feel financial technology payments are more accessible and more practical to use than traditional payment methods.					
9.	I feel that financial technology payments can save me time and money.					
10.	I feel that financial technology payments can improve my shopping experience.					
11.	I use financial technology payments for most of my transactions.					
12.	I plan to use financial technology payments more often for daily needs.					
13.	I feel safer and more trustworthy using financial technology payments than traditional payment methods.					
14.	I plan to use financial technology payments for online shopping purposes.					
15.	I plan to use financial technology payments for investment purposes.					

## RESULTS AND DISCUSSION

### Respondent Characteristics Data

Respondent characteristics data is respondent data collected to determine the profile of research respondents. Based on the results of research conducted on students of the Udayana University Management study program, it can be seen that the characteristics of the respondents include gender and age, as shown in Table 2.

**Table 2**  
**Respondent Characteristics**

No.	Variable	Classification	Amount	Percentage
1.	Gender	Man	26	27.7
		Woman	68	72.3
2.	Age	18-20 years old	82	87.4
		>20 years	12	12.6

Source: Primary Data Processed, 2023

Based on Table 2, the respondents in this study were 94 students. Judging from the gender percentage of students who were respondents, 72.3 percent were female, and 27.7 percent were male. Meanwhile, if we look at the age percentage, respondents aged 18-20 years were 87.4 percent, while respondents aged more than 20 years were 12.6 percent.

**Validity Test and Reliability Test**

To test the validity of the measuring instrument, first look for the correlation value between the parts of the measuring instrument as a whole by correlating each item of the measuring instrument with the total score, which is the sum of each item's scores. To calculate validity, use the Pearson product-moment correlation technique. The validity test in this study uses a significance level for a two-way test of 5%, with  $df = n-2$ . The  $n$  value in this study is 94, so the  $df$  value = 92.

The basis for decision-making in this validity test is as follows:

1. If the significance value is  $<0.05$ , then the conclusion is valid.
2. If the significance value is  $> 0.05$ , then the conclusion is invalid.

**Table 3**  
**Questionnaire Data Validity Test Results**

<b>Variable</b>	<b>Instrument</b>	<b>Pearson Correlation</b>	<b>Note.</b>
Financial Literacy (X1)	X1.1	0.499	Valid
	X1.2	0.548	Valid
	X1.3	0.304	Valid
	X1.4	0.435	Valid
	X1.5	0.528	Valid
<i>Financial Technology Payments</i> (X2)	X2.1	0.617	Valid
	X2.2	0.545	Valid
	X2.3	0.538	Valid
	X2.4	0.611	Valid
	X2.5	0.544	Valid
Transaction Interest (Y)	Y.1	0.586	Valid
	Y.2	0.652	Valid
	Y.3	0.458	Valid
	Y.4	0.513	Valid
	Y.5	0.545	Valid

Source: Primary data processed, 2023

In Table 3, the results of the instrument validity test for each variable in this study are known, and the entire instrument has validity. So, it can be seen that the three variables (Financial et al. and Transaction Interest) have valid significance values.

For the reliability test in this research, Cronbach's Alpha ( $\alpha$ ) technique was used. The basis for decision-making in the reliability test with Cronbach's Alpha ( $\alpha$ ) is as follows:

1. When Cronbach Alpha > 0.60, it means the data is reliable.
2. If Cronbach Alpha < 0.60, then the questionnaire is declared unreliable.

More clearly, the level of data reliability can be seen in Table 4 below:

**Table 4**  
**Questionnaire Data Reliability Test Results**

Variable	Cronbach's Alpha	Note.
Financial Literacy (X1)	0.697	Reliable
Financial Technology Payments(X2)	0.791	Reliable
Transaction Interest (Y)	0.775	Reliable

Source: Primary data processed, 2023

Table 4 displays the results of the instrument validity test for each variable in this study, and the overall instrument has reliability. Based on the table, it can be seen that Cronbach's Alpha value is more than 0.70, so this data is called reliable.

## 2. Normality Test

The normality test aims to test whether in the regression model, the confounding or residual variables have a normal distribution. If this assumption is violated, the statistical test will be invalid.

**Table 5**  
**Normality Test Results**

<i>Kolmogorov Smirnov</i>	<i>Unstandardized Residuals</i>
<b>N</b>	94
<i>Assym. Sig. (2-tailed)</i>	0.175

Source: Primary data processed, 2023

Table 5 shows that the significance probability value Asymp. Sig. (2-tailed) of 0.175, which is more than 0.05. This means that the residual data used in this research is usually distributed.

## 3. Multicollinearity Test

**Table 6**  
**Questionnaire Data Multicollinearity Test Results**

Variable	Tolerance	VIF
Financial Literacy (X1)	,696	1,436

Financial Technology Payments (X2)	,696	1,436
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Source: Primary data processed, 2023

The results of the multicollinearity test in Table 6 show the tolerance and VIF values of the financial literacy and financial technology payment variables. This value shows that the tolerance value for each independent variable is more than 0.10, and the VIF value for all variables is smaller than 10, which means that in the regression model used, there are no symptoms of multicollinearity between variables.

#### 4. Heteroscedasticity Test

**Table 7**  
**Heteroscedasticity Test Results of Questionnaire Data**

Variable	Significance Value
Financial Literacy (X1)	0.097
Financial Technology Payments (X2)	0.211

Source: Primary data processed, 2023

The results of the heteroscedasticity test shown in Table 7 show that the significance probability value for the financial literacy variable is 0.097 and financial technology payment is 0.211, so it can be said that heteroscedasticity does not occur in the regression model because the significance value is  $> 0.05$ . It was concluded that the regression model from this study was free from symptoms of heteroscedasticity.

#### 5. Multiple Regression Analysis

**Table 8**  
**Simultaneous Test Results (F Test)**

Model	Sum of Squares	df	Mean Square	F	Sig.
<b>Regression</b>	533,311	2	266,656	50,758	,000b
<b>Residual</b>	478,061	91	5,253		
<b>Total</b>	1011.372	93			

a. Dependent Variable: Transaction Interest

b. Predictors: (Constant), Financial Literacy, Financial Technology Payment

Source: Primary data processed, 2023

Based on Table 8, it can be seen that the significance value of the F test is 0.000, which means it is smaller than 0.05, so the F test hypothesis is accepted, namely financial literacy (X1) and financial technology payment (X2), simultaneously or simultaneously influencing

the transaction interest of University management students. Udayana and the model used in this research are feasible.

**Table 9**  
**Coefficient of Determination Test Results**

<b>R</b>	<b>R Square</b>	<b>Adjusted R Square</b>	<b>Std. Error of the Estimate</b>
<b>.726a</b>	<b>,527</b>	<b>,517</b>	<b>2,292</b>

a. Predictors: (Constant), Financial Literacy, Financial Technology Payment  
Source: Primary data processed, 2023

Based on Table 9, it can be seen that the adjusted R square value from this research is 0.527 or 52.7 percent. This value means that 52.7 percent of the variance in transaction interest of management students at Udayana University can be explained or influenced by financial literacy and financial payment technology. The remaining 47.3 percent is explained or influenced by other variables not explained in this research.

**Table 10**  
**Multiple Linear Regression Analysis Test Results**

<b>Model</b>	<b>Unstandardized Coefficients</b>		<b>Standardized Coefficients</b>		
	<b>B</b>	<b>Std. Error</b>	<b>Beta</b>	<b>t</b>	<b>Sig</b>
<i>(Constant)</i>	1,127	1.1970		,570	,569
Financial Literacy (X1)	,217	.109	,172	1,99	,050
<i>FinTech Payments(X2)</i>	,690	,097	,617	7,14	,000
				6	

a. Dependent Variable: Transaction Interest  
Source: Primary data processed, 2023

A constant value of 1.127 shows that if financial literacy and financial payment technology are considered constant, transaction interest will increase by 1.127 units. The financial literacy regression coefficient value of 0.217 shows that if financial literacy increases by one unit, transaction interest will increase by 0.217 units, assuming that other variables are constant.

The financial technology payment regression coefficient value is 0.690, indicating that if financial technology payments increase by one unit, transaction interest will increase by 0.690 units, assuming that the other variables are constant.

Based on the results of the analysis in the table above, the results of multiple linear analysis show that financial literacy has a significance value of 0.050, which is smaller than 0.05. These results mean that financial literacy has a significant effect on transaction

interest. The financial literacy regression coefficient value of 0.217 shows that there is a positive influence between financial literacy and transaction interest. Based on these results, it means that financial literacy has a positive effect on interest in transactions, so H1 is accepted, which states that financial literacy has a positive effect on interest in transactions. This means that financial literacy can increase the transaction interest of Udayana University management students.

The results of multiple linear analysis show that financial technology payments have a significance value of 0.000, which is smaller than 0.05. These results mean that financial technology payments have a significant effect on transaction interest. The financial literacy regression coefficient value of 0.690 shows that there is a positive influence between financial technology payments and transaction interest. Based on these results, it means that financial technology payments have a positive effect on transaction interest, so H2 is accepted, which states that financial technology payments have a positive effect on transaction interest. This means that financial technology payments can increase the transaction interest of management students at Udayana University.

## **CONCLUSION**

Based on the results of data analysis and statistical testing, as well as the discussion that has been described, it can be concluded that financial literacy has a positive effect on interest in transactions. Financial technology payments have a positive effect on transaction interest. High financial literacy will make students better understand financial concepts, such as financial planning, financial management, and investment. This will make students more motivated to carry out financial transactions, both to meet needs and to achieve financial goals. Financial technology payments that offer convenience, speed, and security in transactions will also increase students' interest in making transactions. This is because it will be easier for students to fulfill their needs and desires by using financial technology payments.

Based on the research results described in the discussion and conclusions above, the suggestions that can be given to management students at Udayana University are as follows: 1) Increase understanding of financial literacy. Udayana University management students need to increase their understanding of financial literacy through lectures, training, and other relevant activities. This is important so that students can understand financial concepts and can make the right financial decisions. 2) Use financial technology payments wisely. Udayana University management students need to use financial technology payments wisely. This is important so that students avoid getting trapped in unmanageable debt. Students need to understand the risks and benefits offered by financial technology payments before using them.

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### Income Diversification and Financial Sustainability of Microfinance Institutions In Kenya

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ARTICLE INFO	ABSTRACT
<p><i>Article History:</i> Submitted: 15 Oktober 2023 Reviewed: 04 January 2024 Revision : 05 January 2024 Accepted : 08 January 2024 Available online: 08 January 2024</p> <hr/> <p><i>Keywords:</i> Income diversification, financial sustainability, Microfinance institutions, Kenya.</p> <hr/> <p><i>Corresponding Author:</i> Livingstone Cheboi Talel email:<a href="mailto:livingstonecheboi@gmail.com">livingstonecheboi@gmail.com</a></p>	<p>The purpose of this paper was to investigate the effect of income diversification and financial sustainability of microfinance institutions in Kenya. The study used panel data drawn from 32 MFIs over the period 2010-2019 that yielded 320 observations. The data was sourced from the MIX market, a World Bank Database for all MFIs that self-report. Data was analyzed through the ordinary least squares (OLS), the system generalized method of moments, the fixed effect and random effect model. The findings revealed that income diversification had a positive significant relationship to the sustainability of microfinance institutions in Kenya. The results further revealed that breadth of outreach, firm size, average loan size, debt to equity ratio and portfolio at risk (Par&gt;30) had a significant effect on financial sustainability of microfinance institutions in Kenya. Based on the findings this study recommend that MFIs should consider income diversification in their effort towards attaining financial sustainability.</p>

### INTRODUCTION

When it comes to safeguarding the long-term financial sustainability of microfinance institutions (MFIs), one of the most important strategies is to diversify their sources of income (Yaş and Chen, 2023). The landscape of microfinance is robust, and it serves the purpose of meeting the financial requirements of individuals and enterprises with modest incomes. Microfinance banks, savings and credit cooperatives (also known as SACCOs), and non-governmental organizations (also known as NGOs) are some of the entities that are included in its scope (Feather and Meme, 2019). The economically vulnerable portions of the population are the ones who benefit from these organizations' provision of critical financial services such as credit, savings, insurance, and financial education.

When discussing microfinance institutions (MFIs), the term "income diversification" refers to the process of producing revenue from a variety of sources other than the conventional microfinance

lending activities (Ben and Abdelkader, 2023). Microfinance institutions (MFIs) are typically significantly reliant on the interest income generated from the microloans that they provide to borrowers (Pollinger, Outhwaite and Cordero-Guzmán, 2007). However, in order to ensure that they are able to continue operating for the foreseeable future, these institutions are working to diversify their sources of income. This growth may originate from a variety of sources, such as the collection of fees for the provision of financial services, the making of investments, or the formation of partnerships with other organizations (Xie et al., 2022).

MFIs that are active in might reap various benefits by diversifying their sources of income. It reduces dependence on a single source of income, which in turn reduces the risk of instability caused by loan defaults or economic volatility (Jerono, 2016). This is perhaps the most important way in which it improves the financial sustainability of an organization. In addition to this, it makes it easier to extend the reach of microfinance services to areas and groups that are not currently being covered. With a varied income stream, microfinance institutions are able to invest in innovation, which allows them to create innovative and individualized financial products to fulfill the ever-changing demands of their customers (Amha, 2004). This strategy ultimately strengthens the resilience of these institutions, making it possible for them to better withstand the effects of shocks from the outside or changes in regulatory requirements.

Diversifying one's sources of income does, however, present a number of obstacles and things to think about. The regulatory climate plays an essential part, as certain actions for income diversification may necessitate the acquisition of particular licenses or the fulfillment of other regulatory requirements. In addition, in order to effectively manage the risks associated with income diversification, meticulous planning and comprehensive procedures for risk management are required. It is also necessary for MFIs to engage in continuous capacity building and staff training in order to guarantee that they are able to properly manage and maximize the use of their diverse sources of income.

It is estimated that there are approximately 10,000 MFIs located all over the world (Githaiga, 2022). On the other hand, the MIX (Microfinance Information Exchange) market database only contains financial information for 755 MFIs. About 89 million borrowers are served by these MFIs, and the total amount of money they have advanced in loans is estimated to be 108.72 billion dollars. As far as the total funding mix of MFIs is concerned, the shift toward commercial funding is something that is still happening; as of the year 2018, the leverage ratio was at 5.172, and the amount of impaired loans was at \$2.18 billion (Githaiga, 2022).

Likewise, the donation that was given to MFIs totaled twenty million dollars US. Significant technology breakthroughs have also been made in the microfinance industry in recent years. These advancements have enabled microfinance institutions (MFIs) to broaden their scope of outreach and reduce their operational expenses. According to Mwafise and Stapleton (2012), the usage of mobile devices and applications in the provision of financial services has had a tremendous influence on groups that are excluded from the financial system. This is especially true in developing nations. MFIs are now able to offer mobile-phone-based services such as loans, savings, and insurance thanks to the use of mobile banking technologies (Wondirad, 2020). This has resulted in a major improvement in both the MFIs' financial performance and its social outreach. Mobile banking, according to Reeves and Sabharwal (2013), could help microfinance institutions bring down the high interest rates that are normally associated with the administration of small loans. In addition to advances in technology, reasonable and responsible rules within the financial sector have been the most important factor in the expansion of the microfinance industry.

Two types of regulation apply to the financial sector: prudential regulation and nonprudential regulation. Nonprudential laws concern the institution's business operations and include things like fraud prevention and lending practices (Quartey & Kotey, 2019). Prudential regulations concern the sector as a whole and ensure that it maintains its financial stability. Because of advancements in the industry's legal environment, microfinance institutions (MFIs) have been able to transform into

microfinance banks, which has allowed them to expand the range of services that they are able to provide.

According to Okoye and Siwale (2017), rules have improved corporate governance within the microfinance industry. Regulation of the microfinance business is essential to the protection of depositors, the promotion of investor confidence, and the maintenance of the financial health of microfinance institutions (MFIs). Recent legislative reforms around the world have made it possible for microfinance institutions (MFIs) to increase the amount of money they borrow and the amount of money they borrow from the public. This has resulted in increased competition, efficiency, and access to microcredit, all of which are vital to financial deepening (Hartarska and Nadolnyak, 2007). As a consequence of this, the technological advancements in ICTs as well as the changing legislative and institutional environment have made it possible for MFIs to offer a wide variety of financial services to the population that is underbanked in a more commercial manner.

Xie et al., (2022) investigated the effect of revenue diversification (RD) on the bank efficiency (BE) of seven Asian emerging economies throughout the period of 2008–2019 by making use of the quantile regression technique. Non-performing loans, also known as NPLs, non-interest income, capitalization, and gross domestic product (GDP) were used as control variables in this context. RD, market capitalization, non-interest income, and GDP were shown to have a substantial positive impact on BE, but NPLs were found to have a significant negative association with BE, according to the empirical data. These findings had substantial strategic ramifications for managers, regulators, and policymakers, all of whom shared a common interest in improving the financial sustainability and performance of their respective organizations.

In their study, Osei-Kuffour and Pephrah (2020) investigated the correlation between private tertiary schools' institutional profiles and the degree to which their income diversified and their ability to remain financially stable. The research made use of parametric inferential statistics, specifically relying on the regression Process v3.2 by Andrew F. Hayes model 1 as its primary source of information. In the Ghanaian Greater Accra Region, private tertiary institutions served as the research locations for this study. Random samples were taken from forty of the sixty PTIs in the region to answer the self-constructed questionnaires. The questionnaires had a Cronbach Alpha of .863 for the question about revenue diversification and .852 for the question regarding financial sustainability. According to the findings of the study, a positive and moderate association exists between income diversity and the capacity to be financially stable. The prediction of financial sustainability was increased by 17.6% when income was diversified. It was shown that the institutional profile had a substantial enhancing and moderating effect on the connection between income diversification and financial sustainability. When it came to maintaining their financial stability, denominational PTIs depended more heavily on income diversification than non-denominational PTIs did. As a result, the study suggested that the PEIs put their money into businesses that would diversify their income in a beneficial way. In addition, the study suggested that additional research be conducted in order to uncover the other 82,40% of the variables that can contribute to an explanation of the financial sustainability of PEIs.

Diversification of income streams can improve an MFI's profitability and ability to withstand financial crises and maximize shareholder value. The impact of income diversification on MFIs financial performance and sustainability has also been subject to several empirical studies. Practically, and just like other financial institutions, MFIs are shifting towards non-interest income to compensate for their shortfall in interest margins on lending activities. Notwithstanding the fact that revenue diversification is an important survival strategy for MFIs, its impact on performance and sustainability is debatable.

Zamore (2018) aimed to determine whether or not revenue diversification has an effect on the financial performance of microfinance institutions (MFIs) by employing a global panel data set consisting of 607 MFIs located in 87 different countries during the time period spanning 1998-2015. The fixed effect regression model was utilized in the analysis of the data. According to the

conclusions of this research project, increasing an MFI's revenue diversity increases both the organization's ability to be profitable and its capacity for sustained growth.

Microfinance institutions (MFIs) in Ghana were studied by Duho et al. (2012), who investigated how the diversification of revenue affected the MFIs' overall financial performance. The analysis of quarterly data for all MFIs in Ghana for the years 2016–2018 was carried out by the authors using the ordinary least squares (OLS) method. According to the findings, income diversification lowers returns on assets and returns on equity, which suggests that a strategy that is more narrowly focused is desirable for microfinance institutions (MFIs).

A study conducted by Githaiga (2022) attempted to address the question of whether or not the diversification of microfinance institutions' (MFIs) revenue had an effect on the institutions' ability to remain financially viable. In the research, a two-step system Generalized Method of Moments estimate model was utilized, along with a worldwide panel data set that contained 443 MFIs from 108 different nations and covered the period of 2013–2018. According to the findings of the study, the financial sustainability of MFIs is significantly improved by diversifying their sources of revenue in an efficient manner. The outcomes of the study presented key managerial and policy lessons on the topic of the financial sustainability of MFIs. Instead than relying excessively on donations and government subsidies, microfinance managers and policymakers should consider revenue diversification as a method for microfinance institutions to achieve financial sustainability. This study contributes to the body of literature by investigating the influence income diversification has on the financial sustainability of microfinance institutions (MFIs), in contrast to other research that looked at revenue diversification in the context of banking organizations.

Ben Salem and Ben Abdelkader (2023) employed an unbalanced panel sample of 81 MFIs in MENA countries from 1999 to 2018, totalling to 743 MFI-year data, in order to evaluate the effect of MFI diversification and business strategies on the performance and poverty outreach of MFIs. These MFIs were both Islamic and conventional. According to the findings, a decrease in MFIs' financial performance can be attained in MENA nations by improving income diversity in microfinance and concentrating on rural areas. The authors state that typical MFIs are able to increase the depth of their outreach by diversifying their revenue, whereas Islamic MFIs have a smaller breadth of outreach as a result of a greater degree of income diversification.

Githaiga et al., (2023), who examined the effect of intellectual capital on the financial sustainability of MFIs while controlling for income diversification, using a global sample of 444 MFIs and data for 2013–2018 and three panel data estimation models (namely the fixed effect, the random effect, and the dynamic panel system generalized method of moments), discovered a positive relationship between income diversification and the financial sustainability of MFIs.

Additionally, income diversification has been shown to reduce credit risk, thereby enhancing the financial sustainability of MFIs. Lassoued (2017), for instance, investigated the determinants of MFI credit risk by analyzing data from 638 MFIs in 87 countries from 2005 to 2015 and using an OLS estimation model. This study discovered that group lending, the proportion of loans granted to women, and diversification activities reduce credit risk.

## RESEARCH METHOD

The study uses a dataset of all MFIs that operated for the for the period between 2010 and 2019. The dataset sourced from the MIX market, a World Data base for all MFIs that self-report with the organization. Kenya has a total population of 53 registered MFIs, however only 32 Kenya MFIs had data for the entire period, resulting to 320 firm-year observation.

We empirically investigate the effect income diversification on financial sustainability of Kenyan MFIs using the model shown below:

$$OSS_{it} = \beta_0 + \beta_1 BOUT_{it} + \beta_2 FS_{it} + \beta_3 ALS_{it} + \beta_4 DTE_{it} + \beta_5 PAR30_{it} + \beta_6 INDIV + \varepsilon_{it}$$

Where:

OSS: operational self-sufficiency, BOUT: breadth of coverage, FS: company size, ALS: average loan amount, DTE: debt to equity ratio, PAR30: portfolio at risk of maturity for more than 30 days, INDIV: income diversification

**RESULTS AND DISCUSSION**

***Descriptive statistics***

Table 1 displays the descriptive statistics for the variables used in the analysis. The average operational self-sufficiency is 1.02, which confirms the selected MFIs can be considered to be financially sustainable. The mean breadth of outreach was 3.95666 (minimum =2.13033; maximum = 5.876042; standard deviation = 0.816). The average firm size was 9.0408 (minimum =5.998; maximum = 11.668; standard deviation = 0.992). The table further reveal that the average leverage (DTE) was 2.852 (minimum =0.020; maximum = 9.64; standard deviation = 2.178). While PAR>30 had a mean of 9.0408 (minimum =0.0002; maximum = 0.5868; standard deviation = 0.112).

Table 1. Descriptive statistics

Variable	Obs	Mean	Std. Dev.	Min	Max
OSS	320	1.019855	.2559336	.4381	1.557
INDIV	320	.3558446	.0888589	.112359	.4830895
BOUT	320	3.946666	.8156843	2.130334	5.876042
FS	320	9.0408	.992262	5.998279	11.66768
ALS	320	1.65099	.452756	.9188007	2.623271
DTE	320	2.852379	2.178461	.02	9.64
PAR30	320	.120835	.1120956	.0002	.5868

**Notes:** OSS, operational self-sufficiency; INDIV, income diversification; BOUT, breadth of outreach; FS, firm size; ALS, average loan size; DTE, debt to equity ratio, PAR>30, portfolio at risk due for over 30 days

***Correlation results***

Table 2 provides the correlation matrix of the explanatory variables. OSS and income diversification have have a positive correlation of 0.4893 ,which is statistically significant at 5%. Breadth of outreach and OSS are positively correlated as evidenced by the coefficient of 0.3267. The correlation between firm size and OSS is positive and significant (0.2856). Similarly average loan size and OSS are positively correlated (0.787). On the other hand debt to equity(-0.3292) ratio and PAR>30 (-0.3559) are negatively and statistically correlated to OSS. Because of the some variables are correlated at the 5% level of significance, we computed the variance inflation factor (VIF) statistics for the regression model. As the VIF statistics are within the acceptable range, the tests do not indicate that any variables should be removed from the regression.

**Table 2. Correaltion analysis**

	VIF	1/VIF	OSS	INDIV	BOUT	FS	ALS	DTE	PAR>30
OSS	-	-	1.0000						
INDIV	1.21	0.823	0.4893*	1.0000					
BOUT	2.64	0.378285	0.3267*	0.3499*	1.0000				
FS	2.89	0.346145	0.2856*	0.4067*	0.7266*	1.0000			
ALS	1.27	0.786861	0.4048*	0.2084*	0.0443	0.3428*	1.0000		
DTE	1.42	0.704599	-0.3292*	-0.2099*	-0.0800	-0.0423	-0.1469*	1.0000	
PAR>30	1.11	0.904024	-0.3559*	-0.0682	-0.0822	0.1860*	0.0318	0.2947*	1.0000

**Notes:** OSS, operational self-sufficiency; INDIV, income diversification; BOUT, breadth of outreach; FS, firm size; ALS, average loan size; DTE, debt to equity ratio, PAR>30, portfolio at risk due for over 30 days; VIF, variance inflation factor \*5 % significance level.

**Regression results**

This study examined the impact of income diversification strategy on the financial sustainability of microfinance institutions in Kenya using data from 2010 to 2019 of for 32 Kenyan MFIs. The study shows that income diversification is positively and significantly related to operational self-sufficiency of Kenyan MFIs ( $\beta= 0.950, p<0.05$ ). Through Diversified firms that have high fixed assets tend to benefit by generating profits. Diversified MFIs, as predicted by modern portfolio theory (Diamond 1991, Rajan 1992, Saunders and Walter 1994, and Stein 2002), enjoy economies of scope. Diversification helps lessen the ex-ante cost of financial trouble, which is especially important for banks due to their large leverage (Smith & Stulz, 1985). Research by Diamond (1984), Ramakrishnana and Thakor (1984), and Boyd and Prescott (1986) demonstrates that MFIs can save money on the expense of delegated monitoring and establish a credible reputation as borrower screeners by diversifying their revenue streams.

As for the control variables the results revealed that there is a positive and significant relationship breadth of outreach and OSS ( $\beta= 0.071, p<0.05$ ). Regarding breadth of outreach, Logotri (2006) found that larger number of borrowers is the biggest sustainability factor, on the contrary, Nyamsogoro (2010) on Tanzanian microfinance institutions reports negative and significant relationship between breadth of outreach and financial sustainability indicating that increase in number of borrower itself does not improve financial sustainability of microfinance institutions. The reason could be increased inefficiency as a result of increased number of borrowers. However, Hartarska (2005) reports that number of borrowers had no significant impact on financial sustainability. Consequently, higher breadth of outreach might imply higher productivity (efficiency) of MFIs and hence, we can expect breadth of outreach to be positively related with financial sustainability. The number of active borrowers could also represent the size of MFIs as large MFIs have higher breadth of outreach. Big MFIs enjoy economy of scale in comparison to

small MFIs (Beccalli *et al.*, 2015) and could be expected to be more financially sustainable than small ones

Similarly, average loan size had a positive and significant effect on OSS ( $\beta = 0.196$ ,  $p < 0.05$ ). As expected PAR > 30 had a negative and significant effect on OSS ( $\beta = -0.681$ ,  $p < 0.05$ ). The average loan size is a proxy for depth of outreach determined as the average gross loan portfolio divided by the number of active borrowers. The indicator of greater depth of outreach is smaller loans. This factor represents the orientation for the development of an MFI or deep access of an MFI, which means the ability of MFIs in reaching very poor clients (Christen *et al.*, 1995). Studies have also concluded that larger loans are related to higher cost efficiency and profitability (Adongo & Stork, 2006; Gregoire & Tuya, 2006; Mahapatra & Dutta, 2016; Nyamsogoro, 2010). However, some studies reported a negative association between average size and OSS (Nadiya *et al.*, 2012; Nadiya, 2014).

Portfolio at risk (PAR) is another variable that could influence MFIs' financial sustainability. The portfolio at risk measures how efficient an MFI is in making collections. The higher the PAR implies low repayment rates and therefore, less financial sustainability. A study by Nyamsogoro (2010) supports this negative relationship between PAR and financial sustainability. The level of leverage, measure as ratio of debt to equity had a negative and significant effect on OSS ( $\beta = -0.111$ ,  $p < 0.05$ ). The results agree with those reported a negative relationship between debt level and MFIs performance (Rajan & Zingales, 1995; Wald, 1999; Booth *et al.*, 2001; Fama and French, 2002). However, Kinde (2012) found that capital structure has insignificant impact on financial sustainability of MFI. Third, capital structure: the lower the leverage ratio, the higher OSS. MFIs with more equity have better sustainability than the MFIs borrowing or getting deposits from the public. This is thanks to the fact that owners of MFIs did not get profit sharing at all, and MFIs are operated mostly under social enterprise form.

Firm size had a negative and significant effect on OSS ( $\beta = -0.022$ ,  $p < 0.05$ ). The empirical evidence regarding the relationship between size and MFIs' sustainability shows a positive association. Studies by Nyamsogoro (2010), Bogan (2008), Mersland and Storm (2007) and Cull *et al.*, (2008) show that size is positively and significantly related to financial performance reflecting the cost advantages associated with size (economies of scale). The result suggest that larger microfinance institutions tend to be less financially sustainable, which could be explained by diseconomies of scale and accumulation of NPLs. Furthermore, large MFIs are more likely to have exhausted their growth opportunities and facing declining profits.

Table 3. Regression of OSS on income diversification

	OLS	Random Effect	Fixed Effect	S-GMM
OSS	Coef.	Coef.	Coef.	Coef.
CONSTANT	.461(0.114)**	.329(0.138)**	.215(0.155)	.443(0.280)**
<i>Independent variable</i>				
INDIV	.950(0.0131)**	.517(0.120)**	.466(0.123)**	.459(0.150)**
<i>Control variables</i>				
BOUT	.071(0.021)**	.112(0.025)**	.138(0.031)**	.089(0.045)**
FS	-.022(0.019)	-.004(0.016)	.001(0.016)	.006(0.023)
ALS	.196(0.026)**	.210(0.037)**	.208(0.043)**	.159(0.053)**
DTE	-.111(0.043)**	-.186(0.047)**	-.203(0.050)**	-.305(0.075)**
PAR>30	-.681(0.113)**	-.410(0.116)**	-.384(0,124)**	-.476(0.201)**
R	0.4872	0.4400	0.4138	
No. Obs	320	320		

**Notes:** OSS, operational self-sufficiency; INDIV, income diversification; BOUT, breadth of outreach; FS, firm size; ALS, average loan size; DTE, debt to equity ratio, PAR>30, portfolio at risk due for over 30 days; \*5 % significance level; standard errors (Std. Err.) in parentheses

**Additional analyses**

The study begun by employing the pooled ordinary least squares (OLS) regression to estimate the correlation between revenue diversification and the financial sustainability of microfinance institutions (MFIs). One common issue encountered in panel data research is the presence of unobserved heterogeneity, which can pose challenges to the accuracy of ordinary least squares (OLS) estimations. The presence of unobserved heterogeneity can arise from independent variables that are either observable or unobservable, meaning they are not accounted for in the regression model. Hence, it is possible for the estimators derived from these regressions to exhibit bias and inconsistency, as we assume that the individual fixed effects are uncorrelated with the explanatory factors related to the MFI level. In order to address the potential bias associated with ordinary least squares (OLS) estimators, the study incorporated three alternative panel data estimating methodologies, namely fixed effects, random effects, and a combination of both. The research utilized the one-step generalized method of moments (GMM) to address the issue of potential endogeneity. We reported the results of the additional panel data estimation models comprising on the fixed effect, random effect and System-GMM methodology in Table 3 All the results are satisfactory for the models and significant in our models at 5% level. Specifically, the effect of income diversification on MFIs financial sustainability is positive and significant.

## **CONCLUSION**

The growth of MFIs has seen unprecedented growth in the last two decade. However, this fast growth not contribute to sustainable poverty alleviation unless MFIs remain financial sustainable. In addition, MFIs are gradually engaging in income diversification to compensate for the deteriorating interest income. Consequently, this study examines the nexus between income diversification and the financial sustainability of MFIs in Kenya. To this end, the study uses a panel dataset of 32 MFIs in Kenya during 2010 to 2019 and applies the OLS, fixed effect, random effect and the Arellano-Bover/Blundell-Bond two-step Generalized Method of Moments (GMM) to estimate the parameters. Our results establish that income diversification had a positive and significant effect on Kenyan MFI financial sustainability. Our findings show that diversification into non-lending activities may improve MFI financial sustainability.

The managerial relevance of the study is enormous. The findings emphasize the need for managers to consider other revenue streams that can lead to financial sustainability. Future researchers should explore the social performance of microfinance firms and how it is driven by their risk management strategies. This study used cross-sectional data due to data unavailability of panel data, thus, we entreat future researchers to explore the nexus using other types of data, including balanced panel data. Researchers should also explore the impact of the COVID-19 pandemic on the corporate governance practice, risk management practices, loan management practices and sustainability practices of MFIs. Also, studies may consider the specific elements of income diversification such as fee, commission and underwriting on financial sustainability of MFIs.

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### The Influence of Dividend Policy, Earnings Volatility and Leverage On Volatility of Jakarta Islamic Index (JII) Stock Prices

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#### ABSTRACT

This research aims to determine the effect of dividend policy, earnings volatility, and leverage on stock price volatility. Stock price volatility is the movement of stock prices up or down. The population of this research is shares of companies in the Jakarta Islamic Index. The sample for this research was eight companies taken using the purposive sampling method. This research uses secondary data sourced from financial reports, dividend distribution reports, and the Indonesian Stock Exchange website. The data analysis technique uses multiple linear regression. Based on the test and analysis results, it was found that only leverage had a negative effect on stock price volatility, while dividend policy variables and earnings volatility did not affect stock price volatility in companies included in the Jakarta Islamic Index. Thus, investors and company management should pay more attention to the leverage variable in making investment and financial decisions.

#### INTRODUCTION

The establishment of a company is carried out to obtain profits and certain goals. Company profit is the company's net income after deducting expenses. Company profits can only be obtained from good performance from the company. A profit-making company means a company that has paid all its expenses within a certain period and produces net cash flow for shareholders. For this reason, assessing company performance is very important for all parties with an interest in the company concerned (Brigham and Houston 2014).

Good company performance will be reflected in a continuous increase in share prices resulting in positive capital gains over a certain period. Apart from providing capital gains, good company performance can also make the company generate quite large profits continuously so that the company can distribute dividends to its shareholders. Dividend

policy is the decision whether profits earned by the company will be distributed to shareholders as dividends or will be retained in the form of retained earnings to finance future investments (Budiati, 2013). An increase in dividends paid is considered a favorable signal, giving rise to a positive stock price reaction, and vice versa. *Capital gains* and the dividends that investors receive from their investments are stock returns. Dividend distribution can maximize shareholder value because dividend policy can only be implemented by companies that generate profits. The dividend payout ratio is an important indicator that always receives attention from investors and management. dividend payout ratio is the percentage of net profit paid as cash dividends. Dividend distribution policy is influenced by earnings volatility.

*Earnings volatility* shows the rise and fall of profits generated by the company. (Bathala and Rao 1994). Earnings Volatility is an indicator that measures how stable the company's profits are each year (Khurniaji, 2013). Companies that have unstable income levels give a signal to investors that the company has a high risk to invest in. Earnings Volatility is a proxy for business risk. Business risk is a risk faced by a company where the company is unable to cover operational costs (Gitman 2003). Meanwhile, the higher the level of asset growth of a company, the lower the risk that investors will face because the funds provided by investors can be guaranteed by the size of the assets owned by the company. So investors tend to choose to maintain the shares they own. This can cause share sales to occur infrequently so that the level of share price volatility is low. (Rowena 2017). To reduce earnings volatility, company management can expand by adding debt. The amount of company debt is determined by the leverage ratio.

*Leverages* show how much the company's debt is compared to the equity owned by the company or its shareholders. Lashgari (2014) and Zakaria (2012) state that leverage influences stock price volatility. Leverage in this study is measured using the Debt to debt-equity ratio (DER) measurement. The higher the DER figure, it is assumed that the company has a higher risk to the company's liquidity. According to Brigham and Houston (2011), a company's share price is influenced by the level of debt using the debt-to-equity ratio measurement. The debt-to-equity ratio shows the portion of each rupiah of own capital that is used as collateral for the total debt owned by the company. The inability to achieve profits and cover company debts is something that investors do not expect and influences investors' behavior in selling or buying shares. (Jannah and Haridhi 2016).

Volatility Stock prices are a statistical measurement of price fluctuations during a certain period (Firmansyah, 2006). Stock price fluctuations are a phenomenon that often occurs on almost all stock exchanges in the world. This measure shows price decreases and increases in the short term. On the other hand, volatility is a systematic risk faced by investors who invest in ordinary shares. High volatility reflects unusual demand and supply characteristics (Hugida, 2011).

Several factors can cause volatility in share prices, including the amount of dividends per share that the company distributes to shareholders, changes in company profits, and the amount of debt the company has. It can be concluded that these three factors, namely dividend policy, earnings volatility, and leverage are factors that can influence the volatility of company share prices in the capital market.

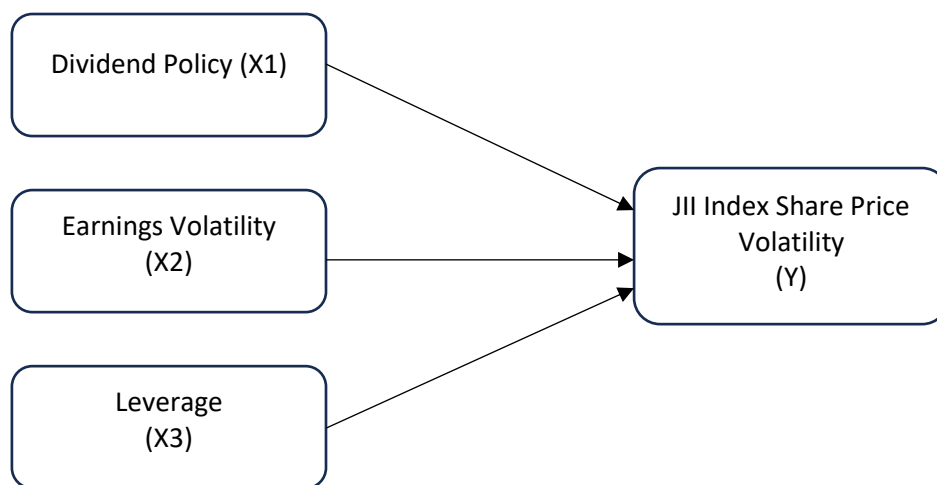
Based on the description therefore, researchers are interested in selecting shares of companies that are members of the Jakarta Islamic Index (JII) with the variables dividend policy, earnings volatility, and leverage with the title The Effect of Dividend Policy, Earning

Volatility and Leverage on the Volatility of Jakarta Islamic Index (JII) Share Prices in the 2014-2018 period.

Referring to the problem formulation, research framework, as well as several previous studies, the hypothesis or temporary conjecture proposed in this research is:

1. H1: Dividend Payout Ratio has a positive effect on company share price volatility
2. H2: *Earnings Volatility* has a positive effect on the volatility of the Company's share price
3. H3: *Leverage* has a negative effect on the volatility of the Company's share price

The influence of dividend policy, earnings volatility, and leverage on stock price volatility is described in the research model as follows.



**Figure 1. Research Model**

## RESEARCH METHOD

This research approach uses associative research. Associative research is research that aims to determine the relationship between two or more variables. Associative research has the highest level when compared to comparative descriptive research. With this associative research, a theory can be built that can function to explain, predict, and control a phenomenon (Sugiyono, 2015). In the title of this research, the researcher explains whether there is an influence of Dividend Payout Ratio, Earnings Volatility, and Leverage on share price volatility in companies listed on the Jakarta Islamic Index (JII).

The population used are all companies included in the Jakarta Islamic Index (JII) index, namely 30 companies, average stock price data, average Dividend Payout Ratio data, Earnings Volatility, and Leverage on the Jakarta Islamic Index (JII) in the 2014-2018 period. The sampling technique used in this research was purposive sampling. The data source used in this research is secondary data containing financial reports, financial data, and ratios on companies listed on the Jakarta Islamic Index with a research period of 5 years, namely 2014-2018, obtained from the official internet ([www.idx.co.id](http://www.idx.co.id)) Indonesian Stock Exchange (BEI) and also from various collections of journal literature obtained. The analysis technique used in this research is multiple linear regression.

## RESULTS AND DISCUSSION

To produce an unbiased estimation model, classical assumption analysis is carried out, including the normality test, heteroscedasticity test, and multicollinearity test.

Table 1  
Normality Test Results  
One-Sample Kolmogorov-Smirnov Test

Description	Unstandardized Residuals
Statistical Tests	,139
Asymp. Sig. (2-tailed)	,050c

Source: Data Analysis Results

The results of normality testing with Kolmogorov-Smirnov in Table 1 show a significant value of 0.050 ( $0.050 > 0.05$ ). So the data can be stated to be normally distributed.

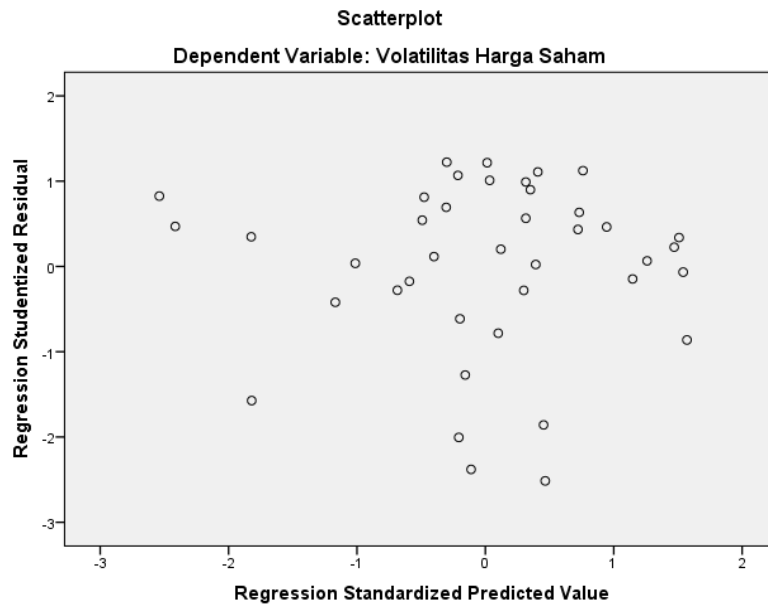
Table 2  
Multicollinearity Test Results  
One-Sample Kolmogorov-Smirnov Test

Variables	Tolerance	VIF
Dividend Payout Ratio	,800	1,251
Earnings Volatility	,680	1,471
Leverage	,758	1,320

Source: Data Analysis Results

The results of the multicollinearity test in Table 2 show that each variable has a Tolerance value above 0.1 and a VIF value above 10, so it can be concluded that there is no multicollinearity in the resulting regression model. The respective Tolerance values are as follows: dividend payout ratio of 0.8, earnings volatility of 0.680, and leverage of 0.758. The VIF value of each variable is as follows: dividend payout ratio of 1,251, earnings volatility of 1,471, and leverage of 1,320.

The heteroscedasticity test tests the occurrence of differences in residual variance from one observation period to another observation period. There is a way to predict whether there is heteroscedasticity in a model, it can be seen with a scatterplot image pattern, a regression where heteroscedasticity does not occur if: 1) The data points are spread above and below or around zero, 2) The data points do not collect. only above or below, 3) The distribution of data points must not form a wavy pattern that widens then narrows and widens again, 4) The distribution of data points has no pattern.



**Figure 2: Heteroscedasticity Test Results**

Figure 2 shows that there is no clear pattern, and the points are spread above and below the number 0 on the Y-axis, so it is concluded that heteroscedasticity does not occur.

**Table 3**  
Partial Test Results with T-Test

Model	Unstandardized Coefficients		Standardized Coefficients	Q	Sig
	B	Std. Error	Beta		
(Constant)	414,018	40,808		10,145	,000
Dividend Payout Ratio	.031	.071	.073	,445	,659
Earnings Volatility	.104	,140	.132	,742	,463
Leverage	-.100	.031	-.538	-3,199	,003

Dependent Variable: Stock Price Volatility

Source: Data Analysis Results

### ***The Effect of Dividend Payout Ratio (DPR) on Share Price Volatility***

Based on the results of partial statistical testing in Table 3, the dividend payout ratio variable does not affect share price volatility in companies on the Jakarta Islamic Index. This can be seen from the significance value of the dividend payout ratio, namely 0.659 which is above the significance level of 0.05. The positive coefficient of 0.445 indicated by the dividend payout ratio on share price volatility means that the higher the dividend payout ratio in a company, the higher the volatility of the company's share price, according to

signal theory which states that cash dividend distribution announcements have information content that results in there is a positive reaction in stock prices. The results of this research are in line with the research results of Santioso and Angesti (2019), Sutandijo (2019), Dominika and Yanti (2019). Where A stable and continuously increasing dividend policy will be followed by an increase in the company's share price.

#### ***The Effect of Earnings Volatility (E.Vol) on Stock Price Volatility***

Based on the results of statistical testing, partially variable *earnings volatility* does not affect share price volatility in companies on the Jakarta Islamic Index. This can be seen from the significance value, which is 0.463 or above the 0.05 significance level. The positive coefficient of 0.742 shown by earnings volatility on share price volatility means that the higher the earnings volatility of a company, the greater the volatility of the company's share prices. Earnings volatility is the level of profit fluctuation that reflects the risk of the company's operating activities. The company's share price will fluctuate due to investors' decisions to sell or buy shares.

The results of this research are in line with the results of research by Dominika and Yanti (2019), where *earnings volatility* is calculated by looking at the standard deviation of the comparison of company profits before income tax (EBIT) with total company assets. Earnings volatility describes the increase and decrease in profits generated by a company in a certain period. The increase and decrease in profits generated by this company is considered an unstable condition.

Jannah & Haridhi (2016), explained that companies that have unstable income levels give a signal to investors that the company has a high risk to invest in. The signal given by the company regarding the instability of company profits will influence investors to sell company shares in a short period.

#### ***The Effect of Leverage (DER) on Stock Price Volatility***

Based on the results of statistical tests, the leverage variable partially has a negative effect on share price volatility in companies on the Jakarta Islamic Index. This can be seen from the liquidity significance value, which is 0.003 or below the 0.05 significance level. The negative effect of -3.199 shown by leverage on share price volatility means that the higher a company's leverage, the lower the share price volatility. This result is by the trade-off theory that the amount of debt at a certain level can save taxes and increase company profits, thereby increasing company value. An increase in company value can reduce share price volatility. The results of this research are in line with the research results of Jannah and Haridhi (2016), Selpiana and Badjra (2018), Marini and Dewi (2019), and Sova (2013) which stated that DER hurts stock price volatility.

#### ***The Influence of Dividend Payout Ratio (DPR), Leverage (DER), and Earnings Volatility (E.Vol) Together on Stock Price Volatility***

Based on the results of the F test or simultaneous test, it can be concluded that dividend policy, earnings volatility, and leverage influence share price volatility in companies in the Jakarta Islamic Index for the 2014-2018 period. The results of this research are in line with research by Rowena and Hendra (2015), Jannah and Haridhi (2016), and Selpiana and Badjra (2018). By Signaling Theory, dividend policy, earnings volatility, and leverage can be signals for investors in making investment decisions. The

coefficient of determination in this research model is 77.2%, which means that 77.2% of changes in stock price volatility are determined by dividend policy, earnings volatility, and leverage, the remaining 22.8% is determined by other variables not included in the research model.

## **CONCLUSION**

Based on the results of testing, analysis, and discussion, dividend policy can be concluded *Andearnings volatility* does not affect share price volatility, the prices of the company shares included *Jakarta Islamic Index (JII)* 2014-2018 period. The leverage variable influences the price volatility of company shares included in the Jakarta Islamic Index (JII) for the 2014-2018 period. Simultaneously, dividend payout ratio, earnings volatility, and leverage can explain changes in stock price volatility by 72.2 percent, and the rest is explained by variables not included in the model. Thus, investors and company management should be more careful in taking policies regarding leverage so that the debt composition can reduce the volatility of the company's share price.

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