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THE INFLUENCE OF DEVELOPMENTS IN INFORMATION TECHNOLOGY, INVESTMENT KNOWLEDGE AND INCOME ON INTEREST IN STOCK INVESTMENT IN THE YOUNGER GENERATION IN CAPITAL MARKET

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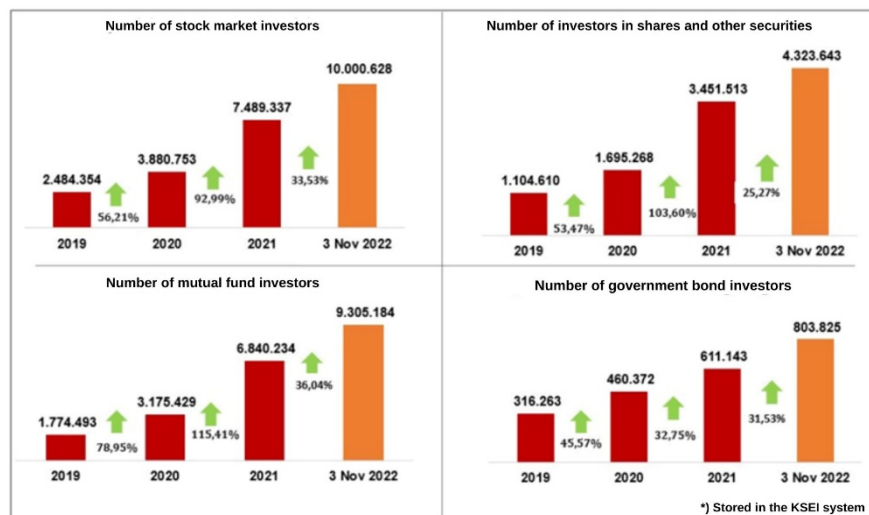
Abstract

This research aims to determine the influence of advances in information technology (X1), investment knowledge (X2), and income (X3) on interest investment in stock (Y) in the millennial generation. The population is millennials who have attended both formal and non-formal training regarding investment in the capital market. The number of samples in this study was 104 people. Determining the sample used a purposive sampling technique. The research results found that technological developments and income had a positive and significant influence on the millennial generation's stock investment interest. Meanwhile, investment knowledge has a positive influence but not significant influence on the millennial generation's stock investment interest in the capital market.

Keywords: *Income, Investment Interest, Investment Knowledge, Technology Development, Stocks*

INTRODUCTION

Currently, Indonesian people's awareness of the importance of capital market investment is getting better. It can be concluded that the level of public trust in the capital market in Indonesia is increasing. Based on data from (IDX, 2023). Indonesia Stock Exchange, the number of investors will increase in 2022, namely by 33.53%, from 7,489,337 people in 2021 to 10,000,628 people in 2022, which is dominated by local investors at 99.78% (IDX, 2023).



Data from PT Kustodian Sentral Efek Indonesia (KSEI) explains that the number of Indonesian investors on November 3 2022 reached ten million people. Referring to Single Investor Identification (SID), the number of capital market investors reached 10,000,628 people in November 2022 (Ramyakim & Widyasari, 2022). Local investors also dominate every type of investment instrument on the Indonesian Stock Exchange. Like stocks and mutual funds, the number of stock investors is among the highest compared to other types of instruments, reaching 939 thousand people. Then in second place with the largest number of investors is infrastructure instruments, totaling 750 thousand people.

Composition of local foreign investors (Data Nov 3, 2023

Data on Nov 3, 2023	Total SID	SID retail				SID institution				
		Domestic	foreign	Total	%	Domestic	foreign	Total	%	
Capital Market Investor	10.000.628	9.945.347	99,78%	22.258	9.967.605	99,67%	17.799	15.224	33.023	0,33%
shares and other securities	4.323.643	4.294.672	99,77%	9.899	4.304.571	99,56%	10.305	8.767	19.072	0,44%
Mutual funds	9.305.184	9.284.780	99,90%	8.868	9.293.648	99,88%	11.408	128	11.536	0,12%
Government Bonds	803.825	780.651	99,59%	3.239	783.890	97,52%	6.351	13.584	19.935	2,48%

*) Stored in the KSEI system

The number of young investors under 30 years of age will dominate in 2022, reaching more than 59% with more than 54 trillion rupiah in asset value. Meanwhile, if we look at the level of education. Investors with a high school education level or below account for more than 60% with more than 200 trillion rupiah in asset value. The large number of local investors is an achievement in itself for the Indonesian stock exchange. So far the IDX itself has long had several programs which have the aim of increasing the number of local investors. BEI's programs and campaigns include Let's Save Shares, buy Indonesian, and opening capital markets schools to schools and universities throughout Indonesia.

To improve the expertise and skills of the younger generation to invest in the capital market, special training is needed. So increasing skills and expertise will increase self-confidence and belief that you can be successful in investing in the capital market (Andriani, Sri, POhasn, 2019). The Indonesian Stock Exchange together with KSEI and securities companies is currently starting to intensify various training or learning such as talk shows, workshops and Capital Market Schools (CMS) in various

agencies (Bursa Efek Indonesia, 2024). Students and students are one of the targets of these various training events because it is this young generation who will become future Indonesian investors. Learning activities related to capital market investment, especially at the tertiary level, include courses in Investment Management, Banks and other Financial Institutions and Financial Management.

Students are a potential example of investing in the capital market. Because you already have the provisions in lectures, both theory and practice, while you are in college. The capital market can be a forum or medium for investing for both students and investors in general (Rizky et al., 2020). Several investment instruments in the capital market include shares, mutual funds, bonds, derivatives and others (Otoritas Jasa Keuangan, 2024). Investing in shares can also be done in the short term or long term. One of the most popular types of financial product investment instruments is shares. Shares are proof of company ownership from both institutional and retail investors (Moh. Asra, 2020).

A capital market is a place for transactions in securities such as shares, bonds, mutual funds, and so on (Otoritas Jasa Keuangan, 2024). In the past, investors met directly with securities parties to carry out securities transactions, but with the development of technology, transactions were carried out by telephone, now even buying and selling securities can be done digitally via a computer or smartphone. Several things that prospective investors need to have before carrying out transactions in the capital market include knowledge about the capital market itself. Like reading the market situation and conditions so that decisions are taken based on analysis that is relevant to market or economic conditions when the transaction is carried out. The instrument chosen should be the instrument that is best understood. So that investors are not burdened by the risk of loss due to errors in fund placement or investment analysis.

The aim of investors in investing in shares is to obtain profits such as capital gains, dividends and to secure assets from a decline in currency value, interest and taxes (Andes et al., 2017). Capital gain is the difference between the share price when purchased and the share price when sold. Meanwhile, dividends according to Downes and Goodmen (2001) are profits distributed by company owners to shareholders within a certain period, usually one to two times a year in the form of money, shares, etc. (Tita, 2011). Apart from making a profit, investors' goal in investing in shares is to avoid a decrease in the value of the currency if it is held in cash. Another reason investors invest their money in shares is to avoid a decrease in asset value if they buy tangible assets.

The economic development of a country cannot be separated from the influence of the magnitude of technological developments which have the effect of making business more effective and efficient. One of the benchmarks for the development of a country's economic sector is the financial sector and capital markets. Because in the capital market many companies sell their shares in the secondary market. In Indonesia alone, there are around 800 company issuers who have listed or traded their shares on the Indonesian Stock Exchange (BEI) (Hafiyyan, 2022).

In line with the development of information technology such as the internet, it is very supportive for investors in carrying out share transactions on the capital market. Stock transactions in the capital market are increasingly popular with the millennial generation due to easy access and transactions. Just by using a smartphone, investors can buy and sell shares while doing other work (Bions, 2022). Through the online trading application provided by securities, it also makes it easier for investors to access stock trend information, financial reports, read news and assess profits and risks.

Unfortunately, technological developments that make it easier for investors are not yet supported by investor understanding, especially millennial investors, in understanding investment. Investment literacy needs to be built in line with technological developments so that the two can work in balance. Based on a survey by the Financial Services Authority in 2022, the level of knowledge among the Indonesian people regarding financial literacy, especially capital markets, is still low. The financial literacy index of Indonesian society has increased from the previous year, namely 38.03 (OJK, 2023).

According to Sari (2017) when someone uses their business or performance to get a certain amount of money, it is called income. On the basis that when there are results obtained from sacrificing a certain amount of funds to meet one's living needs from investing in shares, deposits, bonds, mutual funds and other types of investment, it is called income.

METHODS

This research was analyzed using a descriptive quantitative approach. This research is causality research where in this research we will look for the impact of one variable on other variables. The variables that will be studied are technological developments, investment knowledge and income on stock investment interest among the millennial generation in Kendal Regency. The population in this study is the millennial generation which includes students, students, employees and others in Kendal Regency. To determine the number of respondents in this study, the Lemeshow method is used, where the population number is not known with certainty or is infinite (Aisyah, 2021). So the researchers determined that the sample was 104 respondents taken randomly from the millennial generation in Kendal Regency. So for this sample collection use a nonprobability sampling method with a purposive sampling type. Respondents in this research were people from Kendal Regency who had taken part in education or training regarding investment in the capital market. In analyzing the data, researchers used the SmartPLS version 4.0.9.8 tool. PLS is a transition from the covariance-based SEM approach as an alternative to the variance-based SEM approach. PLS is a model that tests predictions of an event or relationship, while SEM is more of a tool for testing theory. In the analysis using PLS, there are several tests, including checking validity and reliability, structural model tests including multicollinearity tests, R-square tests, Q-square tests, and hypotheses.

Hypothesis And Framework Of Thinking

The framework of thinking in this research is as follows:

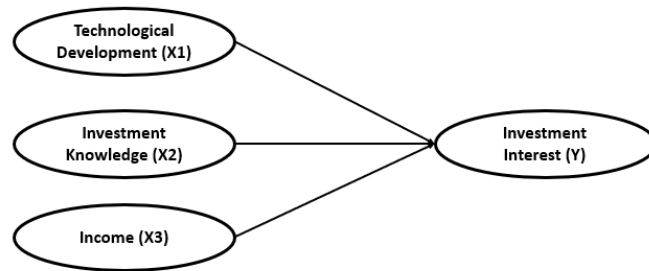


Figure 1. Framework of Thinking

The hypothesis in this research is as follows:

H1: Technological developments have a positive influence on investment interest

H2: Investment knowledge has a positive influence on investment interest

H3: Income has a positive influence on investment interest

RESULTS AND DISCUSSION

a. Measurement model (Outer Model)

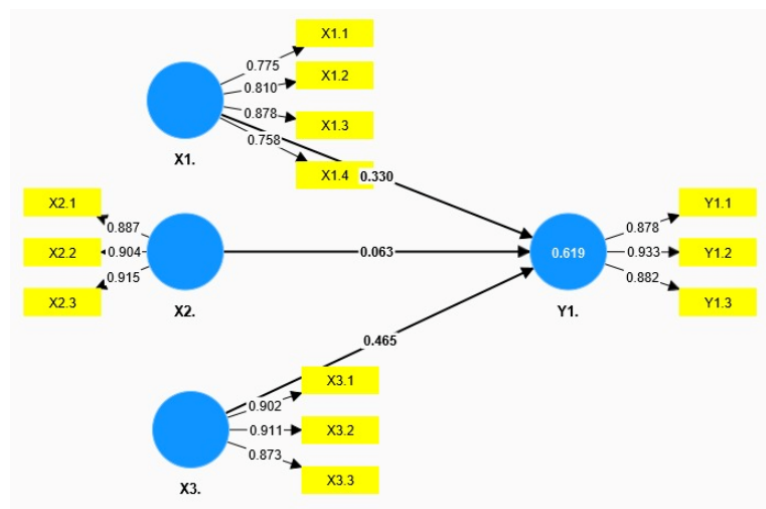


Figure 1. Outer Model

1) Convergent Validity

In the convergent validity test, the value of Outer Loading is used with the following results

Table 1 *Outer Loading*

Variable	Indicator	Outer Loading
Development Technology (X1)	X1.1	0,775
	X1.2	0,810
	X1.3	0,878
	X1.4	0,758
Investment Knowledge (X2)	X2.1	0,887
	X2.2	0,904
	X2.3	0,915
Income (X3)	X3.1	0,902
	X3.2	0,911
	X3.3	0,873
Investment Interest (Y)	Y1.1	0,878
	Y1.2	0,933
	Y1.3	0,882

Source: SmartPLS4 Output, author's data processing (2024)

The data in Table 1 shows that the Outer Loading value is greater than 0.7. So Convergent Validity can be said to be fulfilled.

2) Discriminant Validity

To find out the Discriminant Validity value, look at the cross-loading value. The indicator meets Discriminant Validity if the cross-loading value is the highest compared to the other variables. The results of the cross-loading test can be seen in the following table:

Table 2 *Cross Loading*

Indicator	Technology Development	Investment Knowledge	Income	Investment interest
X1.1	0,775	0,417	0,597	0,521
X1.2	0,810	0,450	0,504	0,546
X1.3	0,878	0,480	0,622	0,617
X1.4	0,758	0,489	0,647	0,593
X2.1	0,516	0,887	0,637	0,553
X2.2	0,461	0,904	0,551	0,442
X2.3	0,558	0,915	0,673	0,542
X3.1	0,682	0,744	0,902	0,714
X3.2	0,686	0,587	0,911	0,676
X3.3	0,608	0,517	0,873	0,625
Y1.1	0,535	0,446	0,621	0,878
Y1.2	0,695	0,555	0,714	0,933
Y1.3	0,665	0,535	0,684	0,882

Source: SmartPLS4 Output, author's data processing (2024)

In the table above it can be seen that the cross-loading value is the highest of the indicators for each variable. So that discriminant validity is fulfilled.

3) Composite Reliability

The test results using SmartPLS show that the Composite Reliability values are as follows:

Table 3. Composite Reliability

Variable	Composite Reliability
Technology Development	0,881
Investment Knowledge	0,929
Income	0,924
Investment interest	0,926

Source: SmartPLS4 Output, author's data output (2024)

The Composite Reliability test results show that the value is > 0.6 . So that the data is reliable or meets the reliability requirements.

4) Average Variance Extracted (AVE)

The Average Variance Extract test results are shown in the following table:

Table 4. Average Variance Extracted (AVE)

Variable	AVE
Technology Development	0,651
Investment Knowledge	0,814
Income	0,802
Investment interest	0,807

Source: SmartPLS4 Output, author's data processing (2024)

Based on the table above, it can be seen that the AVE value is greater than 0.5. So each variable is said to be a variable.

b. Structural Model

1) R Square

The R-Square value is shown in the following table:

Table 5. R-Square		
Variable	R-Square	R-Square Adjusted
Investment interest	0,619	0,607

Source: SmartPLS4 Output, author's data processing (2024)

table above shows that the R-Square value is 0.619. So the investment interest variable is 61.9%

2) *Collinearity Statistics*

To find out whether there is a relationship between indicators, you can see the results of the Collinearity Statistics test. The size of the VIF value indicates whether multicollinearity occurs in the indicator. The results of the Collinearity Statistics test show the VIF values as follows:

Table 6 Outer VIF Value

Indicator	VIF Value
X1.1	1,817
X1.2	1,780
X1.3	2,385
X1.4	1,506
X2.1	2,128
X2.2	2,997
X2.3	2,914
X3.1	2,427
X3.2	2,706
X3.3	2,183
Y1.1	2,506
Y1.2	3,264
Y1.3	2,206

Source: SmartPLS4 Output, author's data processing (2024)

None of the VIF values shown in Table 6 above are above 5 or < 5 . So in this study, there were no multicollinearity problems in the data.

3) Hypothesis testing

Table 7. Hypothesis

Relationship between variables	Original Sample (O)	Sample mean (M)	Standard Deviation (SEDEV)	T Statistics ((O/SEDEV))	P Values
X1 -> Y	0,330	0,331	0,091	3,621	0,000
X2 -> Y	0,063	0,064	0,093	0,671	0,502
X3 -> Y	0,465	0,467	0,101	4,589	0,000

Source: SmartPLS4 Output, author's data processing (2024)

The results of the hypothesis test in Table 7 above, show that the influence of technological developments on interest in stock investment in the millennial generation is positive and significant. Proven by a coefficient value of 0.330 and a P value of $0.000 < 0.05$. So the hypothesis proposed in this research is declared accepted.

The results of the second hypothesis test in Table 7 above, show that investment knowledge has a positive but not significant effect on interest in investing in shares of the millennial generation in Kendal Regency. This is proven by a coefficient value of 0.063 and a P value of $0.502 > 0.05$. This shows that the hypothesis in the research is accepted.

The results of the third hypothesis test in Table 7 above, show that income has a positive and significant effect on interest in stock investment among the millennial generation in Kandal Regency. This is indicated by a coefficient value of 0.465 and a P value of $0.000 < 0.05$. So the proposed hypothesis in this research is declared accepted.

DISCUSSION

a. The Influence of Technological Development on Investment Interest

Based on research analyzed using the SmartPLS application tool version 4.0.9.8, it was found that technological developments have a positive and significant influence on investment interest among the millennial generation in Kendal Regency. So it can be interpreted that customers' investment interest will increase with technological support that keeps up with current developments, such as the provision of websites for trading and stock analysis applications and also stock trading applications that can be run on smartphones, making it easier for users or investors to transact shares.

This finding is in line with research conducted by Negara & Febrianto (2020) which states that advances in information technology influence the investment interest of the millennial generation in the capital market. Research conducted by Tri Cahya & Ayu Kusuma (2019) also revealed that technological advances influence interest in investing in shares in the "Let's Save Shares" campaign among Generation Y in the city of Kudus. Another research conducted by Sari et al. (2021) also stated that advances in information technology have a positive effect on students' investment interests. Prospective investors increasingly believe that the support of technological advances that support investment activities, especially stock transactions, can increase investors' interest in investing in the capital market.

b. The Influence of Investment Knowledge on Investment Interest

Based on test results analyzed using the SmartPLS application tool version 4.0.9.8, it was found that investment knowledge affected investment interest in the millennial generation in Kendal Regency, although the effect was not significant. So it can be interpreted that the higher a potential investor's knowledge regarding investment, the higher their interest in investing in the capital market. The knowledge in question can be knowledge gained from independent study or knowledge gained from attending classes or seminars organized by related institutions.

This finding is in line with research conducted by Negara & Febrianto, (2020) which states that investment knowledge influences the investment interest of the millennial generation in the capital market. Other research conducted by Wibowo & Purwohandoko (2019) states that knowledge about investment influences potential investors' investment interest in investing in the FE Unesa investment gallery.

Burhanudin et al. (2021) in their research also stated that investment knowledge influences students' investment interest in the capital market.

c. The Effect of Income on Investment Interest

Based on test results analyzed using the SmartPLS application tool version 4.0.9.8, it was found that the income of potential investors has a positive and significant effect on the investment interest of the millennial generation in Kendal Regency. This can mean that a high level of income will be a driving force for potential millennial investors to invest in shares. Income here is all types of income obtained by households from utilizing the production factors they own or can also come from other sources (Sukirno, 2006).

This finding is in line with research conducted by Arfan Radian Wibowo (2020) which states that income influences investment interest in the capital market. Likewise, research conducted by Hutapea (2021) states that there is an influence of income on investment interest in the capital market. Research conducted by Setyowati et al. (2021) also found that income influences interest in investing in the capital market.

CONCLUSION

In this research, a series of tests have been carried out to find findings on the hypothesis formulated. From the results of tests carried out using the SmartPLS application version 4.0.9.8, it is clear that the technological development variable has a positive and significant effect on the millennial generation's share investment interest in the capital market. The investment knowledge variable has a positive but not significant effect on investment interest in the capital market. In other words, the investment knowledge variable does not have a very strong influence on the interest of prospective millennial investors in investing in shares in the capital market. Meanwhile, the income variable has a positive and significant effect on interest in investing in shares among the millennial generation in the capital market.

REFERENCES

- Aisyah, N. et al. (2021). Studi Epidemiologi Dengan Pendekatan Analisis Spasial Terhadap Kejadian Ispa Pada Anak Balita. *Window of Public Health Journal*, 01(06), 640–650.
- Andes, S. L., Puspitaningtyas, Z., & Prakoso, D. A. (2017). 8-16 Dokumen diterima pada Sabtu. *Jurnal Akuntansi Keuangan Dan Bisnis*, 10(2), 8–16. <http://jurnal.pcr.ac.id>
- Andriani, Sri, POhan, A. S. (2019). Minat investasi saham pada mahasiswa. *Jurnal Ekonomi Dan Bisnis Indonesia*, 04(01), 37–44.
- Arfan Radian Wibowo. (2020). Pengaruh Pengetahuan, Pendapatan, Dan Kemajuan Teknologi Terhadap Minat Investasi Masyarakat Di Pasar Modal Syariah (Studi Kasus Masyarakat Kota Malang). *Paper Knowledge . Toward a Media History of Documents*, 94.
- Bions. (2022). *Aplikasi Investasi dan Transaksi Saham dari Perusahaan Sekuritas Terdaftar Resmi di OJK yang Cocok bagi Investor Pemula*. BNI Sekuritas. <https://www.bions.id/edukasi/saham/aplikasi-investasi-saham-untuk-pemula#:~:text=Bions.id - Apakah kamu sedang,yang bisa kamu download di>
- Burhanudin, H., Mandala Putra, S. B., & Hidayati, S. A. (2021). Pengaruh Pengetahuan

- Investasi, Manfaat Investasi, Motivasi Investasi, Modal Minimal Investasi Dan Return Investasi Terhadap Minat Investasi Di Pasar Modal (Studi pada Mahasiswa Fakultas Ekonomi dan Bisnis Universitas Mataram). *Distribusi - Journal of Management and Business*, 9(1), 15–28. <https://doi.org/10.29303/distribusi.v9i1.137>
- Bursa Efek Indonesia. (2024). *Sekolah Pasar Modal, Belajar Pasar Modal dari yang sudah ahli dibidangnya*. <https://Sekolahpasarmodal.Idx.Co.Id/>. <https://sekolahpasarmodal.idx.co.id/>
- Hafiyyan, L. A. M. (2022). *800 Emiten Tercatat di Bursa Efek Indonesia, Ini Daftar 34 IPO pada 2022*. *Bisnis.Com*. <https://market.bisnis.com/read/20220805/7/1563391/800-emiten-tercatat-di-bursa-efek-indonesia-ini-daftar-34-ipo-pada-2022>
- Hutapea, S. R. (2021). *Pengaruh Motivasi Investasi, Pengetahuan Investasi dan Pendapatan Terhadap Minat Investasi di Pasar Modal*. Repositori Undiksha. <https://repo.undiksha.ac.id/5012/>
- IDX. (2023). *BEI Optimis Pertumbuhan Kinerja akan Lebih Baik Bagikan*. *Idx.Co.Id*.
- Moh. Asra. (2020). Saham dalam Perspektif Ekonomi Syari'ah. *Istidlal: Jurnal Ekonomi Dan Hukum Islam*, 4(1), 35–44. <https://doi.org/10.35316/istidlal.v4i1.208>
- Negara, A. K., & Febrianto, H. G. (2020). Pengaruh Kemajuan Teknologi Informasi Dan Pengetahuan Investasi Terhadap Minat Investasi Generasi Milenial Di Pasar Modal. *Business Management Journal*, 16(2), 81. <https://doi.org/10.30813/bmj.v16i2.2360>
- OJK. (2023). *Literasi Keuangan*. <https://Ojk.Go.Id/Id/Kanal/Edukasi-Dan-Perlindungan-Konsumen/Pages/Literasi-Kuangan.Aspx>.
- Otoritas Jasa Keuangan. (2024). *Hai Calon Investor Yuk Mengenal Jenis Pasar Modal*. *Ojk.Go.Id*. <https://sikapiuangmu.ojk.go.id/FrontEnd/CMS/Article/10526>
- Ramyakim, R. M., & Widyasari, A. (2022). Investor Pasar Modal Tembus 10 Juta. *Kustodian Sentral Efek Indonesia (KSEI)*, November, 1–3. https://www.ksei.co.id/files/uploads/press_releases/press_file/id-id/212_berita_pers_investor_pasar_modal_tembus_10_juta_20221202065619.pdf
- Rizky, Y., Mandagie, O., Febrianti, M., & Fujianti, L. (2020). Analisis Pengaruh Literasi Keuangan, Pengalaman Investasi Dan Toleransi Risiko Terhadap Keputusan Investasi (Studi Kasus Mahasiswa Akuntansi Universitas Pancasila). *RELEVAN*, 1(November), 35–47.
- Sari, P. P. (2017). Fakultas Ekonomi Universitas Negeri Yogyakarta. *Pengaruh Ekspektasi Pendapatan, Motivasi, Pendidikan Kewirausahaan, Dan Norma Subyektif Terhadap Minat Berwirausaha (Studi Kasus Pada Mahasiswa SI Fakultas Ekonomi Universitas Negeri Yogyakarta Angkatan 2013-2014)*, 7, 1–16.
- Sari, V. M., Putri, N. K., Arofah, T., & Suparlinah, I. (2021). Pengaruh Motivasi Investasi, Pengetahuan Dasar Investasi, Modal Minimal, dan Kemajuan Teknologi terhadap Minat Investasi Mahasiswa. *Jurnal Doktor Manajemen (JDM)*, 4(1), 88. <https://doi.org/10.22441/jdm.v4i1.12117>
- Setyowati, S., Kholisoh, L., & Untara. (2021). Pengaruh Pendapatan dan Pengetahuan Investasi Terhadap Minat Investasi. *STIE Nusa Megarkencana*, 13–26.
- Sukirno. (2006). *Ekonomi Pembangunan, Porses masalah dan kebijakan*. Kencana Prenada Media group.
- Tita, D. (2011). Pengaruh Rasio Keuangan, Pertumbuhan Penjualan Dan Dividen

- Terhadap Harga Saham. *Jurnal Bisnis Dan Akuntansi*, 13(1), 57–66.
- Tri Cahya, B., & Ayu Kusuma, N. W. (2019). Pengaruh Motivasi dan Kemajuan Teknologi Terhadap Minat Investasi Saham. *Jurnal Ilmu Ekonomi Dan Keislaman*, 7, 192–207.
- Wibowo, A., & Purwohandoko. (2019). Pengaruh Pengetahuan Investasi, Kebijakan Modal Minimal Investasi, Dan Pelatihan Pasar Modal Terhadap Minat Investasi (Studi Kasus Mahasiswa FE Unesa Yang Terdaftar Di Galeri Investasi FE Unesa). *Ilmu Manajemen*, 7(1), 192–201.
<https://jurnalmahasiswa.unesa.ac.id/index.php/jim/article/view/25386/23267>