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## Preface

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Journal of Applied Sciences in Accounting, Finance, and Tax is a forum provided for researchers, both from universities, practitioners, and the industrial world. The publication is a result of research, studies or ideas on Accounting, Finance, and Tax.

JASAFINT is published with a focus and scope on issues on Accounting (Financial Accounting, Management Accounting, Public Accounting, Auditing, and Accounting Information Systems), Finance (Capital Market, Financial Statements Analysis, and Financing), and Tax (Income Tax, VAT, Tax Audit, and Tax Accounting).

Managed by the Department of Accounting and published by Politeknik Negeri Bali Research and Community Service Centre (P3M-PNB), this journal is intended to disseminate scientific knowledge and the application of the Accounting, Finance and Tax and is expected to be able to broaden the readers' perspective and enrich the scientific repertoire. Published on April and October (since 2018), the journal accepts articles in English with mentioned format: research results, literature studies and work reports in line with the focus and scope of JASAFINT.

## Table of Content

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Pande I Komang Juniantara, Ni Made Ayu Dwijayanti, Putu Adi Suprpto <b>Analysis of abnormal returns and trading volume activity before and after the announcement of the implementation of new normal.....</b>	<b>47-53</b>
Putu Nadya Dewi Putri Pawitya, Nyoman Sentosa Hardika, Anak Agung Putri Suardani <b>The impact of tax information system on individual taxpayer compliance with Tri Hita Karana culture as moderating variable.....</b>	<b>54-60</b>
Made Inatamayu Ardika, Nyoman Sentosa Hardika, Anak Agung Putri Suardani <b>The role of tax socialization in tax digitalization and taxpayer awareness on individual taxpayer compliance .....</b>	<b>61-68</b>
Ni Made Ari Dwi Anggraeni, I Dewa Made Mahayana, Paulus Subiyanto <b>Analysis of <i>LKjIP</i> performance measurement with the value for money concept at <i>Bappeda</i> Bali Province .....</b>	<b>69-78</b>
Aninditha Hafsari Putri & Lia Ekowati <b>Implementation of <i>e-Bupot Unifikasi</i> for income tax article 23 at xyz apartment management agency.....</b>	<b>79-89</b>
Muhammad Rayhan Indrastoto & Ratna Juwita <b>The influence of financial literacy and psychological factors on money market mutual fund investment decisions.....</b>	<b>90-99</b>

## **Analysis of abnormal returns and trading volume activity before and after the announcement of the implementation of new normal**

**Pande I Komang Juniantara<sup>1</sup>, Ni Made Ayu Dwijayanti<sup>2✉</sup> & Putu Adi Suprpto<sup>3</sup>**

<sup>1,2,3</sup> Accounting Department, Politeknik Negeri Bali, Indonesia

✉ Address correspondence: Kampus Politeknik Negeri Bali, Bukit Jimbaran, Kuta Selatan, Badung - Bali 80361

E-mail: [ayu.dwijayanti@pnb.ac.id](mailto:ayu.dwijayanti@pnb.ac.id)

### **ABSTRACT**

The announcement of the New Normal implementation on June 1, 2020 is anticipated to serve as a pivotal moment poised to revitalize the previously sluggish Indonesian Capital Market during the COVID-19 Pandemic. The purpose of this study was to see whether there were differences in abnormal returns and trading volume activity between before and after the announcement of the implementation of the New Normal in Indonesia. This type of research is comparative quantitative research with an event study approach in hotel, restaurant and tourism companies. The population in this research is all company shares listed on the Indonesian capital market until 2020, totaling 711 company shares. The sample selection used purposive sampling, resulting in a research sample of 37 company shares. The observation period was carried out for 15 days, namely 7 days before, 7 days after, and 1 day of the New Normal event in Indonesia. The analysis technique uses Descriptive Statistics Test, Normality Test and Hypothesis Test. The results of the study show that there is no significant difference in abnormal returns and trading volume activity between before and after the announcement of the implementation of the New Normal in Indonesia. This proves that there is still information asymmetry between market participants regarding the announcement of the implementation of the New Normal in Indonesia which causes the market not to react to this event.

**Keywords:** new normal, abnormal return, trading volume activity

### **1. Introduction**

The role of capital markets in a country is very important. The increasing importance of the role of the capital market in a country's economy results in the market becoming more sensitive to the factors that influence it. The Covid-19 pandemic is an event that can change the direction of capital market conditions.

At first the capital market in Indonesia did not really react to the emergence of the Covid-19 virus. However, with the increasing number of infections in the community, the capital market has reacted negatively or experienced a decline. The decline in share prices occurred in almost all listed issuers in all sectors.

New Normal is the hope for a turning point for the capital market in Indonesia. The New Normal policy was officially implemented by the government on June 1, 2020 [1]. However, because 01 June 2020 is a stock exchange holiday, the observation date is set on 02 June 2020. A positive response to the implementation of the New Normal in Indonesia was shown by the capital market. Since New Normal, capital market conditions have continued to improve, seen from the strengthening of the Jakarta Composite Index (IHSG). It was recorded that from 2 to 5 June 2020 there was an increase of 1.98% for 5 consecutive days [2].

Good capital market is an efficient capital market. An efficient capital market will provide comfort in making investments because share prices will be very reasonable. When the market is inefficient then the capital market is not a good place to invest. The efficiency of the capital market in Indonesia needs to be studied more deeply to determine whether the market

is efficient or not. The New Normal event is very suitable as a basis for measuring market efficiency.

Abnormal return can be used as a benchmark for the response of the capital market. Positive abnormal returns occur when the actual return is higher than the expected return [3]. Vice versa, negative abnormal returns occur when the expected return is greater than the actual return. An efficient market is when there are no abnormal returns. The return obtained will be the same as the expected return [4]. Efficiency theory explains that in an efficient market there stock prices reflect all existing information, including internal information[5].

Capital market reactions to events can also be measured through trading volume activity [6]. Positive information will increase the number of purchases and sales of shares. Trading volume activity will follow changes in abnormal returns. When abnormal returns are positive, investors will be more interested and will increase trading volume[7]. The date of measurement of abnormal return and trading volume activity is calculated for 15 days when the market is open starting from May 18 2020 to June 11 2020. In terms of trading volume activity, there are still different research results.

The selection of hotel, restaurant and tourism companies as research objects was based on the impact of policies to deal with the Covid-19 Pandemic. Mitigation policies such as PSBB cause a decline in tourism which of course affects the performance of industrial companies. shares in the hotel, restaurant and tourism sectors are suitable as a basis for measuring capital market efficiency in Indonesia because this sector has been most significantly impacted by the Covid-19 pandemic. Previously, with the pandemic, shares in the tourism sector were not at all in demand because business operations in this sector were closed, indicating a sluggishness in shares on the stock exchange. With the New Normal, the hotel, restaurant and tourism sectors should experience a positive impact in accordance with the positive nature of New Normal events. By looking at the movement of abnormal returns and trading volume activity of shares, this sector is very suitable for measuring the efficiency of the capital market in Indonesia.

## 2. Method

### Research design

This research is comparative quantitative research. This research starts from February 2023 to August 2023 on the Indonesian Stock Exchange via the website [www.idx.co.id](http://www.idx.co.id). The observation period was carried out for 15 days, namely 7 days before, 7 days after, and 1 day of the New Normal events in Indonesia, where the research was carried out on the Indonesia Stock Exchange (IDX). The date of measurement of abnormal return and trading volume activity is calculated for 15 days when the market is open starting from May 18 2020 to June 11 2020.

### Data collection instruments

The data collection method in this study uses the documentation method, namely by viewing and recording data released by each sample company sourced from the official website of the Indonesia Stock Exchange and the data is based on a predetermined event window.

### Participants/sample

The population in this study are companies registered on the IDX during the 2020 period. During 2020 there were 711 listed companies according to data on the IDX website by selecting a research sample using a purposive sampling technique with the following calculations.

**Table 1.** Research Sample Calculation

No	Descriptions	Amount
1	Companies listed on the capital market until 2020	711
2	Companies not registered with hotel, restaurant and tourism companies	(671)
3	Companies not listed in the event window	(2)
4	Companies that are less active during the event window	(1)
Number of Research Samples		37

Source: Processed secondary data, year 2023

Based on [Table 1](#), Sample of 37 issuer shares was obtained. During the research period and event window, there is one issuer's shares that are not active in stock trading

### Data analysis

In this research, three types of data analysis were used, including Descriptive Statistical Analysis, classical assumption tests only carried out on the Normality Test, Paired Sample T-Test, and Wilcoxon Signed Rank Test Results.

## 3. Results and Discussion

### Descriptive Statistics Test

Referring to the data [Table 2](#), it can be seen from the average abnormal return that there was an increase from before to after the announcement of the implementation of the New Normal, from -0.0009024 to -0.0006151. This shows that there is an increase in the actual return compared to the expected return. This increase occurred because the market responded positively through an increase in abnormal returns following the implementation of the New Normal in Indonesia. On average, the average trading volume activity has decreased from before to after the New Normal, from 0.0352105 to 0.0232254. This shows that there was a decrease in share trading activity on the IDX for shares of hotel, restaurant and tourism issuers. This decline occurred because investors were still hesitant to reinvest in hotel, restaurant and tourism companies amidst the pandemic and preferred shares of companies operating in the health sector.

**Table 2.** Descriptive Statistical Test

	N	Minimum	Maximum	Mean	Std. Deviation
AAR Before	37	-0,01260	0,01369	-0,0009024	0,00349955
AAR After	37	-0,01311	0,00685	-0,0006151	0,00315737
ATVA Before	37	0,00000	0,83557	0,0352105	0,14183606
ATVA After	37	0,00000	0,35856	0,0232254	0,07426116
Valid N (listwise)	37				

Source: Processed secondary data, year 2023

### Normality test

[Table 3](#) shows that the normality test of AAR before and AAR after is normally distributed with a significance value above 0.05. AAR before New Normal produces a significance value of 0.114 and AAR after New Normal shows a significance value of 0.079. Normality testing of ATVA before and ATVA after showed that the data was not normally distributed. ATVA before and after New Normal produces the same significance value, namely 0.000. Referring to the test results, it is determined that hypothesis testing for abnormal returns will use the parametric paired samples t-test and for trading volume activity the non-parametric Wilcoxon Signed Rank Test will be used.

**Table 3.** Normality Test Results

			AAR Before	AAR After	ATVA Before	ATVA After
N			37	37	37	37
Monte Carlo Sig. (2-tailed)	Sig.		0,114 <sup>d</sup>	0,079 <sup>d</sup>	0,000 <sup>d</sup>	0,000 <sup>d</sup>
	99% Confidence Interval	Lower Bound	0,105	0,072	0,000	0,000
		Upper Bound	0,122	0,086	0,000	0,000

Source: Processed secondary data, year 2023

## Hypothesis testing

### 1) Paired Samples T-Test

Based on the test results in [Table 4](#) it shows the sig. (2-tailed) of 0.686 ( $0.686 > 0.05$ ). These results explain that there is no significant difference in abnormal returns before and after the announcement of the implementation of the New Normal. Therefore, the results of the study concluded rejecting H1.

**Tabel 4.** Paired Samples T-Test Result

		df	Sig. (2-tailed)
Pair 1	AAR After – AAR Before	36	0,686

Source: Processed secondary data, year 2023

### 2) Wilcoxon Signed Rank Test

Based on the test results in [Table 5](#), the Asymp results show. Sig. (2-tailed) of 0.481 ( $0.481 > 0.05$ ). These results explain that there is no significant difference in trading volume activity before and after the announcement of the implementation of the New Normal. Therefore, the results of the study concluded rejecting H2.

**Table 5.** Wilcoxon Signed Rank Test Results

	ATVA After – ATVA Before
Z	-.705 <sup>b</sup>
Asymp. Sig. (2-tailed)	0,481

Source: Processed secondary data, year 2023

## Discussion

### Differences in Abnormal Returns Before and After the Announcement of the Implementation of the New Normal

Hypothesis testing of abnormal returns before and after the announcement of the implementation of New Normal in hotel, restaurant and tourism companies was carried out using the Paired Samples T-Test. Table 4 shows the results of sig. (2-tailed) of 0.686 ( $0.686 > 0.05$ ) which means there is no significant difference between abnormal returns before and after the announcement of the implementation of New Normal in Indonesia. These results explain that the capital market did not show a significant reaction to the implementation of the New Normal in Indonesia. This insignificant market reaction was due to differences in information views (information asymmetry) regarding the implementation of the New Normal in Indonesia among investors. Information asymmetry occurs because of the lack of uniformity in access to information between market players. Some investors have good access to information so they have sufficient information regarding the announcement of the implementation of the New Normal. On the other hand, some investors do not have access to information, so they do not have enough information. Due to gaps in information, the interpretation abilities among investors vary. Information about the implementation of the New Normal obtained by market players is interpreted differently by each investor. Some interpret it as good news or vice versa as bad news. This interpretation causes market players' decisions to also differ.

Another event, namely PSBB Phase I which was implemented by the government on April 10 2020, is still having an impact on investors' decision making to invest in the hotel, restaurant and tourism sub-sectors. Investors are still hesitant to invest, seeing the previous impact of PSBB Phase I on the sluggish capital market. Information regarding the Phase II PSBB policy which was implemented on September 7 2020 increased investors' doubts about

reinvesting. Investors are afraid that the impact of improved market conditions during the New Normal will be destroyed again when PSSB Phase II is implemented by the government.

The results of this hypothesis testing are in line with signaling theory. Based on signaling theory, an event contains a signal or information for investors in making investment decisions. The announcement of the implementation of the New Normal which could change the condition of the company did not receive a reaction from investors in the form of an increase in abnormal returns. However, the test results show that investors received a signal that the implementation of the New Normal did not contain meaningful information. For investors, the announcement of the implementation of the New Normal will not significantly affect the condition of the capital market in Indonesia, especially in the market for hotel, restaurant and tourism issuers. This investor reaction is supported by the total AAR value which has changed but is not significant. Before the New Normal, the total AAR value was -0.03337, then rose to -0.02279. The increase was not significant, only amounting to 0.01058, apart from that the total abnormal return that appeared was still a negative abnormal return.

This research is in line with and supports the results of a study entitled Analysis of Abnormal Return and Trading volume activity Difference Before and After the Announcement of New Normal Implementation by President Joko Widodo: Study on LQ 45 in the Indonesia Stock Exchange[8]. The research results obtained were that there was no change in abnormal returns before and after the announcement of the implementation of New Normal in Indonesia. However, this research is not in line with the research entitled New Normal Covid-19: Capital Market Reaction. The test results prove that there is a significant difference in abnormal returns. However, the trading volume activity variable does not have a significant difference [9].

#### **Differences in trading volume activity before and after the Announcement of the Implementation of the New Normal**

Testing the hypothesis on trading volume activity before and after the announcement of the implementation of the New Normal in hotel, restaurant and tourism companies was carried out through the Wilcoxon Signed Rank Test. Table 5 shows the sig results. (2-tailed) of 0.481 ( $0.481 > 0.05$ ) which means that there is no significant difference between trading volume activity before and after the announcement of the implementation of the New Normal in Indonesia. These results explain that the capital market did not show a significant reaction to the implementation of the New Normal in Indonesia.

This insignificant market reaction was due to differences in views regarding information about the implementation of New Normal in Indonesia among investors so that not all investors took the same action. If all investors have the same view, the ATVA value should experience a significant difference. The results of this test support the test on the abnormal return variable. Trading volume activity will be in line with the increase or decrease in stock prices or abnormal returns. In accordance with the test results, trading volume activity which does not experience differences is in line with abnormal returns which experience the same conditions.

The market did not act also because most investors chose not to invest in hotel, restaurant and tourism companies. Investors are still wary of investing in hotel, restaurant and tourism companies because tourism conditions are yet to show signs of improving. Investors still choose to invest in other industries which show stable conditions during the Covid-19 pandemic. Moreover, considering the condition of the Indonesian economy which is still in decline.

The wait and see attitude of investors adds to the factor of the market not acting. Investors are still waiting and watching the conditions of the capital market after the announcement of the implementation of the New Normal. Investors will assess whether their interpretation is the same as other investors by looking at changes in market conditions. However, because the investors were waiting for each other, the market conditions did not differ because investors were both hesitant to invest in hotel, restaurant and tourism companies. This resulted in the volume of investment there is no significant difference.

This investor attitude can also occur because investors have received information about other events that will occur. Investors have received issues related to Phase II of the PSBB

which is a policy of limiting community activities again, of course this will cast doubt on investors' decision making. This causes investors to wait and see other events or events that will affect the capital market at a time close to the implementation of the New Normal.

Efficiency theory explains that events will influence share prices which will later have an impact on decision making in selling or buying shares. The implementation of the New Normal has been able to form a new market equilibrium price, but has not been able to influence investment decisions. It can be said that the results of this test contradict market efficiency theory because the New Normal announcement event was only able to form a new equilibrium share price, not by influencing investors' investment decision making. This can be seen from the decrease in total trading volume activity before and after the announcement of the implementation of the New Normal.

This research is in line with research entitled Analysis of the New Normal Event Study on Share Prices on the Indonesian Stock Exchange in the Manufacturing company sub-sector [10]. The research results obtained were that there was no significant difference in trading volume activity in the period before and after the announcement of the implementation of the New Normal in the Manufacturing Sector. However, this is contrary to the results of research entitled Indonesian Capital Market Reactions Before and After the Announcement of the Implementation of the New Normal (Event study on State-Owned Companies Listed on the Indonesian Stock Exchange) [11]. The results of the study show that there are significant differences in trading volume activity before and after the announcement of the implementation of the New Normal.

#### **4. Conclusion**

Based on the results of research testing, it can be concluded, first there is no significant difference in abnormal returns between before and after the announcement of the implementation of New Normal in Indonesia. The results of this hypothesis testing are in line with signaling theory. Based on signaling theory, an event contains a signal or information for investors in making investment decisions. Investors received a signal that the implementation of the New Normal did not contain meaningful information. For investors, the announcement of the implementation of the New Normal will not significantly affect the condition of the capital market in Indonesia, especially in the market for hotel, restaurant and tourism issuers. Practically, these results can be used as a consideration for investors not to invest in the capital market which is still inefficient. Second, there is no significant difference in trading volume activity between before and after the announcement of the implementation of New Normal in Indonesia. It can be said that the results of this test contradict market efficiency theory because the New Normal announcement event was only able to form a new equilibrium share price, not by influencing investors' investment decision making. Trading volume activity is still influenced by investors' attitudes in making investment decisions. In practice, investors must collect a lot of data before deciding to invest in the capital market, such as looking at the attitudes of other investors, upcoming events, and so on.

The limitation of this research is that it only uses an event window of 15 days, namely  $t-7$ ,  $t-0$ , and  $t+7$ , this research only examines hotel, restaurant and tourism companies with a total sample of 37 samples and this research only uses abnormal variables return and trading volume activity as well as testing only at the event of the announcement of the implementation of the New Normal.

Future research endeavors are encouraged to expand their scope by considering additional variables beyond abnormal returns and trading volume activity. Additionally, these studies should aim to examine events across a broader spectrum of company industries, moving beyond the focus on hotel, restaurant, and tourism companies.

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## References

- [1] R. Elga, S. Murni, and J. E. Tulung, “Reaksi Pasar Modal Terhadap Peristiwa Sebelum Dan Sesudah Pengumuman Covid-19 Di Indonesia ( Event Study Pada Indeks LQ45 ),” *J. EMBA*, vol. 10, no. 1, pp. 1052–1060, 2022, doi: 10.35794/emba.v10i1.38703.
- [2] C. A. Wicaksono and R. I. Adyaksana, “Analisis Reaksi Investor Sebagai Dampak Covid-19 Pada Sektor Perbankan Di Indonesia,” *JIAFE (Jurnal Ilm. Akunt. Fak. Ekon.*, vol. 6, no. 2, pp. 129–138, 2020, doi: doi.org/10.34204/jiafe.v6i2.2227.
- [3] A. Pradana, “Analisis Reaksi Pasar Saham Indonesia Terhadap Pengumuman Social Distancing Pandemi Covid-19,” *J. Ilmu dan Ris. Akunt.*, vol. 11, pp. 01–20, 2021.
- [4] A. Ningsih, A. Basyith, and R. Hidayat, “Reaksi Pasar Saham Terhadap Pengumuman Pandemi Covid-19 PPKM Level 4 Pada Indeks LQ45,” *J. Nusantara. Apl. Manaj. Bisnis*, vol. 7, no. 2, pp. 206–224, 2022, doi: 10.29407/nusamba.v7i2.17621.
- [5] M. Candra, M. F. D. Putra, and E. Safitri, “Stock Return Of Hotel, Restaurant, And Tourism Sub Sektor Companies: Comparative Analysis Before, During, And After The New Normal Covid 19 Pandemic,” *Asia Pacific J. Bus. Econ. Technol.*, vol. 02, no. 04, pp. 42–51, 2022, doi: 10.98765/apjbet.v2i06.69.
- [6] I. B. Sambuari, I. S. Saerang, and J. B. Maramis, “Reaksi Pasar Modal Terhadap Peristiwa Virus Corona (Covid-19) Pada Perusahaan Makanan Dan Minuman Yang Terdaftar Di Bursa Efek Indonesia,” *JMBI UNSRAT*, vol. 7, no. 3, pp. 407–415, 2020, doi: 10.35794/jmbi.v7i3.30668.
- [7] M. Alfionita and D. Cahyaningdyah, “Covid-19 Outbreak and New Normal Policy to The Reaction of The Indonesian Capital Market : An Event Study Analysis,” *Manag. Anal. J.*, vol. 4, no. 12, pp. 406–417, 2022, doi: 10.15294/MAJ.V11I4.58533.
- [8] S. A. Muthaharia and I. Yunita, “Analysis of Abnormal Return and Trading Volume Activity Difference Before and After the Announcement of New Normal Implementation by President Joko Widodo : Study on LQ 45 in the Indonesia Stock Exchange,” *Int. J. Adv. Res. Econ. Financ.*, vol. 3, no. 1, pp. 14–20, 2021.
- [9] K. P. Anggraini, N. Y. Siregar, R. Meiliana, and R. Ramadhaniyah, “New Normal Covid-19: Reaksi Pasar Modal?,” *J. Ris. Terap. Akunt.*, vol. 06, no. 1, pp. 15–25, 2020, doi: 10.5281/zenodo.6555570.
- [10] R. Y. Lukman and Y. Rura, “Analisis Event Study New Normal Terhadap Harga Saham di Bursa Efek Indonesia,” *Own. Ris. J. Akuntans*, vol. 7, pp. 1–12, 2023, doi: 10.33395/owner.v7i1.1231.
- [11] R. G. F. Oping, M. Mangantar, and P. Van Rate, “Reaksi Pasar Modal Terhadap Peristiwa Pengumuman Covid-19 Pada Perusahaan Otomotif Di Bursa Efek Indonesia,” *J. EMBA*, vol. 11, no. 1, pp. 241–248, 2023, doi: 10.35794/emba.v11i1.45879.

## The impact of tax information system on individual taxpayer compliance with Tri Hita Karana culture as moderating variable

Putu Nadya Dewi Putri Pawitya<sup>1✉</sup>, Nyoman Sentosa Hardika<sup>2</sup>, & Anak Agung Putri Suardani<sup>3</sup>

<sup>1,2,3</sup> Accounting Department, Politeknik Negeri Bali, Indonesia

✉ Address correspondence: Jalan Kampus Bukit Jimbaran, Kuta Selatan, Badung, Bali-80364

E-mail: [nadyaadewii171001@gmail.com](mailto:nadyaadewii171001@gmail.com)

### ABSTRACT

The purpose of this study is to examine and quantify the impact of the Tri Hita Karana culture as a moderating variable on individual taxpayer compliance with the tax information system. In order to analyze secondary data, this research uses documentation and primary data obtained from the distribution of questionnaires to individual taxpayers who are enrolled at the *Kantor Pelayanan Pajak Pratama* Tabanan in order to get an Annual Notification Letter. Simple random sampling is used to determine the research sample using the probability sampling approach, yielding a sample of 100 distinct taxpayers. Using SmartPLS 3.3.9, the Partial Least Squares (PLS) approach is used in statistical testing to evaluate the hypothesis. The study's findings demonstrate that both the tax information system and Tri Hita Karana culture have a strong and positive impact on individual taxpayer compliance. This means that the more cultural values that guide the lives of individual taxpayers are embedded, the tendency is to increase taxpayer compliance. Additionally, Tri Hita Karana culture can act as a moderator by lessening the correlation between the two variables. Individual taxpayers do not realize that cultural values perceive important things in the use of a system, which can weaken the use of the system.

Keywords: tax information system, Tri Hita Karana culture, taxpayer's compliance

### 1. Introduction

Tax receipts are a key element of the state's income in undertaking efforts to support and stimulate the movement of the country's economy. Registered taxpayers are expected to be disciplined and obedient in paying their tax obligations, thus being able to help the country's economy. Compliance in paying taxes is the foundation for receiving taxes as planned; their taxes can maximize their contribution to the development of the country. Indonesian tax receipts recorded at the Ministry of Finance have increased to Rp. 1597.8 trillion in 2021, and in 2022, they have been recorded as Rp. 2034.5 trillion above the target *APBN* for 2 years in a row [1]. Efforts toward the goal of tax receipt are not easy. This is not apart from the efforts of the *DJP* to increase compliance with tax obligations so that it can influence tax receipts optimally. The mandatory tax compliance level recorded in the *Kantor Pelayanan Pajak Pratama* Tabanan for the years 2018–2022 is displayed in [Table 1](#) below.

**Table 1.** Level of Compliance of SPT Reporting by Individual Taxpayers in KPP Pratama Tabanan

Year	Registered Individual Taxpayers	Individual Taxpayers Registered to Compulsory SPT	Individual Taxpayers Report SPT	Compliance Ratio
2018	120.671	51.972	42.869	82,48%
2019	130.433	56.574	47.532	84,00%
2020	197.857	70.106	54.492	77,73%

2021	203.814	69.509	65.126	93,69%
2022	213.125	56.361	51.610	91,57%

Source: KPP Pratama Tabanan (2023)

[Table 1](#) indicates that in 2022, the compliance ratio of individual taxpayers decreased compared to the previous year among those enrolled as mandatory *SPT* at *KPP Pratama Tabanan*. In response to this decline, the Direktorat Jendral Pajak has undertaken a strategic initiative aimed at tax reform, with a primary focus on enhancing the tax system. This reform incorporates digital technology, which is closely tied to the existing tax information system, streamlining tax administration processes for the convenience of taxpayers. However, while the tax information system facilitates these processes, it also introduces a potential vulnerability for tax evasion through data manipulation [\[3\]](#). To ensure that the tax information system is used with integrity and honesty, it necessitates the enforcement of both civil and criminal laws. As with any community, there are inherent cultural values that guide individuals in their responsibilities and behaviors. According [\[4\]](#), individuals are influenced by internal drives that influence their intention to comply with their obligations, namely by embedding cultural values in themselves as taxpayers. In other words, the more deeply ingrained Tri Hita Karana norms are, the more compliant taxpayers are in fulfilling their duties. Personal views can also impact the use of tax information systems. According to the Unified Theory of Acceptance and Use of Technology (UTAUT) by [\[5\]](#), individual beliefs, including the endorsement of the Tri Hita Karana culture, can significantly influence the acceptance and utilization of a system. This alignment with UTAUT suggests that cultural values can play a pivotal role in shaping individual attitudes and behaviours towards technology adoption. The urgency of this research aligns with prior studies that have explored the multifaceted factors affecting taxpayer compliance, encompassing both external and internal determinants. This research seeks to shed light on the interaction between the Tri Hita Karana culture and the tax information system, specifically how these elements collaborate to mitigate the system's impact on individual taxpayer compliance. In conclusion, the compliance levels among individual taxpayers in *Kantor Pelayanan Pajak Pratama Tabanan* declined in 2022. Our study aims to delve deeper into the operational aspects of how Tri Hita Karana values intertwine with the UTAUT framework, ultimately influencing taxpayer compliance within the context of the tax information system."

Research carried out by [\[6\]](#), [\[7\]](#), [\[8\]](#) showed that the existence of a tax information system can have a compliant effect on taxpayers. The differences between this research and this research are the research subjects, research objects, and data processing tools. Contradictory findings from research by [\[9\]](#) show that taxpayers' perception of compliance is unaffected by the use of information technology in the tax system. This research has differences in research objects, research subjects, and data processing tools. According to Tri Hita Karana cultural research by [\[10\]](#), sociocultural elements function as a person's means of understanding that something that is deemed significant is founded on their beliefs and thoughts, which are infused with a certain degree of spirituality. The research has similarities in using information systems related to Tri Hita Karana culture, but has different research subjects and research objects. Research by [\[11\]](#) stated that local cultural values have a positive influence on compliance with paying taxes. These studies have similarities in assessing the local culture of an area but have different research subjects and research objects. [\[12\]](#) stated that this culture has an influence on individual tax payer tax payment compliance. [\[13\]](#) research states that the values of local culture have an impact on people's compliance with carrying out their obligations. This research has differences in research subjects, research objects, and data processing tools for research data. Research by [\[14\]](#) stated that the philosophy of a region's local culture greatly influences the level of compliance with tax payments. According to research by [\[15\]](#), taxpayer compliance should provide benefits as a way of showing thanks to God (*Parahyangan*), bringing prosperity

to both the earth (*Pawongan*) and humankind (*Palemahan*) on a physical and mental level. The research techniques, subjects, and objects used in this study differ from previous ones.

Drawing from the existing literature and contextual information, the research aims to test the following hypotheses: (H1) Individual taxpayer compliance is positively and significantly impacted by the tax information system; (H2) Individual taxpayer compliance is positively and significantly impacted by Tri Hita Karana culture; and (H3) Individual taxpayer compliance is moderately impacted by Tri Hita Karana culture.

## 2. Method

For almost six months, the study was conducted at *Kantor Pelayanan Pajak Pratama* Tabanan. This study used a variety of methods for gathering data, including (a) surveys and (b) documentation. Subjects who participate in research are given questionnaires containing statements or questions in order to collect data. Through the analysis of readings, documents, notes, and archives, documentation is utilized to gather data that subsequently becomes data that is consistent with what actually occurred. The 56,361 individual taxpayers who are enrolled as required *SPT* at *KPP Pratama* Tabanan in 2022 make up the research population for this study. The sample for this study was chosen using random sampling techniques, and its size was calculated using the Slovin formula, which calls for 100 samples. The tax information system and Tri Hita Karana culture are the two independent factors examined in this study; taxpayer compliance is the dependent variable, and Tri Hita Karana culture is also a moderating variable. The operationalization of the Tri Hita Karana culture is pivotal to our investigation. Tri Hita Karana, a traditional Balinese philosophy, emphasizes the harmonious balance between humans, nature, and the divine. To operationalize this cultural concept, we collected data by assessing individual taxpayers' adherence to the core principles of Tri Hita Karana in their daily lives, particularly in the context of their financial and tax-related behaviours. Specifically, we evaluated their recognition and observance of cultural values, norms, and practices associated with Tri Hita Karana, such as their interactions with the community, reverence for nature, and spiritual commitments, and how these aspects intersected with their tax compliance. This operationalization allowed us to establish a concrete link between Tri Hita Karana cultural values and taxpayer compliance within the tax information system. By systematically assessing the practical incorporation of Tri Hita Karana into taxpayers' behaviours, we aimed to better understand how this cultural aspect interacts with the tax information system and its effects on individual taxpayer compliance.

Use data analysis techniques to process the data after it has been gathered. In this study, a descriptive statistical data analysis technique was employed for data analysis. This is necessary so that it can offer a summary of the data that has been gathered. For the responses from the respondents, the mean category calculation will employ the subsequent class interval [16]:

Based on interval calculations with a maximum value of 5, a minimum value of 1, and a class interval of 5, the range calculation results for each category have a level of 0.8. [Table 2](#) provides a more thorough explanation of how the mean value scale for respondents' responses was determined.

**Table 2.** Responden Category Scale Mean Value of Respondent Answers

No.	Mean Scale	Criteria
1.	1,00 – 1,79	Very low
2.	1,80 – 2,59	Low
3.	2,60 – 3,39	High enough
4.	3,40 – 4,19	High
5.	4,20 – 5,00	Very High

Source: Wirawan (2012)

### 3. Results and Discussion

The validity level of the study questionnaire is ascertained through the application of the validity test. Convergent validity and discriminant validity are the two approaches used in validity testing, according to [17]. The reliability of indicators in questionnaire statements is assessed using a reliability test. According to [17], Cronboach's Alpha and Composite Reliability are the two metrics used in reliability testing. The validity and reliability of the indicators derived from the questionnaire can be ascertained by examining the outcomes of the validity and reliability tests.

The loading factor value, which is more than 0,7, and the AVE value of all constructs, which is larger than 0,5, demonstrate the validity test measurement. This can indicate that the construct model satisfies the requirements of the validity test. The validity test's findings are presented below, namely in [Table 3](#) and [Table 4](#):

**Table 3.** Outer Loadings Values for Each Indicator

	Tax Information System (X)	Taxpayer Compliance (Y)	Tri Hita Karana Culture(Z)	Moderating Effect (XZ)
SIP*THK				2,217
SIP 1	0,838			
SIP 2	0,837			
SIP 3	0,887			
SIP 4	0,877			
SIP 5	0,872			
SIP 6	0,821			
SIP 7	0,900			
SIP 8	0,825			
SIP 9	0,837			
SIP 10	0,866			
SIP 11	0,845			
SIP 12	0,767			
SIP 13	0,843			
SIP 14	0,906			
SIP 15	0,819			
SIP 16	0,859			
SIP 17	0,831			
SIP 18	0,812			
KWP 1		0,808		
KWP 2		0,898		
KWP 3		0,912		
KWP 4		0,952		
KWP 5		0,932		
KWP 6		0,933		
THK 1			0,869	
THK 2			0,876	
THK 3			0,901	
THK 4			0,954	
THK 5			0,966	
THK 6			0,921	
THK 7			0,947	
THK 8			0,944	
THK 9			0,836	

Source: Processed primary data, year 2023

**Table 4.** Value of Average Variance Extractes (AVE)

	AVE	Terms.	Description
Moderating Effect (XZ)	1,000	> 0,5	Valid
Tax Information System (X)	0,723	> 0,5	Valid
Tax Compliance (Y)	0,965	> 0,5	Valid
Tri Hita Karana Culture (Z)	0,835	> 0,5	Valid

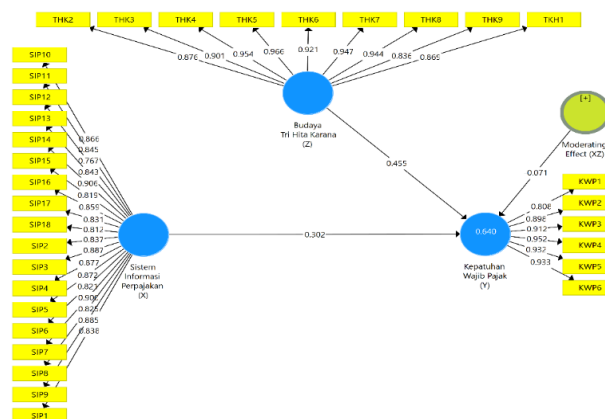
Source: Processed primary data, year 2023

The purpose of reliability testing is to determine how consistently respondents answer questions regarding a construct. If Cronboach's alpha and composite reliability scores are more than 0.7, the construct is deemed reliable. This indicates a high degree of reliability for the latent variable. Following the PLS Algorithm process, [Table 5](#) displays the reliability test results:

**Table 5.** Value of Cronbach's Alpha and Composite Reliability

	Cronbach's Alpha	Composite Reliability	Terms.	Desc.
Moderating Effect (XZ)	1,000	1,000	> 0,7	Reliabel
Tax Information System (X)	0,977	0,979	> 0,7	Reliabel
Tax Compliance (Y)	0,956	0,965	> 0,7	Reliabel
Tri Hita Karana Culture (Z)	0,975	0,979	> 0,7	Reliabel

Source: Processed primary data, year 2023



Source: Processed primary data, year 2023

**Figure 1.** Path Diagram of Validity and Reliability Test

[Table 6](#) displays the R-square value, which is 0.640. This indicates that the model meets the moderate criteria for classification. Individual taxpayer compliance can be influenced by the tax information system and Tri Hita Karana culture by 64% and can be influenced by other variables outside of this research by 36%.

**Table 6.** Value of R-Square

	R Square	R-Square Adjusted
Tax Compliance (Y)	0,640	0,629

Source: Processed primary data, year 2023

As each independent variable has a path coefficient value greater than zero, the hypothesis test results are shown in [Table 7](#), which suggests that each independent variable is moving positively towards the dependent variable. The research hypothesis is deemed acceptable by

the t-statistics value of  $> 1,65$  (alpha 10%), and the research data is deemed significant by the probability value of  $\leq 0,1$ .

**Table 7.** Bootstraping Result

	Path Coefficient	T-Statistics	P Values
Tax Information System (X) -> Tax Compliance (Y)	0,302	3,048	0,002
Tri Hita Karana Culture (Z) -> Tax Compliance (Y)	0,455	4,642	0,000
Tri Hita Karana Cultural (Z) of the Tax Information System (X) -> Tax Compliance (Y)	-0,071	2,316	0,021

Source: Processed primary data, year 2023

The tax information system is shown to have a positive and significant affect with a path coefficient value of 0,302 and a probability value of 0,002. With a t-statistics value of 3,048 it is possible to accept the hypothesis. Thus, testing this data can lead to the conclusion that taxpayer compliance can be positively and significantly impacted by the tax information system. This means that if taxpayers increasingly use tax information systems to support tax administration activities, there is a tendency to increase taxpayer compliance. The test results are in accordance with research conducted [6], [7], [18], [8], which stated that the tax information system can be said to be capable of providing an increase in mandatory tax compliance.

Tri Hita Karana culture has a path coefficient value of 0,455 and a probability value of 0,000, which shows that it has a positive and significant influence. It has a t-statistics value of 4,642 thus indicating that the hypothesis can be accepted. So, the conclusion from testing this data can indicate that the Tri Hita Karana culture can have a positive and significant influence on tax compliance. This means that the more cultural values that guide the lives of individual taxpayers are embedded, the tendency is to increase taxpayer compliance. The test results are in accordance with research conducted [11], [12], [14], [13], and [15] which states that the Tri Hita Karana culture can be said to be able to provide an increase in taxpayer compliance.

With a route coefficient value of -0,071, a probability value of 0,021, and a t-statistics value of 4,642, Tri Hita Karana culture moderation explains why the hypothesis can be accepted. This demonstrates that the relationship between taxpayer compliance and the tax information system can be moderated, if not weakened, by the Tri Hita Karana culture. Individual taxpayers do not realize that cultural values perceive important things in the use of a system, which can weaken the use of the system. The test results are contradictory to those carried out by [10], who state that socio-cultural factors define individual perceptions regarding information systems that can be influenced by important things around them based on the thoughts of individuals with a spirit of spiritualism.

#### 4. Conclusion

Conclusions can be made based on the analysis and discussion findings, which are as follows: (a) the tax information system positively affects individual taxpayer compliance; (b) Tri Hita Karana culture positively affects individual taxpayer compliance; and (c) Tri Hita Karana culture moderates by attenuating the relationship between the tax information system's influence and individual taxpayer compliance. In future research, it is hoped that we will be able to carry out different research locations, expand the scope of the sample so that it describes the scope of the research, and add different research variables to make the research more comprehensive.

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## References

- [1] Kementerian Keuangan, "Laporan Realisasi Anggaran dalam APBN," *kemenku.go.id*, 2022. <https://www.kemenkeu.go.id/informasi-publik/publikasi/berita-utama/Bertemu-Badan-Anggaran-DPR-RI-Menkeu>
- [2] KPP Pratama Tabanan, "Tingkat kepatuhan Pelaporan SPT Oleh WPOP KPP Pratama Tabanan Tahun 2018-2022," 2023.
- [3] A. H. P. Pramudya, A. Wibisono, and M. Mustafa, "Self Assessment dalam Hukum Pajak," *J. Sos. Sains*, vol. 2, no. 2, pp. 361–374, 2022, doi: 10.36418/sosains.v2i2.340.
- [4] I. Ajzen, "The Theory of Planned Behaviour," *Disabil. CBR Incl. Dev.*, vol. 33, no. 1, pp. 52–68, 1991, doi: 10.47985/dcidj.475.
- [5] V. Venkatesh, M. G. Morris, G. B. Davis, and F. D. Davis, "User acceptance of information technology: Toward a unified view," *MIS Q. Manag. Inf. Syst.*, vol. 27, no. 3, pp. 425–478, 2003, doi: 10.2307/30036540.
- [6] E. Satyawati and M. P. Cahjono, "Pengaruh Self Assessment System Dan Sistem Informasi Perpajakan Terhadap Kepatuhan Wajib Pajak," *J. Ris. Akunt. dan Keuang.*, vol. 13, no. 1, p. 31, 2017, doi: 10.21460/jrak.2017.131.278.
- [7] A. Ramdan, "Pengaruh Sistem Informasi Perpajakan Terhadap Kepatuhan Wajib Pajak Dan Penerimaan Pajak Di Kantor Pelayanan Pajak Badan Dan Orang Asing Satu Menurut Wajib Pajak," *Transparansi J. Ilm. Ilmu Adm.*, vol. 9, no. 1, pp. 12–27, Mar. 2018, doi: 10.31334/trans.v9i1.83.
- [8] K. Kussuari and P. Boenjamin, "Pengaruh Kebijakan Pengampunan Pajak Dan Modernisasi Sistem Informasi Perpajakan Terhadap Kepatuhan Wajib Pajak Orang Pribadi," *J. Informasi, Perpajakan, Akuntansi, DAN Keuang. PUBLIK*, vol. 14, no. 1, pp. 59–80, Aug. 2019, doi: 10.25105/jipak.v14i1.5080.
- [9] R. M. Magribi and D. Yulianti, "Pengaruh Pemanfaatan Teknologi Dan Modernisasi Sistem Administrasi Perpajakan Terhadap Kepatuhan Wajib Pajak Orang Pribadi (Studi Kasus Pada WPOP yang Terdaftar di KPP Mikro Piloting Majalengka)," *J. Akunt. Kompetif*, vol. 5, no. 3, pp. 358–367, Oct. 2022, doi: 10.35446/akuntansikompetif.v5i3.1137.
- [10] D. Ariyanto, M. M. R. Sari, and N. M. D. Ratnadi, "Rekontruksi Konstruksi Faktor Sosial Budaya Dalam Konteks Budaya Tri Hita Karana Pada Model UTAUT," *J. Akunt. Multiparadigma*, pp. 399–415, 2017, doi: 10.18202/jamal.2017.08.7062.
- [11] S. Damis, M. Su'un, and Tenriwaru, "Pengaruh Persepsi Wajib Pajak Terhadap Kepatuhan Membayar Pajak Pada Pengusaha Muda Di Kota Parepare Dimoderasi Oleh Nilai Budaya Bugis," vol. 4, no. 1, pp. 2615–7039, 2021.
- [12] A. Lestari, Faridah, and A. Setiawan, "Pengaruh Budaya Siri' Na Pacce Terhadap Pembayaran Pajak Wajib Pajak Orang Pribadi (Studi Kasus pada Kantor Pelayanan Pajak Pratama Makassar Selatan)," *Econ. Bosowa J.*, vol. 7, no. 004, pp. 112–122, 2021.
- [13] A. Kirana and U. Rabiyah, "Pengaruh Nilai Budaya Lokal, Nilai Sosial dan Locus Of Control terhadap Kepatuhan Wajib Pajak Orang Pribadi Di KPP Pratama Makassar Selatan," vol. 18, no. April, pp. 110–122, 2022, [Online]. Available: <https://e-jurnal.nobel.ac.id/index.php/akmen>
- [14] Asriandi, Tenriwaru, and A. Junaid, "Filosofi Budaya Lempu' Na Getteng dalam Perspektif Kepatuhan Wajib Pajak Pelaku Usaha Mikro Kecil Menengah," *YUME J. Manag.*, vol. 4, no. Vol 4, No 2 (2021), pp. 134–144, 2021, doi: 10.37531/yum.v11.75.
- [15] N. Q. Lutfillah, Y. Mangoting, and R. E. Wijaya, *The Meaning Taxpayer Compliance in Tri Hita Karana's Perspective*, vol. 1. Atlantis Press International BV, 2023. doi: 10.2991/978-94-6463-026-8.
- [16] Wirawan, *Evaluasi teori, model, standar, aplikasi dan profesi*. Jakarta: Rajawali Pers, 2012.
- [17] I. Ghazali and H. Latan, *Konsep Teknik Dan Aplikasi Menggunakan Program Smart PLS 3.0 (Edisi 2)*, Edisi 2. Semarang: Badan Penerbit Universitas Diponegoro, 2015. [Online]. Available: [yahoogroups.com/group/Multivariate\\_SEM](http://yahoogroups.com/group/Multivariate_SEM)
- [18] I. Muttaqin, "The Influence of Tax Knowledge and Information Systems to Taxpayer Compliance in the City of Tegal," *Eur. J. Bus. Manag. Res.*, vol. 7, no. 4, pp. 251–255, 2022, doi: 10.24018/ejbmr.2022.7.4.1546.

## **The role of tax socialization in tax digitalization and taxpayer awareness on individual taxpayer compliance**

**Made Inatamayu Ardika<sup>1✉</sup>, Nyoman Sentosa Hardika<sup>2</sup> & Anak Agung Putri Suardani<sup>3</sup>**

<sup>1,2,3</sup> Accounting Department, Politeknik Negeri Bali, Indonesia

✉ Address correspondence: Jalan Kampus Bukit Jimbaran, Badung, Bali

E-mail: inatamayu@gmail.com

### **ABSTRACT**

This study aims to assess the impact of tax digitalization and taxpayer awareness on the compliance of individual taxpayers, with tax socialization serving as a moderating factor. The research involves the analysis of primary data gathered from questionnaires distributed to 100 individual taxpayers registered at the *Kantor Pelayanan Pajak (KPP)* Denpasar Barat, utilizing probability sampling techniques for sample selection. The study employs the Partial Least Square (PLS) method through the SmartPLS 4 application to evaluate the variables. The findings of this investigation reveal that tax digitalization significantly enhances individual taxpayer compliance. Moreover, taxpayer awareness also exhibits a positive and substantial influence on individual taxpayer compliance. Notably, tax socialization is found to strengthen the connection between tax digitalization and individual taxpayer compliance. Furthermore, it moderates the relationship by mitigating the impact of taxpayer awareness on individual taxpayer compliance. What sets this study apart is its holistic approach: while previous research has often explored the isolated impacts of tax digitalization and taxpayer awareness on compliance, our study introduces the concept of "tax socialization" as a moderating variable. This novel inclusion delves into the mechanisms by which informing and educating taxpayers about tax-related matters can influence compliance within the digitalization context.

**Keywords:** tax digitalization, taxpayer awareness, individual taxpayer compliance, tax socialization

### **1. Introduction**

The tax sector is one of the largest and most important sources of revenue for a country because taxes help the needs of national development [1]. The government has made various efforts to maximize revenue from the tax sector. Starting from improving tax regulations to implementing electronic reporting and payment. The role of taxpayers in carrying out tax obligations determines the achievement of revenue plans from the tax sector. Therefore, the realization of tax revenue is strongly influenced by taxpayer compliance. Compliance is a term for the level of taxpayers in complying with tax regulations [2]. In the tax collection system, Indonesia adheres to the Self Assessment System (SAS) which means that taxpayers are given the trust in calculating, paying, and reporting the tax payable by the taxpayer based on the applicable provisions in the tax regulations. For this reason, awareness, honesty, discipline, and the desire of taxpayers to comply with applicable regulations are needed [3].

The Regional Office of the Directorate General of Taxes Bali (Regional Office of DGT Bali) noted that tax revenue in 2022 in Bali reached 129%. The realization of this revenue experienced a growth of 35.28% compared to the previous year. The Tax Service Office (*KPP Pratama*) Denpasar is one of the agencies directly obliged to the Bali DGT Regional Office to assist in tax administration and increase tax revenue. *KPP Pratama* Denpasar Barat became the Best Tax Service Office in the Bali DGT Regional Office in the Best Service Office (KPT)

Competition in 2022. The following is the compliance ratio of Individual Taxpayers (*WPOP*) at *KPP Pratama* Denpasar Barat.

**Table 1.** Individual Taxpayers Compliance Ratio at *KPP Pratama* Denpasar Barat

Year	Effective Individual Taxpayers	Tax Return Reported	Compliance Ratio
2020	49.246	45.572	92,54%
2021	51.270	46.764	91,21%
2022	56.138	50.364	89,71%

Source: *KPP Pratama* Denpasar Barat, 2023

Based on [Table 1](#), the compliance ratio from 2020-2022 has decreased although not too significantly. In the last 3 (three) years the number of individual taxpayer and tax return reported has indeed increased. However, the increasing number of individual taxpayers is not proportional to the number of tax return reporting each year, so the compliance ratio decreases. This is certainly a special concern for tax authorities in optimizing annual tax reporting. The decrease in compliance percentages observed in the data necessitates an investigation into the underlying causes, which can be explored through the questionnaire responses. The utilization of a questionnaire is deemed essential for comprehending the underlying causes of decreased compliance percentages as it is provided with a structured, quantitative, and systematic approach for data collection from the affected individuals. The exploration of various factors and perceptions that may be influencing compliance can be facilitated through this means, which is considered crucial for the development of informed strategies to address the issue.

The role of the digital system on taxpayer compliance aims to achieve tax revenue targets for the state, DGT supported by the government creates a breakthrough or innovation in the digital era by providing more effective and efficient services for taxpayers, namely with online services. This is also in line with the Technology Acceptance Model (TAM) theory which explains that using technology and information systems will provide convenience and benefits to its users. In the era of technological development, many modernization of administrative systems have been implemented by DGT, such as e-registration, e-filing, and e-billing which are useful for registering, reporting, and paying taxes online [\[4\]](#).

Public awareness related to taxation does not merely create obedient, obedient, and disciplined behaviour, but is also followed by a critical attitude. The more advanced the society and government, the higher the awareness of paying taxes. Many efforts are applied by DGT to introduce at least the world of taxation to the public to increase taxpayer compliance, one of which is by socializing taxation both offline and online. DGT provides an extension program organized by KPP and KP2KP in the form of assistance in filling out the Annual Tax Return either through the Tax Volunteer program assistance or seminars. Slippery Slope Framework Theory also emphasizes voluntary compliance based on trust in the government and factors from within the taxpayer.

Several studies reveal inconsistent results. Research by [\[5\]](#) and [\[6\]](#) indicate that tax digitalization has a positive and significant effect on individual taxpayer compliance. While the research results [\[7\]](#) show different results, namely tax digitalization consisting of e-filing and e-billing does not affect the level of compliance of individual taxpayers because its application is still not effective. The influence factor of taxpayer awareness observed [\[8\]](#) and [\[9\]](#) have a positive effect on taxpayer compliance. Meanwhile, the research results [\[10\]](#) show that the variables of taxpayer awareness and taxpayer compliance do not have a significant effect because there are still taxpayers who have doubts about the tax system. E-filing is one of the digital taxation products designed by the DGT. Tax socialization as a moderating variable studied by [\[11\]](#) shows that socialization can strengthen the effect of e-filing implementation on taxpayer compliance. In contrast to research conducted by [\[12\]](#) which indicates that tax socialization does not moderate the effect of e-filing application on taxpayer compliance. Then

[13] show that tax socialization can strengthen the influence of taxpayer awareness of individual taxpayer compliance. While research [14] tax socialization does not moderate tax awareness of taxpayer compliance.

Digitalization of the tax system is an effort made by the government and the Directorate General of Taxes to simplify tax administration. Research [15] indicates that the tax digitalization system has a positive effect on taxpayer compliance, the results of this study are in line with research conducted by [16]. The convenience in the field of technology and information systems creates trust and taxpayer intention to continue using a digital-based tax system.

H1: Tax digitalization has a positive effect on individual taxpayer compliance.

The implementation of a transparent, responsible, and accountable tax system will create increased taxpayer trust in tax authorities, thereby increasing taxpayer awareness to pay taxes voluntarily. Research observed [8] and [9] show that taxpayer awareness has a positive and significant effect on individual taxpayer compliance. Tax compliance can increase and is on target if a willingness and awareness arise from taxpayers to full fill their tax obligations.

H2: Taxpayer awareness has a positive effect on individual taxpayer compliance

Socialization in the tax sector regarding tax digitalization is an important substance to overcome the low understanding of taxpayers in using the system so that taxpayers can take advantage of the convenience of using the system provided by the Directorate General of Taxes. Research conducted by [11] and [17] indicate that the socialization variable can strengthen the effect of implementing the e-filing system on taxpayer compliance.

H3: Tax socialization can moderate the effect of tax digitalization on taxpayer compliance.

The implementation of socialization is expected to be able to provide more information to taxpayers regarding tax regulations or regulations so that it will provide a stimulus and motivate taxpayer awareness which will then increase compliance to comply with tax regulations. According to research [13] and [18] prove that the existence of tax socialization as a moderating variable can strengthen the influence of taxpayer awareness on individual taxpayer compliance.

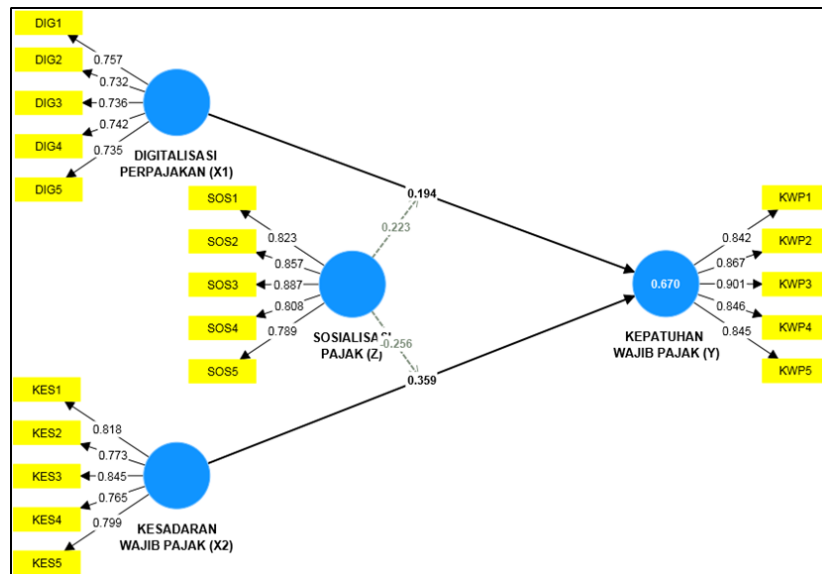
H4: Tax socialization can moderate the effect of taxpayer awareness on taxpayer compliance

## **2. Method**

This research is associative quantitative that aims to determine the cause-and-effect relationship between variables that influence and variables that are influenced. This research was conducted at the West Denpasar Primary Tax Service Office (*KPP*) which is located at Jl. Raya Puputan No.13, Dangin Puri Klod, Denpasar Timur District, Denpasar City, starting from February - July 2023. The population used in this study were individual taxpayers who were registered and were active taxpayers at the *KPP Pratama* Denpasar Barat as many as 56,138. The sample selection in this study was carried out using probability sampling techniques and calculated using the Slovin formula and get 100 samples to be studied. Data collection techniques in this study using questionnaires/surveys and documentation techniques. This study uses a 4-point Likert scale as a data collection instrument. With a 4-point scale, a neutral or middle option is less likely to be chosen by respondents, and this can be important when clear opinions are sought from participants. This can be especially useful when complex or controversial topics are being studied. This research was analyzed using SEM-PLS, where the techniques used were measurement models (outer models) and structural models (inner models).

## **3. Results and Discussion**

In Figure 1 and Table 2, it can be seen that the loading factor value correlates above 0.7 and the AVE value is above 0.5 so the model meets the convergent validity criteria.



Source: Processed primary data, 2023

**Figure 1.** Loading factor result

**Table 2.** AVE Result

Indicator	AVE	Term.	Desc.
Digitalization of Taxation (X <sub>1</sub> )	0,548	>0,5	Valid
Taxpayer Awareness (X <sub>2</sub> )	0,641	>0,5	Valid
Taxpayer Compliance (Y)	0,741	>0,5	Valid
Tax Socialization (Z)	0,695	>0,5	Valid

Source: Processed primary data, 2023

Based on [Table 3](#), discriminant validity testing uses the cross loading value in each construct item correlation to the construct must be higher than the correlation with other construct items.

**Table 3.** Cross Loading Value

	X <sub>1</sub>	X <sub>2</sub>	Y	Z	ZX <sub>1</sub>	ZX <sub>2</sub>
DIG1	<b>0,757</b>	0,453	0,449	0,307	0,159	0,132
DIG2	<b>0,732</b>	0,416	0,445	0,412	0,042	0,008
DIG3	<b>0,736</b>	0,507	0,483	0,316	0,132	0,006
DIG4	<b>0,742</b>	0,475	0,457	0,434	0,071	0,112
DIG5	<b>0,735</b>	0,472	0,476	0,412	0,084	0,078
KES1	0,537	<b>0,818</b>	0,569	0,408	0,128	0,122
KES2	0,507	<b>0,773</b>	0,463	0,245	0,061	0,041
KES3	0,537	<b>0,845</b>	0,588	0,432	0,060	0,003
KES4	0,482	<b>0,765</b>	0,468	0,221	0,086	0,044
KES5	0,448	<b>0,799</b>	0,504	0,329	0,050	0,009
KWP1	0,455	0,451	<b>0,842</b>	0,564	0,113	-0,069
KWP2	0,570	0,595	<b>0,867</b>	0,547	0,294	0,075
KWP3	0,626	0,630	<b>0,901</b>	0,598	0,209	-0,045
KWP4	0,464	0,557	<b>0,846</b>	0,585	0,202	0,032
KWP5	0,558	0,556	<b>0,845</b>	0,544	0,244	0,005

	X <sub>1</sub>	X <sub>2</sub>	Y	Z	ZX <sub>1</sub>	ZX <sub>2</sub>
SOS1	0,463	0,374	0,549	<b>0,823</b>	0,392	0,307
SOS2	0,448	0,377	0,596	<b>0,857</b>	0,232	0,118
SOS3	0,501	0,431	0,655	<b>0,887</b>	0,271	0,148
SOS4	0,321	0,218	0,438	<b>0,808</b>	0,255	0,141
SOS5	0,343	0,297	0,466	<b>0,789</b>	0,391	0,289
ZX1	0,132	0,097	0,249	0,364	<b>1,000</b>	0,643
ZX2	0,090	0,056	0,000	0,235	0,643	<b>1,000</b>

Source: Processed primary data, 2023

The reliability test results in [Table 4](#) show that the composite reliability value and Cronbach's alpha value for each variable are above 0.7, so it can be concluded that all variables are reliable.

**Table 4.** Cronbach's Alpha dan Composite Reliability Value

Indicator	Cronbach's Alpha	Composite Reliability	Term.	Desc.
Digitalization of Taxation (X <sub>1</sub> )	0,794	0,859	>0,7	Reliable
Taxpayer Awareness (X <sub>2</sub> )	0,912	0,934	>0,7	Reliable
Taxpayer Compliance (Y)	0,860	0,899	>0,7	Reliable
Tax Socialization (Z)	0,891	0,919	>0,7	Reliable

Source: Processed primary data, 2023

Based on [Table 5](#), the Adjusted R-Square value on the dependent variable on individual taxpayer compliance has a value of 0.653 so the model is moderate.

**Table 5.** R-Square Result

	R Square	Adjusted R Square
Taxpayer Compliance (Y)	0,670	0,653

Source: Processed primary data, 2023

[Table 6](#) shows hypothesis testing using the bootstrapping method, it can be seen that 3 hypotheses have positive original sample values, but the last hypothesis has a negative value. The t-statistic value is >1.65 and the p-value is <0.1, which means that all hypotheses are significant and acceptable.

**Table 6.** Path Coefficient (Bootstrapping) Result

	Original Sample (O)	T Statistics	P Values
X <sub>1</sub> → Y	0,194	2,065	0,039
X <sub>2</sub> → Y	0,359	3,733	0,000
ZX <sub>1</sub> → Y	0,223	2,215	0,027
ZX <sub>2</sub> → Y	-0,256	2,861	0,004

Source: Processed primary data, 2023

Based on the coefficient value of the tax digitalization variable on taxpayer compliance of 0.194, it can be interpreted that there is a positive influence between tax digitalization on taxpayer compliance. In addition, it can be seen that the T-statistic is > 1.65, namely 2.065 and the P-value is 0.039 or <0.1, this indicates that the tax digitalization variable is significant to taxpayer compliance. Based on this analysis, it can be concluded that H<sub>1</sub> is accepted, which means that tax digitalization has a positive and significant effect on taxpayer compliance. Tax

digitalization can provide convenience in registration, payment, and tax reporting. This statement is in line with the Technology Acceptance Model theory which states that the high and low use of a system is influenced by the usefulness and convenience of the system for users. Slippery Slope Framework Theory is also closely related to the results of this study because voluntary compliance is based on trust in tax authorities in carrying out tax reform through tax digitalization. This result is in line with the research conclusions expressed by [15] and [19].

The taxpayer awareness variable on taxpayer compliance has a path coefficient value of 0.359, which means that there is a positive influence between taxpayer awareness on taxpayer compliance. In addition, it can be seen that the T-statistic is  $> 1.65$ , namely 3.733 and the P-value is 0.000 or  $< 0.1$ , this indicates that the tax digitalization variable is significant to taxpayer compliance. Based on this analysis, it can be concluded that  $H_2$  is accepted, which means that taxpayer awareness has a positive and significant effect on taxpayer compliance. Slippery Slope Framework Theory explains that the implementation of a tax system that is transparent, responsible, and accountable in managing the results of tax collection will create increased taxpayer trust in tax authorities, thereby increasing taxpayer awareness to pay taxes voluntarily. The results of this study are supported by other studies [8] and [20].

The interaction effect of the tax digitalization variable with the tax socialization variable ( $ZX_1$ ) on taxpayer compliance gets a coefficient of 0.223 and a T-statistic value of 2.215  $> 1.65$  and a P-value of 0.027  $< 0.1$ . So  $H_3$  is accepted, which means that the tax socialization variable as a moderating variable can strengthen the effect of tax digitalization on the level of taxpayer compliance. This is related to the Slippery Slope Framework Theory, based on taxpayer confidence in the information conveyed in tax socialization related to tax digitalization can provide a useful understanding of carrying out tax obligations using a system that is sometimes considered very complicated. The results of this research are similar to the conclusions of [17] and [11].

The interaction effect of the taxpayer awareness variable with the tax socialization variable ( $ZX_2$ ) on taxpayer compliance gets a coefficient of -0.256 and a T-statistic value of 2.861  $> 1.65$  and a P-value of 0.004  $< 0.1$ . This means that the tax socialization variable as a moderating variable weakens the effect of taxpayer awareness on the level of taxpayer compliance. This result is related to the Slippery Slope Framework Theory with a negative direction, which means that in the tax socialization program, several understandings are difficult to understand for taxpayers to reduce trust in tax authorities which then impacts taxpayer compliance. The results of this study are supported by research conducted by [21].

#### **4. Conclusion**

Referring to the results of the discussion, it is concluded that tax digitalization and taxpayer awareness have a positive and significant effect on taxpayer compliance. Tax socialization can strengthen the influence of tax digitalization on taxpayer compliance. Tax socialization can moderate the effect of taxpayer awareness on taxpayer compliance with a weakening nature. This study only discusses taxpayer compliance which is influenced by tax digitalization and taxpayer awareness and tax socialization as a moderating variable. Future research is expected to test taxpayer compliance using other variables to get more varied results such as economic factor, demographic factor, and cultural and social factor.

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#### **References**

- [1] Rustandi and E. Erfiansyah, "Pengaruh Penerapan Sistem E-Filling Terhadap Kepatuhan Wajib Pajak dengan Pemahaman Internet sebagai Variabel Pemoderasi pada KPP Pratama Garut," *Jurnal Ilmiah MEA*, vol. 5, no. 3, pp. 2118–2130, 2021, doi: <https://doi.org/10.31955/mea.v5i3.1678>.

- [2] Warjito and S. D. Mulyani, “Pengaruh Kesadaran Pajak, Sosialisasi Pajak Terhadap Tingkat Kepatuhan Wajib Pajak dengan Sanksi Perpajakan sebagai Variabel Moderating,” *Forum Keuangan dan Bisnis (FKBI)*, vol. 7, pp. 135–145, 2019.
- [3] M. A. Afifi and E. Maria, “Pengaruh Penerapan Sistem E-Filing Terhadap Tingkat Kepatuhan Wajib Pajak dengan Pemahaman Internet sebagai Variabel Pemoderasi,” *Jurnal Manajemen Dirgantara*, vol. 14, no. 1, pp. 48–56, 2021, [Online]. Available: [www.pajak.go.id](http://www.pajak.go.id)
- [4] T. Y. Lestari, U. Khasanah, and C. Kuntadi, “Literature Review Pengaruh Pengetahuan, Modernisasi Sistem Administrasi dan Sosialisasi Perpajakan Terhadap Kepatuhan Wajib Pajak Orang Pribadi,” *Jurnal Manajemen Pendidikan dan Ilmu Sosial*, vol. 3, no. 2, pp. 670–681, 2022, doi: <https://doi.org/10.38035/jmpis.v3i2>.
- [5] S. Tambun and N. A. Ananda, “Pengaruh Kewajiban Moral dan Digitalisasi Layanan Pajak Terhadap Kepatuhan Wajib Pajak dengan Nasionalisme sebagai Pemoderasi,” *Owner*, vol. 6, no. 3, pp. 3158–3168, Jul. 2022, doi: [10.33395/owner.v6i3.999](https://doi.org/10.33395/owner.v6i3.999).
- [6] H. Sulistyono and R. Mappanyukki, “The Effect of Tax Morals and The Digitalized Tax System on Tax Compliance with Trust in The Government as A Moderating Variable,” *Dinasti International Journal of Digital Business Management*, vol. 4, no. 2, pp. 202–218, 2023, doi: [10.31933/dijdbm.v4i2](https://doi.org/10.31933/dijdbm.v4i2).
- [7] S. B. Arifin, A. Aprillia, and R. F. Rambe, “Determinasi Kepatuhan Wajib Pajak dengan Pemahaman Internet sebagai Variabel Moderating di KPP Pratama Medan Polonia,” *Remik: Riset dan E-Jurnal Manajemen Informatika Komputer*, vol. 7, no. 1, pp. 270–280, 2023, doi: [10.33395/remik.v7i1.11977](https://doi.org/10.33395/remik.v7i1.11977).
- [8] N. M. M. Indrayani, I. N. K. A. Mahaputra, and I. M. Sudiartana, “Pengaruh Kesadaran Wajib Pajak, Sosialisasi Perpajakan, Sanksi Perpajakan, dan Pelayanan Fiskus Terhadap Kepatuhan Wajib Pajak,” *Jurnal Kharisma*, vol. 4, no. 2, pp. 115–125, 2022.
- [9] I. G. A. P. Yoga and T. I. A. L. A. Dewi, “Pengaruh E-Filing, Sosialisasi, Kesadaran Wajib Pajak, dan Sanksi Perpajakan Terhadap Kepatuhan Wajib Pajak Orang Pribadi,” *Jurnal Krisna: Kumpulan Riset Akuntansi*, vol. 14, no. 1, pp. 140–150, 2021, doi: <https://doi.org/10.22225/kr.14.1.2022.140-150>.
- [10] M. Octaviani and R. Arfamaini, “Pengaruh Pemahaman Wajib Pajak, Kesadaran Wajib Pajak, Pelayanan Perpajakan dan Sanksi Perpajakan Terhadap Kepatuhan Wajib Pajak Penghasilan Pasal 21 (Orang Pribadi) di KPP Pratama Surabaya,” *EcoSocio: Jurnal Ilmu dan Pendidikan Ekonomi-Sosial*, vol. 5, no. 2, pp. 112–125, 2021, doi: <https://doi.org/10.31597/ecs.v5i2.714>.
- [11] J. Kesaulya, S. Pesireron, M. F. Situmeang, and A. Nusi, “Pengaruh Penerapan E-Filling System dan Pengetahuan Pajak Terhadap Tingkat Kepatuhan Wajib Pajak dengan Sosialisasi Perpajakan sebagai Pemoderasi (Study Empiris Pada UMKM Kota Ambon),” *Jurnal Maneksi*, vol. 11, no. 2, pp. 342–351, 2022, doi: <https://doi.org/10.31959/jm.v11i2.914>.
- [12] R. A. Sulbahri and G. S. M. Kusuma, “Pengaruh Penerapan E-Filling dan Sanksi Perpajakan Terhadap Kepatuhan Wajib Pajak Orang Pribadi dengan Sosialisasi Perpajakan sebagai Variabel Moderasi,” *Jurnal Kompetitif*, vol. 11, no. 2, pp. 14–24, 2022, doi: <https://doi.org/10.52333/2Fkompetitif.v11i2.971>.
- [13] D. A. S. Hartinah, A. Kusumawati, and S. Rasyid, “Analisis Kepatuhan Wajib Pajak Orang Pribadi: Sosialisasi Pajak sebagai Variabel Moderasi,” *Owner Riset & Jurnal Akuntansi*, vol. 7, no. 1, pp. 195–218, Jan. 2023, doi: [10.33395/owner.v7i1.1262](https://doi.org/10.33395/owner.v7i1.1262).
- [14] A. Afrida and G. S. M. Kusuma, “Pengaruh Pemahaman dan Kesadaran Terhadap Kepatuhan Wajib Pajak Orang Pribadi dengan Sosialisasi Perpajakan sebagai Variabel Moderasi,” *Balance: Jurnal Akuntansi dan Bisnis*, vol. 7, no. 1, pp. 1–10, 2022, doi: <https://doi.org/10.32502/jab.v7i1.4564>.
- [15] S. Tambun and R. R. Resti, “Dampak Tax Planning dan Digitalisasi Layanan Pajak Terhadap Kepatuhan Wajib Pajak Dimoderasi oleh Nasionalisme,” *Owner*, vol. 6, no. 3, pp. 3015–3026, Jul. 2022, doi: [10.33395/owner.v6i3.909](https://doi.org/10.33395/owner.v6i3.909).
- [16] N. Q. Aini and N. Nurhayati, “Pengaruh Kebijakan Insentif Pajak Penghasilan Bagi UMKM dan Digitalisasi Pajak Terhadap Kepatuhan Wajib Pajak,” *Bandung Conference Series: Accountancy*, vol. 2, no. 1, pp. 341–346, 2022, doi: [10.29313/bcsa.v2i1.1581](https://doi.org/10.29313/bcsa.v2i1.1581).

- [17] M. F. Situmeang and S. Pesireron, “E-Filling System Terhadap Tingkat Kepatuhan Wajib Pajak Orang Pribadi dalam Peran Sosialisasi Perpajakan sebagai Pemoderasi,” *Simposium Nasional Akuntansi Vokasi (SNAV)*, pp. 94–102, 2021.
- [18] A. Suriambawa and P. Ery Setiawan, “Sosialisasi Perpajakan Memoderasi Pengaruh Kesadaran Wajib Pajak dan Sanksi Perpajakan pada Kepatuhan WPOP,” *E-Jurnal Akuntansi*, vol. 25, p. 2185, Dec. 2018, doi: 10.24843/EJA.2018.v25.i03.p21.
- [19] R. J. Putra, Herlina, R. D. A. Puspa, and I. Octavia, “Faktor-Faktor yang Mempengaruhi Kepatuhan Wajib Pajak Pelaku E-Commerce di Indonesia,” *Januari*, vol. 12, no. 1, 2023, doi: <https://doi.org/10.36418/gemaekonomi.v12i1.2556>.
- [20] D. A. Setiawan, A. L. Diana, and M. Yusuf, “Analisis Pengaruh Perpajakan Online, dan Kesadaran Wajib Pajak Terhadap Kepatuhan Wajib Pajak (Studi Kasus pada KPP Pratama Cabang Pulogadung),” *Jurnal Ekonomi, Manajemen, Bisnis dan Akuntansi*, vol. 2, no. 1, pp. 225–244, 2023.
- [21] R. W. R. Endang Kristiawati, “Sosialisasi Memoderasi Kepatuhan Wajib Pajak UMKM,” *Research Journal of Accounting and Business Management*, vol. 4, no. 2, p. 97, Dec. 2020, doi: 10.31293/rjabm.v4i2.4914.

## **Analysis of *LKjIP* performance measurement with the value for money concept at Bappeda Bali Province**

**Ni Made Ari Dwi Anggraeni<sup>1✉</sup>, I Dewa Made Mahayana<sup>2</sup> & Paulus Subiyanto<sup>3</sup>**

<sup>1,2,3</sup> Accounting Department, Politeknik Negeri Bali, Indonesia

✉ Address correspondence: Jalan Kampus Bukit Jimbaran, Kuta Selatan, Badung, Bali-80364

E-mail: madeari1101@gmail.com

### **ABSTRACT**

This study aims to measure the performance of *Laporan Kinerja Instansi Pemerintah (LKjIP)* with the concept of value for money at the Regional Development Planning Agency (*Bappeda*) of Bali Province. Performance measurement in the public sector is important to determine accountability and can improve the quality of public services. Government agencies that have carried out performance measurement need to report it in the form of *LKjIP*. To ensure that the performance achievements in *LKjIP* are correct, it is necessary to re-measure performance using the concept of value for money. Value for money is useful for checking whether the performance of the Bali Province *Bappeda LKjIP* in 2021 and 2022 has fulfilled the principles of economically, efficiently, and effectively. This research uses a qualitative method. Data collection was carried out by unstructured interviews and documentation in the form of *LKjIP* in 2021 and 2022. The analysis technique used is descriptive analysis technique by conducting a process of data collection, data reduction, data presentation, and conclusion drawing. The results showed that the performance of the *Bappeda* Bali Province *LKjIP* in 2021 and 2022 in terms of economy was categorized as economical, in terms of efficiency it was categorized as efficient, and in terms of effectiveness it was categorized as effective. This research is expected to provide a consideration for the government to pay more attention to performance in terms of economy, efficiency, and effectiveness. This is intended in achieving *LKjIP* performance not only in terms of the main performance indicators.

**Keywords:** performance measurement, value for money, economy, efficiency, effectiveness

### **1. Introduction**

Public sector organizations can be interpreted as entities that are active in providing services to the community and play a role in carrying out state duties in accordance with the provisions of the state constitution. At this time, public sector organizations are often considered as inefficient institutions, tend to be wasteful in using the budget, are prone to leakage of funds, and often experience losses in carrying out their activities [1]. The negative image attached to most public services in Indonesia requires the public to be smarter and think critically about government performance, especially in terms of public accountability carried out by public sector organizations.

Accountability in government agencies is not only limited to the ability to demonstrate the use of the source of funds obtained, but also includes the obligation for government agencies to prove that the use of these funds is in accordance with applicable regulations and the previously established budget [2]. The budget used by the government in carrying out its activities comes from the public. Therefore, the use of the budget needs to be accounted for to the public by publishing information about the allocation of funds and the performance achievements achieved. This is in accordance with Government Regulation No. 8 of 2006 concerning Financial and Performance Reporting of Government Agencies, as well as Minister of PAN Regulation No. 53 of 2014, in which all government agencies need to measure

performance and prepare *Laporan Kinerja Instansi Pemerintah (LKjIP)* as a manifestation of accountability for the implementation of their duties and functions in creating good governance.

The Regional Development Planning Agency (*Bappeda*) of Bali Province has responsibility for planning, coordinating and organizing, evaluating, and being responsible for technical policies in the implementation of regional development planning. *Bappeda* Bali Province is one of the government agencies that has made and reported its performance in the form of *LKjIP*. The performance achievements in the *LKjIP* that have been made by *Bappeda* Bali Province show good results, namely 96.20% in 2021 and 95.25% in 2022. It can be seen that the percentage of performance achievement in 2022 is smaller than 2021, but when viewed in terms of budget realization, it shows the opposite. Where the realization in 2021 is lower when compared to 2022. The following is a table of *Bappeda*'s budget realization for 2021 and 2022:

**Table 1.** Budget Realization in 2021-2022

Year	Budget (Rp)	Realization (Rp)	Difference (Rp)
2021	23,587,842,782.00	21,097,704,767.00	2,490,138,015.00
2022	22,141,607,206.00	20,561,853,899.12	1,579,753,306.88

Source: LKjIP Bappeda Bali Province Year 2022

Based on [Table 1](#), the budget realization of *Bappeda* Bali Province in 2021 and 2022 has not yet reached the set budget target. In 2021, the budget realization has not reached the set target due to Covid-19 which has caused budget refocusing and delays in implementing several activities/sub-activities. This budget refocusing will certainly greatly affect the regional development targets that have been set and also several other aspects namely, aspects of public welfare, public services, macroeconomic framework, and regional financial policies. The budget allocated to programs/activities should have made a positive contribution to the goals and objectives set. Because some activities cannot be carried out and the realized budget has not reached the budget target, it will have an impact on the achievement of organizational performance. Therefore, to further ensure that the results of performance measurement in *LKjIP* are correct, *Bappeda* performance needs to be measured again with another performance measurement system. Performance measurement used in the public sector is the concept of value for money.

Value for money has the meaning of a price for the value of money, which means that every rupiah must be used properly and valued properly [\[3\]](#). The concept of value for money has three main elements, namely economy, efficiency, and effectiveness. In measuring performance using value for money, it is necessary to consider three sides simultaneously namely, in terms of input, output, and outcome [\[4\]](#). The concept of value for money can provide information to the public about the budget that has been spent by government agencies, whether the budget has provided a benefit to the community or not. So that in its implementation, this concept is useful in evaluating the performance of a government agency starting from the planning stage to the budget realization stage [\[5\]](#).

Research on the analysis of performance measurement of public sector agencies using the basis of the concept of value for money has been carried out by several researchers by producing findings that vary in each agency. Financial performance at the Tembokrejo Village Office, Gumukmas District, Jember Regency if assessed in terms of economy shows uneconomical results, assessed in terms of efficiency shows balanced efficient results, and if assessed in terms of effectiveness shows effective results [\[6\]](#). Meanwhile, the performance of the Sidoarjo Regency Regional Government Agency, when assessed from an economy perspective, shows economical results, when assessed in terms of efficiency, it shows efficient results, and when assessed in terms of effectiveness, there are three indicators of effective results and one indicator that is included in the balanced effective criteria [\[5\]](#). In addition, the

financial performance of the Kediri District Development Planning Agency for the 2017-2021 period when assessed from the economy, efficiency and effectiveness ratios is in accordance with the value for money criteria [7].

Based on the explanation above, it is necessary to conduct research with the title "Analysis of *LKjIP* Performance Measurement with the Value for Money Concept at Bappeda Bali Province". With the aim of this study is to determine the performance of *LKjIP Bappeda* Bali Province in 2021 and 2022 when viewed in terms of economy, efficiency, and effectiveness.

### **Public Sector Organization**

Public sector organizations are organizations that are financed through taxes or other state revenues that have been regulated by law, in carrying out the provision of goods or services related to the public interest [8]. So public sector organizations are not profit-oriented but oriented towards the public interest [9]. Some of the characteristics that must be met so that an organization can be called a public sector organization include: (a) The organization is responsible for providing public goods and services; (b) The organization is related to the implementation of state activities or has cooperation with the government; (c) The organization belongs to the public/state and not to individuals or groups [3].

### **Performance and Performance Measurement**

Performance is a representative of the level of success in carrying out activities, plans, or policies to achieve the goals, objectives, vision and mission of the organization in an organization's strategic planning [8]. The term performance is often used to refer to the level of achievement or success of a person or group of people [10]. When a person or group of people has determined the criteria for success, then that person or group of people can measure their performance. Performance measurement is the process of evaluating the achievement of the implementation of an organization's activities based on goals and objectives as well as predetermined standards and criteria [11]. Performance measurement is a management tool used to assess the success of an organization [12]. The purpose of performance measurement is to improve government performance so that it is focused on the objectives set so as to increase the efficiency and effectiveness of the performance of public institutions in providing services to the community [13].

### **Government Agency Performance Report (*LKjIP*)**

*LKjIP* is a form of accountability of government agencies related to the implementation of tasks and functions that have been entrusted with the use of the budget [14]. A quality *LKjIP* must fulfill the principles of a good report, namely: relevant, accuracy and reliability, comparability, variability, timeliness, understandability, the principle of the scope of responsibility, the principle of priority, the principle of benefit, and following the reporting standards set in accordance with statutory regulations. The contents of *LKjIP*, namely: (a) general explanation of the organization, (b) planning and summary of the performance agreement in the year concerned, (c) organizational performance achievements in accordance with the results of organizational performance measurement, (d) budget realization in the year concerned in accordance with the amount stated in the performance agreement document, (e) conclusions on organizational performance achievements and actions to be taken by the organization to improve its performance [15].

### **Value for Money**

Value for Money means respect for the value of money, which means that every rupiah should be well spent and properly valued. Value for Money plays a role in helping to improve the quality of public services in the right way and in accordance with the target, thus enabling the creation of good quality services using efficient and economical resources. Value for Money is based on three main elements [3] namely:

Economy, Economy in this context refers to the notion of austerity, which includes prudence and accuracy in the management of resource allocation, as well as the acquisition of inputs of a certain quality and quantity at the lowest price. Economy is the comparison between input

and input value expressed in units of currency. The level of economy can be calculated using the following formula [3]:

$$\text{Economy} = \frac{\text{input}}{\text{input value}} \times 100\% \dots\dots\dots (1)$$

The input in economy measurement is budget realization, while the input value in economy measurement is the budget target. In economy measurement, public sector performance can be classified based on the following criteria [8]:

- If the ratio value < 100% meaning economical
- If the ratio value = 100% meaning balanced economical
- If the ratio value > 100% meaning uneconomical

Efficiency, Efficiency is closely related to the concept of productivity which means efficient use of resources by minimizing the use of resources and maximizing the results. Efficiency is a comparison between output and input (cost of output) used with regard to performance standards or targets that have been set previously. The level of efficiency can be calculated with the following formula [3]:

$$\text{Efficiency} = \frac{\text{Output}}{\text{Input}} \times 100\% \dots\dots\dots (2)$$

Output can be interpreted as the final result of program or policy implementation. In measuring efficiency, the output is the percentage of physical realization, while the input used is the percentage of financial realization. In measuring efficiency, public sector performance can be classified based on the following criteria [8]:

- If the ratio value < 100% meaning inefficient
- If the ratio value = 100% meaning balanced efficient
- If the ratio value > 100% meaning efficient

Effectiveness, Effectiveness is related to achieving the goals and objectives of the target activities. An organization program or activity is considered effective if the activity process can meet the final policy goals or objectives. An organization is said to have run effectively if the organization has successfully achieved its goals. Effectiveness can be formulated as follows [3]:

$$\text{Effectiveness} = \frac{\text{Outcome}}{\text{Output}} \times 100\% \dots\dots\dots (3)$$

The outcome used to measure effectiveness is the performance achievement of each program activity of *Bappeda* Bali Province, while the output is the performance target. In measuring effectiveness, public sector performance can be classified based on the following criteria [8]:

- If the ratio value < 100% meaning ineffective
- If the ratio value = 100% meaning balanced effective
- If the ratio value > 100% meaning effective

## 2. Method

This research uses a qualitative method with a descriptive approach. The qualitative descriptive method is a description based on the results of interviews, and documentation that relies on measuring the performance of *Bappeda* when viewed using the concept of value for money. In this study using two types of data, namely quantitative data and qualitative data. The quantitative data used in this research is the *LKjIP* of *Bappeda* Bali Province in 2021 and 2022. Meanwhile, the qualitative data used are the results of unstructured interviews with the Sub-Coordinator Section of the Substance Unit for Program Preparation, Evaluation, and Reporting. The section was chosen as an informant because it has the duties and responsibilities in preparing *LKjIP*.

The place of this research is at *Bappeda* of Bali Province with a research time of six months starting from February 2023 to July 2023. *Bappeda* Bali Province was chosen because this agency has responsibility for development in the Bali area and every fiscal year this agency must make and report its performance in the form of *LKjIP*.

The analysis technique in the research is descriptive qualitative to describe in detail how the Bali Province Bappeda implements existing programs and activities and analyze whether the performance of the Bali Province *Bappeda LKjIP* program has met the requirements of Value for Money. The stages of data analysis begin with the process of data collection, data reduction, data presentation, and conclusion drawing.

### 3. Results and Discussion

#### Economy Ratio Analysis

**Table 2.** Economy Measurement of *LKjIP Bappeda* Bali Province in 2021

No	Program	Realization	Budget	Ratio Value (%)	Criteria
1	<i>Program Penunjang Urusan Pemerintah Daerah Provinsi</i>	14,269,812,376	16,068,159,591	88.81	Economical
2	<i>Program Perencanaan, Pengendalian dan Evaluasi Pembangunan Daerah</i>	4,961,100,799	5,376,936,354	92.27	Economical
3	<i>Program Koordinasi dan Sinkronisasi Perencanaan Pembangunan Daerah</i>	1,866,791,592	2,142,746,837	87.12	Economical
Average Economy Ratio				89.40	Economical

Source: Secondary data processed, 2023

**Table 3.** Economy Measurement of *LKjIP Bappeda* Bali Province in 2022

No	Program	Realization	Budget	Ratio Value (%)	Criteria
1	<i>Program Penunjang Urusan Pemerintah Daerah Provinsi</i>	16,097,575,611	17,152,664,247	93.85	Economical
2	<i>Program Perencanaan, Pengendalian dan Evaluasi Pembangunan Daerah</i>	2,696,217,764	2,978,680,162	90.52	Economical
3	<i>Program Koordinasi dan Sinkronisasi Perencanaan Pembangunan Daerah</i>	1,768,060,524	2,010,262,797	87.95	Economical
Average Economy Ratio				90.77	Economical

Source: Secondary data processed, 2023

Based on [Table 2](#) and [Table 3](#), the average economy ratio using the concept of value for money in 2021 is 89.40% and in 2022 it is 90.77%, indicating that all programs contained in the *LKjIP* of *Bappeda* Bali Province are considered economical because the ratio value is less than 100%. This means that in 2021 and 2022 the budget realization is smaller than the budget target. In this case, *Bappeda* Bali Province will be able to implement programs/activities with a lower realization value or by reducing unnecessary costs without having to change the previously set quality standards. Although the budget is not fully absorbed, the quality standards are still achieved and each program can be realized in accordance with the goals and objectives of the organization and can improve the quality of development planning in Bali with the realization of a more economical budget. So, the performance of the *LKjIP Bappeda* Bali Province in 2021 and 2022 is considered economical.

## Efficiency Ratio Analysis

**Table 4.** Efficiency Measurement of *LKjIP Bappeda* Bali Province in 2021

No	Program	% Physical Realization	% Financial Realization	Ratio Value (%)	Criteria
1	<i>Program Penunjang Urusan Pemerintah Daerah Provinsi</i>	98.56	88.81	110.98	Efficient
2	<i>Program Perencanaan, Pengendalian dan Evaluasi Pembangunan Daerah</i>	80.97	92.27	87.75	Inefficient
3	<i>Program Koordinasi dan Sinkronisasi Perencanaan Pembangunan Daerah</i>	95.47	87.12	109.58	Efficient
Average Efficiency Ratio				102.77	Efficient

Source: Secondary data processed, 2023

Based on [Table 4](#), the results of the calculation of the efficiency ratio in 2021 show that of the three programs contained in *LKJIP*, two programs are declared efficient because they have a percentage ratio value exceeding 100%. The programs are *Program Penunjang Urusan Pemerintah Daerah* with a value of 110.98%, and *Program Koordinasi dan Sinkronisasi Perencanaan Pembangunan Daerah* of 109.58%. These two programs are able to produce maximum output by using the minimum input possible. Meanwhile, *Program Perencanaan, Pengendalian, dan Evaluasi Pembangunan Daerah* is considered inefficient because it has a ratio value of less than 100%, which is 87.75%. This is because *Penyusunan Perencanaan dan Pendanaan* Activities targeted to produce 8 documents but only realized as many as 7 documents due to the implementation of regional *Musrenbang* carried out hybrid through zoom due to Covid-19 conditions. In addition, the implementation of *Kegiatan Forum Konsultasi Publik* took place briefly so that only 2 documents were produced. Although there is one inefficient program, the average value of the efficiency ratio in 2021 is 102.77%. Because the percentage of the ratio value is more than 100%, in 2021 the overall performance of the Bali Province *Bappeda LKjIP* can be said to be efficient.

**Table 5.** Efficiency Measurement of *LKjIP Bappeda* Bali Province in 2022

No	Program	% Physical Realization	% Financial Realization	Ratio Value (%)	Criteria
1	<i>Program Penunjang Urusan Pemerintah Daerah Provinsi</i>	98.47	93.85	104.92	Efficient
2	<i>Program Perencanaan, Pengendalian dan Evaluasi Pembangunan Daerah</i>	96.57	90.52	106.69	Efficient
3	<i>Program Koordinasi dan Sinkronisasi Perencanaan Pembangunan Daerah</i>	98.40	87.95	111.88	Efficient
Average Efficiency Ratio				107.83	Efficient

Source: Secondary data processed, 2023

Based on [Table 5](#), all programs implemented by *Bappeda* Bali Province in 2022 have met the criteria of efficient with a percentage exceeding 100%. Although the programs implemented have been efficient, there are still several activities whose output levels have not

met the predetermined targets, namely *Administrasi Keuangan Perangkat Daerah Activities* and *Administrasi Umum Perangkat Daerah*. In *Kegiatan Administrasi Keuangan Perangkat Daerah Activities*, the resulting output did not reach 100% due to employee mutations which caused the number of ASN salary and allowance *SPP/SPM* documents to decrease. Then for *Administrasi Umum Perangkat Daerah activities*, the realization of outputs did not reach the target due to the shopping for office equipment and supplies that could not be realized due to the absence of suitable vendors. Although the output targets of the three programs did not reach 100%, the budget absorption has been carried out efficiently. So, it can be said that *Bappeda* Bali Province can use the minimum input possible in achieving a certain level of output. Overall, the *LKjIP* of *Bappeda* Bali Province for 2022 can be said to be efficient with an average efficiency ratio exceeding 100%, namely 107.83%.

#### Effectiveness Ratio Analysis

Based on [Table 6](#), the results of the *LKjIP* calculation using the effectiveness ratio in 2021 show that *Program Penunjang Urusan Pemerintah Daerah* and *Program Koordinasi dan Sinkronisasi Perencanaan Pembangunan Daerah* are considered effective because the ratio value exceeds 100%. Both programs have shown performance achievements that exceed the set targets. Meanwhile, *Program Perencanaan, Pengendalian, dan Evaluasi Pembangunan Daerah* is considered ineffective because the ratio value is less than 100%, namely 87.75%. The achievement of this program has not reached the set target due to budget refocusing after handling Covid-19. The *Musrenbang* Sub-Activity was originally targeted to carry out face-to-face *Musrenbang*, but its implementation was carried out hybrid through zoom so that the results achieved from these activities were not optimal. In addition, in 2021 there was a change in the budget ceiling due to an adjustment in the description of expenditure due to an increase in *UMK/R* and *BPJS* rates, as well as other funding needs. Even though there is one program that has not been effective, when assessed as a whole, the performance of the *LKjIP Bappeda* Bali Province in 2021 can be said to be effective with an average effectiveness ratio exceeding 100%, namely 110.89%.

**Table 6.** Effectiveness Measurement of *LKjIP Bappeda* Bali Province in 2021

No	Program	%Performance Achievement	%Performance Target	Ratio Value (%)	Criteria
1	<i>Program Penunjang Urusan Pemerintah Daerah Provinsi</i>	110.98	82	135.34	Effective
2	<i>Program Perencanaan, Pengendalian dan Evaluasi Pembangunan Daerah</i>	87.75	100	87.75	Ineffective
3	<i>Program Koordinasi dan Sinkronisasi Perencanaan Pembangunan Daerah</i>	109.58	100	109.58	Effective
Average Effectiveness Ratio				110.89	Effective

Source: Secondary data processed, 2023

**Table 7.** Effectiveness Measurement of *LKjIP Bappeda* Bali Province in 2022

No	Program	%Performance Achievement	%Performance Target	Ratio Value (%)	Criteria
1	<i>Program Penunjang Urusan Pemerintah Daerah Provinsi</i>	104.92	82	127.95	Effective
2	<i>Program Perencanaan, Pengendalian dan</i>	106.69	100	106.69	Effective

No	Program	%Performance Achievement	%Performance Target	Ratio Value (%)	Criteria
<i>Evaluasi Pembangunan Daerah</i>					
3	<i>Program Koordinasi dan Sinkronisasi Perencanaan Pembangunan Daerah</i>	111.88	100	111.88	Effective
Average Effectiveness Ratio				115.51	Effective

Source: Secondary data processed, 2023

Based on [Table 7](#), each program implemented by *Bappeda* Bali Province in 2022 has met the effective criteria with a percentage ratio value that exceeds 100%. This means that the program of activities implemented by the *Bappeda* Bali Province in 2022 can meet the final target of the policy or it is said to be spending wisely. In 2022, *Bappeda* Bali Province only carries out 41 sub-activities while in 2021 it reaches 59 sub-activities. So, in 2022 there were 18 sub-activities that could not be implemented due to budget constraints, and were eliminated in the amendment to the *Rencana Kerja Perangkat Daerah (RKPD)*. Although some sub-activities cannot be implemented, the performance achievements of each program have exceeded the set targets. The average effectiveness ratio also shows results that are considered effective with a value of 115.51%. So overall the *LKjIP* of *Bappeda* Bali Province for 2022 can be said to be effective.

#### 4. Conclusion

Based on the results and discussion previously presented regarding the performance measurement of the *LKjIP Bappeda* Bali Province in 2021 and 2022 using the concept of value for money, it can be concluded as follows:

- 1) *LKjIP* performance of *Bappeda* Bali Province in terms of economy is categorized as economical because the average value of the economy ratio is less than 100%. This shows that *Bappeda* Bali Province is able to manage the budget appropriately and is able to make savings.
- 2) *LKjIP* performance of *Bappeda* Bali Province in terms of efficiency is categorized as efficient. Although in 2021 there is still one activity program that is considered inefficient, in 2022 the program can produce maximum output and is considered efficient. This shows that *Bappeda* Bali Province is able to manage resources well, namely by using the lowest input to produce maximum output.
- 3) *LKjIP* performance of *Bappeda* Bali Province in terms of effectiveness is categorized as effective. Even though in 2021 there was one program that was considered ineffective, overall the program of activities carried out by *Bappeda* Bali Province was able to achieve the ultimate goal of the policy or said to be spending wisely.

This research has tried to develop previous research. However, there are still some research limitations that can affect the research results. The limitations of this study cannot make direct observations to determine the actual achievement of each work program. So that the results of the performance measurement analysis have not described the overall performance of *Bappeda* Bali Province. In order to optimize the research results, interviews were conducted with parties involved in the organization so that they could provide explanatory or supporting information for the *LKjIP* obtained.

In addition to limitations, researchers also provide suggestions that can be used as a consideration or input, namely:

- 1) *Bappeda* Bali Province is expected to maintain and improve its performance for the coming years, so as to increase economic values, efficiency, and effectiveness in each activity program and be able to achieve the expected goals and objectives.

- 2) *Bappeda* Bali Province is expected to pay attention again in the preparation of its planning documents, especially in *Program Perencanaan, Pengendalian dan Evaluasi Pembangunan Daerah*. By looking at the evaluation of previous years, activities that cannot be maximally realized can be readjusted both from the budget and the performance target. So that there is no waste or less than the maximum in the planned program/activity.
- 3) The results of this *LKjIP Bappeda* Bali Province performance measurement research are expected to be used as a measuring tool for organizational performance and also useful as input in decision making for the coming year.
- 4) In addition to limitations, researchers also provide suggestions for future researchers, namely that they can use research objects in other agencies so that they can find out the performance of related agencies and it is hoped that in the next performance measurement in a government agency, they will not only use three concepts of measuring value for money, namely economy, efficiency, and effectiveness, but if necessary, they can add two concepts including keadilan (equity) and kesetaraan (equality) in examining the programs/activities of an agency.

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### References

- [1] V. Y. Pratama, Syamsuddin, and F. Difa, "Analisis Pengukuran Kinerja Berbasis Konsep Value For Money Pada Pemerintah Daerah Kabupaten Pekalongan," *AKUA J. Akunt. dan Keuang.*, vol. 1, no. 2, pp. 149–155, 2022, doi: 10.54259/akua.v1i2.411.
- [2] A. B. Setiawan and W. Gusnita, "Analisis Value for Money pada Laporan Akuntabilitas Kinerja Instansi Pemerintah (Lakip) Balai Penelitian Ternak Ciawi Bogor," *J. Akunida*, vol. 2, no. 2, pp. 14–26, 2016, [Online]. Available: <https://ojs.unida.ac.id/JAKD/article/view/1395>
- [3] Mahmudi, *Manajemen Kinerja Sektor Publik*. Yogyakarta: UPP STIM YKPN, 2015.
- [4] I. B. P. Rumagit, H. Karamoy, and D. Afandi, "Analisis Pengukuran Kinerja Instansi Pemerintah Dengan Menggunakan Konsep Value For Money Pada Dinas Pariwisata Kota," *Going Concern J. Ris. Akunt.*, vol. 17, no. 1, pp. 13–22, 2022, doi: <https://doi.org/10.32400/gc.17.1.40266.2022>.
- [5] I. Harindra and Sapari, "Analisis Pengukuran Kinerja Instansi Pemerintah Daerah dalam Perspektif Value For Money," *J. Ilmu dan Ris. Akunt.*, vol. 8, 2019.
- [6] Y. A. Hadaryen and E. Sugiartono, "Evaluasi Pengukuran Kinerja Pemerintah Desa dengan Menggunakan Konsep Value For Money (Studi Kasus pada Kantor Desa Tembokrejo Kecamatan Gumukmas Kabupaten Jember)," *J. Akunt. Terap. dan Bisnis*, vol. 1, no. 2, pp. 134–140, 2021.
- [7] D. Mawardi, Kuku Harianto, and Mawar Ratih Kusumawardani, "Analisis Kinerja Keuangan Pada Kegiatan Bappeda Kabupaten Kediri Tahun Anggaran 2017-2021 Menggunakan Konsep Value for Money," *J. Penelit. Ekon. Manaj. dan Bisnis*, vol. 1, no. 4, pp. 72–80, Nov. 2022, doi: 10.55606/jekombis.v1i4.611.
- [8] M. Mahsun, *Pengukuran Kinerja Sektor Publik*, 1st ed. Yogyakarta: BPFE Anggota IKAPI, 2016.
- [9] J. Majid, *Akuntansi Sektor Publik*. Sulawesi Selatan: Pusaka Almaila, 2019.
- [10] D. H. Sanjaya and M. P. Priyadi, "Analisis Value for Money Dalam Pengukuran Kinerja Dinas Kesehatan Kota Surabaya," *J. Ilmu dan Ris. Akunt.*, vol. 8, no.12, pp. 1–16, 2019.
- [11] C. S. Maryanti and A. Munandar, "Analisis Value For Money Untuk Mengukur Kinerja Keuangan Pemerintah Daerah Kota Surabaya Tahun Anggaran 2015-2019," *JIMEA | J. Ilm. MEA (Manajemen, Ekon. dan Akuntansi)*, vol. 5, no. 3, pp. 2886–2899, 2021.
- [12] A. Halim and M. S. Kusufi, *Teori, Konsep, dan Aplikasi Akuntansi Sektor Publik*, 2nd ed. Jakarta: Salemba Empat, 2014.
- [13] Mardiasmo, *Akuntansi Sektor Publik*. Yogyakarta: Andi, 2018.

- [14] P. P. Indonesia, Peraturan Pemerintah (PP) Nomor 8 Tahun 2006 tentang Pelaporan Keuangan Dan Kinerja Instansi Pemerintah. Jakarta, 2006. [Online]. Available: <https://peraturan.bpk.go.id/Details/49029/pp-no-8-tahun-2006>
- [15] K. P. A. N. dan R. B. Indonesia, Peraturan Menteri Pendayagunaan Aparatur Negara dan Reformasi Birokrasi Nomor 53 Tahun 2014 tentang Petunjuk Teknis Perjanjian Kinerja, Pelaporan Kinerja dan Tata Cara Reviu atas Laporan Kinerja Instansi Pemerintah. Jakarta, 2014. [Online]. Available: <https://peraturan.bpk.go.id/Details/132771/permen-pan-rb-no-53-tahun-2014>

## **Implementation of *e-Bupot Unifikasi* for income tax article 23 at xyz apartment management agency**

**Aninditha Hafsari Putri<sup>1✉</sup> & Lia Ekowati<sup>2</sup>**

<sup>1,2</sup> Accounting Department, Politeknik Negeri Jakarta, Indonesia

✉ Address correspondence: Jl. Prof. DR. G.A. Siwabessy, Kukusan, Beji, Depok City, West Java 16425

E-mail: [aninditha.hafsariputri.ak19@mhs.wpnj.ac.id](mailto:aninditha.hafsariputri.ak19@mhs.wpnj.ac.id)

### **ABSTRACT**

XYZ Apartment Management Agency, a non-profit organization, relies on collecting Management Fees from Resident Association members to fund the management and maintenance of Strata Title buildings. In the process of managing these properties, the agency avails various services, necessitating the deduction of Income Tax Article 23. This study aims to examine the procedures involved in calculating, paying, and reporting Income Tax Article 23 and the implementation of the *e-Bupot Unifikasi* system at XYZ Apartment Management Agency. Data collected covers the period from April 2022 to April 2023. A descriptive qualitative analysis method was employed, involving data collection from XYZ Apartment Management Agency, followed by an assessment of compliance with relevant tax regulations. This method was chosen because this research wants to describe the conditions that would be observed in the field more specifically, transparently and in depth. The study reveals that the current process of calculating, paying, and reporting Income Tax Article 23, using the *e-Bupot Unifikasi* system at XYZ Apartment Management Agency, does not align with the prevailing tax regulations. This non-compliance impacts in the imposition of administrative sanctions in the form of interest and fines on the XYZ Apartment Management Agency.

Keywords: income tax article 23, calculation, payment, reporting, *e-Bupot*

### **1. Introduction**

#### **Research Background**

Economic growth is the process of transforming a country's economic conditions on an ongoing basis towards significant improvements within a certain period [1]. Taxes are contributions paid by the people who do not receive direct reciprocation to finance state expenditure [2]. Taxes are one of the efforts made by the government to increase the country's economic growth. Taxes have an important role in state revenue and have a large role in economic development carried out by the government. Taxes can be said to be a factor that influences the wheels of government because of the large role tax revenues play in state revenues and economic development [3]. Therefore, the government often reminds us of the importance of active contribution from the entire community in paying taxes so that Indonesia's economic growth and development goals run smoothly.

In this modern digital era, various advances in internet information technology have had a beneficial influence on Indonesian society. The increasingly rapid development of information and communication technology has brought significant changes to various sectors of life, including the government sector. One form of implementing information technology in the government sector is implementing an electronic-based public service system (e-government) [4]. In this digital era, advances in information technology have benefits that are not only utilized by the public, but also by the Directorate General of Taxes (*DJP*) to improve tax services. *DJP* continues to innovate with new ideas to make it easier for taxpayers to fulfill their tax obligations [5].

The Directorate General of Taxes is presenting a new system in taxation by launching a new application called *e-Bupot Unifikasi* which will be implemented nationally starting in 2022. This refers to the Regulation of the Director General of Taxes Number PER-24/PJ/2021 which contains the form and procedure for making evidence unification withholding/collection as well as the form, contents, procedures for filling out and submitting periodic unification income tax returns [6]. The Unification *e-Bupot Unifikasi* can deduct and collect various types of Income Tax, not only Income Tax Article 23 and Article 26. It is feared that the various types of Periodic Income Tax Returns that must be reported by taxpayers may cause difficulties because each SPT has a different format and procedure for filling it out. The benefits of *e-Bupot Unifikasi* for the economy include increased efficiency and transparency in tax administration, which can reduce bureaucracy, enhance tax revenue collection, and enable the government to allocate resources more effectively. Apart from that, this application is also considered to save time because taxpayers who make deductions do not need to come directly to the Tax Service Office (KPP), especially in the current era of the Covid-19 pandemic, so it can reduce the chain of spread of Covid-19 [7]. Thus, it is hoped that *e-Bupot Unifikasi* can be a solution and solution to provide convenience for taxpayers who want to fulfill their tax obligations.

As a compliant taxpayer, the XYZ Apartment Management Agency carries out its responsibilities for tax obligations in accordance with applicable tax regulations. They have the responsibility to calculate, deposit and report income tax in accordance with applicable tax regulations, especially by referring to Article 23 of the Income Tax Law which regulates payment of tax on services. Apart from that, the XYZ Apartment Management Agency must also comply with other tax obligations, such as having a Taxpayer Identification Number (NPWP) by registering at the tax office. Carrying out all of these tax obligations is important so that the XYZ Apartment Management Agency meets the requirements as a compliant taxpayer in accordance with applicable regulations. The difference between this research and the previous one is the difference in the application used. Before the *e-Bupot Unifikasi* was launched, the application used was *e-Bupot 23/26* which could only deduct and collect Income Tax Articles 23 and 26. Therefore, the author wants to know whether the innovation in this new application has a positive impact on its implementation and whether it affects the tax compliance of the XYZ Apartment Management Agency.

### **Problem Formulation**

*e-Bupot Unifikasi* is a digital withholding proof application created by government agencies to replace *e-Bupot* Income Tax Article 23/26. The *e-Bupot Unifikasi* can withhold and collect various types of Income Tax, namely Income Tax Article 4 paragraph (2), Income Tax Article 15, Income Tax Article 22, Income Tax Article 23, and Income Tax Article 26. Thus, the *e-Bupot Unifikasi* is considered to make managing tax reporting easier. As a corporate entity that uses services, the XYZ Apartment Management Agency is included in the category of companies that are required to use *e-Bupot Unifikasi* in the tax reporting process.

Based on the tax regulations in force in Indonesia, every Taxpayer should be obedient in fulfilling their tax obligations, in this case for example by participating in implementing the new rules imposed by the Directorate General of Taxes. Taxpayer compliance in fulfilling their obligations has a very important role in improving community welfare through various sources of tax revenue. A high level of compliance will have a positive impact on increasing government revenue [8].

Since it took full effect in April 2022, DJP received many complaints regarding the *e-Bupot Unifikasi*. Most taxpayers ask when they experience problems in using the *e-Bupot Unifikasi* application, such as a server error when inputting proof of deduction or validation failure [9]. With the role of technology in increasing tax compliance, it raises curiosity to analyze the implementation of *e-Bupot Unifikasi* in preparing and reporting Periodic Income Tax Returns Article 23 and analyzing tax compliance at the XYZ Apartment Management Agency. During the use of the *e-Bupot Unifikasi*, the XYZ Apartment Management Agency

experienced several obstacles, so the author also wants to analyze the obstacles and effectiveness of using the *e-Bupot Unifikasi* at the XYZ Apartment Management Agency.

### **Research Purposes**

Based on the background and research problem formulation previously explained, the aim of this research is to analyze the process of calculating, depositing and reporting Income Tax Article 23, as well as analyzing the application of *e-Bupot Unifikasi* in preparing and reporting Periodic Income Tax Article 23 at the XYZ Apartment Management Agency. The compliance of the XYZ Apartment Management Agency in fulfilling tax obligations is also to be analyzed by the author.

## **2. Method**

### **Type of Research**

This type of research is descriptive qualitative. Descriptive research method is a research approach that aims to describe research results. The focus of descriptive research is to provide an overview, explanation and validation of the phenomenon being studied [10]. In this research, the author will describe and describe in detail the data related to the calculation, deposit and reporting of Income Tax Article 23 at the XYZ Apartment Management Agency. The author also describes primary data and secondary data to provide a clear picture of the implementation of the Unification *e-Bupot* for calculating, depositing and reporting Income Tax Article 23 at the XYZ Apartment Management Agency.

### **Object and Subject of Research**

The object of this research is the implementation of *e-Bupot Unifikasi* in fulfilling taxation related to calculating, depositing and reporting Income Tax Article 23 at the XYZ Apartment Management Agency, while the subject of this research is the XYZ Apartment Management Agency which is a corporate taxpayer subject to Income Tax Article 23.

### **Types and Sources of Research Data**

The data sources used in this research are primary data and secondary data. Primary data is in the form of interviews with the XYZ Apartment Management Agency. Interviews with XYZ Apartment Management Agency tax staff were conducted 4 times within a period of 1.5 months. Meanwhile, secondary data includes sources such as books, journals, laws and regulations, and relevant articles found via the internet. Apart from that, secondary data also includes calculation data for Income Tax Article 23 and attachments to Periodic Income Tax Article 23 from the XYZ Apartment Management Agency which were used in preparing this research.

### **Research Data Collection Method**

In this research, the data collection methods used were interviews and documentation. In this research, the author conducted a structured interview where the author prepared a series of questions to be asked to the tax staff at the XYZ Apartment Management Agency. In this interview, the author wants to explore more about how to use *e-Bupot Unifikasi*, the obstacles when using this application, and the impact of using this application on tax compliance. The author also uses documentation as a form of instrument to collect data related to the implementation of *e-Bupot Unifikasi* in calculating, depositing and reporting Income Tax Article 23 at the XYZ Apartment Management Agency.

### **Data Analysis Method**

The author carried out data analysis by means of data reduction, data presentation, and drawing conclusions. Data reduction involves actions to reduce the amount of existing data by summarizing, selecting what is important, focusing on relevant aspects, finding themes and patterns, and eliminating what is not relevant. In data reduction, the author will summarize the information collected in the form of interviews and documentation conducted with tax staff at the XYZ Apartment Management Agency. Meanwhile, the presentation of data in this research is presented in the form of narratives, charts and tables based on data obtained from sources. The final step is to draw or verify conclusions. In this section, the researcher reveals the findings

based on the data that has been collected. The purpose of this activity is to interpret data by finding relationships, conformity, or discrepancies between the data elements. Data and information from the XYZ Apartment Management Agency that has been reduced and presented will be concluded according to the research objectives and problems, so that the results of the research can be seen [11].

### 3. Results and Discussion

#### General Description of the XYZ Apartment Management Agency

XYZ Apartment is a building consisting of a mall and a residential flat which has been operational or started to be occupied since 2006. XYZ Apartment consists of a mall and a residence which is 36 floors high. The mall is on the podium floor, namely floors 1 to 5, while the residential house consists of 31 floors, namely floors 6 to 36. This residential house is separated into 2 (two) towers, namely tower A which consists of 425 residential housing units and tower B which consists of 424 residential housing units. This residential house itself is Strata Title or each residential house unit is owned by someone.

The operational management of XYZ Apartments is divided into 2 management bodies. The mall is still managed by the developer (XYZ Mall Management Agency), namely PT Centra Lingga Perkasa and for residential house operations (residence) it is managed by the XYZ Apartment Management Agency which was formed by the XYZ Apartment Residents' Association (PPRS). To finance the operations of the XYZ Apartment Management Agency, the funds obtained come from Maintenance Fee or Service Charge and Sinking Fund from each residential housing unit area; Rental of BTS (Base Transceiver Station) premises for cellular operators; Parker vehicle; Rental of videotron space, especially in lifts and lift lobbies and the main lobby; Difference in payments for electricity to PLN and water to PAM Jaya, and Other Income.

The size of the area for residential houses (towers A and B), which is the basis for payment of Maintenance Fee and Sinking Fund by each unit owner, is approximately 82,655 m<sup>2</sup>. The amount of the Maintenance Fee is IDR 21,500/m<sup>2</sup> for residential housing units, while the amount of the Sinking Fund is 10% of the Maintenance Fee amount or IDR 2,500/m<sup>2</sup>. So the total Maintenance Fee and Sinking Fund that must be paid by each owner of a residential housing unit, whether occupied or empty, is IDR 24,000/m<sup>2</sup>.

#### Analysis of the Calculation of Income Tax Article 23 at the XYZ Apartment Management Agency

Table 1 shows the calculation of Income Tax Article 23 at the Apartment Management Agency starts from April 2022 to April 2023, in accordance with the provisions of the applicable laws, namely Article 23 in Law Number 7 of 2021 concerning Harmonization of Tax Regulations. As can be seen in Table 1, because almost all transactions carried out by the XYZ Apartment Management Agency are services, the rate charged for Income Tax Article 23 is 2% (two percent). For example, based on the calculation data for Income Tax Article 23 for April 2023, transactions that are the object of deduction for Income Tax Article 23 are maintenance/repair services, consultant services, maintenance services and security services.

**Table 1.** Tax Calculation Data of XYZ Apartment Management Agency

Month	Gross Income	Rate	Income Tax Article 23 Withheld
1	2	3	4 = 2 x 3
April 2022	Rp160.631.235	2%	Rp3.212.625
May 2022	Rp92.884.713	2%	Rp1.857.694
June 2022	Rp121.342.900	2%	Rp2.426.858
July 2022	Rp235.021.825	2%	Rp4.700.437
August 2022	Rp243.349.850	2%	Rp4.866.997

Month	Gross Income	Rate	Income Tax Article 23 Withheld
September 2022	Rp141.041.200	2%	Rp2.820.824
October 2022	Rp72.079.479	2%	Rp1.441.590
November 2022	Rp297.381.906	2%	Rp5.947.638
December 2022	Rp215.057.402	2%	Rp4.301.148
January 2023	Rp914.020.141	2%	Rp18.280.403
February 2023	Rp170.885.669	2%	Rp3.417.713
March 2023	Rp196.024.169	2%	Rp3.920.483
April 2023	Rp142.367.905	2%	Rp2.847.358

Source: Processed secondary data, 2023

### Analysis of the Payment of Income Tax Article 23 to the XYZ Apartment Management Agency

As can be seen in [Table 2](#), the payment of Income Tax Article 23 to the XYZ Apartment Management Agency starting from April 2022 to April 2023, there are still things that are not in accordance with Law Number 28 of 2007 concerning General Provisions and Tax Procedures. This is because there are several tax periods that are paid or deposited late. Based on the results of the author's interview with the tax staff of the XYZ Apartment Management Agency, it was stated that the late payment or remittance of the tax was caused by the long wait for the signature of approval for the issuance of vouchers for tax payments. Late payment of this tax causes the XYZ Apartment Management Agency to be subject to administrative sanctions in the form of interest of 2% (two percent) of the total tax owed per month calculated from the payment due date until the payment date. These fines or administrative sanctions will later be accumulated in the Tax Bill (*STP*) which will be sent at the end of the year.

Before making a deposit for Income Tax Article 23, the XYZ Apartment Management Agency must first record the Withholding Proof on the *e-Bupot Unifikasi* application. The steps to create proof of deduction are (1) Tax staff log in to the DJP Online account by entering *NPWP* and Password; (2) After successfully logging in, select the Report menu, then Pre Reporting, then Unification *e-Bupot*; (3) Select the Income Tax menu, then select Income Tax Articles 4 (2), 15, 22, 23 and then Record *Bukti Potong* Articles 4 (2), 15, 22, 23; (4) Enter the identity of the taxpayer being withheld/collected (tax year, tax period, *NPWP* number, and name); (5) Fill in the tax object code, gross income amount, rate, and amount of Income Tax withheld/collected; (6) After that, in the Basic Withholding Documents section, click Add then fill in the document name, document number and transaction date; (7) Next, the Tax Withholder's Identity is in the signing section as selecting the Management option, and (8) Finally click Save.

After completing the proof of deduction, the XYZ Apartment Management Agency then carries out the posting process. This posting process aims to send all income tax withholding proof data that has been prepared to be included in the draft Periodic *SPT*. Following are the steps for the posting process: (1) In the *e-Bupot Unifikasi*, select the Income Tax menu then click the Posting section; (2) Fill in the period according to the tax period you want to post; and (3) Click Check and OK.

After making the deduction proof and carrying out the posting process, the XYZ Apartment Management Agency will then deposit Income Tax Article 23. The process for depositing Income Tax Article 23 at the XYZ Apartment Management Agency using the *e-Bupot Unifikasi* is as follows: (1) Tax staff will create an electronic billing code via the *e-Bupot Unifikasi* (2) In the *e-Bupot Unifikasi*, select the Past *SPT* menu, Recording Proof of Deposit; (3) Then fill in the tax year and tax period according to what you want to deposit and create a billing code; (4) Next, the system will display a List of Withholding Bills for Unification Income Tax Withholding Proof; (5) Check carefully whether the amount of Income Tax

withheld, type of tax, and deposit type code displayed are accurate and in accordance with the calculation of Income Tax Article 23 that has been made previously. If all the information is correct, please select the "generate billing code" icon; (6) Finally, print the billing code for subsequent deposit by financial staff via the bank.

**Tabel 2.** Tax Payment Data of XYZ Apartment Management Agency

Month	Reported Income Tax Article 23	Date Report	Reporting Status
a	b	c	d
April 2022	Rp3.212.625	18 May 2022	Late
May 2022	Rp1.857.694	08 June 2022	Not Late
June 2022	Rp2.426.858	12 July 2022	Not Late
July 2022	Rp4.700.437	09 August 2022	Not Late
August 2022	Rp4.866.997	23 September 2022	Late
September 2022	Rp2.820.824	02 November 2022	Late
October 2022	Rp1.441.590	09 November 2022	Not Late
November 2022	Rp5.947.638	12 December 2022	Not Late
December 2022	Rp4.301.148	13 January 2023	Not Late
January 2023	Rp18.280.403	21 February 2023	Late
February 2023	Rp3.417.713	20 March 2023	Late
March 2023	Rp3.920.483	13 April 2023	Not Late
April 2023	Rp2.847.358	11 May 2023	Not Late

Source: Processed secondary data, 2023

### Analysis of the Reporting of Income Tax Article 23 at the XYZ Apartment Management Agency

For reporting Income Tax Article 23 to the XYZ Apartment Management Agency starting from April 2022 to April 2023, there are still things that are not in accordance with Law Number 28 of 2007 concerning General Provisions and Tax Procedures. As can be seen in [Table 3](#), there are several tax periods that are reported beyond the specified time limit, namely a maximum of 20 (twenty) days after the tax period ends. This late tax reporting resulted in the XYZ Apartment Management Agency being subject to administrative sanctions in the form of a fine of IDR 100,000, this refers to Article 7 paragraph (1) of Law Number 28 of 2007. This fine or administrative sanction will later be cumulative in the Tax Bill (*STP*) issued will be delivered at the end of the year.

The process for reporting Income Article 23 to the XYZ Apartment Management Agency using the *e-Bupot Unifikasi* is as follows: (1) Tax staff will receive proof of payment in the form of Proof of State Revenue (*BPN*) which contains the State Revenue Receipt Number (*NTPN*); (2) Then the tax staff will input the proof of payment into the *e-Bupot Unifikasi*; (3) Select the Periodic *SPT* menu, then click Recording Proof of Deposit; (4) Then fill in the tax year and tax period; (5) In the Deposit Proof List section, click Add, then fill in the required data such as type of deposit proof, *NPWP*, *NTPN*, and tax year. If the *NTPN* is correct then the next data will automatically come out; (6) Return to the Periodic *SPT* menu, then click Preparation of Periodic Unification Income Tax *SPT*; (7) Then fill in the tax year and tax period; (8) Click the Complete *SPT* icon, then complete the *SPT* before sending it by checking whether the proof of deposit entered has been recorded in the *SPT*; (9) Select the *SPT* signer and click save; (10) If it is complete, then send the *SPT* by attaching the electronic certificate and

passphrase; (11) Lastly, print the Master Tax Return, Electronic Receipt (*BPE*), and *Bukti Potong* as document archives.

**Tabel 3.** Tax Reporting Data of XYZ Apartment Management Agency

Month	Reported Income Tax Article 23	Date Report	Reporting Status
a	b	c	d
April 2022	Rp3.212.625	02 June 2022	Late
May 2022	Rp1.857.694	09 July 2022	Not Late
June 2022	Rp2.426.858	15 July 2022	Not Late
July 2022	Rp4.700.437	09 August 2022	Late
August 2022	Rp4.866.997	27 September 2022	Late
September 2022	Rp2.820.824	02 November 2022	Late
October 2022	Rp1.441.590	09 November 2022	Not Late
November 2022	Rp5.947.638	15 January 2023	Late
December 2022	Rp4.301.148	15 January 2023	Late
January 2023	Rp18.280.403	22 February 2023	Late
February 2023	Rp3.417.713	20 March 2023	Not Late
March 2023	Rp3.920.483	15 April 2023	Not Late
April 2023	Rp2.847.358	11 May 2023	Not Late

Source: Processed secondary data, 2023

### Analysis of the Implementation of Unification *E-Bupot* at the XYZ Apartment Management Agency

Based on the results of interviews with tax staff at the XYZ Apartment Management Agency, withholding of Income Tax Article 23 from April 2022 to April 2023 has been carried out using the *e-Bupot Unifikasi* application. Starting from creating withholding receipts, billing codes for tax deposits, creating Master Tax Returns, as well as reporting Periodic Income Tax Returns. This is adjusted to the Director General of Taxes Regulation Number PER-24/PJ/2021. The tax staff of the XYZ Apartment Management Agency stated that before the *e-Bupot Unifikasi* was implemented, there was virtual counseling from the DJP for approximately 3 months. This counseling was carried out virtually due to the Covid-19 pandemic in 2022. In this counseling, Taxpayers were shown directly step by step in using the *e-Bupot Unifikasi* via the Zoom application, so that Taxpayers found it easy and quickly understood how to use it.

When crafting *Bukti Potong* through the *e-Bupot Unifikasi*, it is essential to meticulously consider various factors. These factors encompass identifying the relevant party subject to deduction, determining the identity of the income tax withholder or collector, ascertaining the documents serving as the foundation for income tax withholding or collection, and recording the income tax that has been withheld. Apart from that, what you need to pay attention to when using the *e-Bupot Unifikasi* in the submission of Periodic Income Tax Returns is the electronic certificate and passphrase. This electronic certificate is one of the requirements needed by every Taxpayer who wants to use the *e-Bupot Unifikasi* application. Based on the results of interviews and documentation conducted by the author, it was also found that there were problems during the use of the *e-Bupot Unifikasi* application, such as a server error when the deposit and reporting date was approaching so that sometimes the tax staff of the XYZ Apartment Management Agency had to take their work home and input it at night so that smoother

connection. This server disruption was due to the large number of users accessing the application near the payment and reporting dates. Apart from the unstable server problem, the problem experienced when inputting tax deposits and reporting is the difference in the amount of tax deducted when inputted in the *e-Bupot Unifikasi* application and that which has been recapitulated by the accounting department. The cause of this difference in numbers is not yet known because it is automatic in the application. Even when the author attended the A&B tax brevet training, one of the instructors who worked at the Tax Service Office (*KPP*) didn't know why there could be differences in amounts when inputting.

The *e-Bupot Unifikasi* application has a positive impact on Taxpayers. According to Mr. Ismail from the XYZ Apartment Management Agency, this application is faster, easier and reduces paper costs. Previously, companies used up a lot of paper every month for tax time. So that the use of *e-Bupot Unifikasi* is more effective and efficient. Apart from that, taxpayers do not need to print proof of withholding because they can send it directly via e-mail on the application.

### **Analysis of Taxpayer Compliance with Tax Regulations**

To find out how compliant taxpayers are in fulfilling their tax obligations, an analysis was carried out using Norman D. Nowak's compliance theory which revealed that taxpayers can be said to be compliant if they fulfill the following requirements:

- 1) Taxpayers understand or try to understand the applicable tax provisions  
Based on the results of interviews conducted by the author with Mr. Ismail as tax staff at the XYZ Apartment Management Agency, it is known that the interviewee has sufficient understanding of the applicable tax regulations regarding Income Tax Article 23. This is proven by Mr. Ismail's ability to explain the applicable regulations regarding Income Tax Article 23 and the ability to use the *e-Bupot Unifikasi* application properly
- 2) Fill out the tax form accurately and correctly  
Based on the results of the interview and documentation provided by the source, it can be seen that Mr. Ismail has filled out the tax form correctly and accurately. This can be proven when Mr. Ismail demonstrated the procedure for using the *e-Bupot Unifikasi* application to the author. He said filling in data must be done carefully and in accordance with what has been recapitulated.
- 3) Calculate the tax with the correct amount  
The results of the interview with Mr. Ismail as tax staff at the XYZ Apartment Management Agency show that he already understands how to calculate Income Tax Article 23 along with the rates charged. Apart from that, he also understands the calculations and rates for Income Tax other than Income Tax Article 23. Mr. Ismail said that the calculation of Income Tax Article 23 for services is easy and understandable. Then, with the *e-Bupot Unifikasi* application provided by the DJP for calculating, depositing and reporting taxes, it makes it easier for taxpayers to calculate the tax owed.
- 4) Pay taxes on time  
As can be seen from the deposit data provided by the tax staff at the XYZ Apartment Management Agency, there were 5 (five) months of tax payments that were late. This shows that the Management Agency for Apartment

Apart from testing compliance using the compliance theory presented by [12]. The author also analyzes taxpayer compliance as stated in Minister of Finance Regulation Number 192/PMK.03/2007 concerning Procedures for Determining Taxpayers with Certain Criteria in the Context of Refunding Preliminary Tax Overpayment [13], these conditions include:

- 1) Be punctual in submitting the Notification Letter  
It is known from the reporting data provided by the tax staff at the XYZ Apartment Management Agency, that there were 7 (seven) months of tax periods starting from April 2022 to April 2023 which were reported late. Mr. Ismail as the resource person said that late tax payments also affect late reporting of Periodic Income Tax Returns. Due to the delay in reporting this tax, the XYZ Apartment Management Agency was subject to

sanctions in the form of a fine of IDR 100,000, this refers to Article 7 paragraph (1) of Law Number 28 of 2007.

- 2) Have no tax arrears for all types of taxes, except for tax arrears that have received permission to pay in installments or postpone tax payments

From the results of interviews that have been conducted, it is known that the XYZ Apartment Management Agency has tax arrears as a result of delays in paying and reporting its taxes. Mr. Ismail said that at the end of the year the tax authorities will send a Tax Bill (*STP*) containing accumulated fines and administrative sanctions in the form of late payment interest and late reporting to the XYZ Apartment Management Agency.

- 3) Financial Reports that have been audited for three (three) consecutive years with an unqualified opinion by a Public Accountant or government financial supervisory agency  
In this case, Mr. Ismail as the source said that at the end of every year the XYZ Apartment Management Agency always sends financial reports and supporting documents to the Public Accountant for inspection. These supporting documents also include tax calculation recapitulation data, deposit data in the form of income tax withholding receipts and State Revenue Proofs (*BPN*), as well as reporting data in the form of Electronic Receipts (*BPE*) and Periodic Income Tax Returns.

- 4) Never been convicted of committing a crime in the field of taxation based on a court decision that has permanent legal force within the last 5 (five) years

In this case, the XYZ Apartment Management Agency was indeed subject to administrative sanctions in the form of interest and fines for being late in paying and remitting the tax, but did not result in a criminal offense. So that the XYZ Apartment Management Agency has never been subject to criminal acts regarding taxation in the last five years.

#### **4. Conclusion**

Based on the research findings concerning the computation, deposition, and reporting of Income Tax Article 23, as well as the implementation of the *e-Bupot Unifikasi* system and taxpayer compliance under the guidance of Mr. Ismail, who serves as the tax staff at the XYZ Apartment Management Agency, several key conclusions emerge. First, the computation of Income Tax Article 23 at the XYZ Apartment Management Agency aligns with the relevant tax regulations, particularly Article 23, paragraph 1 of Law Number 7 of 2021 regarding Tax Regulation Harmonization. Nonetheless, there were notable delays in the payment of Income Tax Article 23, which did not meet the stipulated requirements of Article 9, paragraph (1) in Law Number 28 of 2007. Furthermore, there were instances of reports on Income Tax Article 23 submitted beyond the prescribed deadlines and failing to comply with the provisions outlined in Article 3, paragraph (3) of Law Number 28 of 2007. However, the process of depositing and reporting Income Tax Article 23 has been successfully conducted through the *e-Bupot Unifikasi* application.

Secondly, the XYZ Apartment Management Agency has diligently adhered to tax regulations by implementing the *e-Bupot Unifikasi* application, specifically in accordance with the Regulation of the Director General of Taxes, Number PER-24/PJ/2021. This comprehensive adoption of the *e-Bupot Unifikasi* system underscores the agency's commitment to fulfilling its tax obligations. Thirdly, an analysis based on the compliance criteria outlined by Norman D. Nowak and the Minister of Finance Regulation, Number 192/PMK.03/2007, indicates that the XYZ Apartment Management Agency falls short of meeting one of the requirements for being considered a compliant taxpayer. This deficiency relates to punctual tax payment and timely submission of tax returns. However, the agency does exhibit adherence to formal and substantive compliance criteria as a taxpayer. The agency's understanding of relevant tax regulations, accurate and precise form completion, accurate tax calculations, and a lack of involvement in tax-related offenses collectively contribute to its formal and substantive compliance.

In light of these findings, it is advisable that tax staff at the XYZ Apartment Management Agency take measures such as maintaining proof of deductions, generating electronic billing codes, and submitting Periodic Income Tax Returns Article 23 ahead of schedule. This proactive approach aims to mitigate potential issues like errors on the DJP Online website or server failures within the *e-Bupot Unifikasi* application. Additionally, financial staff should expedite the creation of payment vouchers, ensuring that any delays associated with obtaining signatures from the accounts payable party do not result in exceeding the payment and tax reporting deadlines. This strategy will help prevent tax staff from falling behind in their tax payments and reporting. Furthermore, it is recommended that future researchers stay abreast of and actively update themselves with the latest information pertaining to tax regulations and developments, drawing from a variety of sources including news outlets and social media. This practice serves to enhance the reliability and credibility of research data references.

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### References

- [1] L. Lesfandra, “Pengaruh Ekspor, Penanaman Modal Asing, Dan Penerimaan Pajak Terhadap Pertumbuhan Ekonomi Indonesia,” *Jurnal Sosial Ekonomi Dan Humaniora*, vol. 7, no. 2, pp. 180–188, 2021.
- [2] A. G. Sumampouw and A. Wangkar, “Evaluasi Pemotongan Penyetoran dan Pelaporan PPh 23 Atas Pendapatan Jasa Pada Cv. Palakat,” *Jurnal LPPM Bidang EkoSosBudKum (Ekonomi, Sosial, Budaya, dan Hukum)*, vol. 5, no. 2, pp. 627–634, 2022.
- [3] E. D. Sihaloho, “Analisis pengaruh penerimaan pajak terhadap pertumbuhan ekonomi indonesia: pendekatan vektor autoregressive,” in *Forum Ekonomi*, 2020, pp. 202–209.
- [4] M. Karina and B. H. Simanjuntak, “Efektivitas Penggunaan E-Bupot 23/26,” *Media Riset Akuntansi, Auditing & Informasi*, vol. 22, no. 1, pp. 157–170, 2022.
- [5] S. Bawazier, “Analysis of E-Bupot System Implementation on Taxpayer Satisfaction,” *Management Research Studies Journal*, vol. 2, no. 2, pp. 100–106, 2021.
- [6] Direktur Jenderal Pajak, “Peraturan Dirjen Pajak Nomor: PER - 24/PJ/2021,” <https://datacenter.ortax.org/ortax/aturan/show/17626>. 2021. Accessed: Oct. 29, 2023. [Online].
- [7] F. Arianty, “e-Bupot Unification as an Application to Ful fill Tax Obligations for Tax Withholder,” *Multidisciplinary Digital Publishing Institute Proceedings*, vol. 83, no. 1, p. 43, 2023.
- [8] L. Christin, “Pengaruh Penerapan E-Faktur dan E-SPT PPN Terhadap Kepatuhan Perpajakan Pengusaha Kena Pajak dengan Kemampuan Menggunakan Internet sebagai Variabel Moderating,” *Media Akuntansi Perpajakan*, vol. 2, no. 1, pp. 35–44, 2017.
- [9] DDTC News, “Aplikasi e-Bupot Unifikasi Bakal Dievaluasi, Ini Kata Dirjen Pajak,” <https://news.ddtc.co.id/aplikasi-e-Bupot-unifikasi-bakal-dievaluasi-ini-kata-dirjen-pajak-38605>. Accessed: Jul. 22, 2023. [Online].
- [10] M. Ramdhan, *Metode Penelitian*. Cipta Media Nusantara, 2021.
- [11] S. Siyoto and M. A. Sodik, *Dasar metodologi penelitian*. literasi media publishing, 2015.
- [12] A. N. Inayah, “Pengaruh Kepatuhan Wajib Pajak Terhadap Penerimaan Pajak Di Kota Bogor,” *Jurnal Lentera Akuntansi*, vol. 4, no. 1, pp. 119–129, 2019.
- [13] Menteri Keuangan, “Peraturan Menteri Keuangan Nomor 192/PMK.03/2007,” <https://jdih.kemenkeu.go.id/fulltext/2007/192~pmk.03~2007per.htm>. Accessed: Oct. 29, 2023. [Online].

## **The influence of financial literacy and psychological factors on money market mutual fund investment decisions**

**Muhammad Rayhan Indrastoto<sup>1✉</sup> & Ratna Juwita<sup>2</sup>**

<sup>1,2</sup> Program Studi Manajemen Keuangan, Akuntansi, Politeknik Negeri Jakarta

✉ Address correspondence: Depok, 16425, Indonesia

E-mail: [ratna.juwita@akuntansi.pnj.ac.id](mailto:ratna.juwita@akuntansi.pnj.ac.id)

### **ABSTRACT**

Indonesia has experienced economic growth after the Covid-19 pandemic, which was accompanied by an increase in the number of first-time investors, especially the millennial and z generations. However, the lack of financial and psychological literacy of each investor, especially beginners who are not mature enough, will affect investment decisions that are not optimal. This study aims to examine the effect of financial literacy and psychological factors on money market mutual fund investment decisions. This research is a type of quantitative research. Methods of data collection by distributing questionnaires to 395 respondents who meet the criteria. The method used is Structural Equation Model - Partial Least Square. From the results of the study it was found that the T test on the independent variable Financial Literacy was 3,455 with a significance of 0.001, which means it has a significant effect on investment decisions, Emotion is 1,487 with a significance of 0.137, which means it does not have a significant effect on investment decisions, Social Interaction is 0.890 with a significance of 0.374, which means it is not significant effect on investment decisions, Considering The Past of 2.769 with a significance of 0.006, which means a significant effect on investment decisions. It is hoped that this research will provide insight to respondents that investment decisions can be measured using the level of financial literacy and psychological factors such as emotions, social interaction and considering the past.

**Keywords:** financial literacy, emotions, social interaction, considering the past, investment decisions

### **1. Introduction**

2020 was the year when Indonesia was shocked by the outbreak of the Covid-19 virus which at that time paralyzed all activities and disrupted various sectors in Indonesia. This has led to many industrial economic sectors being affected. The Central Statistics Agency (*BPS*) said Indonesia experienced an economic decline from the worst Gross Domestic Product (GDP) of -5.32% in the second quarter of 2020. Economic growth can be supported due to investment and investment that helps economic recovery after the Covid-19 pandemic. The Financial Services Authority (*OJK*) said that the number of newly invested investors with an average age under 30 years reached 58.74% of the total investors with total assets of 80.97 trillion rupiah. Mutual funds are an investment instrument that is in demand in Indonesia and offers various conveniences. Money market mutual funds are the mutual funds with the highest number of investors at 2.47 million.

Education about the capital market is related to Financial Literacy. Based on a survey conducted by the Financial Services Authority (*OJK*) to 14,634 respondents, it is stated that the financial literacy index of the Indonesian people in 2022 is 49.68% and is a factor in investment decisions. Standard Finance Theory assumes that investors are always rational, with the ability and processing information quickly and precisely so as to obtain an optimal portfolio [1]. In

[2], Financial Literacy affects Investment Decisions, while [3] stated that Financial Literacy does not affect Investment Decisions.

Investment decisions are also related to psychological factors. The psychic possessed by each individual investor has its own characteristics and ways of making investment decisions [4]. The psychological factors that each investor has are closely related to Behavioral finance theory which says that investors make investment actions based on their cognitive psychology [5]. It is not uncommon for novice investors to make irrational investment decisions. In this case, the factors that are suspected to be psychological biases are Emotions, Social Interaction and Considering the Past. Emotions in [6] and [7] mentioned having an influence on Investment Decisions meanwhile [8] said that emotions have a significant negative effect on Investment Decision Making. Some respondents do not have enough experience in investing and do not involve emotions in every investment decision. Social Interaction in [6] has an influence on Investment Decisions, while [7] said that Social Interaction has no influence on Investment Decisions. It is said that the lack of interaction between fellow investors and brokers. In Considering the Past, [7] said that Considering the Past affects Investment Decisions.

This study seeks to fill the gap in research that combines rational investor factors based on Standard Financial Theory and irrational investor factors based on Behavioral Finance Theory. In contrast to previous research, this research focuses on money market mutual fund investors, which are the financial investment instruments most suitable for beginner investors, namely the millennial generation and Generation Z. This study also expands the research object throughout Indonesia, unlike previous research, which focused on one region specifically in one city or one province in Indonesia. By expanding the scope of research respondents, it is hoped to provide new insights to readers who are interested in seeing a comparison of the influence of rational and irrational factors on money market mutual fund investors in Indonesia. Based on the background previously described, researchers want to know the influence of Financial Literacy and Psychological Factors on the decision to invest in money market mutual funds of the millennial generation and generation z in Indonesia. Researchers want to find answers through questions that arise in this study. How does each variable of Financial Literacy, Emotion, Social Interaction and Considering the Past affect money market mutual fund investment decisions in millennials and generation Z in Indonesia?

## 2. Method

This research uses quantitative research types and data sources use primary data. The object of research is Financial Literacy (X1), Emotions (X2), Social Interaction (X3), Considering The Past (X4), Investment Decisions (Y). The subjects in this study are millennials and generation z in Indonesia. The data collection method uses questionnaires to respondents with respondent criteria, namely having invested in money market mutual funds and investors in money market mutual funds between the ages of 17 – 43 years. The questionnaire consisted of 40 questions for all four variables on a likert scale of 1 (strongly disagree), 2 (disagree), 3 (neutral), 4 (agree) and 5 (strongly agree). Researchers use the Smartpls ver4.0 application to process respondent data obtained by data analysis using the Structural Equation Modeling (SEM) Test which contains inner and outer tests.

### Minimum Sampling

$$n = (Z_{B,CL}) \left( \frac{P \times Q}{E^2} \right) \dots \dots \dots (1)$$

Source: Hair, et al (2017)

**Figure 1.** Sampling formula

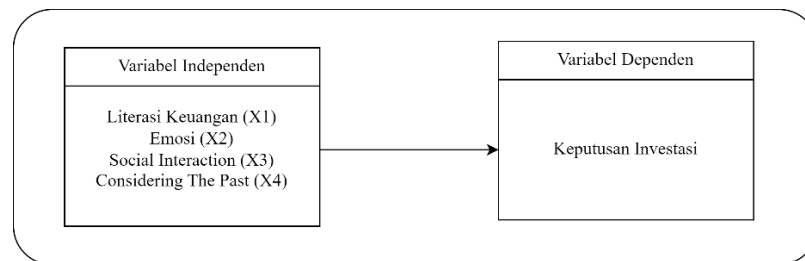
Z = Z score in this study is 1.96.

P = Estimated proportion of the population expected to have desired characteristics based on intuition or prior information.

Q = [1 – P], or the estimated proportion of the population expected to have no characteristics of interest. e = Acceptable fault tolerance rate of 5%.

Figure 1 is a sampling formula according to [9]. From these results, the minimum sampling according to hair is 384 samples and in this study 395 respondents have been collected with a probability level of 95%, the Z value obtained is 1.96 (two-tail curve) and an error rate of 5%.

## Conceptual Framework



Source: processed data (2023)

**Figure 2.** Conceptual Framework

## Research Hypothesis

### The Relationship of Financial Literacy with Investment Decisions

Research by [2] and [10] states that Financial Literacy has a significant influence on Investment Decisions. From both studies, Financial Literacy has a positive and significant influence on investment decisions. So that the higher the level of investor knowledge, namely financial literacy, the higher the decision in. So that the first hypothesis can be developed, namely:

H1 = Financial Literacy has a significant effect on Investment Decisions in Money Market Mutual Funds.

### Emotional relationship with investment decisions

Research by [6], [7], and [11] states that emotions can have a significant effect on investment decisions. In this study, the indicators used for the Emotion variable were primary emotions which included happiness, sadness, anger, or fear. Secondary emotions that include euphoria, melancholy, panic. Researcher's primary emotional indicators include happiness, sadness, anger, or fear. Therefore, researchers developed a second hypothesis, namely:

H2 = Emotions have a significant effect on Investment Decisions in Money Market Mutual Funds.

### Social Interaction relationship with investment decisions

Research by [6] states that Social Interaction has an influence on investment decisions. Humans are social creatures and are not separated from others, humans also interact and are influenced by other people and the outside environment as well as investors. So, the researcher developed a third hypothesis, namely:

H3 = Social Interaction has a significant effect on Investment Decisions in Money Market Mutual Funds.

### Considering the Past's Relationship with Investment Decisions

In the research of [6] and [7] Considering the Past affects Investment Decisions. From the two studies above, Considering the Past has a positive and significant influence on Investment Decisions. Considering The Past makes the investors past a lesson and the future to make improvements. Uncertainty that is an experience for every investor, makes investors more vigilant in making Investment Decisions. So, the researcher developed a third hypothesis, namely:

H4 = Considering the Past has a significant effect on Investment Decisions in Money Market Mutual Funds.

### 3. Results and Discussion

#### Statistic Descriptive Analysis

**Table 1.** Statistic Descriptive

Variable	Average index value	Category	Explanation
Financial Literacy (X1)	87%	High	High financial literacy in investors
Emotions (X2)	66%	Middle	Indications of high emotions in investors
Social Interaction (X3)	71%	Middle	High Social Interaction indication in investors
Considering the Past (X4)	87%	High	Considering The Past is high on investors
Investment Decisions (Y)	80%	High	High Investment Decisions in investors

Source: processed data (2023)

The questionnaire in this study managed to get as many as 395 respondents spread throughout Indonesia. This study used descriptive statistical analysis using the three-box method proposed by [12].

#### Identity of the respondent

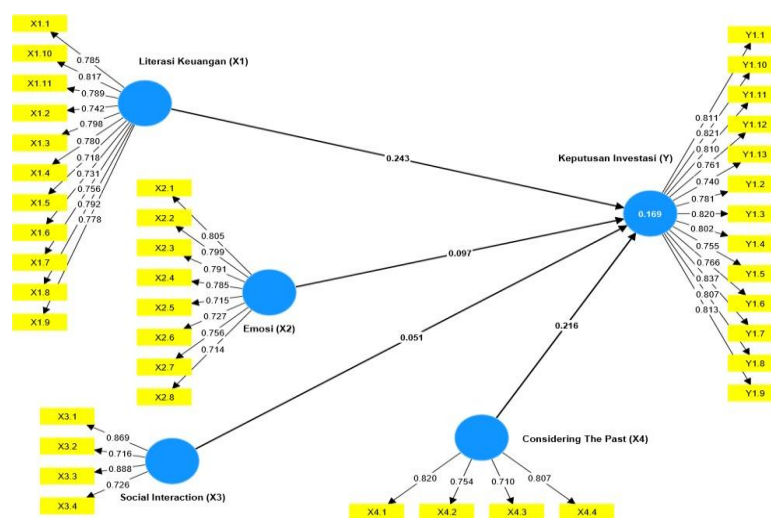
**Table 2.** Identity of the respondent

Identity of the respondent	Majority of respondents (395 respondents)
Gender	male investors 62.53%
Age	Generation z (17 - 26) years 59%
Domicile	Jabodetabek 57%
Work	Students 46%
Education	Bachelor (S1) 47%
Income	Rp 1 - 3 million 27%
Invested capital	Rp 1 - 3 million 42%
Long time investing	1 - 2 years at 29%

Source: processed data (2023)

#### Outter Model Test

##### Convergent Validity Test



Source: processed data (2023)

**Figure 3.** Loading Factor Diagram

**Table 3.** Outer Loading Value

	Financial Literacy (X1)	Emotions (X2)	Social Interaction (X3)	Considering the Past (X4)	Investments Decisions (Y)
X1.1	0.785				
X1.2	0.742				
X1.3	0.798				
X1.4	0.780				
X1.5	0.718				
X1.6	0.731				
X1.7	0.756				
X1.8	0.792				
X1.9	0.778				
X1.10	0.817				
X1.11	0.789				
X2.1		0.805			
X2.2		0.799			
X2.3		0.791			
X2.4		0.785			
X2.5		0.715			
X2.6		0.727			
X2.7		0.756			
X2.8		0.714			
X3.1			0.869		
X3.2			0.716		
X3.3			0.888		
X3.4			0.726		
X4.1				0.820	
X4.2				0.754	
X4.3				0.710	
X4.4				0.807	
Y1.1					0.811
Y1.2					0.781
Y1.3					0.820
Y1.4					0.802
Y1.5					0.755
Y1.6					0.766
Y1.7					0.837
Y1.8					0.807
Y1.9					0.813
Y1.10					0.821
Y1.11					0.810
Y1.12					0.761
Y1.13					0.740

Source: processed data (2023)

[Table 3](#) shows that all variables and their question indicators have a value of more than 0.7. It can be concluded that all indicator questions on each research variable tested on 395 respondents have met the requirements on outer loading.

**Table 4.** Average variance extracted (AVE)

Variable	Average variance extracted (AVE)
Financial Literacy (X1)	0.596
Emotions (X2)	0.581
Social Interaction (X3)	0.646
Considering the Past (X4)	0.599
Investment Decisions (Y)	0.632

Source: processed data (2023)

[Table 4](#) is the value of Average Variance Expected Return (AVE) which shows all variables have a value greater than 0.5. So, it can be concluded that all variables seen from the outer loading value and Average Variance Expected Return (AVE) have values above the minimum limit and can be declared to pass the convergent validity test.

#### **Discriminant Validity Test**

**Table 5.** Cross Loading

	Financial Literacy (X1)	Emotions (X2)	Social Interaction (X3)	Considering the Past (X4)	Investments Decisions (Y)
X1.1	<b>0.785</b>	-0.006	0.143	0.264	0.245
X1.2	<b>0.742</b>	0.091	0.045	0.198	0.245
X1.3	<b>0.798</b>	-0.002	-0.024	0.161	0.213
X1.4	<b>0.780</b>	0.058	0.005	0.220	0.199
X1.5	<b>0.718</b>	0.152	0.057	0.215	0.270
X1.6	<b>0.731</b>	0.100	0.132	0.183	0.221
X1.7	<b>0.756</b>	0.013	0.062	0.217	0.237
X1.8	<b>0.792</b>	0.065	0.039	0.222	0.239
X1.9	<b>0.778</b>	0.041	0.095	0.257	0.244
X1.10	<b>0.817</b>	0.048	0.109	0.342	0.316
X1.11	<b>0.789</b>	0.093	0.083	0.292	0.264
X2.1	0.085	<b>0.805</b>	0.048	0.212	0.204
X2.2	0.099	<b>0.799</b>	0.155	0.173	0.166
X2.3	0.056	<b>0.791</b>	0.113	0.208	0.115
X2.4	0.023	<b>0.785</b>	0.236	0.144	0.080
X2.5	-0.002	<b>0.715</b>	0.313	0.062	-0.002
X2.6	-0.010	<b>0.727</b>	0.288	0.093	0.034
X2.7	0.025	<b>0.756</b>	0.364	0.084	0.087
X2.8	0.036	<b>0.714</b>	0.353	0.090	0.071
X3.1	0.108	0.163	<b>0.869</b>	0.126	0.099
X3.2	0.029	0.286	<b>0.716</b>	0.074	0.075
X3.3	0.086	0.143	<b>0.888</b>	0.072	0.122
X3.4	-0.009	0.258	<b>0.726</b>	0.044	0.011
X4.1	0.255	0.210	0.087	<b>0.820</b>	0.260
X4.2	0.254	0.178	0.134	<b>0.754</b>	0.248
X4.3	0.182	0.140	-0.002	<b>0.710</b>	0.185
X4.4	0.253	0.122	0.091	<b>0.807</b>	0.273
Y1.1	0.248	0.119	0.129	0.275	<b>0.811</b>
Y1.2	0.234	0.142	0.073	0.277	<b>0.781</b>
Y1.3	0.298	0.116	0.089	0.215	<b>0.820</b>
Y1.4	0.256	0.093	0.108	0.219	<b>0.802</b>
Y1.5	0.193	0.141	0.072	0.257	<b>0.755</b>
Y1.6	0.215	0.119	0.123	0.210	<b>0.766</b>

	Financial Literacy (X1)	Emotions (X2)	Social Interaction (X3)	Considering the Past (X4)	Investments Decisions (Y)
Y1.7	0.288	0.152	0.084	0.300	<b>0.837</b>
Y1.8	0.300	0.125	0.091	0.242	<b>0.807</b>
Y1.9	0.266	0.151	0.099	0.262	<b>0.813</b>
Y1.10	0.247	0.146	0.097	0.288	<b>0.821</b>

Source: processed data (2023)

[Table 5](#) is the cross loading value tested with Smart PLS ver 4.0, which shows each variable has a greater value or correlation in its original variable compared to other variables. In other words, all variables in this study have validly met the requirements and met the criteria of the discriminant validity test.

### Reliability Test

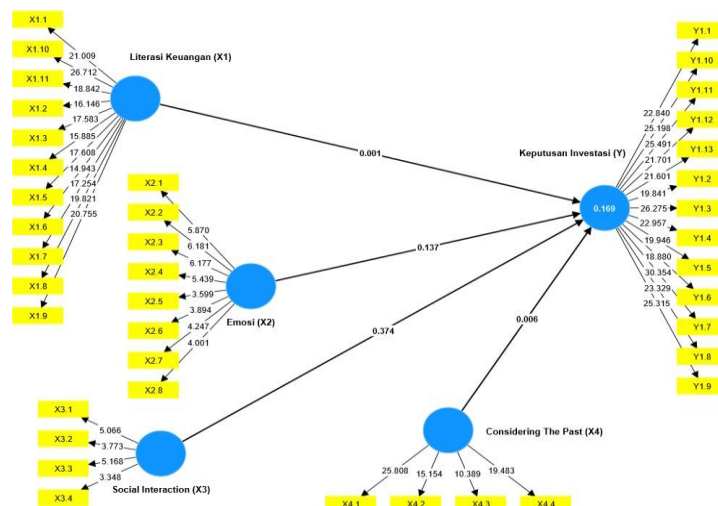
**Table 6. Reliability Test**

Variabel	Cronbach's alpha	Composite reliability (rho_c)
Financial Literacy (X1)	0.932	0.942
Emotions (X2)	0.914	0.917
Social Interaction (X3)	0.837	0.878
Considering the Past (X4)	0.778	0.856
Investment Decisions (Y)	0.951	0.953

Source: processed data (2023)

From [Table 6](#) it can be concluded that the variable items on each question item can be reused and respondents have consistent and stable answers. All variables have Cronbach's Alpha and Composite reliability values of more than 0.70, which means they have qualified drinking reliability testing. Therefore, the measuring instruments on each variable used are precise and have good and reliable results.

### Inner Model Test



Source: Data processed from SmartPLS 4 (2023)

**Figure 4. Diagram Bootstrapping**

## Coefficient of Determination

**Table 7.** R-square Value

	R-square	R-square adjusted
Investment Decisions (Y)	0.169	0.161

Source: processed data (2023)

In [Table 7](#) the r-square result is 0.169 with an adjusted r-square of 0.161. These results are relatively weak, it can be said that the variation in variables Financial Literacy, Emotions, Social Interaction and Considering the Past is only able to explain the variation in investment decision variables by 17%.

## Hypothesis Testing

**Table 8.** Hypothesis Testing

Hypothesis	t-statistics	p-values	Explanation
Financial Literacy (X1) -> Investment Decisions (Y)	3.455	0.001	Significant
Emotions (X2) -> Investment Decisions (Y)	1.487	0.137	Not Significant
Social Interaction (X3) -> Investment Decisions (Y)	0.890	0.374	Not Significant
Considering the Past (X4) -> Investment Decisions (Y)	2.769	0.006	Significant

Source: processed data (2023)

### The Influence of Financial Literacy on Investment Decisions

Financial literacy has a significant influence on money market mutual fund investment decisions. Financial literacy as the initial concept of understanding and awareness of basic financial concepts such as the ability to calculate interest, basic financial capabilities in this case include: planning, allocating finances [\[13\]](#). This is in line with Standard finance theory which explains the literacy possessed by a mutual fund investor such as financial knowledge and practice is a benchmark for investors' ability to choose rational investment decisions. So, it can be concluded that the higher the financial literacy owned by investors, the higher, better and more mature investment decisions.

### The Influence of Emotions on Investment Decisions

Emotions do not have a significant influence on money market mutual fund investment decisions. Emotions are related to investment decisions that have a high level of uncertainty [\[8\]](#). Researchers assume that under any circumstances, the emotions of a money market mutual fund investor do not influence his investment decisions. This is because mutual funds are one of the investment instruments whose fluctuations are stable and tend to rise, therefore the majority of money market mutual fund investors tend not to worry about the capital to be invested so they invest with any emotion without worrying about the mutual funds invested going down. It can be concluded in this study; money market mutual fund investors do not involve any emotions when making investment decisions and investing in all emotions.

### The Influence of Social Interaction on Investment Decisions

Social Interaction does not have a significant influence on money market mutual fund investment decisions. Social Interaction is a relationship between individuals and individuals, individuals and groups, and groups and groups that influence or change the behavior and decisions of individuals or groups so that a reciprocal relationship occurs [\[14\]](#). Millennial generation and Generation Z investors who invest in mutual funds tend to be independent and not influenced by the external environment and make investment decisions based on their conscience and own desires and do not involve other people such as fellow investors or brokers.

### The Influence of Considering the Past on Investment Decisions

Based on the results of the hypothesis test carried out, it can be concluded that Considering the Past has a significant influence on money market mutual fund investment decisions. Considering the Past is an event in the past that becomes a lesson and evaluation to determine

whether the event that has been experienced is desirable to return to or should be avoided in the future [15]. This is because Considering the Past is one of the most important factors that money market mutual fund investors have in investing, especially for the millennial generation and generation Z in Indonesia. These results are in line with the Behavioral Finance Theory which states that investors take investment actions based on their cognitive psychology [5]. Respondents invest by considering the past, such as if money market mutual funds have provided returns in the next period, then investors will be more confident in investing in the same mutual funds and will then increase their investment risk. If investors experience losses in certain mutual funds, then this will be a lesson and investors will tend to reduce the risk of investing in money market mutual funds. So, it can be concluded that the better the past in providing mutual fund investment returns, the better and more mature the investment decisions will be.

#### **4. Conclusion**

This study aims to analyze the influence of Financial Literacy, Emotions, Social Interaction and Considering the Past on money market mutual fund investment decisions (case studies of millennials and generation z in Indonesia). After testing the hypothesis, it can be concluded that the Financial Literacy Variable (X1) has a significant influence on Investment Decisions (Y). The emotion variable (X2) has no significant influence on investment decisions (Y). The Social Interaction variable (X3) does not have a significant influence on Investment Decisions (Y). The variable Considering the Past (X4) has a significant influence on Investment Decisions (Y). The suggestion in this study is that the next researcher to add variables beyond the psychological factors that have been discussed in this study. For investors in Indonesia who want to succeed in money market mutual fund investment, it is advisable to have adequate financial literacy, avoid psychological bias, should involve themselves in continuous learning, seek advice from experienced investors, and gather accurate information before making the right investment decisions. For the Indonesia Stock Exchange (IDX) as an organizer and investment provider to continue to collaborate with several brokers to continue to hold socialization and education about the introduction of the capital market and the importance of early investment in this case, not only theory but also practice.

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#### **References**

- [1] J. P. J. K. S. Sengupta, *Theory of Behavioral Finance. In Research on Behavioral Finance and Investment Strategies: Decision Making in the Financial Industry.*, USA: IGI Global book series Advances in Finance, Accounting, and Economics (AFAE), 2018.
- [2] C. Khairiyati and A. Krisnawati, "Analisis Pengaruh Literasi Keuangan Terhadap Keputusan Investasi Pada Masyarakat Kota Bandung," *Jurnal Manajemen dan Bisnis Universitas Telkom*, vol. 1, pp. 230-243., 2019.
- [3] A. K. Wardani and Lutfi, "Pengaruh literasi keuangan, experienced regret, risk tolerance, dan motivasi pada keputusan investasi keluarga dalam perspektif masyarakat Bali," *Journal of Business and Banking*, vol. 1, pp. 46-70, 2016.
- [4] D. A. Wulandari and R. Iramani, "Studi Experienced Regret, Risk Tolerance, Overconfidence Dan Risk Perception Pada Pengambilan Keputusan Investasi Dosen Ekonomi," *Journal of Business and Banking*, p. 55 – 66, 2014.
- [5] N. M. Waweru, E. Munyoki and E. Uliana, "The effects of behavioural factors in investment decision-making: a survey of institutional investors operating at the Nairobi Stock Exchange," *International Journal of Business and Emerging Markets*, pp. 24-41, 2008.
- [6] A. N. Wahyuni and N. H. Pramono, "Pengaruh Faktor Demografi Dan Faktor Psikologi Investor Dalam Pengambilan Keputusan Investasi di Era Ekonomi Digital," *Jurnal Akuntansi Berkelanjutan Indonesia*, vol. 1, pp. 21-30, 2021.

- [7] A. N. Wahyuni and R. S. Kristanto, “Pendekatan Psikologi Untuk Keputusan Investasi Di Masa Pandemi Covid-19,” *Econbank: Journal of Economics and Banking*, vol. 1, pp. 34-44, 2022.
- [8] Kartini and N. F. Nugraha, “Pengaruh Illusions of Control, Overconfidence Dan Emotion Terhadap Pengambilan Keputusan Investasi Pada Investor di Yogyakarta,” *Jurnal Inovasi dan Kewirausahaan*, vol. 1, pp. 115-123, 2015.
- [9] J. F. Hair, M. Celsi, D. J. Ortinau and R. P. Bush, *Essentials of Marketing Research, Fourth Edition*, New York: McGraw-Hill Education, 2017.
- [10] N. Humairo and F. Sartika, “Literasi Keuangan dan Faktor Sosiodemografi terhadap Keputusan Investasi melalui Bias Perilaku,” *Jurnal Ilmiah Manajemen Dan Bisnis*, vol. 1, pp. 164-177, 2021.
- [11] J. Violeta and N. Linawati, “Pengaruh Anger Traits, Anxiety Traits, Dan Faktor Demografi Terhadap Keputusan Investasi,” *Jurnal Manajemen Pemasaran*, vol. 1, pp. 89-96, 2019.
- [12] A. Ferdinand, *Metode Penelitian Manajemen*, Semarang: Universitas Diponegoro, 2014.
- [13] L. Xu and B. Zia, “Financial literacy around the world: an overview of the evidence,” World Bank Policy Research Working Paper, 2018.
- [14] M. Ali and M. Asrori, *Psikologi Remaja*, Jakarta: Rineka Cipta, 2004.
- [15] J. Nofsinger, *The Psychology of Investing (Fourth Edition)*, Boston: Prentice Hall, 2010.