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IMPROVING BUSINESS INDEPENDENCE OF COLLEGE STUDENTS' GENERATION-Z THROUGH BEHAVIOR ENTREPRENEURSHIP DURING PANDEMIC COVID-19

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Abstract

In this study, the purpose of this research is to examine the relationship between entrepreneurial spirit and entrepreneurial value to increase business independence through entrepreneurial behavior in generation Z. Entrepreneurship in generation Z still need to be increased. In this study using quantitative methods, namely the data collection using a questionnaire that is taken directly. This study uses a non-probability sampling method, as convenience sampling for college students that their Universities has incubator business in Jakarta and Tangerang. The data collection of generation Z college students who have businesses over 1 year. The sample in this study was 108 respondents. Analysis data used Partial Least Square and data processing used applications, SmartPLS 3.2.4 Software. The result shown all hypotheses are supported. Contribution of this study can be used in related education in Universities to understand the way to increase business independence of generation Z through entrepreneurial behavior.

Keywords: Entrepreneurial; Entrepreneurial Values; Entrepreneurial Behavior; Business Independence

BACKGROUND

The economic sector is currently starting to rise from adversity due to the Covid-19 pandemic. The government carries out the National Economic Recovery (PEN) program, including fostering an entrepreneurial spirit. The problem is, the number of Indonesian entrepreneurs is relatively small when compared to Malaysia or Singapore. Therefore, entrepreneurial programs are needed to foster an entrepreneurial spirit. In the 2020 Global Entrepreneurship Index (GEI), Indonesia's position is at number 74 in the world (Baumal, 2018). Indonesia's current entrepreneurial ratio is still considered very small when compared to other countries in the world, which is 3.47 percent. Therefore, until 2024, the Ministry of Cooperatives and SMEs targets Indonesia's entrepreneurship ratio to rise to 3.94 percent.

To catch up, the government must consistently position entrepreneurship as a priority in human development, especially for Generation Z. Generation Z was born in 1995-2012. The results of the 2020 Population Census show that the Indonesian population is dominated by Generation Z. In total there are 74.93 million or 27.94% of the total population of Indonesia (BPS, 2021). Meanwhile many Gen Z-ers have a preference for starting their own (Powers, 2018). Generation Z in Indonesia is also believed to have big ambitions for entrepreneurship. Based on survey results from Standard Chartered, 87% of milennialls and Generation Z plans to start their own business. The majority of Generation Z are students. So the role of universities cannot be ignored in building business independence through entrepreneurial behavior (Natalia, 2020).

Meanwhile, the University also supports government programs by presenting a Business Incubator. Business incubators in universities play a role in creating new entrepreneurs. Entrepreneurial ideals can be triggered from the entrepreneurial learning process in students (Yamockul et.al., 2019). Using entrepreneurship learning including incubator business is needed, it can also broaden students' knowledge of the world of entrepreneurship and motivate them to be directly involved in global entrepreneurship as reliable young entrepreneurs and contribute to the country's economy. The business incubator helps human resources who lack

competence and business motivation to become human resources who are creative and innovative in entrepreneurship as well as cooperative and productive as the first step in establishing business independence that has competitive, comparative advantages and also has a clear visionary (Mayasari, Liliana and Seto, 2019). Thus the research question that can formulate are:

1. Does entrepreneurial spirit has a positive effect on entrepreneurial behavior?
2. Does entrepreneurial value has a positive effect on entrepreneurial behavior?
3. Does entrepreneurial spirit has a positive effect on business independence?
4. Does entrepreneurial value has a positive effect on business independence?
5. Does entrepreneurial behavior has a positive effect on business independence?

This study scope of research is to know the way to business independence built among generation Z college students in any Universities of Jakarta dan Tangerang. The reason is there are several Universities in Jakarta and Tangerang has incubator to raise start up such as Universitas Pelita Harapan, Universitas Multi Media Nusantara, Universitas Trisakti, Universitas Indonesia Esa Unggul, PPM School of Management and many others. This study conduct in convenience sampling. Then, this study contribution is can be used in related education in Universities to understand the way to increase business independence of generation Z.

LITERATURE REVIEW

Entrepreneurship is related to the search for business opportunities which, when exploited effectively through competitive advantage, have value plus and wealth. Opportunities to produce innovative goods and services create value for customers and generate good business opportunities. By generating new business opportunities, the creation of new products that do not yet exist and will be interesting new customers with the uniqueness of the products we have created. Entrepreneurship provides a value or process in starting a business (startup), providing creativity (creative), and innovations (innovative) in running a business. People who are creative and innovative will push the company to be the best (Basrowi, 2016).

Generation Z or Gen Z or iGen or centennials, refers to the generation born between 1995-2012, after the millennial generation or gen Y. Generation Z has been raised by the internet and social media, has lived through higher education in college and some have completed it and enter the workforce in 2020. Generation Z grew up with technology, the internet, and social media, which sometimes causes them getting stereotyped as tech addict, anti-social, or warrior social justice. The context has produced hyper cognitive generation that is very comfortable with collecting a lot reference sources of information and integrate virtual experiences and offline (Francis & Hoefel, 2018). Supported by Wallace (2019) that stated that Gen Z weigh their options in terms of a reliable career path while avoiding the debt trap. Armed with the entrepreneurial spirit of the millennial generation, but with a little more caution and forethought, Gen Z will pave the way to success without following other people's rules. About 41% plan to start entrepreneurs and 45% believe they can find something that change the world. Generation Z usually emphasizes social relationships over work balance with good daily life and experience of great benefits.

Relation Entrepreneurial Spirit and Entrepreneurial Behavior

Yuyun (2015) said that someone who has an entrepreneurial spirit has a form of characteristics such as consider in taking risks, think of creative ideas in run their business, do business planning in the future, can see opportunities market needed so as to fill the vacant market, and create a product that is different from the others. By having an entrepreneurial spirit then character in entrepreneurship will be formed and affect entrepreneurial behavior

someone like an entrepreneurial spirit in making products that are safe for the surrounding environment. Supported by Welter & Smallbone (2011) and Frederick et al. (2015) that stated entrepreneurial spirit has a positive effect on entrepreneurial behavior

H1: Entrepreneurial spirit has a positive effect on entrepreneurial behavior.

Relation Entrepreneurial Value and Entrepreneurial Behavior,

The value of entrepreneurship must continue to be developed such as self-motivation with persistence and never give up to achieve these entrepreneurial goals. Have motivation within will make an entrepreneur become optimistic so that he has confidence themselves to exert all their abilities for entrepreneurship behavior. Mustafa (2011), Suryana (2011), and Kasmir (2012) stated that quality of a person as entrepreneurial value can be seen in timeliness in entrepreneurship behavior. Thus, value of entrepreneurial has a positive effect on entrepreneurial behavior

H2: Entrepreneurial value has a positive effect on entrepreneurial behavior.

Relation Entrepreneurial Spirit and Business independence

Kasmir (2012) says that the soul entrepreneurship can make someone have an interest in forming a business and manage the business so that it continues to achieve its business goals. In forming by his business good planning and accurate calculations are needed so that the business be smooth. Then, supported by Frederick et al. (2015) that stated to increase business independence especially among college students, government support is needed to provide capital in supporting students to become entrepreneurs. But the important is entrepreneurial spirit has positive effect on business independence of generation Z (Sanchez-Gutierreaz et al., 2012; Frederick et al., 2015).

H3: Entrepreneurial spirit has a positive effect on business independence

Relation Entrepreneurial Value and Business independence

Alma (2011) says that the value of entrepreneurship can be seen from one's motivation in building a business effort. This motivation can be seen as calculations in opening a business, looking for facts about the business, and look for the data needed. Frederick et al. (2015) stated that with government support it can increase business independence of generation Z in society. The encouragement is in the form of capital assistance and tax reductions with small income. With the assistance from the government, it is expected that the number of entrepreneurships will continue to increase. With the value of entrepreneurship in the form of motivation and business independence through capital assistance from the government, it can increase number of entrepreneurs in the community.

H4: Entrepreneurial value has a positive effect on business independence.

Relation Entrepreneurial Behavior and Business independence

Cyndi and Rodiah (2019) stated when an entrepreneur is running his business, then entrepreneurial behavior is very important affect the performance of the business. By having good behavior in entrepreneurship, the business that is being carried out will be successful. Rahayu, Novadjaja and Indrawati (2011) stated Motivation can shape entrepreneurial behavior and will achieve the desired goals achieved. With motivation, we have great enthusiasm so that we can create new creative ideas. Entrepreneurial behavior can shape personality we are in entrepreneurship in behaving towards consumers, employees and suppliers. Suharti & Sirine (2012) stated that entrepreneurial behavior has an influence on business independence. By having good entrepreneurial behavior, self-reliancethe effort will be stronger.

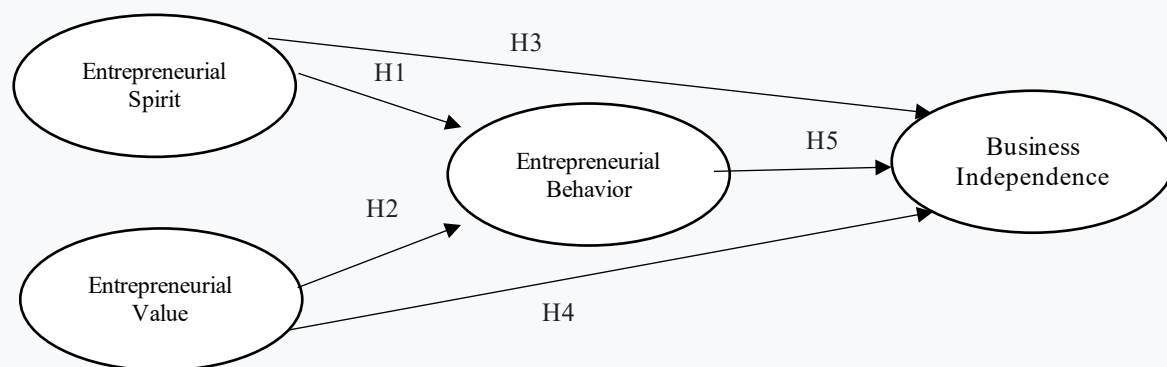H5: Entrepreneurial behavior has a positive effect on business independence

Figure 1. Research Model

METHODOLOGY

This study uses theory, hypothesis testing, and models. Sekaran & Bougie (2013) said that quantitative research has more ability to explain a special problem. In quantitative research, positivism is understood, namely research research based on actual facts. So that everything that happens is certain have a cause-and-effect relationship. The object method in this study is business independence through entrepreneurial spirit variables, entrepreneurial values, and entrepreneurial behavior for generation Z college students who have a business for more than 1 year. The subjects used in this study were University students from several Universities that has business incubator in Jakarta and Tangerang. This study uses a non-probability sampling method used convenience sampling. The sample in this study used 108 respondents. Analysis data used Partial Least Square used Software SmartPLS 3.2.4. Questionnaire has 5-scale Likert scale with consideration easier for respondents who cannot answer and have ethics or who stated that filling out the questionnaire did not force respondents to answer agree or not.

FINDING AND DISCUSSION

Profile of respondents

There are 108 respondents whose data is taken directly. As much 68 respondents were male and 40 female respondents. 38 respondents aged 16–18 years, 35 respondents aged 19–21 years, and 35 respondents aged 22–24 years. Majority respondents have an online business type as many as 70 people and 38 respondents have a type of offline business.

Outer Loading

Measurement model, validity testing in this study was measured using value of loading factor, convergent validity, and discriminant validity. The loading factor value must be can be greater than 0.6 and if the loading factor value is below 0.4 then the indicator it can be deleted. To measure the value of convergent validity, it can be measured through Average Variance Extracted (AVE) value, which must be greater than 0.7 and the value of loading factor above 0.6. the value of loading factors in this study has a value above 0.6. Testing the reliability of the data in this study using Cronbach's alpha and composite reliability to be able to test reliability. A data can be declared reliable if it has a composite reliability (CR) value greater than or equal to 0.7. The pilot test uses 30 samples all indicator are valid and used for actual test. Next, a table of validity and reliability results is shown in table 1 for the actual sample of 108 respondents.

Table 1. Validity and Reliability Result

Constructs	Outer Loading
Entrepreneurial Spirit : AVE : 0.632, CR : 0.878	
JK 1	0.769
JK 2	0.688
JK 3	0.831
JK 4	0.735
JK 5	0.786
JK 6	0.789
JK 7	0.774
Business Independence: AVE : 0.618, CR: 0.884	
KU 1	0.826
KU 2	0.758
KU 3	0.836
KU 4	0.814
KU 5	0.763
Entrepreneurial Spirit: AVE: 0.638, CR: 0.876	
NK 1	0.788
NK 2	0.676
NK 3	0.828
NK 4	0.786
NK 5	0.834
NK 6	0.778
NK 7	0.834
Entrepreneurial Behavior: AVE: 0.65, CR: 0.868	
NK 1	0.782
NK 2	0.842
NK 3	0.821
NK 4	0.833
NK 5	0.764
NK 6	0.783

Then, performing the Fornell-Lacker criterion analysis test, the discriminant validity test is shown from the square root of the average variance extracted (AVE) on each construct in the model (Ghozali & Latan 2015) as seen on table 2.

Table 2. Fornell-Larcker Criterion

	Entrepreneurial Spirit	Business Independence	Entrepreneurial Value	Entrepreneurial Behavior
Entrepreneurial Spirit	**0.914**			
Business Independence	0.839	**0,865**		
Entrepreneurial Value	0.750	0.851	**0.879**	
Entrepreneurial Behavior	0,783	0.861	0,808	**0,917**

Hypothesis Testing

Ghozali & Latan (2015) stated that an indication of whether a hypothesis is supported or not can be seen from the t-statistics. T-statistics were tested by one tailed test or one-way test with a significance level of 5%. The hypothesis is declared significant if the t-statistic must be more than 1.96 and use the t-value as a significant reference with a value that must be less than 0.05 as seen on table 3. Result shown all hypothesis are accepted.

Table 3. Hypothesis Testing

Hypothesis	T-Statistic	T-value	Result
Entrepreneurial Spirit → Entrepreneurial Behavior	5.044	0.000	Accepted
Entrepreneurial Value →Entrepreneurial Behavior	4.288	0.000	Accepted
Entrepreneurial Spirit → Business Independence	2.566	0.039	Accepted
Entrepreneurial Value → Business Independence	3.975	0.003	Accepted
Entrepreneurial Behavior → Business Independence	6.926	0.000	Accepted

The coefficient of determination

Test in assessing the structural model can be evaluated with the SmartPLS program by looking at the value for each endogenous latent variable as the predictive power of the structural model (Ghozali & Latan, 2015). The results represent the number of variants of the construct described by the model as seen on table 4.

Table 4. R-Square

	R-square
Business Independence	0.650
Entrepreneurial Behavior	0.680

Discussion

In the first hypothesis, the statement that the entrepreneurial spirit affects entrepreneurial behavior with a t-statistic value of 5.044 and a t-value of 0.000 explains that the first hypothesis is supported. In line with previous research conducted by Welter & Smallbone (2011), Meaning that according to generation Z student respondents when they have an entrepreneurial spirit will make entrepreneurial behavior work well. This is evident from their ability to run a business for more than 1 year, despite the Covid-19 pandemic. The entrepreneurial spirit that is owned as a spirit in running a business, although not easy, is certainly obtained from the basic knowledge provided by educational institutions, namely universities that have business incubators.

In the second hypothesis, the statement that entrepreneurial value affects entrepreneurial behavior with a t-statistic value of 4.288 and a t-value of 0.000 explains that the third hypothesis is supported. In line with research conducted by Suryana (2011), Mustafa (2011). Entrepreneurial value is an important part that must be owned by Generation Z students who are business actors who have speed in adapting technology. So that the norms and values adopted by respondents can improve entrepreneurial behavior. This can be seen in the characteristics of the majority of respondents running online businesses. This means that the value of technological adaptation and being able to be flexible with the Covid-19 pandemic conditions allows respondents to continue to run their businesses.

In the third hypothesis, the statement that the entrepreneurial spirit affects business independence with a t-statistic value of 2.566 and a t-value of 0.039 explains that the third hypothesis is supported. In line with research previously conducted by Kasmir (2012), Frederick et al. (2015). It can be explained that an entrepreneur is someone who has the ability to see and assess opportunities, manage the required resources and take appropriate actions, to ensure sustainable success. So that according to respondents the entrepreneurial spirit which is an internal motivation will have an impact on entrepreneurial behavior. If it is seen that the majority of respondents are men, according to Robbins and Judge (2017) generally have stronger self-determination than women. So that during the Covid 19 pandemic they can still achieve business sustainability with independent behavior in running their business. Moreover, the respondents were selected from universities that have business incubators that have

nurtured and taught how to run an independent business.

In the fourth hypothesis, the statement that the value of entrepreneurship has an effect on business independence with a t-statistic value of 3.975 and a t-value of 0.003 explains that the fourth hypothesis is supported. In line with previous research conducted by Alma (2011), Frederick et al. (2015). It can be explained that the better entrepreneurship value makes respondents who are already running a business trying to keep the business they are running. Especially at the age of generation Z, they have the ability and resilience to deal with changes during the Covid-19 pandemic. So the respondent shows that he is able to run his business independently.

In the fifth hypothesis, the statement that entrepreneurial behavior affects business independence with a t-statistic value of 6.926 and a t-value of 0.000 explains that the fifth hypothesis is supported. In line with previous research conducted by Suharti and Sirine (2011). Entrepreneurial behavior is the respondent's ability to continue to run a business during the Covid-19 pandemic so that they try to show their existence through their independent ability to run their business. Support from the family environment, university and knowledge in running a business support the business independence of this generation Z student.

CONCLUSION

Based on the results of data analysis and discussion, it can be concluded that the first hypothesis (H1) has a positive and significant relationship with entrepreneurial behavior. So that the first hypothesis can be accepted because the entrepreneurial spirit is one of the factors that influence entrepreneurial behavior. In H2 with the statement that the value of entrepreneurship has an effect on entrepreneurial behavior, the results of the analysis that have been carried out show that the value of entrepreneurship has a positive and significant relationship to behavior. entrepreneurship. So the second hypothesis is accepted because the value of entrepreneurship is one of the factors that can influence entrepreneurial behavior. The third hypothesis with the statement that the entrepreneurial spirit affects business independence. Based on the analysis contained in this research, it is explained that the entrepreneurial spirit has a positive and significant relationship to business independence. So the third hypothesis can be accepted because the entrepreneurial spirit is one of the factors that can affect business independence. The fourth hypothesis with the statement that the value of entrepreneurship has an effect on business independence. Based on data analysis shows that the value of entrepreneurship can have a positive and significant effect on business independence. It can be concluded that the fourth hypothesis is accepted because the value of entrepreneurship is one of the factors that can affect business independence. Furthermore, in the fifth hypothesis, the statement of entrepreneurial behavior can affect business independence. Based on the results of the analysis, the fifth hypothesis is accepted because entrepreneurial behavior can affect business independence.

RESEARCH LIMITATION AND RECOMMENDATION

There are limitations in this study, where the limitations are based on the sample technique, variables, number of samples and time, and sample characteristics. In this study, only the variables in the research model were used. Meanwhile, there are other variables that can affect business independence. Other variables such as self-support, relationship support, and other independent variables that can affect business independence. The sampling technique used is judgment sampling, where only subjects who can meet the new criteria can become respondents. Limitation on the number of respondents used is only 90 respondents. This study is a cross-sectional study. Where, changes in business independence within a certain period of

time cannot be further identified.

There are several suggestions that the researcher proposes for further research. For further research, it is recommended to distribute the questionnaire widely not only Jakarta and Tangerang by adding more samples so that the research results are in accordance with the conditions in the field business independence gen z in Indonesia. Furthermore, it is recommended to add other independent variables that can measure business independence. This research uses the SmartPLS software with the PLS method. It is hoped that further research can use the SEM method to measure the structural model based on a strong theoretical study to be able to test the causal relationship between variables and to measure the feasibility of the model with empirical data.

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CONSUMERS' BRAND LOYALTY OF ENERVON C IN PANDEMIC ERA

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Abstract

The growth of Vitamin C demand in pandemic makes brand loyalty became one of an important factor to win competitive advantage among competitors. This study aimed to examine and understand the relationship between brand awareness, word of mouth, perceived quality, and brand image towards brand loyalty of Enervon C consumer in pandemic era. Sample of this study were 270 respondents that consume Enervon C during pandemic. This study applies quantitative research method with data collection method through electronic questionnaires. Collected data will be analyzed through SmartPLS 3.3.3 with Structural Equation Modelling. The result indicated that brand awareness, perceived quality, and brand loyalty has a direct relationship with brand loyalty and brand image mediated the relationship of brand awareness and perceived quality with brand loyalty. Word of mouth has a direct relationship with brand image.

Keywords: brand loyalty; brand awareness; word of mouth; perceived quality; brand image

INTRODUCTION

The emergence of COVID-19 puts the whole world in high alert and the World Health Organization (WHO) announced a major public health issue and declare the outbreak as a pandemic. This situation affected people and businesses around the world as governments of the world declare a new set of regulation to prevent the spread of COVID-19. These regulations are including practice social distancing at any public places, obligation to wear a mask outside, frequently wash hands or use of hand sanitizer, limiting number of people at a room, frequently clean and disinfect, testing body temperature, mandatory quarantine or a stay-at-home regulations (GÜNER et al., 2020).

Public awareness is increasing along with the increasing level of concern about COVID-19. The increasing level of concern has pushed people to change their lifestyle such as exercising frequently, eating healthier food, and consuming vitamins to maintaining immunity. Vitamin C, a type of vitamin has many functions for human body that is known to promote immune function (Carr, 2020). Vitamin C became the most consumed vitamin among other types of vitamin during this era of pandemic. Moreover, a study found that Vitamin C has a role on reducing a critical case on COVID-19 patients (Hemilä & de Man, 2021).

The increasing number of Vitamin C leads to increased demand, which then leads pharmacy companies to a significant growth and an opportunity to enter the multivitamin industry (Anjani & Siregar, 2021). With the intense competition, brand plays an important role on winning competitive advantage among competitors (Cynthia Yulita Wardayanti, 2006). The number of brands available on the market creates an opportunity for customers to choose the favorable brand. Hence, it is important for brand to be superior to compete.

Enervon C, a well-known Vitamin C, is one of an old player on the multivitamin industry. It is produced PT Darya-Varia Laboratoria Tbk. Based on data of Top Brand Index, Enervon C became the second top brand on both 2019. Enervon C also index also increased by 13.5%. However, Enervon C still was not able to overcome the number on top brand, Vitacimin, even

though its index decreased. Retail data from IQVIA also shows that Enervon C has 34% growth in 2021. Even so, it is still on the fourth rank among five other brands.

The intense competition between multivitamin companies in this pandemic era encourages companies to meet the needs of their customers to maintain its position in the market. Customer loyalty towards brand is crucial when the market is highly competitive. Loyalty towards brand plays an important role for companies so consumers will always choose Enervon C even with several other options. Moreover, through loyalty, consumers may recommend Enervon C to their families and friends. Nonetheless, loyalty cannot be built overnight, it is a long process that requires a set of good overall experience for consumer. Loyalty can be built through many instruments. Some of them are Brand Awareness, Word of Mouth, Perceived Quality, and Brand Image, which will be discussed in this study.

Brand Awareness plays an important role on expanding brand's equity (Kotler & Keller, 2016). Through brand awareness, brand image can be increased where increasing brand image allows customer to build an association with a brand in their memory (Dülek & Saydan, 2019). A brand's image on customer's mind can be influenced by the level of awareness of customer towards a certain brand (Fajariah et al., 2016). Customer's awareness towards a certain brand continue to increase through a constant exposure in customer's mind. The more customer aware of a certain brand, the higher the brand image (Sari Dewi et al., 2020). It can be concluded that brand awareness helps build and strengthen a brand's image (Tariq et al., 2017).
H1: Brand Awareness has an influence on Brand Image.

Customer will be more likely to choose a brand they are aware of. Therefore, awareness is the first step of customer's preference towards a certain brand. Through a high level of brand awareness, companies can attract customer's trust to make a constant purchase. When customer is faced with various options, they will be most likely to choose a brand that they are aware of. Hence, when faced with products with various options, they will choose a brand with the highest level of brand awareness. Brand Awareness can be considered as an asset that influence customer's perception and preference that can lead to loyalty (Bernarto et al., 2020). Customer's loyalty towards brand is stronger when customer is aware of the brand (Alkhawaldeh et al., 2017). Therefore, brand awareness affects brand loyalty (BİLGİN, 2018).
H2: Brand Awareness has an influence on Brand Loyalty.

Brand Image is formed in customer's mind through a perception, which reflected in customer's buying behaviour as a quality that is perceived by customers who have experienced the product or service before (Yaman, 2018). Through word of mouth, customers will form an image or expectation about a certain brand in their mind, consciously or not. When customers heard a positive information through word of mouth, a positive brand image is formed. Otherwise, the brand tends to be less attractive when there is a negative word of mouth (Temaja & Yasa, 2019). As mentioned before, word of mouth can be considered as a marketing tool. Therefore, word of mouth plays an important role on forming a brand's image. It can be concluded that word of mouth has affects brand image (Wicaksono & Seminari, 2016).
H3: Word of Mouth has an influence on Brand Image.

Customer who has a good perception and judgement towards a certain product tends to appreciate brand's credibility which is a component of brand image (Kurniawan, 2017). Companies can help contribute on forming a brand image through perceived quality (Yaman, 2018). Customers will evaluate perceived qualities of a certain brand to create a brand image in their mind. The more positive the perceived quality, the more positive the brand image. When customers assume that a certain product has a good quality, a positive brand image will be formed. Otherwise, when customers assume that a certain product does not meet their

qualifications, a negative brand image will be formed (Cahyani et al., 2017). Therefore, perceived quality affects brand image.
H4: Perceived Quality has an influence on Brand Image.

Quality is an important factor on building brand loyalty (Sia et al., 2018). Customer will be more like to keep choosing a certain brand and gives recommendation to others when they feel superiority of a brand. The higher level of perceived quality, the easier it is for customer to be loyal to a certain brand (Kurniawan, 2017). Perceived Quality is considered to be an element that strengthen superiority perception of a certain brand that makes a brand superior to competitors. Customer's perception might be a motive for customer to make a purchase and deciding the chosen brand when faced with options (Nofriyanti, 2017). Perceived Quality differentiate its brand from competitors which then affect loyalty (Gunadi et al., 2017). It can be concluded that perceived quality influences brand loyalty, where the higher the perceived quality, the higher the level of loyalty (Vazifehdoost & Negahdari, 2018).
H5: Perceived Quality has an influence on Brand Loyalty.

By creating a positive brand image in the minds of customers, customers might gain trust in the brand that will lead to loyalty. Brand Image is considered to be one of a key to gain customer's loyalty (Mabkhot et al., 2017). Customer's perception and opinion towards a certain brand leads them to loyalty (Bernarto et al., 2020). The better the brand image, the higher the level of loyalty. When a brand has a positive image, customer will tend to have a good relationship with the brand (Puška et al., 2018). Customers have tendency to choose a brand with a positive image. When an image of a brand is positive on customer's mind, they will keep choosing that brand. Therefore, brand image affects brand loyalty (Tammubua, 2021).
H6: Brand Image has an influence on Brand Loyalty.

Brand Awareness is considered to have an influence on brand loyalty, though a positive brand image will support it (Saleem et al., 2015). Brand Awareness helps customers to build and form an image of a certain brand, which then lead them to loyalty. When a customer is aware of certain brand, they will form an image in their mind. The customer's image towards a brand then drives them to be loyal to that brand. Through brand image, brand awareness affects brand loyalty. Therefore, it can be concluded that brand image mediates the effect of brand awareness towards brand loyalty (Fajariah et al., 2016).
H7: Brand Image mediates the influence of Brand Awareness towards Brand Loyalty.

Customer's perception is the primary step of forming a loyalty which then supported by brand image (Alhaddad & Alhaddad, 2015). When a perception towards the product quality is low, customer tends to choose other brands (Fajariah et al., 2016). Perceived Quality plays an important role on forming a brand's image, which then leads customer to loyalty. When a perceived quality is high, then a positive brand image will be formed which leads to loyalty. It can be concluded that brand image mediates the effect of perceived quality towards brand loyalty.
H8: Brand Image mediates the influence of Perceived Quality towards Brand Loyalty.

RESEARCH METHOD
The approach used in this research is quantitative. The purpose of this research is to identify and analyse the relationship between variables, therefore this is a descriptive research type. The population of this study was all Enervon C users in Indonesia. This research used a non-probability sampling method, with a convenience sampling technique. Requirements for respondents to be sampled are people who consumed Enervon C during pandemic. The unit

analysis of this research is individuals, where the data are collected from Enervon C users counted as an individual. The data used are the results of questionnaires that have been distributed via electronic questionnaires or online questionnaires through Google Form. This study uses a sample of 270 units. The data obtained in this study were then performed statistical analysis with Structural Equation Method (SEM) using Partial Least Square (PLS) with SmartPLS 3.3.3 software.

RESPONDENT PROFILE

The results of this study indicate that this research is dominated by male respondents, with total of 146 respondents (54.1%), Most of them are at the age of over 39 years old (61.5%) with an occupation of employees of private/state/state-owned companies (73.3%) and an income over Rp 15.000.000 per month (48.2%). This research is dominated with respondents who are Enervon C users with total of purchase 1 to 2 times per month (80%).

Tabel 1. Respondent Profile

Category		Qty
Age	<18 y.o.	1
	18 – 24 y.o.	26
	25 – 29 y.o.	38
	30 – 34 y.o.	20
	35 – 39 y.o.	19
	>39 y.o.	166
Profession	Unemployment	1
	Profesional	4
	Freelancer	8
	Entrepreneur	13
	Student	22
	Housewife	24
	Private employees	198
Monthly Income	<Rp 5.000.000	38
	Rp 5.000.001 – Rp 7.500.000	20
	Rp 7.500.001 – Rp 10.000.000	33
	Rp 10.000.001 – Rp 12.500.000	26
	Rp 12.500.001 – Rp 15.000.000	23
	>Rp 15.00.000	130
Repeat Buying	1 – 2 times	216
	3 – 4 times	42
	5 – 6 times	6
	>6 times	6

Table 2. Validity, Reliability, R^2, GoF

Variable	AVE	CA	CR	R^2
Brand Awareness	0,649	0,811	0.878	
Word of Mouth	0,852	0,942	0,959	

Product Quality	0,822	0,891	0,933	
Brand Image	0,749	0,915	0,937	0,804
Brand Loyalty	0,788	0,933	0,949	0,726
SRMR	0,068			
NFI	0,856			
rms theta	0,158			

Table 2 shows that both dependent variables are considered substantial, where 80.4% of the variance of Brand Image can be explained by its independent variables and 72.6% of the variance of Brand Loyalty can be explained by its independent variables. This model of this research is fit and accurate with the regression line of the actual data, which shown in Table 4, where the SRMR value is below 0.10, the NFI value is closer to 1, and the RMS Theta value is closer to 0.

Table 3. Hypothesis Testing Results

Hypothesis	*T-statistics*	P-Value	Result
H1: Brand Awareness →Brand Image	4.933	0.000	Significant
H2: Brand Awareness → Brand Loyalty	3.793	0.000	Significant
H3: Word of Mouth → Brand Image	3.758	0.000	Significant
H4: Perceived Quality → Brand Image	8.505	0.000	Significant
H5: Perceived Quality → Brand Loyalty	2.509	0.012	Significant
H6: Brand Image → Brand Loyalty	5.544	0.000	Significant
H7: Brand Image mediates the influence of Brand Awareness towards Brand Loyalty.	3.825	0.000	Significant
H8: Brand Image mediates the influence Perceived Quality towards Brand Loyalty.	4.539	0.000	Significant

DISCUSSION

Based on the profile of respondents, it can be concluded that this research is dominated by adults over 39 years old with a stable job and a relatively high income. This shows that Enervon C is a trusted product by an "upper middle class" adult, where they choose Enervon C despite their high income. Moreover, it is shown that Enervon C user with the age below 18 years old are relatively low. This might be due to the differences in lifestyle among "younger people", where they tend to pay less attention on their health and the importance of Vitamin C. However, consumers mostly buy products 1 to 2 times a month, this could be due to the size

of Enervon C bottle containing 30 tablets. Hence, consumers only need to make a purchase once a month.

The results of this study found that the higher the awareness of Enervon C, the higher the brand image (H1). The findings of this study support the previous research results of Fajariah et al (2016). Therefore, to build a positive brand image, Enervon C must raise its awareness. According to the same previous study, brand awareness such as logo, name, and appearance can affect brand loyalty. This study also found that the higher the awareness of Enervon C, the more loyal Enervon C customers will be (H2). Hence, Enervon C must raise its awareness to attract customer loyalty. To develop its brand awareness, Enervon C can create a branding program that might increase its awareness. The findings of this study are consistent with the results of previous studies by Indra (2018). The more positive or negative the word of mouth, the easier the image is formed (H3). Word of Mouth, such as recommendation, invitation, and information can affect the image of Enervon C in customer's mind. While word of mouth is a cheap and efficient way to promote brand, it is having to be built through experience. When customer's experience with Enervon C is overall satisfying, they tend to share it with their relatives or friends. Therefore, Enervon C must offer a satisfying experience to create a positive word of mouth which then affect its image. The study found that the perceived quality of Enervon C is strong enough to generate the image of customer loyalty to Enervon C (H4). It is also shown that perceived quality affects brand loyalty the strongest, meaning that to form a positive image, Enervon C needs to put perceived quality as a top priority in forming a brand image. The findings of this study support the research result of the previous study by (Fajariah et al., 2016).

This study also found that the higher the perceived quality, the more loyal customer will be (H5). This finding supports the results of the same previous research. To increase loyalty, Enervon C can increase its product perceived quality. Perception can be formed through product's appearance. Therefore, Enervon C creating a new format of Vitamin C. The more positive the brand image, the more brand loyalty towards Enervon C would increase (H6). Brand image affects brand loyalty the most, therefore, in order to increase loyalty, Enervon C should give brand image a bigger marketing portion and more attention. This finding supports the same previous study of Fajariah et al (2016). From the results of this study, Enervon C needs to create a positive brand image to generate loyalty by creating a bundling promotion or upgrading its current packaging. In H7 and H8, the mediating role of brand image is described. This study found that brand image can mediate the influence of between brand awareness towards brand loyalty (H7) stronger than the direct influence of brand awareness towards brand loyalty. Therefore, it is preferable for Enervon C to increase customer's loyalty towards Enervon C by increasing its awareness through brand image. Even though the compatibility of Enervon C with its brand awareness is sufficient to generate loyalty without having to form positive image towards Enervon C, positive brand image can strengthen the influence of brand awareness towards brand loyalty. This study also finds that brand image can also mediate the influence of perceived quality towards brand loyalty (H8). Though perceived quality can directly affect brand loyalty, it is preferable for Enervon C to gain loyalty by increasing perceived quality through brand image since it has a stronger influence.

CONCLUSIONS

To improve its position in the top brand and increase its sales growth, Enervon C must increase their customer's loyalty. This study found that the influence of brand awareness, word of mouth, perceived quality, and brand image towards brand loyalty are strong enough during pandemic. Therefore, Enervon C can increase customer's loyalty through brand awareness, perceived quality, and brand image since all of them influence brand loyalty. Though, brand

image has the strongest influence towards loyalty. Hence, Enervon C must give the biggest marketing portion to increase brand image while also paying attention to increasing its awareness and perceived quality and offering a high-quality experience to increase a positive word of mouth.

RECOMMENDATIONS

Loyalty can be built through various aspects, such as satisfaction, trust, experience, customer's knowledge, and purchase intention, but in this study, the researcher only uses four aspects. Therefore, the further research can examine more aspects so that it can be seen which aspects have the most influence on brand loyalty. The further research can choose a larger number of samples by distributing questionnaires to more respondents with a wider range location to get more accurate results and the conclusions drawn are more accurate because they are represented by more people. The same variables can be inspected on different objects such as beauty products, gadgets, or food and beverage products.

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THE IMPACT OF LOCUS CONTROL AS A MEDIATOR ON JOB SATISFACTION IN XYZ'S NON-FRANCHISE BUSINESS

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Abstract
The phenomenon that the work environment and personal aspects of workers, such as work discipline and locus control, should go hand in hand to achieve the expected job satisfaction motivates this research. The purpose of this research is to identify and explain the factors that influence locus control and job satisfaction. Also, to identify and explain the role of locus control as a moderator between non-physical work environment and work discipline on job satisfaction. This quantitative study involves 30 employees from XYZ's non-franchise business in Jakarta and employs a structural model with SmartPLS as an analytical tool. A questionnaire instrument was used in this study's survey. According to the findings of this study, the work environment has a small impact on locus control and job satisfaction. Meanwhile, work discipline affects locus control but not job satisfaction. This finding supports another finding that employees' locus of control at work influences job satisfaction. In the indirect effect, locus control does not serve as a moderator between work environment and job satisfaction or between work discipline and job satisfaction.

Keywords: Job satisfaction; locus control; work environment; work discipline

INTRODUCTION

In the context of work in general, aspects of belief in what is being done now and the results to be obtained can be positive. This means that employees who put forth their best efforts at work will be rewarded for their efforts. However, this must be accompanied by aspects of a positive work environment and consistent work discipline. The significance of locus control in an individual's life is related to several aspects, including psychology [1][2], health [3], and well-being [4][5]. Several studies have identified the locus of control as an indirect effect-forming variable, acting both as a mediating and moderating variable [6][7]. Locus control is used as a mediating variable in this study to explain the path of the effect of work environment and work discipline on job satisfaction. As a result, the purpose of this research is to identify and explain the determinants of locus control and job satisfaction. Another goal of this research is to identify and explain the role of locus control as a moderator between non-physical work environment and work discipline on job satisfaction.

Several previous studies have explained the relationship between job satisfaction and aspects of the work environment, work discipline, and locus control. According to Suprapti et al. [8], the work environment has an impact on worker satisfaction. Furthermore, it was explained that the work environment has an impact on worker performance. This is also consistent with the notion that the non-physical work environment is a working relationship between superiors and subordinates as well as between colleagues [9][10]. In accordance with this, the concept of a non-physical work environment is viewed as a type of work-related conditions with superiors as well as among co-workers [11]. In the context of locus control at work, however, Luki and Lukiastuti [12] explained that the higher the level of locus control implemented, the higher the level of job satisfaction of the employees. Simply put, locus control is a type of individual belief in the outcome of an action or effort undertaken. [6][13]. Furthermore, work discipline is an important aspect of achieving high levels of productivity.

This is consistent with the findings of Suprapti et al. According to [8], work discipline and job satisfaction are inextricably linked.

This study measures and analyzes aspects of the work environment, work discipline, locus control, and job satisfaction using a business disguised as XYZ's business name. XYZ's company sells ready-to-eat processed chicken products and is not a franchise. This company was founded in 2019 and already has more than 5 locations. As a new business, the main issues encountered are high turnover, non-standard communication lines between the center and outlets, employee performance that does not meet the company's expectations, and poor employee service. maximum benefit to the customer Recognizing that there is a link between aspects of the work environment, work discipline, and locus control on job satisfaction is the primary emphasis that makes this research urgent. The novel aspect of this study is the involvement of locus control as a mediating variable. The purpose of this study is to determine and explain whether locus control in the workplace, in addition to acting as an exogenous variable as in most studies, can also play a mediating role in this study.

METHODOLOGY

To collect data for the study, quantitative methods were combined with surveys. The survey instrument is a questionnaire that will be distributed at random in October 2021. The participants in this study must be employees of the XYZ non-franchise business in Jakarta. Because of difficulties in reaching samples during the pandemic, only 30 questionnaires from participants were successfully collected during the questionnaire collection process. This is the sample size for this study. This sample size is still consistent with the central limit theorem approach, which requires a minimum sample size of 30 [14]. SmartPLS is used in this study's structural model analysis. Initially, this study performed reliability and validity tests. In this study, the reliability test used composite reliability (CR) results with conditions CR> 0.7 and Cronbach's neglect (CA) results with conditions CA> 0.7 [15]. Furthermore, to test the validity, this study uses the outer loading (OL) results with OL> 0.7 conditions and the average variance extracted (AVE) results with AVE> 0.5 conditions [16]. Furthermore, the validity of this study employs discriminant validity, resulting in a construct correlation value that is greater than the correlation value with other constructs. This study employs the results of the p value with the condition p0.05 in testing the hypothesis [17].

RESULTS

The Profiles of The Participants

The distribution of the profiles of the participants in this study is shown in Table 1. As can be seen, male participants dominated this study, accounting for more than 60%, with female participants accounting for less than 34%. Furthermore, based on the age profile, participants in this study were dominated by those aged 20-25 years, with a total of 70%, and those under 20 years were followed by as much as 30%. Participants in this study included those who worked for more than a year in the company (more than 55 percent) and those who worked for less than a year in the company (less than 44 percent).

Table 1. Profiles of the Participants

Profile	N	%
Gender		
Female	10	33.33%
Male	20	66.67%
Age (years old)		

18-19		9	30%
20-25		21	70%
Working period			
Less than 1 year		13	43.33%
1 year		17	56.67%

PLS Algorithm

This study employs the previously described series of reliability and validity test results. Table 2 displays the study's reliability and validity results. Cronbach's alpha (CA) and composite reliability (CR) results must be greater than 0.7 to pass the reliability test. Furthermore, the validity test in this study employs outer loading (OL) results that must be greater than 0.7 and average variance extracted (AVE) results that must be greater than 0.5, as well as discriminant validity. Several items fail to meet the requirements during the testing process and must be eliminated and retested. On the job satisfaction variable, all the OL, CA, CR, AVE, and discriminant validity results met the criteria. Furthermore, on the locus control variable, all the OL, CA, CR, AVE, and discriminant validity results met the criteria. Similarly, the results of OL, CA, CR, AVE, and discriminant validity are declared to have met the requirements for the Non-Physical Work Environment variables. The Work Discipline variable indicates that the results of OL, CA, CR, AVE, and discriminant validity also meet the requirements.

Table 2. Reliability and Validity Testing

Variable	Item	OL	CA	R	VE	Discriminant Validity			
						OSAT	OCO	PWE	ODI
Job satisfaction	JOSAT8	0.804	0.817	.892	.733	.856			
	JOSAT9	0.928							
	JOSAT10	0.832							
Locus control	LOCO1	0.949	0.884	.945	.896		.947		
	LOCO2	0.945							
Non-Physical Work Environment	NPWE3	0.822	0.881	.913	.678			.824	
	NPWE4	0.919							
	NPWE5	0.888							
	NPWE6	0.717							
	NPWE8	0.754							
Work Discipline	WODI1	0.822	0.890	.918	.693				.833
	WODI2	0.876							
	WODI4	0.883							
	WODI8	0.776							
	WODI11	0.801							
*JOSAT= Job satisfaction; LOCO= Locus control; NPWE= Non-Physical Work Environment; WODI= Work Discipline. ***OL>0.7; CA>0.7; CR>0.7; AVE>0.5*									

The Coefficient of Determination

The coefficient of determination in this study is based on R Square results, as shown in Table 3, which explains that the use of non-physical work environment and work discipline as independent variables explains its effect on locus control by 27.6 percent. In addition, the R square on job satisfaction is 0.481, or 48.1 percent. This explains why using non-physical work environment, work discipline, and locus control as independent variables explains 48.1 percent of the effect on job satisfaction.

Table 3. Determinant Coeeficient

Variable	R Square
Job Satisfaction	0.481
Locus Control	0.276

Hypothesis Testing

Using the P value results, test the hypothesis in table 4 of this study. P = 0.031 (<0.05) in the path of non-physical work environment locus control. These findings demonstrate that the non-physical work environment has a significant impact on the locus of control, implying that hypothesis 1 is correct. The following path is non-physical work environment job satisfaction, which has a P value of 0.019 (<0.05). These findings support hypothesis 2 by demonstrating that the non-physical work environment has a significant impact on job satisfaction. Furthermore, the work discipline locus control path has a P = 0.001 (<0.05). These findings demonstrate that work discipline has a significant effect on locus control, implying that hypothesis 3 is correct. P = 0.400 (>0.05) for the relationship between work discipline and job satisfaction. These findings demonstrate that work discipline has no effect on job satisfaction; thus, hypothesis 4 is rejected. Furthermore, the P = 0.034 (<0.05) for the locus control job satisfaction path. These findings explain why locus control has a significant impact on job satisfaction; in other words, hypothesis 5 is supported. P = 0.165 (> 0.05) for the non-physical effect, where the path of non-physical work environment locus control job satisfaction. According to these findings, locus control does not mediate the effect of the non-physical work environment on job satisfaction; thus, hypothesis 6 is rejected. The indirect effect, on the other hand, where the path of work discipline locus control shows P = 0.094 (> 0.05). These findings indicate that locus control does not mediate the effect of work discipline on job satisfaction; thus, hypothesis 7 is rejected.

Table 4. Hypothesis Testing

Path	Standard Deviation	T Statistics	P Values	Remark
Non-Physical Work Environment → Locus Control	0.199	2.162	0.031	H1: accept
Non-Physical Work Environment → Job Satisfaction	0.217	2.362	0.019	H2: accept
Work Discipline → Locus Control	0.190	3.326	0.001	H3: accept
Work Discipline → Job Satisfaction	0.223	0.843	0.400	H4: reject
Locus Control → Job Satisfaction	0.144	2.130	0.034	H5: accept
Non-Physical Work Environment → Locus Control → Job Satisfaction	0.095	1.391	0.165	H6: reject
Work Discipline → Locus Control → Job Satisfaction	0.116	1.680	0.094	H7: reject

DISCUSSION

In general, as is well known, the work environment is related to the quality of the work performed [9]. According to the findings of this study, the non-physical work environment has an impact on job satisfaction. These findings support the findings of Arab et al. [18], who also explain how the non-physical work environment affects job satisfaction. This is supported by the findings of Sembiring and Purba's study [19] explains how the work environment affects job satisfaction in a similar way. The findings of this study clearly demonstrate that, in the context of work in non-franchise businesses, a positive work environment is critical in shaping workers' locus of control and job satisfaction.

The study's next finding explains how locus control has a significant impact on job satisfaction. These findings contradict the findings of Arab et al. [18], who argue otherwise. A nearly parallel viewpoint explains why there is a strong negative correlation between locus of control and job satisfaction [20]. Yuwono et al. [21], on the other hand, support the findings of this study by demonstrating that locus control influences job satisfaction. Sembiring and Purba [19] conducted another study that found locus control influences job satisfaction. Furthermore, the findings of this study show that employees at the XYZ business, a non-franchise business that sells ready-to-eat processed chicken, believe that the level of locus control at work has no effect on job satisfaction. In this case, job satisfaction is more visible in the workers' sense of security, benefits, or any work facilities obtained. As a result, if these conditions are met, it may influence the highest level of work performance carried out and produced. This is also related to the findings of research that explains aspects of job security, workplace stress, and workload [22]–[26].

According to the findings of this study, work discipline has no effect on job satisfaction. These findings contradict the findings of Arab et al. [18], who claim that work discipline influences job satisfaction. Similarly, according to Yuliandi, 2019 [27], work discipline influences job satisfaction. Excellent work results must come from all parties, specifically workers and businesses. Businesses such as XYZ have undoubtedly created a work environment and established work discipline standards from the start. As a result, employees in this industry should abide by the rules that have been devised to maximize business success.

CONCLUSION

According to this study, the non-physical work environment has a significant impact on locus control. Furthermore, this study explains how the non-physical work environment has a significant impact on job satisfaction. Another finding from this study explains how work discipline affects locus control. The study's next finding explains that work discipline has no effect on job satisfaction. According to the findings of this study, locus control has a significant effect on job satisfaction in relation to workers' trust in upholding positive work principles. This study explains, similarly to aspects of the work environment, that locus control does not mediate the influence of the non-physical work environment on job satisfaction. Other findings from this study show that locus control does not moderate the effect of work discipline on job satisfaction. A positive work environment is critical in shaping workers' locus of control and job satisfaction in non-franchise businesses. The degree of locus control in the workplace that has no effect on job satisfaction. The job satisfaction factor in this case is more visible in the workers' sense of security, benefits, or any work facilities obtained. The important thing to remember in this case is that excellent work results must come from all parties, namely the workers and the company. This study has limitations due to the use of a relatively small sample size, so for future research, a larger and more diverse sample size can be used. The use of micro, small, and medium-sized businesses in other types of businesses can also be considered for research purposes. The business's history, for example, a family-run business for generations, may yield interesting results that complement the findings of this study on locus control and job satisfaction.

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EXPLORING THE ANTECEDENTS OF UNIVERSITY STUDENTS' ENTREPRENEURIAL INTENTION IN AN EMERGING COUNTRY

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Abstract
An emerging country like, Indonesia requires the young generation to be educated in order to help the nation to recover stronger from the devastating impact of COVID 19 Pandemic. The country requires a lot of business and entrepreneurial activities to transform it into a country with a stronger and more resilient economy. The purpose of this research is to analyze the factors influencing the entrepreneurial intention of university students in Indonesia. The data was gathered through the use of a survey approach and the distribution of questionnaires. University students (New university entrants, bachelor's degrees, masters' degrees, and doctorate degrees) studying in Indonesia are the target population for this study. Validity and reliability tests were performed in this study, and a pre-test with 32 respondents was conducted before the actual data collection. Furthermore, a total of 270 individuals were chosen as the sample size. Quantitative research was used, with judgmental sampling as the design sampling method. Moreover, the Partial Least Square Structural Equation Modeling with SmartPLS was used to scrutinize the data in this study (v. 3.3.7). The data show that all of the variables examined have a positive effect on entrepreneurial intention. However, having three supported hypotheses; Entrepreneurial Mindset, Entrepreneurial Education, Perceived Behavioral Control, and two unsupported hypotheses; Self-Competence and Subjective Norms.

Keywords: Entrepreneurial mindset; Entrepreneurship education; perceived behavioral control; self-competence; subjective norms

INTRODUCTION

Entrepreneurs have important roles as leaders, economic drivers, and individuals who are responsible, and accountable for running a business (Ohanu & Ogbuanya, 2018). They have a number of social identities, consequently holding various social responsibilities (Chasserio et al., 2014). In addition, entrepreneurs and their entrepreneurial roles have been perceived as the engine of socioeconomic growth by providing job opportunities, offering diverse goods/services to the population (Reynolds et al., 2000), and the solution to problems such as high unemployment and stagflation (Wennekers & Thurik, 1999). Facts and figures derived from the 2018 Entrepreneurship Global Index show that the number of entrepreneurs in Indonesia is still relatively small, accounting for only 3.1 percent of the total population, falling short of the target of 2 million entrepreneurs (Statistics Indonesia, 2019).

With regard to the important role of entrepreneurs as the engine of socioeconomic growth, both developed and emerging countries have started to zero in on growing the number of entrepreneurs in their respective countries (Dhaliwal, 2016). One way to increase the number of entrepreneurs is to arouse entrepreneurial intention through a variety of training programs and education both in formal and non-formal sectors. In formal education, the entrepreneurial intention is supported by offering entrepreneurship courses to students, who are considered potential candidates for conducting future entrepreneurial activities (Yurtkoru et al., 2014).

Previous studies have uncovered that the willingness to become an entrepreneur plays a key component in a person's decision to start a new firm. Only when countries and government bodies are well-aware of the various components associated with entrepreneurial

need can they influence the entrepreneurial intention of the younger generation (Ozaralli & Rivenburgh, 2016).

Based on the phenomena discussed, this research aims to examine the factors that influence the entrepreneurial intention of university students in an emerging country like Indonesia in terms of their entrepreneurial mindset, education, behavior, competency, and norms.

LITERATURE REVIEW

Theory of Planned Behavior

The theory of planned behavior (TPB) proposed by Ajzen's (1991) is the most extensively utilized theory describing an individual's entrepreneurial intentions in the area of entrepreneurship studies and research. Individuals' intentions to engage in particular conduct are influenced by their perceptions of the user behavior required to carry out that action. Individual entrepreneurial intentions, according to this notion, are the product of attitudes formed via personal characteristics and experiences (Ajzen, 1985 & 1991). Thus, being said, the higher the individual's desire to execute or initiate a specific behavior, the more likely it is to be conducted.

The TPB proposes that three factors, namely subjective norms (SN), attitude toward behavior (ATB), and perceived behavioral control (PBC), influence one's desire to act and participate in any activity (Ajzen, 1991). TPB was used by Krueger et al. (2000) in a study on entrepreneurship. The study found that one's attitudes toward action, such as self-competence and self-employment, have an impact on one's desire to become an entrepreneur. However, other factors like subjective norms, have no bearing on intentions (Franke & Luthje, 2004). In the area of entrepreneurial studies, the TPB has been used in previous as well as recent studies to better understand entrepreneurial goals (Doanh & Bernat, 2019; Hsu et al., 2014; Shreevastava et al., 2020; Yuan et al., 2019).

Entrepreneurial Intention

An entrepreneurial intention refers to the desire to start a new business venture or provide new value to an existing business (Bird, 1988). An individual's entrepreneurial intention also refers to a cognitive description of the actions that an individual aspire to do to either start a new business or offer new values within the existing business (Fini et al., 2009). It can also be defined as a mental representation of what someone will do to establish a new firm. According to Bird (1988), personal characteristics and the environment, such as social, economic, political, and infrastructure development, play a crucial role in arousing entrepreneurial intention.

When it comes to starting a business, individuals with an entrepreneurial mindset are more likely to succeed. Personality variables such as self-competence, according to Indrati and Rostiani (2008), are drivers of entrepreneurial intention. An entrepreneurial intention is also impacted by a risk-taking tendency and an internal center of control, according to Lutje and Franke (2003).

Entrepreneurial Mindset on Indonesian university students' Entrepreneurial Intention

According to the Theory of Planned Behavior, an individual's thinking is a result of their intentions. Entrepreneurial mindset is defined as a predisposition to behave toward entrepreneurial activities that lead towards liking or disliking entrepreneurship. Luthje and Franke (2003) investigated the relationship between EA and EI, claiming that entrepreneurial attitude influences entrepreneurial intention strongly and significantly, and that EA is influenced by an individual's risk-taking tendency and internal locus of control. According to

Kusmintarti et al (2014), an entrepreneurial mindset influences entrepreneurial intention positively and significantly.

H1: Entrepreneurial Mindset has a positive effect on university students' Entrepreneurial Intention.

Entrepreneurial Education on Indonesian university students' Entrepreneurial Intention

Entrepreneurship education has been found to be a significant and favorable predictor of university students' entrepreneurial intention. The positive impact of entrepreneurial education on university students' entrepreneurial intentions is compelling evidence that well-designed and individualized entrepreneurship education and programs can boost students' interest in starting their own business. To increase students' entrepreneurial intention, entrepreneurship education should be more directed toward practical and hands-on parts rather than academic and theoretical content. Entrepreneurship education aims to inspire students to understand how to recognize and capitalize on possibilities in their environment (Iwu et al., 2019). The finding that entrepreneurial education has a significant positive impact on entrepreneurial intention is in line with previous research that has discovered a link between education and entrepreneurial intention (Ahmed et al., 2020; Hussain & Norashidah, 2015; Iwu et al., 2019; Jena, 2020).

H2: Entrepreneurship Education has a positive effect on university students' Entrepreneurial Intention.

Perceived Behavioral Control on Indonesian university students' Entrepreneurial Intention

Conceptually, perceived behavioral control and self-competence are identical where both the constructs refer to a person's idea that he or she has control over the behavior in his mind. Though, in operational terms, perceived behavioral control is usually measured by the satisfaction or difficulty of the behavior, whereas self-competence is measured by one's confidence in their ability to bring out the 22 behaviors in regard to adversity. Perceived behavioral control is found to be a compelling predictor of entrepreneurial intentions among university students. Furthermore, perceived behavioral control is known to be a significant predictor of entrepreneurial intention among university students. The significant and positive impact of PBC on student entrepreneurial intention indicates that the confidence of a student in enriched knowledge, skills to build a startup business, and opportunities within their environment would be able to influence their decision in engaging in entrepreneurial activities. Previous research (Brännback et al., 2018; Doanh & Bernat, 2019; Greene & Brush, 2018; Shabbir et al., 2016; Yang, 2008) has found that PBC is a predictor of entrepreneurial intention.

H3: Perceived Behavioral Control has a positive effect on university students' Entrepreneurial Intention.

Self-Competence on Indonesian university students' Entrepreneurial Intention.

The beneficial influence of self-competence on the entrepreneurial intention of university students demonstrates that involving those students in entrepreneurial endeavors or responsibility has the capability to improve students' self-competence towards entrepreneurial intention. Training and education provide an excellent atmosphere in which to establish confidence and competence in university students in order for them to demonstrate the necessary self-competence in the area of entrepreneurship. Previous research has found that entrepreneurial self-competence is linked to entrepreneurial purpose, which is

consistent with the research findings (Ciuchta & Finch, 2019; Doanh & Bernat, 2019; Greene & Brush, 2018; Pollack et al., 2019).
H4: Self-Competence has a positive effect on Indonesian university students' Entrepreneurial Intentions.

Subjective Norms on Indonesian university students' Entrepreneurial Intention.

When deciding what action to take, subjective norms describe the overall degree and direction of social influence felt by a person. The significance effect of subjective norms towards college students' entrepreneurial intention indicates that the university students' perceptions of their reference groups, which consists of friends, family, relatives, as well as other relevant individuals such as teachers, who would agree on their decisions to start a new business, will have an effect on commencing upon their intention to do so. The findings in regards to subjective norms having a favorable impact on entrepreneurial intention backed up by prior research, signified a 24 positive and substantial effect on entrepreneurial intention (Do & Dadvari, 2017; Lingappa et al., 2020; Nguyen et al., 2019).
H5: Subjective Norms have a positive effect on Indonesian university students' Entrepreneurial Intentions.

Based on previous literature examined, the following hypotheses are formulated for this research.

- H1: Entrepreneurial Mindset has a positive effect on university students' Entrepreneurial Intention.
- H2: Entrepreneurship Education has a positive effect on university students' Entrepreneurial Intention.
- H3: Perceived Behavioral Control has a positive effect on university students' Entrepreneurial Intention.
- H4: Self-Competence has a positive effect on Indonesian university students' Entrepreneurial Intentions.
- H5: Subjective Norms have a positive effect on Indonesian university students' Entrepreneurial Intentions.

The following research framework is used in this study. It is a replication of a previous study: Exploring the predictors of Chinese college students' entrepreneurial intention (Mensah et al., 2021).
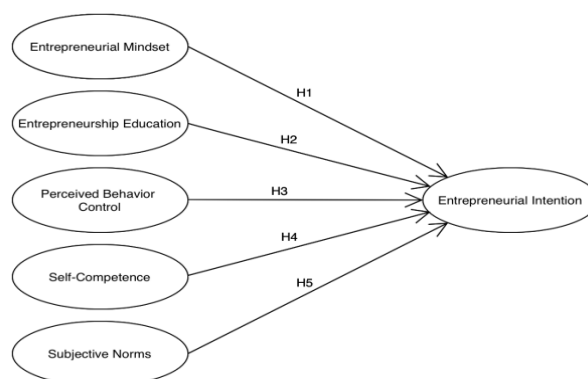

Figure 1. Research Model
(Source: Mensah et al., 2021)

METHODOLOGY

This research utilized a quantitative study with an online survey involving a multi-item questionnaire measured on a five-point interval scale. The questionnaire was distributed to respondents who indicated that they were voluntarily willing to complete the questionnaire.

The Entrepreneurial Intention measurement scale was developed by Nguyen, C. (2017). The entrepreneurial mindset was measured using indicators developed by Kusmintarti, A., Thoyib, A., Ashar, K., & Maskie, G. (2014). Entrepreneurship Education used the measurement scale developed by Mensah, I. K., Zeng, G., Luo, C., Xiao, Z., & Lu, M. (2021). The measurement scale of Perceived Behavioral Control was developed by Luc, P. T. (2018). The Self Competence measurement scale used the one developed by Pihie, Z. A. L., & Bagheri, A. (2010). Finally, the Subjective Norms used a measurement scale developed by Yousaf, et al. (2015).

The study involved 270 respondents, who are university students from undergraduate to graduate levels of both private and state universities in Indonesia. The sample was selected using non-probability, judgmental sampling. The data was collected from social media like Instagram and Facebook as well as messaging applications such as WhatsApp and Line. Data analysis in this study used Partial Least Square utilizing statistics software SMART PLS.

RESULTS AND DISCUSSION

Profile of respondents

There were 270 respondents who participated in the survey. A total of 149 respondents or 55.2% were female, and the rest (121 respondents or 44.8% were male). The majority of the respondents hold bachelor's degrees (201 respondents or 74.4%). The remaining respondents are high school graduates (40 respondents or 14.8%) and master's degree holders (29 respondents or 10.7%). Based on age groups, the majority of respondents (124 respondents or 45.9%) are between 21 and 23 years old. Those between 18 to 20 years old come in second with 90 respondents (33.3%). The rest are below 18 years old (28 respondents or 10.4%) and above 23 years old (28 respondents or 10.4%). Most respondents take entrepreneurship as their major (110 respondents or 47%). Respondents who take other business-related majors are 100 respondents (37%). The remaining 60 respondents (22.2%) are from non-business-related majors.

Outer Loading

Outer loadings, average variance extracted (AVE), and discriminant validity were used in the validity test. In addition, Composite Reliability was used in this study's reliability testing. The outer loading for the Validity test utilizing the Smart-PLS application yielded the following findings. The outer loading findings of 21 indicators are shown in Table 1.

Table 1. Validity and Reliability Result

Constructs	Outer Loading
Entrepreneurial Intention : AVE : 0.538, CR : 0.819	
EI 1	0.836
EI 2	0.845
EI 3	0.657
EI 4	0.556
Entrepreneurial Mindset: AVE : 0.507, CR: 0.755	

EM 3	0.756
EM 4	0.697
EM 5	0.882
Entrepreneurial Education: AVE: 0.704, CR: 0.923	
EE 1	0.839
EE 2	0.849
EE 3	0.830
EE 4	0.853
Perceived Behavioral Control: AVE: 0.571, CR: 0.841	
PBC 1	0.766
PBC 2	0.825
PBC 3	0.746
PBC 4	0.678
Self Competence: AVE: 0.552, CR: 0.786	
SC 1	0.730
SC 4	0.689
SC 5	0.805
Subjective Norms: AVE: 0.774, CR: 0.911	
SN 1	0.854
SN 2	0.840
SN 3	0.942

Source: Actual Data Processing Results using Smart-PLS (2022)

According to Hair et al (2014), to determine convergent validity, each variable should have an Average Variance Extracted (AVE) value of at least 0.5 and a Composite Reliability (CR) value of at least 0.7. All variables met the given requirements of convergent validity with the value of the specified requirements of AVE and CR.

Next, the Heterotrait-Monotrait Ratio (HTMT) criterion was also analyzed to check the discriminant validity as shown in Table 2.

Table 2. Result of Heterotrait-Monotrait Ratio of Correlations (HTMT)

	EM	EE	PBC	SC	SN	EI
EM						
EE	0.694					
PBC	0.743	0.793				
SC	0.336	0.220	0.498			
SN	0.678	0.809	0.740	0.256		
EI	0.840	0.826	0.955	0.359	0.786	

Source: Actual Data Processing Results using Smart-PLS (2022)

To confirm discriminant validity, the HTMT criterion must be less than 0.90 (Henseler et al., 2014). There is a concern with the discriminant validity of the construct Entrepreneurial Intention and Perceived Behavioral Control. As a result, the HTMT criterion can detect collinearity issues among latent components (multicollinearity) in Table 2. Therefore, a multicollinearity check was also conducted using Variance Inflation Factor (VIF). The VIF results were shown in Table 3, which shows that Variance Inflation Factor (VIF) of this study is valid as the value of all independent variables and the dependent variable are less than 5.

Table 3. The Results of Variance Inflaction Factor (VIF)

	Entrepreneurial Intention
Entrepreneurial Mindset	1.392
Entrepreneurship Education	2.489
Perceived Behavioral Control	2.130
Self-Competence	1.148
Subjective norms	2.175

Source: Research data testing process (2022)

Coefficient of Determination (R^2)

R square (R^2) shows the ability of exogenous variables to explain the endogenous variable (Hair et al., 2014). The R^2 in this study uses the rule of thumb by Chin (1998), which states that acceptable R^2 values are weak if R^2 is 0.19, moderate if it is 0.33, and strong if it is 0.67.

Table 4. Coefficient of Determination (R^2)

Variable	R Square
Entrepreneurial Intention	0.625

Source: Research data testing process (2022)

Table 4 shows that the variable of the entrepreneurial intention of this study has a value of 0.625, which can be categorized as moderate. This means that Entrepreneurial Intention is moderately influenced by all the independent variables by 62.5%. The remaining 38.5% is influenced by variables not examined in this study.

Hypothesis Testing

The inner model is examined using a one-tailed test, with a significance level of 5% or 0.05 as the significance level. According to Sarstedt et al. (2019), the most common t-statistic values for one-tailed tests are 2.33 (the significance level of 1%), 1.65 (the significance level of 5%), and 1.28 (the significance level of 10%). As a result, at a level of 5% significance, the relationship coefficient is statistically significant if the p-value is less than 0.05. According to Hair et al. (2017), the critical value limit is set at 1.650, while the p-value limit is set at 0.05. These criteria must be met for a hypothesis to be accepted.

Table 5. Hypothesis Test (Inner Model Results)

Hypothesis	Path Coefficient	P-value	Critical value (T-Statistics)	Decision
H1: EM → EI	0.150	0.012	2.530	Accepted
H2: EE → EI	0.280	0.000	4.425	Accepted
H3: PBC → EI	0.349	0.000	4.462	Accepted
H4: SC → EI	0.000	0.996	0.005	Rejected
H5: SN → EI	0.167	0.070	1.815	Rejected

Source: Research data testing process (2022)

The results of the hypothesis test in this study show that Hypotheses H1, H2, and H3 are accepted because the p values are significant (P value < 0.05), and critical values are supported with T-statistics > 1.65. The first hypothesis (H1) has a p-value of 0.012 < 0.05 (significant) and a critical value of 2.530 > 1.65 (supported), indicating that it met the present criteria and was thus accepted. The critical value and p-value for H2 are 4.425 and 0.000, respectively. This signifies that hypothesis H2 matches all of the criteria and is therefore accepted. The critical value of H3 is 4.462 > 1.65 (supported) and the p-value is 0.00 < 0.05 (significant), which matches all of the criteria and is therefore accepted. The hypothesis 4 is rejected because, H4 has a critical value of 0.005 < 1.65 (unsupported), and a p-value of 0.996 > 0.05 (not significant). Finally, the last hypothesis (H5) has a critical value of 1.814 > 1.65 (supported), but with a p-value of 0.070 > 0.05 (not significant). As it doesn't meet the required criteria to be accepted, H5 is rejected. This meant that both H4 and H5 are rejected because they do not meet the set boundaries.

Table 5 also shows that the variable with the biggest impact is Perceived Behavioral control with the path coefficient of 0.349, followed by Entrepreneurship Education (0.280) and Entrepreneurial mindset.

DISCUSSION

This study reveals that Hypothesis 1 (H1) is accepted. This means that an entrepreneurial mindset has a positive impact on entrepreneurial intention. Previous research related to entrepreneurship and cognition laid the groundwork for the concept of the entrepreneurial mindset. Baron's (1998), as well as Baron & Henry's (2010) work, serve as an example of how constructs from another subject (cognitive psychology) can be repurposed to generate new insights in the field of entrepreneurship. By taking mindset from the psychology literature, he applies cognition and cognitive processes to entrepreneurship (Gollwitzer, 1990). Furthermore, Dweck's most recent study with colleagues (Chen et al., 2020) examines the concept of a strategic mindset, noting that it is more than just a set of metacognitive skills and that it is critical to put those skills to use. Students who are exposed to entrepreneurial knowledge and examples that shape their entrepreneurial mindset are more likely to want to start their own firm, according to the descriptive statistical test, and they are more likely to associate themselves with people who have a lot of strong social influence. This notion is confirmed by this study in H1 that entrepreneurial intention is influenced by an entrepreneurial mindset.

The second hypothesis (H2) test that shows that entrepreneurship education has a positive and significant impact on entrepreneurial intention is accepted. Gerba (2012) stated that entrepreneurship education is a deliberate attempt by an individual to increase their entrepreneurship knowledge. Based on the data gathered through the questionnaire, a greater percentage of the respondents (77.7%) are taking the business course, and 40.7% of those individuals are taking the entrepreneurship course. A study by Rauch and Hulsink (2015)

reveals that entrepreneurship education improves attitudes, and the intention and willingness to become an entrepreneur. This confirms that entrepreneurship education influences entrepreneurial intention. The practice in higher education also shows that action-based or project-based learning is becoming more popular in entrepreneurship education (Rauch & Hulsink, 2015). Nabi et al. (2017) conducted a systematic study of a variety of entrepreneurship education in higher education. Their study found that more experiential programs, as opposed to supply, supply-demand, and demand-oriented programs, lead to a higher degree of Entrepreneurial Intention (actual start-ups and socio-economic impact). A study by Kaya et al. (2019) uncovered that both entrepreneurial support and self-management-related lessons confirm an increase in the likelihood of future entrepreneurial actions. In order to grow the number of potential future entrepreneurs and limit the risk of failure, students should be given ample opportunity to learn business management, product design, market analysis, talent recruitment, capital management, finance, and other related entrepreneurial courses. With the support of entrepreneurship education, students can then develop problem-solving skills, negotiation skills, teamwork, and empathy, as well as prepare them to accept failure as a necessary step in the learning process. Statistical test results stated that most of the respondents choose the 4 or 5 scale in each of the indicators of the entrepreneurial education variable. The findings confirm that entrepreneurship education is critical in determining students' entrepreneurial knowledge and perspective, leading to a higher entrepreneurial intention.

The hypothesis test result 3 (H3) shows that Perceived behavioral control influences the entrepreneurial intention of university students. The positive and significant impact of perceived behavioral control on a student's entrepreneurial intention suggests that a student's confidence in startup skills, available and enriched knowledge, and opportunities abound in their environment can all influence their decision to engage in entrepreneurial activities. Ajzen (1988) in his Theory of Planned Behavior defined perceived behavior control as the sense that performing an action would be difficult or impossible, based on prior experience and the prediction of increasing obstacles. One of the factors leading to a challenge in an individual's entrepreneurial intention is their behavior, which can become one of the hurdles of entrepreneurship. The findings of this study, which are also supported by a previous study by Cruz et al (2015), took into consideration the application of the Theory of Planned Behavior. The study uncovered that perceived behavioral control in an entrepreneurial career increases students' entrepreneurial intention. Another study by Manstead & van Eekelen (1998) led to a recommendation to dimensionalize the single PBC construct into dichotomized components: internal and external control, to deal with the flaws in the operationalization of PBC (Conner & Armitage, 1998). In Indonesia, students' entrepreneurial intentions are influenced by their perceptions of behavioral control. The indicator "I think I'd have a good chance of succeeding if I started my own business" got the highest average score. We can assume that Indonesian university students actually considered starting their own business, and by doing so, they are considerably determined that they will be successful.

In this study, the influence of Self-competence on entrepreneurial intention (H4) is rejected. Previous studies revealed inconsistent results. Lans et al. (2010) found that students' self-competence directly influences their entrepreneurial goals, independent of their field of study. Managerial generalism and risk-taking traits, both elements of self-competence, have been linked to entrepreneurial intention, according to Vesalainen and Pihkala (1999). According to Markman et al (2002), general self-competence may be applied to entrepreneurship, and it has been used to connect inventors with people who start new businesses. Although self-competence is similar to other socio-cognitive phenomena such as locus of control, need for achievement, self-confidence, and self-esteem, the main distinction

is that it is a structure that expresses an individual's instantaneous belief and judgment about a particular task or capability. As a result, an individual's self-competence may be higher for one task and lower for another making the relationship between this specific indicator rather inconsistent with the entrepreneurial intention. When one's self-competence is negative, even if an individual possesses the necessary abilities, they will experience failure and anxiety. As a result of concerns about one's capacity, an individual will either avoid doing the behavior or will not insist on sustaining it when facing difficulties. By examining people's self-competence, we can figure out why individuals with similar knowledge and skills behave in different ways.

Finally, this study found that subjective norms don't have an influence on entrepreneurial intention, which rejects (H5). According to Wedayanti et al. (2016), subjective norms refer to critical ideas that trigger an individual to demonstrate specific behaviors. Subjective norms also refer to the motivation accompanied by a desire to do or not to do something important. Subjective norms are not always connected with an individual's entrepreneurial purpose, according to Krueger et al (2000). This is because some of the information in this variable is already integrated in the desirability of carrying out a given behavior. One of the most discussed results in Ajzen's (1991) Theory of planned behavior is the weak link between subjective norms and behavioral intention. The link between subjective norms and entrepreneurial intention, according to Rivis and Sheeran (2003), indicates the need for more research to be conducted in this field.

CONCLUSION

This study specifically examined the factors that influence the entrepreneurial intention of university students in an emerging country, with the specific case of Indonesia. The variables tested in this research are entrepreneurial mindset, entrepreneurship education, perceived behavioral control, self-competence, and subjective norms. The study reveals that three variables which are entrepreneurial mindset, entrepreneurship education, and perceived behavioral control have an impact on the entrepreneurial intention of university students in Indonesia. The two other variables (self-competence and subjective norms) are not found to have an impact on the entrepreneurial intention of university students in Indonesia. H4 is unsupported but there is a positive effect of Self-Competence on university students' Entrepreneurial Intention in Indonesia. H5 is also unsupported but there is a positive effect of Subjective Norms on university students' Entrepreneurial Intention in Indonesia

PRACTICAL IMPLICATIONS, LIMITATIONS, AND RECOMMENDATIONS

This study recommends some practical implications to policymakers and educators in emerging countries, specifically Indonesia. Even though some higher education institutes have offered entrepreneurial-related courses, it is important to also equipped students with activities in the classroom as well as outside the classroom that help shape entrepreneurial mindsets found to have an influence on entrepreneurial intention. Another recommendation for practical implication is for policymakers and educators to boost entrepreneurial intention by providing a variety of interesting entrepreneurial education programs, for example, case studies, field visits to entrepreneurial sites, and interviews with successful entrepreneurs. Finally, as the third supported hypothesis suggests, policymakers and educators can also try to improve the perceived behavioral control of students by exposing students to real examples of behaviors of successful entrepreneurs through field observations or assignments.

This study has several limitations to note. First, it relates to the specific sample of university students in Indonesia. Thus, the results may be specifically relevant to the

Indonesian context. Therefore, it is recommended for future studies in other emerging countries to conduct similar research to identify variables that influence the entrepreneurial intention of university students in their respective countries. Another limitation relates to the variables used in the study which only moderately influence entrepreneurial intention. Other variables outside this study may also influence entrepreneurial intention. Therefore, it is recommended for future researchers to explore other variables that may have an impact on entrepreneurial intention, for example, family support, personality, and social influence. Finally, the limitation relates to the data that is collected at one point in time. There is the possibility of change in behavior after the students are exposed to the real world of work. Future researchers are thus recommended to conduct a longitudinal study.

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THE EFFECT OF SUCCESSOR KNOWLEDGE AND SUCCESSOR WILLINGNESS ON SUSTAINABLE INNOVATION FOR MMSMES IN SURABAYA

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Abstract

The purpose of this study was to determine the effect of successor knowledge on sustainable innovation and successor willingness to sustainable innovation. The method used in this study is a quantitative method, collecting data with a questionnaire given online. The data collection technique used non-probability sampling technique, with convinience sampling. The respondent is the successor of a small-scale family business and has been established for more than 2 years in the Surabaya area. The number of samples of questionnaire data collection was given to 160 respondents. Statistical data analysis is Structural Equation Modeling with partial least squares. The results of this study indicate that successor knowledge has a positive effect on sustainable innovation, successor willingness has a positive effect on sustainable innovation, successor relationships (knowledge and willingness) have a positive effect on sustainable innovation with moderated by the family business leaders approval(founder or senior). The research contribution gives family business managers in small-scale to provide an introduction for their successors by teaching them about the operation of family businesses that make them able to have sustainable innovations.

Keywords: Successor knowledge; Successor Willingness; Family business leader approval

BACKGROUND

The Indonesian government seeks to increase entrepreneurship. The reason because Indonesia's current entrepreneurial ratio is still considered very small when compared to other countries in the world, which is 3.47 percent. Therefore, until 2024, the Ministry of Cooperatives and Micro Small Medium Entreprises (MSMEs) has targets to increase Indonesia's entrepreneurship ratio to 3.94 percent. Likewise, the city of Surabaya as the second largest city in Indonesia currently has 60,007 MSMEs which are managed as family businesses (BPS, 2021). Indonesia itself has a law on MMSMEs which regulates the course of business. MSMEs are businesses in the form of a productive economy carried out by individuals or business entities that do not include subsidiaries which are divided according to assets or net worth and annual income results as stated in Undang-Undang Number 20 of 2008 concerning MSMEs

A family business which, if managed properly, will produce competent resources that are strengthened by high social capital and network trust. However, the family business certainly does not escape from various problems that are sometimes difficult to solve, such as the emergence of distrust or distrust among family members, conflicts in leadership succession, conflicts in decision making, the issue of the crown prince (successor to the throne in the company), differences in managerial mindset. between the first generation and the next generation, and especially the failure of continuous innovation in the business being run. Likewise in the city of Surabaya, it is not uncommon for family businesses to experience a decline or even be forced to close operations (dinkopum.surabaya.go.id, 2021).

Maintaining a family business between generations is a difficult thing to do because of various kinds of things that affect starting from the problem of successors, current leaders, and both internal and external companies so that family businesses can be handed over to outsiders or even closed. According to data from the Family Firm Institute (Nasution et al, 2020) only 30% of family companies that will be handed over to the second generation will survive, and from the second generation to the third generation only 10% will survive. So it is very important

to pay attention to the relationship between the business leader and the next leader for the sustainability of the family business for the future.

Every business has disruptions and one of them is digital change because digital change is a must to maintain business in continuous innovation, one of which is in this fast era of globalization. So every company needs a change agent. According to Aguiar (2020) change agents are change drivers who bring all the possible benefits of the new technology to be used and its utilization. In a family business, one of the agents of change is the next generation of business leaders or successors, because the successor can show ambition, commitment, and ideas to innovate that will bring about change. In digital change, the next generation or successors need the trust and help of today's leaders because of the experience they have. In other words the involvement of the next generation in the family business is important

Thus the research question that can formulate are:
1. Does Successor Knowledge have a positive effect on Sustainable Innovation?
2. Does Successor Willingness have a positive effect on Sustainable Innovation?
3. Do Successor Knowledge and Successor Willingness have a positive effect on Sustainable Innovation with moderated by Family Business Leader Approval?

Scope of this research is to know the way to managed sustainable innovation of family business MSMEs in Surabaya. Then, this study contribution is can be used in related sector of entrepreneurship and Government to manage MSMEs.

LITERATURE REVIEW

Entrepreneurship is related to the search for business opportunities which, when exploited effectively through competitive advantage, have value plus and wealth. Opportunities to produce innovative goods and services create value for customers and generate good business opportunities. By generating new business opportunities, the creation of new products that do not yet exist and will be interesting new customers with the uniqueness of the products we have created. Entrepreneurship provides a value or process in starting a business (startup), providing creativity (creative), and innovations (innovative) in running a business. People who are creative and innovative will push the company to be the best (Basrowi, 2016).

Entrepreneurial business types are classified into informal, micro, very small, small, medium and large depending on the specification of characteristics with features and needs (Cecile, 2015). Just like in Indonesia, the type of business is divided into micro, small, medium and large depending on annual income and business assets that do not include land and buildings. Cecile (2015) said that most small and micro businesses when started are usually managed by one person and when they begin to develop gradually will involve family or other people. The success of entrepreneurship depends on thinking and supporting factors ranging from skills, attitudes, management abilities, and factors that come from outside of an entrepreneur that can be applied in business.

Relationship of Successor Knowledge and Sustainaible Innovation

The results of Wang and Wu research (2019) show a positive relationship between successor knowledge and continuous innovation. So that the search for a successor to the family business is more emphasize the talent and knowledge possessed from each succession and if the successors do not have the appropriate talent usually the predecessors let management professionals to run the company. Then, Torok et al. (2019) in his research on small and medium-sized companies in the food and beverage sector, he found that tacit knowledge had a significant positive effect on the innovation process for production. Tacit knowledge is in the form of internal understanding that is obtained from perceived experience. Supported by

Alshanty and Emeagwali (2019), the successor knowledge creation process has a positive and significant impact on the innovation process. So that the hypothesis is formed.
H1: Successor Knowledge has a significant positive effect on Sustainable Innovation

Relationship of Successor Willingness and Sustainable Innovation
Research conducted by Hauck and Prugl (2015) on innovation activity during leadership succession in family firms. The result shown the relationship between successor willingness in structural factors and family relations has a positive effect on innovation during succession. Then research conducted by Wang et al. (2019) about family business successor knowledge, successor readiness, continuous innovation, and family business leader approval. This research was conducted on small and medium entrepreneurs in Taiwan. The results of this study state that the willingness of successors has a significant positive effect on sustainable innovation. Related with Astuti (2021) conducted research on successor knowledge, successor willingness, continuous innovation, absorption ability, and leader approval. This research was conducted at company Eka Ormed Indonesia, which is located in Surabaya, the results of this study indicate the willingness of the successor to the family business to have a significant positive influence on the ability of innovation in the family company. When the successor is willing to run a family company, it can have an impact on the company's innovation ability, because the high willingness of the successor can motivate people involved in the family company to make the company more prosperous and wanting to make the company bigger can trigger the successor to think more creatively.
H2: Successor Willingness has a significant positive effect on Sustainable Innovation

Relationship between Successor Relationship to Sustainable Innovation moderated by Family Business Leader Approval
Research conducted by Letonja and Duh (2016) regarding the transfer of knowledge, the effect of innovation to the next generation. Results shows successor knowledge originating from predecessors have a positive impact on successor innovation and also the innovation ability of successors. There is a significant positive relationship between the business leader variable as a moderating variable on the relationship between knowledge transfer to successors and successor innovation. Then Wang et al. (2019) in his research also shows that the intervention of the approval of the family business leader as a moderating variable has a significantly positive impact on the successor's willingness to innovate continuously, because in the leader's approval there is an effective commitment to the successor to independently make decisions about the project. carried out and with the approval of the leader can motivate higher successor willingness. According to Wang et al. (2019) the approval of family business leaders as a moderating variable had a significant positive effect on the relationship between successor willingness and continuous innovation. In a study conducted by Parker (2016) regarding the role of predecessors for product innovation in family businesses carried out for small and medium-sized companies. The results of this study have a positive relationship between the previous leader's retention as a moderating variable on product innovation that is carried out when there is a relationship between the predecessor and the successor of the family business. Parker (2016) indicates that there is a significant positive relationship with business leaders as a moderating variable on successors business with product innovation.
H3: Successor Knowledge and Successor Willingness have a positive effect on Sustainable Innovation with moderated by Family Business Leader Approval
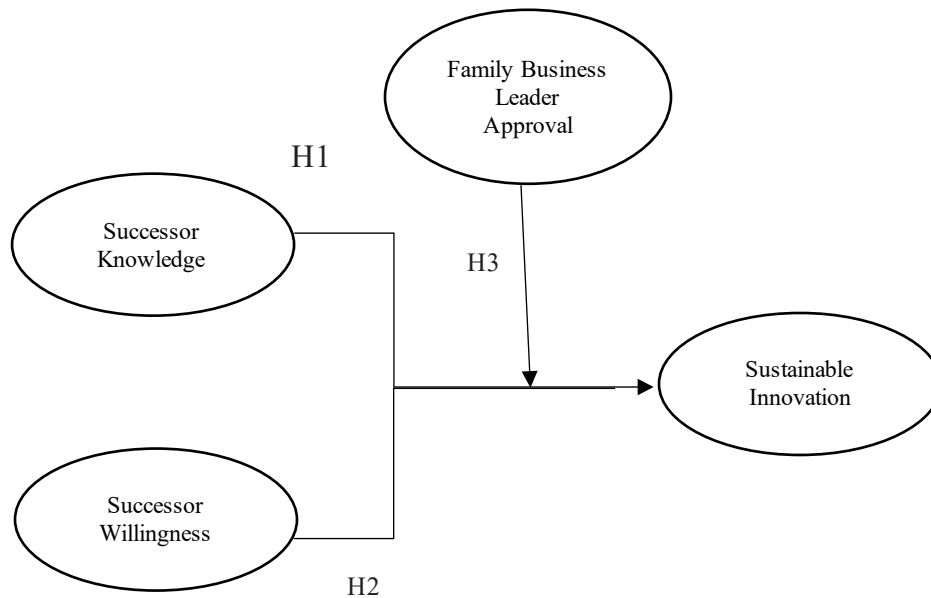
Figure 1. Research Model

METHODOLOGY

This study uses theory, hypothesis testing, and models. Sekaran & Bougie (2017) said that quantitative research has more ability to explain a special problem. In quantitative research, positivism is understood, namely research research based on actual facts. So that everything that happens is certain have a cause-and-effect relationship. The object method in this study is Sustainable innovation as an independent variable, and will be carried out in the Surabaya area which has a family business with a small scale business with a net asset of at least Rp. 50 million - Rp. 500 million (not including land and buildings for business). per year, which is IDR 300 million– Rp.2.5 billion in accordance with Bank Indonesia regulation Number 14/22/PBI/2012 concerning the Provision of Credit or Financing by Commercial Banks and Law No. 20 of 2008 concerning Micro, Small, and Medium Enterprises. And have been in existence for at least 2 years.This study uses a non-probability sampling method used convenience sampling. The sample in this study used 160 respondents. Analysis data used Partial Least Square used Software SmartPLS 3.2.4. Questionnaire has 5-scale Likert scale with consideration easier for respondents who cannot answer and have ethics or who stated that filling out the questionnaire did not force respondents to answer agree or not.

FINDING AND DISCUSSION

Profile of respondents

There are 160 respondents whose data is taken by online questionnaire. As much 69 respondents were male and 91 female respondents. This is also supported by data fromthe Central Statistics Agency in 2021, which states that 64.5% of the total MSMEs in Indonesia are managed by women (Kemenkopukm, 2021). Sherlywati et al. (2017) also stated women entrepreneurs have more intense interpersonal relationships with partners and co-workers, women are more lenient when dealing with problems, are more flexible, women treat others more liberally, are more inclined to the future when making decisions. Sherlywati et al. (2017) also added that the opportunities for work for women are more limited compared to men, but women have high potential to develop businesses. Respondent's age at this study 54 respondents 20-35 years. 59 respondents aged 36 – 45 years, 47 respondents aged > 45 years. S1 with a total of 48 respondents, high school with a total of 41 respondents, D3 with a total of

28 respondents, junior high school with a total of 40 respondents. The level of formal education can affect the running of the business from the system of business governance, finance to decision making, besides that informal education is no less important than formal education because informal education is obtained from experience that will help entrepreneurs to be better in the future

Outer Loading

Measurement model, validity testing in this study was measured using value of loading factor, convergent validity, and discriminant validity. The loading factor value must be can be greater than 0.6 and if the loading factor value is below 0.4 then the indicator it can be deleted. To measure the value of convergent validity, it can be measured through Average Variance Extracted (AVE) value, which must be greater than 0.7 and the value of loading factor above 0.6. the value of loading factors in this study has a value above 0.6. Testing the reliability of the data in this study using Cronbach's alpha and composite reliability to be able to test reliability. A data can be declared reliable if it has a composite reliability (CR) value greater than or equal to 0.7. The pilot test uses 50 samples and invalid and unreliable values are not used in the actual test. Next, a table of validity and reliability results is shown for the actual sample of 130 people as shown in table 1.

Table 1. Validity and Reliability Result

Constructs	Outer Loading
Sustainable Innovation : AVE : 0.732, CR : 0.850	
SI1	0.785
SI2	0.780
SI3	0.826
SI4	0.788
SI5	0.778
SI6	0.784
SI7	0.774
SI8	0.823
SI9	0.788
SI10	0.755
SI11	0.735
SI12	0.714
SI13	0.826
Successor Knowledge: AVE : 0.668, CR: 0.858	
SK 1	0.824
SK 3	0.838
SK 4	0.816
SK 7	0.753
SK 8	0.834
SK*FBLA	0.854
Successor Willingness : AVE: 0.688, CR: 0.866	
SW 1	0.786
SW 2	0.821
SW 3	0.851
SW 4	0.792
SW 5	0.834
SW 6	0.778
SW 7	0.815
SW*FBLA	0.805
Family Business Leader Approval: AVE: 0.645, CR: 0.866	
FBLA 1	0.858
FBLA 2	0.801

FBLA 3	0.731
FBLA 4	0.740

Then, performing the Fornell-Lacker criterion analysis test, the discriminant validity test is shown from the square root of the average variance extracted (AVE) on each construct in the model (Ghozali & Latan, 2015) as seen on table 2.

Table 2. *Fornell-Larcker Criterion*

	Sustainable Innovation	Successor knowledge* Family Business Leader Approval	Successor Knowledge	Successor Willingness * Family Business Leader Approval	Successor Willingness	Family Business Leader Approval
Sustainable Innovation	**0.769**					
Successor knowledge* Family Business Leader Approval	0.086	**1.00**				
Successor Knowledge	0.740	0.755	**0.786**			
Successor Willingness * Family Business Leader Approval	0.108	0.406	0.448	**1.00**		
Successor Willingness	0.725	0.738	0.797	0.802	**0.836**	
Family Business Leader Approval	0.734	0.756	0.801	0.822	0.836	**0.869**

Variance Inflation Factor Test

Sriningsih et al. (2018) said multicollinearity is a condition where there is a correlation between dependent variables, to see multicollinearity it can be seen from the Variance Inflation Factor (VIF) whose value is more than 5 and will be more serious when it is more than 10.

Table 3. VIF Test

	VIF
Sustainable Innovation	1.88
Successor knowledge* Family Business Leader Approval	2.47
Successor Knowledge	2.46
Successor Willingness* Family Business Leader Approval	3.87
Successor Willingness	2.15
Family Business Leader Approval	2.68

The coefficient of determination

Test in assessing the structural model can be evaluated with the SmartPLS program by looking at the value for each endogenous latent variable as the predictive power of the structural model (Ghozali & Latan, 2015). The results represent the number of variants of the construct described by the model as seen on table 4.

Table 4. R-Square

	R-square
Sustainable innovation	0.628

Hypothesis Testing

Ghozali & Latan (2015) stated that an indication of whether a hypothesis is supported or not can be seen from the t-statistics. T-statistics were tested by one tailed test or one-way test with a significance level of 5%. The hypothesis is declared significant if the t-statistic must be more than 1.96 and use the t-value as a significant reference with a value that must be less than 0.05 as seen on table 3. Result shown all hypothesis are accepted.

Table 3. Hypothesis Testing

Hypothesis	T-Statistic	p-value	Result
Successor Knowledge → Sustainable innovation	5.365	0.000	Accepted
Successor Willingness → Sustainable innovation	4.818	0.000	Accepted
Moderation of Family Business Leader Approval with:			
Successor Knowledge	3.351	0.153	Accepted
Successor Willingness	4.879	0.258	Accepted

DISCUSSION

The first hypothesis (H1), with the statement that Successor Knowledge (SK) has a significant influence on Sustainable Innovation (SI) so that it can be accepted. The mean value for Successor Knowledge is 4.65 with the response classification is Strongly Agree, for Sustainable Innovation is 4.234 with the response classification is "Strongly Agree". So that it can be interpreted that on average small-scale family businesses in Surabaya feel very much agree if Successor Knowledge has an positive impact on Sustainable Innovation (IB). According to Wang et al. (2019), there is a relationship between Successor Knowledge and Sustainable Innovation in a study conducted in Taiwan on 128 senior managers in small and medium-sized companies. The results of the research conducted by Wang et al. (2019) states that knowledge of successors has a more significant impact than the willingness of successors to continue to innovate. There are two factors that influence the knowledge of successors in the family business, namely formally and informally. Formal knowledge can be obtained through official educational institutions such as those obtained from schools and universities. Another factor that many get from successors is informal education that can be obtained from experience, company training, seminars, organization, socialization. With obtaining formal and informal education, knowledge of the successors of the family business will increase, so that when the successor enters the family business, it is hoped that it can bring changes in a better direction for business development, these changes can be in the form of product innovation or business governance innovation from service to business. finance. It can also be said that formal learning is more theoretical learning, and informal learning is practicing formal learning and also gaining new knowledge and experience. So it can be said that successor knowledge has a positive influence on sustainable innovation.

The second hypothesis (H2), namely Successor Willingness (SW) has a positive effect on Sustainable Innovation (SI). The mean results from the descriptive statistics obtained for the Successor Willingness variable are 4.66 with the response classification stated "Agree", and for Sustainable Innovation (IB) 4.231 with the response classification "Strongly Agree". So that it can be interpreted that the willingness of successors is important for sustainable innovation. In a study conducted by Gupta (2019) to 200 respondents in Uttarakhand, India. This study found that successor knowledge has a significant effect on the sustainability of innovation. Gupta (2019) explains that a company can get the continuity of its business if the plans of the successors can run well according to the plan and time. According to Parker (2016) the willingness of a successor can be seen from the series of emotions and intentions of the successor to continue or enter the family business. Successor readiness can also be built from an early age by introducing the family business as early as possible and teaching the family how important the family business is to potential successors. Other supporting factors that can affect willingness the successor apart from within the successor, there are also external factors, such as the existence of a strong relationship between the successor and the family business. Respondents in this study were small-scale family businesses in Surabaya. From the data from the questionnaire that has been obtained, there is a question that "the successor of the family business wants to control all businesses in all aspects" from the results obtained from 130 respondents, namely 5 respondents disagreed, 38 respondents answered neutral, 31 respondents answered agree, and 56 respondents answered agree. From the results of the question if it is neutral and not included, then 87 respondents are willing to want to control and inherit the family business, if the percentage is 66.9% and this number is not included with neutral answers and this number can continue to grow.

The third hypothesis (H3) has two moderating relationships in one hypothesis according to the model that has been replicated by Wang et al. (2019) for the moderating variable relationship between Family Business Leader Approval (FBLA) affect the relationship between Successor Knowledge (SK) and Sustainable Innovation (SI). And furthermore, the moderating variable relationship between Family Business Leader Approval also does not affect the relationship between Successor Willingness and Sustainable Innovation. The mean value of the Family Business Leader Approval is 4,573 with a response classification close to agree. In the research of Wang et al. (2019) shows the same results from this study, namely, as approval of the family business leader it does not have a direct influence on successor knowledge and continuous innovation, so the successor's job capability is still accumulated by working and there is no interference from the leader's decision. However, Wang et al. (2019) in his research for the second moderation of family business leader approval has a significant positive effect on successor willingness and continuous innovation, because Wang et al. (2019) concluded that a leader's decision is an effective commitment to the successor, with the succession process taking place where the successor becomes a competent manager by completing a project or an event with his own hands this can increase the motivation of the successor. For the results of the third hypothesis (H3) in which there are two moderating relationships, it is accepted. So further research was conducted on small-scale family businesses in Surabaya by interviewing 5 family businesses with 5 successors, concluded that the relationship between successor knowledge and successor willingness moderated by the approval of family business leaders on sustainable innovation was approved.

CONCLUSION

This research was conducted on a small-scale family business in Tangerang through several stages. After obtaining permission and willingness from small business respondents namely owners, successors, family members, and people involved in the business for research data collection. Then data processing is carried out through the SmartPLS 3 software program

to determine the Effect of Successor Knowledge and Successor Willingness on Sustainable Innovation moderated by Family Business Leader Approval.

The conclusion of the discussion of the hypotheses of this study are:

1. The statement that Successor Knowledge has a positive effect on Sustainable Innovation is accepted.
2. The statement that Successor Willingness has a positive effect on Sustainable Innovation is accepted.
3. Statement that the Successor relationship (Knowledge and Willingness) has a positive effect on Sustainable Innovation moderated by Family Business Leader Approval are accepted.

Managerial Implication

From the results of hypothesis testing, the following are the managerial implications that can be conveyed. H1: accepted, with the statement that Successor Knowledge has a positive effect on Sustainable Innovation. This indicates that the knowledge gained by the successors can influence sustainable innovation in small-scale family businesses. And it is hoped that the knowledge of the successor that is obtained from within the business environment or from outside can contribute to progress for the family business, knowledge of the successor can design what is a problem solving solution because by designing a framework is a bridge between the thinking of the successor and continuous innovation. So that successors with the innovations provided can increase the effectiveness of production or service, and can also increase sales.

H2: accepted, with the statement that Successor Willingness has a positive effect on Sustainable Innovation. This can be interpreted as the successor of the family business must have a sense of intention and action that is willing to innovate in the family business. A sense of intention in a successor is an important factor so that it can produce and run innovations well and can run according to expectations. The willingness of successors can also be obtained through increasing the sense of belonging to the family business and having the desire to advance the family business.

H3: accepted, with the statement that the successor relationship (knowledge and willingness) has a positive effect on Sustainable Innovation moderated by Family Business Leader Approval. Approval by the family business leader can more or less strengthen or weaken the successor relationship (knowledge and willingness) with continuous innovation. Meanings, an introduction to the family business can be done to the successor, close the relationship between the current leader and the successor to find out what is the desire of both parties, and the current leader can carry out any introduction, teaching, and training needed for the successor such as the operation of a family business, if the time comes successor leadership changes can run it well.

RESEARCH LIMITATION AND RECOMMENDATION

There are limitations in this study, where the limitations are based on the sample technique, variables, number of samples and time, and sample characteristics. In this study, only the variables in the research model were used. Meanwhile, there are other variables that can affect sustainable innovation. Other variables such as self-support, relationship support, and other independent variables that can affect sustainable innovation. This study is a cross-sectional study. Where, changes in sustainable innovation within a certain period of time cannot be further identified. This research uses the SmartPLS software with the PLS method. It is hoped that further research can use the SEM method to measure the structural model based on a strong theoretical study to be able to test the causal relationship between variables and to measure the feasibility of the model with empirical data.

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PROMOTING BLUE ECONOMY: FACTOR IDENTIFICATION AND MODEL DEVELOPMENT FOR MICRO SMALL & MEDIUM ENTERPRISES (MSME) IN BITUNG, NORTH SULAWESI: A RESEARCH PROPOSAL

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Abstract

As an archipelagic country, Indonesia has so much potential to promote a blue economy. The blue economy refers to industrialized fishery activities promoting and accelerating economic growth. In other words, this industrialization in the marine and fishery sector is the process of adding value to the productivity and production scale. The fishery sector is one of the main sectors contributing to Indonesia's economic growth and is not a standalone sector. However, it also brings other sectors into motion, such as tourism. Furthermore, we would like to dive deep into the technology-based blue economy. This research proposal aims to identify inhibiting and supporting factors for the digitalization of SMEs in the fishery sector. Moreover, after gathering those factors, this research will continue to build a model that explains entrepreneurial self-motivation in promoting and hindering digitalization programs. Two important reasons that this research is necessary are, first, limited studies were trying to identify factors that cause the technology gap for the SMEs in the fishery sector. Secondly, developing a model of internal factors that promote and hinder SMEs from going digital, particularly in the blue economy. This research will be conducted in Bitung City, North Sulawesi, as the object of research due to the potential of natural resources in the fishery sector.

Keywords: Blue Economy; Digitalisation; Small Micro Enterprise (SME)

INTRODUCTION

Indonesian entrepreneurs play an important role in achieving the goals of the Indonesian state become an industrialized country 4.0. Specifically, entrepreneurs engaged in the MSME sector has a strategic role in economic growth in Indonesia which is based on BPS 2017 data that 99.99% of business entities in Indonesia are in the MSME segment and absorb 97% of the workforce or approximately 116.97 million people (1). Not only that, BPS 2017 data also shows the contribution of MSMEs to gross domestic product (GDP) is 60.34%. However, only 9.4 million SMEs have been registered carry out digital transactions and marketing (2). That number is still very small when compared to the total of all MSME businessmen which reached 64.19 million. At least MSMEs who transact digitally because generally MSME entrepreneurs are still stuttering technology (gaptek). On the one hand, the Covid-19 pandemic that has hit many countries in the world including Indonesia have 'forced' MSMEs to carry out digitalization programs and abandon conventional or face-to-face transactions. Digitalization is the main thing in today's trade transactions. Especially because of the pandemic Covid-19 has made changes to consumer buying behavior (3-13). Innovation is one of the core of entrepreneurship. Through the innovation process, the creation of added value of goods and services which can then support a competitive advantage. Innovation too is the key to success to be able to survive in the midst of competition. Entrepreneurship and innovation is relevant in many sustainable business contexts. The concept of sustainability business is a concept that shows the success of a company to be able to exist and have strong competitiveness. This study aims to identify the internal factors that inhibit and support the efforts of MSME entrepreneurs to digitize. More, after getting these main factors, this study intends to build a model that

explain the role of self (entrepreneur) that can support and hinder digitization program. This research is important to do based on 2 reasons main. First, there is limited research identifying the factors that cause The "tech gap" of MSME entrepreneurs in digitization. News about the perpetrator's technology stutter MSMEs are often heard without any explanation as to why MSME actors are not responsive to technology.

Second, the importance of developing a model of internal factors (inhibitors and support) for entrepreneurial efforts in digitizing specific Indonesian MSME entrepreneurs.

LITERATURE REVIEW

MSMEs are one of the supporting factors for the Indonesian economy. Specifically, MSMEs have proven to have strong resilience when Indonesia was hit by the economic crisis. Furthermore, MSMEs have an important role in the context of business sustainability. First, MSMEs do not require large capital, so their formation is not as difficult big business. Second, the engaged workforce does not require certain formal education. Then, MSMEs do not need infrastructure like large companies. MSMEs are able to adapt quickly to the demands of the business environment, including change business management technology (15). The definition and categories of MSMEs in Indonesia follow Law number 20 of 2008 about Micro, Small, and Medium Enterprises, namely as follows. Micro business is business productive owned by individuals and/or individual business entities. The criteria have maximum net worth of IDR 50,000,000, excluding land and buildings where business; having annual sales of a maximum of Rp. 300,000,000.00. More, effort small business is a productive economic business that stands alone, carried out by individuals or business entities which is not a subsidiary or not a branch of the company, or becomes a part either directly or indirectly from Medium or Large Enterprises. Business criteria Minor is a net worth of more than IDR 50,000,000.00 to IDR 500,000,000.00 no including land and buildings for business premises; maximum annual sales of Rp 300,000,000.00 to Rp 2,500,000,000.00. Then, medium-sized enterprises are enterprises productive economy that stands alone, is carried out by individuals or business entities that are not subsidiaries or branches of companies that are owned, controlled, or become a part either directly or indirectly with a small business or a large business. Criteria for medium-sized business net worth Rp 500,000,000.00 to Rp 10,000,000,000.00 does not include land and buildings for business premises; annual sales of more than Rp 2,500,000,000.00 to Rp 50,000,000,000.00 (16), MSMEs can be distinguished according to several economic sectors. In particular, MSMEs can divided into sectors: [1] agriculture, livestock, forestry, and fisheries, [2] finance, leasing and service companies, [3] trade, hotels and restaurants, [4] mining and excavation, [5] electricity, gas, and clean water, [6] transportation and communications, [7] processing industry, and [8] buildings. This research will focus on the blue economy sector, which focuses on the fisheries and marine. This is because, the blue economy concept is very suitable for countries with a fairly wide water area, such as Indonesia. Moreover, about 75 percent of the total Indonesia's sovereign territory is a territorial waters. Previous research has shown that there are several factors that slow down the development of MSMEs in Indonesia such as the lack of knowledge resources in particular utilization of communication facilities and information technology to obtain new information, market developments or consumer desire to produce product innovations that sustainable. Moreover, the challenges for MSMEs in 2020 are not only because the Covid-19 outbreak, but the digital economy is increasingly widespread. Economy digital technology requires MSMEs to be "literate" in technology, especially those related to Internet. Many MSMEs are not familiar with the internet so that MSME products or services which are marketed sometimes cannot reach markets outside the region and place other. In relation to the blue economy, there are still few marine and fisheries MSMEs connected to a digital marketing platform. A number of problems include:

technological constraints, ignorance and lack of courage of marine MSME business actors and fishing (17-19). In the digital transformation process of MSMEs, digital technology serves as the key to capture new business opportunities by transforming existing businesses. In terms of This adoption and digitalization affect the performance of businesses that have a strategic orientation, management and growth of internal capabilities (20). Digital platform adoption and success in B2B based on stakeholder theory, network theory, technology acceptance model, etc. customer-oriented and customer loyalty (21). There are several external factors driving the need for digital transformation (Figure 1), starting from the beginning the internet, which is the gateway to digital technology, triggers changes in the cost structure SMEs, increasingly intensive business competition and online shopping consumer behavior (22). Then in the transformation process, a digitization process occurs, namely the act of changing analogue information into digital information, while digitization is the process of how digital technology can be used to change existing business processes (23). Digital transformation in the marine sector in Indonesia still needs to be carried out. Obstacle in the transformation process can be linked to stakeholders who do not coordinated, non-transparent data, and many transactions and documentation processes are still paper-based (24). However, with the Covid-19 pandemic, business people are encouraged to adopt digital technology for their business to increase sales (25). This shows competitive pressure as a more important factor than external factors others in promoting digitization (26). However, the government also has influence in digital transformation of micro business by building a digital platform, promoting digital payments, provide digital training, and build a digital collaboration ecosystem (27).

METHODOLOGY

There are a couple of methods that will be used in this research to create a blue print in order to answer the research questions. In this blueprint, various elements of research methods are used to answer the research problem. These elements include: the type of research based on the purpose, unit of analysis, research time, researcher intervention, sampling, measurement, and data analysis. The research plan that will be conducted based on the research objectives, is to identify the factors supporting and inhibiting the digitization of MSMEs. This research will focus on exploratory research. The first step in this exploratory research is a literature review that aims to sharpen the research problems and also to obtain research results related to the topic research (deductive approach). The inductive approach is carried out by conducting interviews in depth to 10 research respondents and also carried out by distributing questionnaire (with open-ended questions) to 100 MSMEs in Indonesia. MSMEs that become the respondents of this research are MSMEs located on the coast such as Bitung. Criteria for the respondents are entrepreneurs in the fisheries sector (blue economy). The data obtained is then processed using statistics description, multiple regression. Following to the next method, it aims to develop a model and scale of supporting factors and barriers to the digitization of MSMEs. In this regard, this second research method is a descriptive research that will uses the results of first method, to be able to developed a research and development scale model.

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ANALYSIS OF CALCULATION, RECORDING AND WITHHOLDING OF ARTICLE 23 INCOME TAX ON FREIGHT FORWARDING SERVICES (CASE STUDY AT PT. FREIGHT CARGO LOGISTICS)

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Abstract

Income Tax (PPh) article 23 is a tax withheld on income received by domestic taxpayers as well as permanent forms of business originating from capital. One of the services contained in PPh article 23 is freight forwarding services. This study aims to determine the mechanism for calculating, recording, and withholding income tax article 23 on freight forwarding services at PT. Freight Cargo Logistics in 2020 to 2021 and the suitability of calculating, recording, and withholding income tax article 23 for freight forwarding services at PT. Freight Cargo Logistics with Minister of Finance Regulation 141/PMK.03/2015. The research method used in this research is descriptive qualitative. The primary data from this study were obtained directly from PT. Freight Cargo Logistics which consists of withholding evidence for 2020 and 2021, a list of withholding evidence of Article 23 Income Tax, Article 23 Income Tax Returns. Imposition of income tax rates withheld by PT. Freight Cargo Logistics to vendors with NPWP are subject to 2% of the basic withholding tax (tax object value). The results of this study indicate that the implementation of calculations, recording, and deductions from PT. Freight Cargo Logistics complies with the current tax regulations.

Keywords: Article 23 Income Tax; Minister of Finance Regulation 141/PMK.03/2015; Freight Forwarding Services.

INTRODUCTION

Taxes are the main source of revenue in Indonesia. According to the Law of the Republic of Indonesia Number 7 of 2021 concerning the Harmonization of Tax Regulations, tax is a mandatory contribution to the state owed by an individual or entity that is coercive under the law, with no direct compensation and is used for the state's purposes for as much as possible. the prosperity of the country.

One of the taxes applied is Income Tax Article 23 which is a tax activity that is deducted on the basis of income received and obtained by Domestic Taxpayers and Permanent Establishments (BUT) in any form originating from capital, service delivery, administration activities other than those already deducted by Article 21 income tax include dividends, royalties, gifts and rental awards, income in connection with the use of assets and certain service fees. In Tax of Income Article 23, one of the tax objects imposed is an activity delivery of services within the freight forwarding zone stating that the freight forwarding service is designated as withholding object for Income Tax Article 23.

Freight forwarding services or Transportation Management Services are businesses that are directed to represent the interests of the owner of the goods in order to take care of all activities required for the delivery and receipt of goods via land, rail, sea and air transportation which includes shipping, receiving, loading and unloading activities. , storage, sorting, packing of transportation room reservations, distribution management, calculation of transportation costs, and logistics services.

One example of an industry engaged in freight forwarding services is PT. Freight Cargo Logistics which is engaged in freight forwarding and logistics services. PT. Freight Cargo Logistics is an industry in Indonesia that supplies goods transportation services which means

that PT. Freight Cargo Logistics distributes goods delivery services with the system that goods will first be picked up from the sender's house and sent to the recipient's place of goods, including inter-island to inter-country ports.

As a company that adheres to taxes, PT. Freight Cargo Logistics is consistent in always calculating, withholding and recording its income tax in accordance with the tax provisions available in the Taxation Law in force in Indonesia. This is especially the Article 23 Income Tax for the use of freight forwarding services at PT. Freight Cargo Logistics.

Based on the description above, it can be seen that the formulation of the research problem is as follows:

1. How is the mechanism for calculating, recording and withholding income tax article 23 on freight forwarding services at PT. Freight Cargo Logistics 2020-2021?
2. What is the mechanism for calculating, recording and withholding income tax article 23 on freight forwarding services at PT. Freight Cargo Logistics for 2020-2021 is in accordance with Minister of Finance Regulation 141/PMK.03/2015?

The purpose of this research problem is to find out the mechanism related to the calculation, recording and withholding of income tax article 23 on freight forwarding services at PT. Freight Cargo Logistics for 2020-2021 is it in accordance with Minister of Finance Regulation 141/PMK.03/2015.

LITERATURE REVIEW

Tax Definition

Tax. References [9] tells that taxation is a mandatory contribution to the state owed by an individual or entity that is coercive under the law, without receiving direct compensation and being used for the state's purposes for as much as possible. the prosperity of the people. According to [7] the tax collection system is known as several collection systems including the Official Assessment System, Self Assessment System and With Holding System. The tax collection system that applies in Indonesia is the self-assessment system. A tax collection system that authorizes the Taxpayer to determine the amount of tax owed annually in accordance with the applicable tax laws. In this system, the initiative and activity of calculating and collecting taxes is entirely in the hands of the taxpayer. [2]

Income Tax. According to [1] income tax is an official levy for the purpose of financing public expenditures as income recipients in the tax year. Without taxes, the majority of state activities will not be carried out effectively. Among the many Government taxes, one of them is income tax. [4].

Income Tax Article 23. Article 23 Income Tax (PPh 23) is a tax withheld on income received or accrued by a resident Taxpayer (individual or entity) and a permanent establishment originating from capital, service delivery, or the operation of activities other than those already deducted by Article 21 Income Tax. [6]

Freight Forwarding. The definition of freight forwarding services as regulated in the [8]. According to the Ministerial Decree, what is meant is that freight forwarding services are companies that represent the interests of the owner of the goods to carry out the activities required for the delivery and receipt of goods by land or rail, sea and air transportation.

Framework

To find out what activities are subject to income tax on freight forwarding services at PT. Freight Cargo Logistics, the author conducts an analysis related to the conformity of the practice of calculating, recording and withholding income tax with the [5] The results of this analysis will be used as recommendations to PT. Freight Cargo Logistics so as not to make mistakes in determining Income Tax Article 23 because not all activities are subject to Article 23 income tax. The flow of this research is designed based on analysis. The analytical tool used to solve the problems that have been mentioned in the previous problem formulation by formulating in the framework of thinking as described below.

Figure 1. Framework
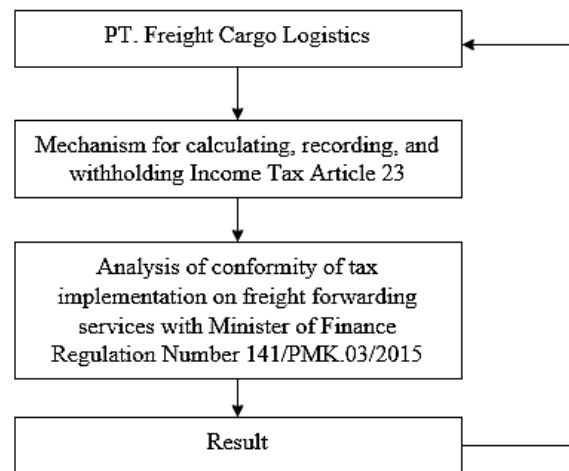
METHODOLOGY

Research Design

This research is a descriptive qualitative research. The qualitative method is basically a research that aims to understand the phenomena of what is being experienced by the research subjects such as behavior, perceptions, motivations, and others by descriptive means in the form of language in a special context experienced and utilizing various natural methods. According to [3] in qualitative research, literature review must be used consistently with methodological assumptions. That is, it must be used inductively so that it does not direct the questions posed by the researcher. One of the main reasons for conducting qualitative research is that it is exploratory in nature.

Research Time

The author conducted a study with the title Analysis of Calculation, Recording, and Withholding Income Tax Article 23 on this Freight Forwarding Service at PT. Freight Cargo Logistics located in East Jakarta and carried out from April to May 2022.

Data Resource

Sources of data used in this study is primary data. The primary data used in this study were obtained by field studies to the company PT. Freight Cargo Logistics directly with the company by way of questions and answers (interviews). The secondary data used in this study are data collected through official company documents and processed data such as a brief company background, organizational structure and other documents as well as literature journals and books that support this research.

Data Collecting Methods
There are several types of data collection methods, such as:
1. Field study, is a technique of collecting data directly in the field by replacing directly what things will be studied.
2. Interviews, the authors conduct interviews directly with the parties concerned in the company in order to discuss the problems that will be examined by the author.
3. Library studies are carried out by collecting books and literature journals related to taxation and Article 23 Income Tax.
4. Documentation studies are carried out for data collection by means of documentation. Document data related to research research in the form of the 2020 SPT, proof of deposit and proof of withholding Income Tax Article 23 for Freight Forwarding Services and other data and history of PT. Freight Cargo Logistics.

Data Analysis Method
In order to analyze the data obtained so that conclusions can be drawn, the following are the steps taken:

Figure 2. Data Analysis Method
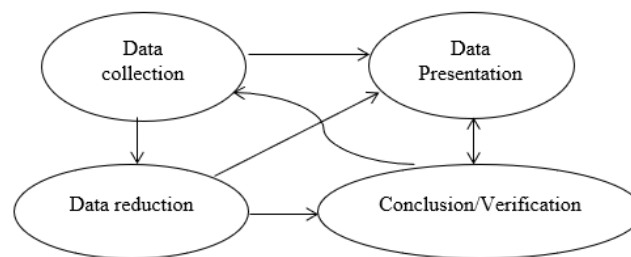
RESULT

Value of Tax Object on Freight Forwarding Services at PT. Freight Cargo Logistics Year 2020–2021
In accordance with the applicable tax regulations, PT. Freight Cargo Logistics recorded a recapitulation related to withholding payments of 2% for companies that have a NPWP (and who do not have a NPWP of 4%) as will be explained with the Tax Object Value for Freight Forwarding Services at PT. Freight Cargo Logistics for 2020 to 2021 which is described in the following table:

Table 1. Value of Tax Object Tax Article 23 2020

Company	Value of Tax Object
PT. Surya Cemerlang Logistics	590.489.161
PT. Bintang Samudera Angkasa	143.646.054
PT. Megan Total Transportasi	13.836.350
PT. Ditran Logistik Service	3.458.000
PT. Wings Global Logistics	2.359.377.654
PT. Prime Freight Indonesia	169.697.225
PT. CJ Logistics Indonesia	18.500.000

Company	Value of Tax Object
PT. Birotika Semesta Express/DHL	4.522.923
PT. Rian Ademas Pratama	19.575.600
PT. Korchina Logistics	13.077.646
PT. Multilink Trans Indonesia	1.160.580
PT. MCL Trans Indonesia	1.500.000
PT. Hyper Mega Shipping	11.040.668
PT. Macoline Indonesia	3.874.200
PT. Jpt Jatidiri Trans	3.657.940
PT. KGL Indonesia	2.145.807
PT. MCA Logistik	1.502.965

Source: PT. Freight Cargo Logistics (Data Processed 2022)

Based on the table above, it shows the deduction of pph 23 in 2020 by 2% for the services that have been used by PT. Freight Cargo Logistics and included in the positive list of PPh 23 in freight forwarding services that have collaborated with PT. Freight Cargo Logistics including PT. Surya Cemerlang Logistics, PT. Bintang Samudera Angkasa, PT. Megan Total Transportation, PT. Directorate of Logistics Service, PT. Wings Global Logistics, PT. Prime Freight Indonesia, PT. CJ Logistics Indonesia, PT. Birotika Semesta Express/DHL, PT. Rian Ademas Pratama, PT. Korchina Logistics, PT. Multilink Trans Indonesia, PT. MCL Trans Indonesia, PT. Hyper Mega Shipping, PT. Macoline Indonesia, PT. Transportation Management Services Jatidiri Trans, PT. KGL Indonesia, PT. MCA Logistics.

The types of services used by PT. Freight Cargo Logistics in 2019, in connection with the use of assets in accordance with the Regulation of the Minister of Finance No. 141/PMK.03/2015 concerning other types of services as referred to in Article 23 Paragraph (1) letter C Number 2 of Law Number 7 of 1983 as amended several times and most recently by Law Number 36 of 2008 namely compensation in connection with other services other than that which has been deducted by income tax as referred to in article 21, withholding tax of 2% of the gross amount and is included in the value added tax in accordance with article 1.

Table 2. Value of Tax Object Tax Article 23 2021

Company	Value of Tax Object
PT Surya Cemerlang Logistik	675.733.435
PT Bintang Samudera Angkasa	206.272.003
PT Wings Global Logistics	4.167.691.324
PT MCL Trans Indonesia	27.891.900
PT KGL Indonesia	1.542.004
PT Rian Ademas Nusantara	700.000
PT ICT Logistik Indonesia	55.350.000
PT Silk Route Trade Services Indonesia	9.600.000
PT Trans Utama Indokarya	

Source: PT. Freight Cargo Logistics (Data Processed 2022)

Based on the table above, it shows the deduction of income tax article 23 in 2020 by 2% for the services that have been used by PT. Freight Cargo Logistics and included in the positive list of PPh 23 in freight forwarding services that have collaborated with PT. Freight Cargo Logistics including PT. Surya Brilliant Logistics, PT. Bintang Samudera Angkasa, PT. Wings Global Logistics, PT. MCL Trans Indonesia, PT. KGL Indonesia, PT. Rian Ademas Nusantara,

PT. ICT Logistics Indonesia, PT. Silk Route Trade Service Indonesia, PT. Trans Utama Indokarya.

The list of withholding evidence for Freight Forwarding Services in tables 4.1 and 4.2 is used as material for analysis of invoices issued by PT. Freight Cargo Logistics and further carried out as material for reconciliation between objects per each period of proof of withholding Income Tax Article 23 and objects of Income Tax Article 23 based on the withholding evidence issued by PT. Freight Cargo Logistics and later as a supporting document for the calculation or withholding and reporting of Article 23 Income Tax for freight forwarding services payable.

Calculation of Article 23 Income Tax on Freight Forwarding Services at PT. Freight Cargo Logistics Year 2020–2021

Income tax article 23 on freight forwarding services at PT. Freight Cargo Logistics can be calculated based on two rates. The first rate is that if the taxpayer has a NPWP, the rate charged is 2% of the Basic Tax Imposition (DPP). The second rate is that if the taxpayer does not have a NPWP, the withholding rate is 4%.

In accordance with the Regulation of the Minister of Finance No. 141/PMK.03/2015 concerning other types of services as referred to in Article 23 Paragraph (1) letter C Number 2 of Law Number 7 of 1983 as amended several times and most recently by Law Number 36 of 2008, namely compensation in connection with other services other than those already withheld by Income Tax as referred to in Article 21, withholding Income Tax of 2% (two percent) of the gross amount excluding Value Added Tax. The results of the calculation of Income Tax Article 23 on freight forwarding services at PT. Freight Cargo Logistics in 2020 can be seen in the following table:

Table 3. Calculation of Tax Article 23 2020

Company	Withholding Tax
PT. Surya Cemerlang Logistics	11.809.783
PT. Bintang Samudera Angkasa	2.872.921
PT. Megan Total Transportasi	276.727
PT. Ditran Logistik Service	69.160
PT. Wings Global Logistics	47.187.553
PT. Prime Freight Indonesia	3.393.945
PT. CJ Logistics Indonesia	370.000
PT. Birotika Semesta Express / DHL	90.458
PT. Rian Ademas Pratama	391.512
PT. Korchina Logistics	261.553
PT. Multilink Trans Indonesia	23.212
PT. MCL Trans Indonesia	30.000
PT. Hyper Mega Shipping	220.813
PT. Macoline Indonesia	77.484
PT. JPT Jatidiri Trans	73.159
PT. KGL Indonesia	42.916
PT. MCA Logistik	30.059

Source: PT. Freight Cargo Logistics (Data Processed 2022)

Based on the table above, it shows that the withholding of Article 23 Income Tax on freight forwarding services during 2020 for taxpayers is equal to the withheld income tax and 2% has been deducted from the Tax Base (Tax Object Value). In accordance with the Regulation of the Minister of Finance No. 141/PMK.03/2015 concerning other types of services as referred to in Article 23 Paragraph (1) letter C Number 2 of Law Number 7 of 1983

as amended several times and most recently by Law Number 36 of 2008, namely compensation in connection with other services other than those already withheld by Income Tax as referred to in Article 21, withholding Income Tax of 2% (two percent) of the gross amount excluding Value Added Tax. The results of the calculation of Income Tax Article 23 on freight forwarding services at PT. Freight Cargo Logistics in 2021 can be seen in the following table:

Table 4. Calculation of Tax Article 23 2021.

Company	Withholding Tax
PT Surya Cemerlang Logistik	13.514.669
PT Bintang Samudera Angkasa	4.125.440
PT Wings Global Logistics	83.353.826
PT MCL Trans Indonesia	557.838
PT KGL Indonesia	30.840
PT Rian Ademas Nusantara	14.000
PT ICT Logistik Indonesia	1.107.000
PT Silk Route Trade Services Indonesia	192.000
PT Trans Utama Indokarya	185.630

Source: PT. Freight Cargo Logistics (Data Processed 2022)

Based on the table above, it shows that the withholding of Article 23 Income Tax for freight forwarding services during 2021 for the taxpayer is PT. Surya Cemerlang Logistik has a deducted income tax of Rp. 13,514,669, PT. Bintang Samudera Angkasa has a deducted income tax of Rp. 4,125,440, PT. Wings Global Logistics has a deducted income tax of Rp. 83,353,826, PT. MCL Trans Indonesia has a deducted income tax of Rp. 557,838, PT. KGL Indonesia has a deducted income tax of Rp. 30,840, PT. Rian Ademas Nusantara has a deducted income tax of Rp. 14,000, PT. ICT Logistics Indonesia has a deducted income tax of Rp. 1.107.000, PT. Silk Route Trade Services Indonesia has a deducted income tax of Rp. 192,000, PT. Trans Utama Indokarya has a deducted income tax of Rp. 185,630.

Then, the nominal income tax deducted from the next table is multiplied again by the Tax Article 23 rate, which is 2% to find the nominal deduction for Article 23 Income Tax for freight forwarding services every month during 2020 – 2021 to be reported to the DJP and given to the vendor.

DISCUSSION

Based on the results of the analysis of the calculation, recording and deduction mechanisms that have been carried out by PT. Freight Cargo Logistics during 2020 – 2021, recording is recorded based on the results of the recapitulation of PPh 23 services that have been used by PT. Freight Cargo Logistics for each month during 2020 and 2021, the results of the recapitulation are then added up so that the value of the tax object is found, for the calculation activity the value of the tax object that has been obtained is deducted by the Tax Article 23 rate, which is 2% which will later be found the amount of Tax Article 23 which must be cut by PT. Freight Cargo Logistics during 2020 and 2021.

In carrying out its duties and functions, PT. Freight Cargo Logistics is required to implement tax regulations based on income tax provisions in accordance with Minister of Finance Regulation No. 141/PMK.03/2015, one of which is a freight forwarding service (transportation management service) which is a business aimed at representing the interests of the owner of the goods to take care of all activities necessary for the delivery and receipt of goods through land, sea, and air transportation.

To find out what activities are subject to income tax on freight forwarding services at PT. Freight Cargo Logistics, the author conducted an analysis of the suitability of income tax withholding practices based on the Minister of Finance Regulation no. 141/PMK.03/2015. The type of service used by PT. Freight Cargo Logistics includes (a) freight forwarding services, (b) warehousing rental services, (c) maklom services, (d) communication/internet services, (e) packing services, (f) shipping services (g) logistics services (h) Documentation Management Services (i) Management Services (j) Intermediary/Agency Services. PT. Freight Cargo Logistics is a company that already has an NPWP and then related to the production of withholding evidence Mr. Adi (Informant) explained that "to make proof of deduction to be given to third parties/vendors, it is necessary to issue proof of withholding Tax Article 23 but currently since April 2021 the proof is Withholding Tax Article 23 has changed its name to proof of unification deduction, in which there are various types of withholding PPh. Previously PT. Freight Cargo Logistics uses e-bupot Tax Article 23 since August 1st, 2020 which can be accessed via https://djponline.pajak.go.id/, after July 2020 until now, PT. Freight Cargo Logistics has used eSPT PPh 23 and is in accordance with the provisions of the Directorate General of Taxes".

From the results of the study, the mechanism for recording, calculating and withholding income tax article 23 for freight forwarding services carried out by PT. Freight Cargo Logistics complies with the prevailing laws and regulations, namely the Minister of Finance Regulation No. 141/PMK.03/2015, this is because based on the data obtained, there is no difference (difference) in deductions made by PT. Freight Cargo Logistics. PT. Freight Cargo Logistics has indeed made deductions in accordance with the applicable tariff in the legislation, which is 2%.

CONCLUSION

PT. Freight Cargo Logistics deducts Article 23 Income Tax as one of its tax obligations. After conducting analysis and research on the application of recording, calculating, and withholding income tax article 23 on freight forwarding services at PT. Freight Cargo Logistics, it can be concluded that:

1. The imposition of Article 23 income tax rate withheld by PT. Freight Cargo Logistics for freight forwarding services during 2020 – 2021 is 2% of the basic withholding tax (tax object value).
2. Calculation, recording and withholding of PPh article 23 on freight forwarding services at PT. Freight Cargo Logistics during 2020 – 2021 has complied with the prevailing laws and regulations, namely the Minister of Finance Regulation No. 141/PMK.03/2015.

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THE EFFECT OF TAX KNOWLEDGE AND MODERNIZATION OF THE TAX ADMINISTRATION SYSTEM ON INDIVIDUAL TAXPAYER COMPLIANCE

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Abstract

This research aims to determine whether there is an effect of tax knowledge and modernization of the tax administration system on individual taxpayer compliance in Bahagia Village Babelan Bekasi West Java. The variable used in this research is tax knowledge and modernization of the tax administration system as the independent variable and individual taxpayer compliance as the dependent variable. The population used in this research is taxpayers in Bahagia Village Babelan Bekasi West Java. The sample selected in this research used a purposive sampling method with predetermined criteria. The sample used is 100 respondents—methods of data collection by using a questionnaire. The data analysis technique in this research used a research instrument test, classical assumption test, and multiple linear regression analysis. The results of this research indicate that partially and simultaneously, tax knowledge and modernization of the tax administration system have a positive and significant effect on individual taxpayer compliance.

Keywords: Tax Knowledge; Modernization of the Tax Administration System; Individual Taxpayer Compliance

INTRODUCTION

Indonesia is a develop country [1] which continuously do development national in all sector. The development national always being realized and promoted equally and sustainable for the sake of creation condition economy which better and create the welfare of society. To use could realize development national must be supported by the availability of financing which is quite adequate. Efforts are ongoing by government for support financing national development independently, namely by dig various source reception country. According to Ministry Finance Republic Indonesia [2] there is a number of type state revenues that have increased and play a role in increasing acceptance itself, that is tax, customs and excise duty, as well as Reception Country No Tax (PNBP) such as oil and gas, mineral coal, and palm oil. Based on various type reception country In this case, the tax sector is a source of income main government [3] in meet state funding.

Growth reception tax very related with taxpayer compliance in fulfill the obligation of taxation. So that indispensable to assist the country in realize the economic growth of a country. However, taxpayer compliance is still not owned by every taxpayer comprehensively. There are still many taxpayers which reluctant for behave obey to applicable tax provisions. Disobedient individu taxpayer in operate their obligations could use as one of the factors that not achieving the target tax revenue in Indonesia. Directorate General Tax (DGT) display that as much 12.76 million tax return Annual which has reported for year 2021 tax as of April 30, 2022. Total Annual SPT which is targeted to be delivered is 19 million, so that level obedience formal per 30 April 2022 new reach ratio 67.18%. tax return which targeted and has realized reporting is fusion Among tax return Required tax body and individual taxpayer SPT. Focus on Required tax person personal, amount tax return Annual which reported until with 30 April 2022 as much as 11.87 million. With 17.35 million taxpayers who has an obligation to report SPT, then level obedience formal person personal new reach 68.46% [4]. This phenomenon deciphers that the level of individual taxpayer compliance in Indonesia is still not optimal. In increase the

individual taxpayer compliance, an effort which conducted by Directorate General of Taxes, namely by carrying out knowledge related socialization taxation to public as well as implement modernization on system administration taxation.

The first factor which could influence the level of individual taxpayer compliance is the tax knowledge which could interpreted as outlook or knowledge which owned by taxpayer about taxation which could obtained through education formal nor non formal. Tax knowledge which includes a sense of understanding on everything that is within the scope of the tax will increase awareness and obedience. So that knowledge taxation could push Required tax for always obey for operate obligation taxation with as good as possible. Based on research conducted by [5], [6], as well as [7] shows that tax knowledge has a positive influence significant to individual taxpayer compliance. In contrast to the results of research conducted by [8] as well as [9] which state that knowledge taxation does not have a significant effect on individual taxpayer compliance.

The second factor which could influence the level of individual taxpayer compliance is application of modernization of tax administration system. Modernization is something transformation which there is in public which move from traditional condition to a modern situation. Modernization and digitalization can change the way tax administrations operate by increasing their ability to collect, process and compile some tax information's that will be disseminated to taxpayers [10]. With the implementation of modernization so will produce the administration system which more practical and more effective use for public. So that public could becomes very helped in carrying out their tax obligations through developed technology. Currently already many modernizations of the administrative system that have been implemented by the Directorate General of Taxes, like existence *e-registration* which beneficial for to do registration making NPWP by online . In addition, there are *e - SPT, e-filing*, and *e- billing*. The implementation modernization this aim for provide convenience to taxpayers in fulfill obligation the tax any time and in anywhere by *on line* without must visit to Office Service Tax (KPP). A number of results research which has conducted by [11], [12], [13] and [14] show that modernization of tax administration system has a positive effect to taxpayer compliance. Different from research which done by [15] shows that modernization the tax administration system has a no significant effect to taxpayer compliance on KPP City Primary South Makassar.

Based on the description of the research problem before which no consistent, so writer interested in to do research about "The Effect of Tax Knowledge and Modernization of Tax Administration System on Individual Taxpayer Compliance".

METHODOLOGY

The research is a Quantitative Descriptive. Population research is individual taxpayer compliance in the Bahagia Village, Babelan Subdistrict, Bekasi District, West Java with 100 samples. In this research, the tool used to test the data is to use Statistical Product and Service Solution (SPSS) version 23. The use of SPSS aims to find the effect of partial and simultaneous relationships between independent variables on the dependent variable. In this research using quantitative data analysis methods, which methods to analyze problems presented in the form of numbers and then make a conclusions by the explanations. The analytical technique used is: test data quality (validity and reliability test), classical assumption test (normality, multicollinearity, heteroscedasticity and autocorrelation test), regression linear multiple test analysis and hypothesis test (t, f, and coefficient determinant test).

The Location

This research conducted in Bahagia Village Subdistrict Babelan Regency Bekasi West Java.

Research Data

Primary Data. The primary data used in the form of a questionnaire that has been distributed to individual taxpayers in Bahagia Village Babelan Subdistrict Bekasi District West Java.

Secondary Data. The secondary data which used in the form of data demographics and geography of Bahagia Village as supporting data.

RESULTS

Data Quality Test
a. **Validity Test**
   1. **Tax Knowledge**

Table 1. Tax Knowledge Validity Test Result

No	Items	r count	r table	Information
1.	Item1	0.732	0.197	Valid
2.	Item2	0.584	0.197	Valid
3.	Item3	0.698	0.197	Valid
4.	Item4	0.805	0.197	Valid

Based on table 1 could be concluded that the whole statement in tax knowledge variable are valid because the value of counted r always bigger than r table that is 0.197. So the statements in the tax knowledge variable are worth for used in this research.

   2. **The Modernization of Tax Administration System**

Table 2. The Modernization of Tax Administration System Validity Test Result

No	Items	r count	r table	Information
1.	Item1	0.538	0.197	Valid
2.	Item2	0.570	0.197	Valid
3.	Item3	0.507	0.197	Valid
4.	Item4	0.716	0.197	Valid
5.	Item5	0.688	0.197	Valid
6.	Item6	0.783	0.197	Valid
7.	Item7	0.644	0.197	Valid

Based on table 2 could be concluded that whole statement in variable modernization of the tax administration system are valid because the value of counted r is always bigger than r table is 0.197. So the statements in the modernization of the tax administration system variable are worth for used in this research.

   3. **Individual Taxpayer Compliance**

Table 3. Individual Taxpayer Compliance Validity Test Result

No	Items	r count	r table	Information
1.	Item1	0.554	0.197	Valid

No	Items	r count	r table	Information
2.	Item2	0.784	0.197	Valid
3.	Item3	0.671	0.197	Valid
4.	Item4	0.792	0.197	Valid
5.	Item5	0.799	0.197	Valid
6.	Item6	0.625	0.197	Valid

Based on table 3 could be concluded that whole statement in variable individual taxpayer compliance are valid because the value of counted r is always bigger than r table is 0.197. So the statements in the modernization of tax administration system variable are worth for used in this research.

b. Reliability Test

Table 4. Reliability Test Result

No	Variable	Cronbach Alpha	Criteria	Information
1.	Knowledge Taxation	0.664	0.60	Reliable
2.	Modernization System Administration Taxation	0.755	0.60	Reliable
3.	Obedience Taxpayer_Person Personal	0.798	0.60	Reliable

Based on table 4 could be concluded that all variables have met the test standard reliability because whole score *Cronbach Alpha* which generated always bigger than 0.60. So whole variable is reliable and could be used in this research.

Classic Assumption Test
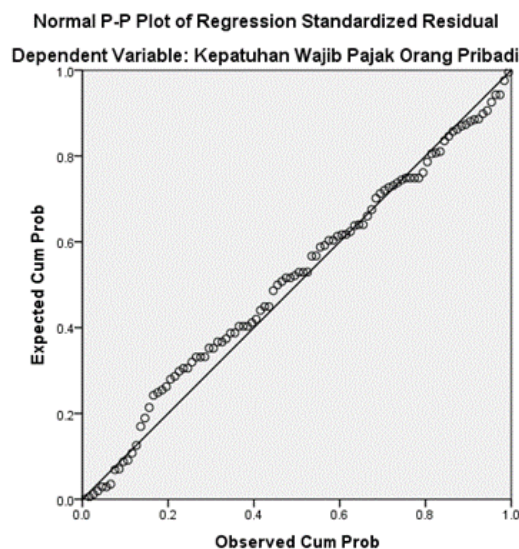### a. Normality Test

Figure 1. Normality Test Result

Fig. 1 shows that data residual distributes normally because the points spread around the diagonal line and follow the direction line diagonal. So that model regression fulfill assumption classic normality criteria and it means data worthy to used in this research.
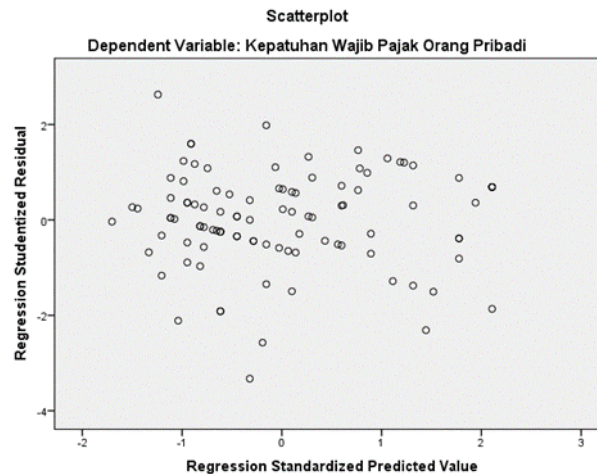
b. Multicollinearity Test

Scatterplot
Dependent Variable: Kepatuhan Wajib Pajak Orang Pribadi

Table 5. Multicollinearity Test Result

Model		Unstandardized Coefficients		Standard ized Coefficients	Collinearity Statistics	
		B	Std. Error	Beta	Tolerance	VIF
1	(Constant)	9.451	2.089			
	Knowledge of Taxation	0.231	0.115	0.186	0.896	1.116
	Modernization of Tax Administration System	0.409	0.092	0.410	0.896	1.116

Based on table 5 could be concluded that whole variable independent free from symptom multicollinearity because has Fulfill criteria which set that score *tolerance* > 0.1 and score VIF < 10. So that model regression fulfill assumption classic multicollinearity and it means data worthy used in this research.

c. Heteroscedasticity Test

Fig. 2 shows *scatterplot graphic* which shows point-data points do not experience symptoms of heteroscedasticity because the dots are scattered above, below and on around zero and does not form a pattern that means. So that the regression model meets the assumptions classic heteroscedasticity and it means data worthy used in this research.

d. Autocorrelation Test

Table 6. Autocorrelation Test Result

Model	R	R square	Adjusted R Square	Std Error Of the Estimate	Durbin-Watson
1	0.502 ᵃ	0.252	0.237	2.419	2,146

Based on table 6 could concluded that Durbin Watson score located between degree of upper / d_u (1,715) < Durbin Watson score (2,146) and 4-du (2,285) so it means there were no autocorrelation symptoms because score *Durbin Watson* located in Among score duuntil with (4-du). So that model regression fulfill the classical assumption of autocorrelation and the data is worthy used in this research.

DISCUSSION

Regression Linear Multiple Test Analysis

Regression analysis used for provide an explanation and magnitude of the relationship between variable independent with variable dependent [16]. Equality regression linear which will be used in this research is as following:

$$Y = 9.451 + 0.231X1 + 0.409X2 + e \qquad (1)$$

Equation (1) shows the multiple regression formula which explained as follows:
  a. The regression formula above has a constant value of 9.451. This shows that if the variables are considered constant, then the dependent variable has increased by 6.233%.
  b. The coefficient of knowledge of taxation variable (X1) has a positive value of 0.231. This shows that an increase in tax knowledge as much as 1% or by one unit will lead to an increase in Y of 0.231%.
  c. The variable coefficient of the modernization of the tax administration system (X2) has a positive value of 0.409. This shows that an increase in the modernization of the tax administration system as much as 1% or by one unit will lead to an increase in Y of 0.409%.

Hypothesis Test

Test t used for knowing the influence of dependent variable to independent variable partially [17].

Table 7. t- Test Result

Variable	T count		T table	Sig value		α sig
Tax Knowledge (X1)	1.999	>	1.985	0.048	<	0.05
Modernization of Tax Administration System (X2)	4.424	>	1.985	0.000	<	0.05

  a. Significance score < 0.048 or score t count 1.999 > t table 1.985 then there is an influence between the tax knowledge variable (X1) on individual taxpayer compliance (Y). The tax knowledge includes the insight into general provisions and general taxation procedures as well as taxation basics which include the rights and obligations of a taxpayer, related to a person's intellectual level, so that it will make easier for taxpayers to know and understand to applicable of the tax regulations [18]. Taxpayers who have good tax knowledge will always do some action in accordance with what is recommended and avoid all mistakes in tax obligations. It will lead to attitude control as a taxpayer, where is the control will increase compliance [19]. The wider of tax knowledge possessed by taxpayers, the more aware they are and increase their compliance [20]. According to [21], taxpayers with formal education and adequate knowledge are expected to possess and absorb adequate information on taxation and fiscal policy due to their level of education and exposure. So the tax knowledge is an important factor in determining tax compliance.
  b. Significance score < 0.05 that is 0.000 or counted t score 4.424 > t table 1.985 then there is an influence between the modernization of tax administration system administration (X2) variable on individual taxpayer compliance (Y). Tax administration which is concerned with the collection and processing of taxes, has an undeniable key role in any taxation system. Ensuring effective enforcement and compliance. This is believe to be the result of

the universal truth that people are not or inspired by paying their taxes obediently and without a coercion [22]. The modernization of the tax administration system is a system that is undergoing changes and improvements to increase the services to taxpayers by using the information technology with the aim of increasing taxpayer compliance and tax revenue [23]. Technological advances have resulted in an administrative system that has the impact of modernization, greatly providing convenience for taxpayers to fulfill their tax obligations. The modernization of the tax administration system is very useful for taxpayers in carrying out their tax obligations, such as the implementation of information systems and better services provided by the tax authorities. Taxpayers can take advantage of the facilities provided and can be used by using electronic device easily/ So that progress in the field of administration can make every tax administration process can be more efficient [24]. With the implementation of the self assesment system in Indonesia, modernizing of the tax administration system causes taxpayers to find it easier and very helpful in their attitude and decision-making to carry out of their tax obligations [25]

F Test

F test used for knowing influence variable free by together to variable bound [17].

Table 8. F Test Result

Model	Sum of Squares	df	Mean Square	F	Sig.
1 Regression on	191.246	2	95.623	16.344	0.000 [b]
Residual	567.504	97	5.851		
Total	758.750	99			

    a.   Dependent Variable: Individual Taxpayer Compliance
    b.   Predictors: (Constant), Tax Knowledge, Modernization of Tax Administration System

Significance score < 0.05 that is 0.000 or f scorecount 16,344 > F table 3.09 so there are influence among variable tax knowledge(X1) and the modernization of the tax administration system(X2) to individual taxpayer compliance (Y). Taxpayers can decide whether or not to state the accurate amount of their obligations, depending on their knowledge and the level of compliance about the penalties [26]. Individual taxpayer compliance is closely related to the Theory of Planned Behavior. Where the theory is the most suitable taxation framework for examining the tax compliance determinants in term of intentions and behavioral through behavioral elements (attitudes towards behavior, subjective norms, and perceived behavioral control) [27].

Coefficient Determination Test (R^2)

Coefficient determination test (R^2) aim for measure ability comparison the effect of all independent variables on the variable bound. The obtained value will be changed to form percent (%) which have meaning that the percentage of the influence of the independent variable on dependent variable [17].

Table 9. Coefficient Determination Test Result

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	0.502[a]	0.252	0.237	2.419

Based on table 9 could be concluded that tax knowledge and modernization of tax administration system make an influence simultanously as much as 23.7% to individual

taxpayer complince. While the remaining 76.3% is due to by other factors which no explained in this research. The knowledge of taxation possessed by each taxpayer can be a provision in fulfilling tax obligations. The knowledge of taxation will be very useful for taxpayers if it is accompanied by the efforts of the Driectorate General of Taxes in modernizing the tax administration system aimed at providing facilities and make a conveniences for taxpayers to be able to carry out their tax obligations more effectively and efficiently by utilizing technological advantages and improving tax services. So that with good service from tax officers, the convenience obtained in carrying out of tax obligations through a modern system.

CONCLUSION

Based on results analysis data which has conducted by researcher, so could set a number of the following conclusions:

1. The tax knowledge has positive and significant effect to individual taxpayer compliance of 18.6%. The increasing widespread of the knowledge of taxation which owned by taxpayers, so will increase individual taxpayer compliance, because taxpayers have adequate knowledge related to all something in taxation scope.
2. Modernization system administration taxation has positive and significant effect towards individual taxpayer compliance by 41%. This is caused by having enactment self assessment system so that taxpayers are empowered to doing obligation the tax alone. System administration which modern give convenience for individual taxpayer compliance to carry out their tax obligations by more effective and efficient without must come to the office Tax Service (KPP).
3. The tax knowledge and the modernization of tax administration system administration have positive and significant to individual taxpayer compliance as much as 23,7%.

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THE EFFECT OF THE FRAUD TRIANGLE IN FINANCIAL STATEMENT DETECTION OF FRAUD ON TRANSPORTATION COMPANIES

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Abstract

This research was done to analyze the role of the fraud triangle theory in detecting the occurrence of financial statement fraud of transportation companies listed on S&P Capital IQ and Bursa Efek Indonesia from 2018 through 2020 from 2018 through 2020. The variables tested in this research are financial stability pressure, excessive pressure, personal financial need, financial target, ineffective control, and rationalization. This research uses 162 data from 54 transportation companies on S&P Capital IQ and Bursa Efek Indonesia. The test was done using Stata version 16. It showed that financial stability pressure, personal financial need, financial target, and independent rationalization variables positively affect the occurrence of financial statement fraud. In contrast, excessive pressure and ineffective control of independent variables hurt the occurrence of financial statement fraud.

Keywords: Financial Statement Fraud; Fraud Triangle; Financial Statement Fraud

INTRODUCTION

Statement of Financial Accounting Standards (PSAK) No. 1 Revision 2014 which discusses the presentation of financial statements, explains that the purpose of financial statements is to provide information about the financial position, financial condition, performance and changes in the company's financial condition that is useful for stakeholders in making decisions. Financial statements have a crucial function, so that in their presentation they should not contain any material errors because they are feared to have an impact on inappropriate decision making. The Association of Certified Fraud Examiners (ACFE) defines fraud in a broad sense as fraud that is structured to obtain benefits through deception, misrepresenting or concealing material facts to induce others to act maliciously.

In the Statement of Auditing Standards (SAS) No. 99 explains that there are three triggers for someone to commit fraud. The first reason is the pressure or pressure from work that makes employees feel pressured and compelled to commit fraud, the second cause is the opportunity or opportunity due to the weak internal control of the company that gives perpetrators the opportunity to cheat, and the last cause of fraudulent is the existence of rationalization or rationalization. to commit fraud. From the results of a study conducted by ACFE, in its report published in 2020 with a number of samples taken as many as 2,504 data from 125 countries conducted from January 2018 to September 2019 it was found that the existing fraud cases resulted in losses of 3.6 billion USD and in frequency asset misappropriation is the most common type of fraud, which is 86% of the total cases with an average loss of 100,000 USD and the less common is financial statement fraud which occurs 10% of the total cases, but results in an average loss of 954,000 USD .

In Indonesia itself, there have been various cases of fraud in financial statements, which is still relatively warm in the public is the case of fraud in the Garuda Indonesia Financial Statements for the 2018 financial year, where management recognizes income that should not be recognized, but is still recorded, so that the report its financial assets became a surplus, after in the previous quarter suffered a fairly large loss. This was disputed by two commissioners

who felt strange about the surplus generated by the company, and refused to sign the financial statements because they were deemed not to be in accordance with the Statement of Financial Accounting Standards (PSAK).

LITERATURE REVIEW

Agency Theory

Agency theory contains a relationship between two parties, where one party will have a role as the principal as the owner who uses the assistance or services of another party who acts as an agent to carry out an operational activity. According to Jensen and Meckling (1976) the notion of agency theory is a theory that describes the relationship between management (agent) and owner (principal), namely the relationship that a principal surrenders his authority to the agent to run the company and its decisions. However, in this case an agent must manage the company as well as possible and be accountable to the principal.

Fraudulent Financial Statement

Association of Certified Fraud Examiners (2004), explains that there are several forms of fraud in fraud over overstated assets or income or liabilities and expenses. Overstated listings of assets and revenues falsely reflect a company that is more financially strong through the existence of recording of fictitious asset costs for which revenues do not exist. The impact of listing overstatements or understatements has an impact on increasing earnings per share or partnership profit interest or making the company look more stable. According to the statement of auditing standard (SAS) No. 82, defines fraud in financial statements as actions that cause financial information to become irrelevant and cause material misstatement, which can have a bad influence on stakeholders. In addition, Arens (2005:310) through his book entitled "Auditing & Assurance Service: An Integrated Approach" describes fraudulent financial reporting as a recording error made intentionally or omission of a nominal amount or disclosure with the aim of deceiving the readers of financial statements.

Fraud Triangle

Donald Cressey (1950) was the first person to develop the fraud triangle theory. Cressey conducted a study that focused on embezzlers by conducting interviews with 200 imprisoned people, and hypothesized "trusted people become trusted fraudsters when they feel they have an indivisible financial problem, realizing that the problem can be solved clandestinely. , by violating the position of financial trust, and being able to apply their actions in verbal situations so as to enable them to adapt their self-confidence, and confidence in people's views of themselves as trusted people, then people will entrust their funds and property". The fraud triangle explains the factors that can cause someone to commit occupational fraud. The three main factors that can lead to fraud are:

1. **Pressure**
   This is the main thing that underlies someone in committing fraud. Individuals who have financial problems that are not able to solve them through legal means, which triggers them to take illegal actions. In SAS. 99 states that there are four conditions that usually occur that cause pressure for someone to commit fraud.
   a. Financial Stability Pressure
      This is a condition where the company is in a stable condition, with such circumstances it will encourage management to commit fraud. The causes of this pressure are due to

market competition, a high level of vulnerability due to rapid technological and environmental changes, losses from operating activities, and negative cash flows.

b. Excessive Pressure

In SAS. 99 explains that there is excessive pressure for management to meet the expectations of third parties. This pressure can arise due to expected profitability or trends, the need to obtain loans or equity financing to be able to stay competitive.

c. Personal Financial Need

Skousen (2009), states that when company executives have a role in the company's finances, their financial situation may be influenced by the financial condition of the entity (Skousen et al., 2009). Therefore, this can also be an impetus for someone to be able to commit fraud on financial statements.

d. Financial Target

In SAS. There is excessive pressure on management or operations officers to achieve financial targets set by the authorities such as the government or management, such as pressure to achieve sales or profitability targets for the provision of incentives or bonuses.

2. Opportunity

Opportunity is defined as a method that is likely to be used by the perpetrator of fraud. Fraud perpetrators see the possibility of a gap in their position or position in the company to be able to commit fraud but with the smallest possibility of being caught. It also becomes very important for the perpetrator to be able to solve the problem in secret.

3. Rationalization

The last component of the occurrence of fraud is rationalization. As previously mentioned, that there are many ways to commit fraud and they think that their actions are not wrong, because they see that this has been done by other people before, because these people do not see themselves as criminals, he will justify his actions through various means to make his actions sound acceptable.

Hypothesis Development

The effect of financial stability pressure on the risk of financial statement fraud

Based on SAS No. 99, regarding financial stability pressure, is a form of threat to financial statements, where the condition of the company's financial stability causes pressure on management. When there is pressure on management caused by the company's unstable financial condition, it has an impact on management getting the urge to commit fraud on financial statements so that the company's performance looks better.

H1: Financial stability pressure has a positive effect on financial statement fraud because the pressure will increase the possibility of fraud.

The effect of excessive pressure on the risk of financial statement fraud

In SAS. 99, states that excessive pressure can be caused by external parties, such as expectations of profitability or ongoing trends from investors, creditors, external parties, and includes expectations from management to have good performance results in the annual report.

H2: Excessive pressure has a positive effect on financial statement fraud.

The effect of personal financial need pressure on the level of risk of financial statement fraud

Personal financial need is where the company's finances are affected by the financial condition of the company's executives (Skousen et al., 2009). Managers have the right to claim income and assets owned by the company based on the proportions they own. Company executives can regulate financial reporting, and this share ownership structure can affect the level of fraud. According to Prasmaulida (2016), personal financial needs which are measured using the proxy ratio of Ownership by Insider (OSHIP), have a significant influence on the occurrence of financial statement fraud and have a direct influence, which means that the higher the share ownership by insiders, the greater the occurrence of fraud. on the financial statements.

H3: Personal financial need pressure has a positive effect on fraudulent financial statements.

The effect of financial target pressure on the risk of financial statement fraud

Financial target is a condition in which the company sets revenue targets that must be achieved from existing businesses to generate income. To assess the company's income level from a business that has been run, it can use Return on Assets (ROA).

H4: Financial target pressure has a positive effect on fraudulent financial statements.

The effect of Ineffective Control on the risk of financial statement fraud

Lack of supervision is one of the reasons for fraudulent financial statements. Supervision of a company is carried out by an independent party, namely the board of commissioners, where they have supervision to be able to prevent fraud within the company. With this independent commissioner, it is expected to be able to monitor the company's performance. In carrying out their duties, these independent parties may be involved in fraudulent acts, where this can occur as a result of weak supervision of the company which creates opportunities for management to commit fraud.

H5: Ineffective control has a positive effect on the level of risk of financial statement fraud.

The effect of rationalization on the risk of financial statement fraud

Rationalization is an act of justification for actions committed by fraud perpetrators, and is related to a person's knowledge of fraud. Annnisya (2016:37) argues that with a third party description that is expected to be neutral, namely the external auditor can provide an opinion on the audited entity in the actual conditions that exist within the company. This is the basis for the audit report as a benchmark for rationalization of the resulting financial statements.

H6: The audit report has a positive effect on the risk of fraud in the financial statements.

Research Methodology

The business sector selected in this study is a transportation company registered with S&P Capital IQ for the financial period from 2018-2020. This sample selection uses a purposive sampling method because the sample used is based on predetermined criteria with a total sample of 162 data samples.

Framework

The framework of thought in this research is about the influence of the fraud triangle in the detection of financial statement fraud, namely as follows:
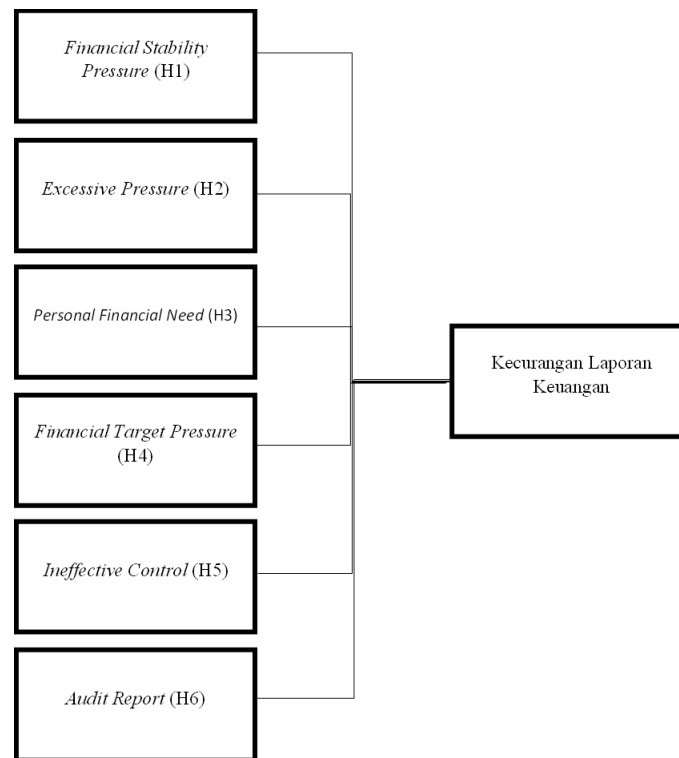
In this study, the researcher wanted to know the effect of *financial stability pressure (x1), excessive pressure (x2), personal financial need pressure (x3), financial target pressure (x4), ineffective control (x5), and audit report (x6)* on the occurrence of cheating (Y).

METHODOLOGY

Research Variables and Definition of Operational Variables

The relationship between the occurrence of *financial statement fraud* and *the fraud triangle* can be measured by the following model, namely:

$$FFS = \alpha + \beta1FS + \beta2EP + \beta3FN + \beta4FT + \beta5IC + \beta6RS + e$$

Description:
FFS   = *Fraudulent Financial Statement*
FS   = *Financial Stability*
EP   = *Excessive Pressure*
FN   = *Personal Financial Need*
FT   = *Financial Target*
IC   = *Ineffective Control*
RS   = Rationalization
α = Constant
ß1-6   = Coefficient of each independent variable
e   = *Standard error*

Variabel Dependent

In this study, the dependent variable is financial statement fraud using the F-Score, which uses the measurement method used to assess the level of financial risk in financial statements developed by Dechow at al. (2011):

$$\textit{F-Score = Accrual Quality + Financial Performance}$$

Accrual quality is a gap for management to generate the desired amount of profit if the company's financial position does not reach the target or desired position, and this is the background for fraud in the financial statements to generate the desired profit or financial position and is proxied using RSST Accrual (Rini, 2012).

$$RSST\,Accrual \quad = \quad \frac{\Delta WC + \quad \Delta NCO + \quad \Delta FIN}{ATS}$$

Financial Performance can be used as a way to detect fraud financial statements, which are proxied using changes in accounts receivable, inventory, cash sales, and changes in earnings before tax. So it can be described as:

$$\textit{Changes in receivable} \quad = \quad \frac{\Delta\ Receivable}{Average\ Total\ Asset}$$

$$\textit{Changes in inventories} \quad = \quad \frac{\Delta\ Inventories}{Average\ Total\ Asset}$$

$$\textit{Changes in sales} \quad = \quad \frac{\Delta\ Sales}{Sales_t} \quad - \quad \frac{\Delta\ receivable}{Receivable_t}$$

$$\textit{Changes in earning} \quad = \quad \frac{Net\ Income_t}{Average\ Total\ Asset_t} \quad - \quad \frac{Net\ income_{t-1}}{Average\ Total\ Assets_{t-1}}$$

Independent Variable

Financial Stability

Financial stability can be measured from the status of the company's assets. A higher asset value makes investors more interested in investing in the company, so management seeks to create stable financial conditions through manipulation of financial statements, especially accounts related to company assets. Financial stability can be explained by GPM, namely the ratios of comparisons between gross profit and existing sales or revenues. GPM can be calculated by the following formula:

$$\frac{Total\ Gross\ Profit}{Total\ Income}$$

Excessive Pressure

The ability to meet the need to pay debts, or meet the requirements for borrowing debt, in general, is a source of external pressure (Skousen, 2009). Pressure can be proxied through the leverage ratio by comparing total liabilities with total assets.

$$\frac{\text{Total gross profit}}{\text{Total Assets}}$$

Personal Financial Need

According to Skousen (2009), personal financial need is a situation where the company's financial situation is affected by the financial situation of their executives. Managers have the right to recognize most of the income and assets owned by the company, the amount of which depends on the number of shareholdings owned by each individual, executive or company internal party who has the ability to regulate financial reporting. This level of share ownership is able to influence the amount of fraud in financial statements (Prasmaulida, 2016).

$$\text{OSHIP} \quad = \quad \frac{\text{The number of shares owned by management}}{\text{Common stock outstanding}}$$

Financial Target

The financial target is a condition in which the company has set profit targets that must be obtained through the company's business activities (Prasmaulida, 2016). With the encouragement to achieve this target, it encourages management to commit fraud on financial reports with specific purposes such as bonuses or incentives from predetermined sales targets. The proxy used to measure this financial target is the Return on Assets (ROA) ratio:

$$\frac{Net\ Income}{\text{Total Assets}}$$

Ineffective control

Ineffective control is a situation where supervision within the company results in errors in making statements that are not true (AICPA, 2002: 1750). To create effective internal control, the company needs the existence of an independent commissioner. Skousen et al., argues (2009) that companies that experience a high number of cases tend to have fewer commissioners. Therefore, ineffective monitoring is proxied by IND which is the ratio of independent commissioners which can be calculated by the formula:

$$\frac{\text{Number of independent commissioners}}{\text{Number of Company board commissioners}}$$

Audit Report

Rationalization in SAS number 99 is the most difficult factor to detect. based on Francis and Krishnan (1999) in Skousen et al. (2009) Accruals are representative of decisions made by management and support for in-depth information about rationalization of financial statements, therefore audit opinion can be used as a proxy for rationalization, because rationalization shows justification for errors using dummy variables, with code 1S for unqualified opinion (WTP), and 0 for opinions other than WTP.

RESEARCH RESULT

Descriptive Statistical Analysis

Table 1. Descriptive Statistical Analysis

Variable	Obs	Mean	Std. Dev.	Min	Max
Fscore	162	1.026405	1.44212	.0046219	9.563179
GPM	162	15.43805	39.2553	-235.9679	68.5563
Lev	162	.0502057	.0631698	0	0.5066776
FT	162	-.0271968	0.15361	-1.02239	0.3046136
RS	162	.691358	.4633654	0	1
OSHIP	162	.7744078	.7804393	.0044	0,9495510
IE	162	.3975658	.1166584	0	.6666667

Source: Stata 16 Output

From the processed data using the statistics shown above, it can be concluded that from the test results using observations of 162 data. The descriptive statistical test shows the mean, standard deviation, minimum, and maximum values of all the variables tested in the study.

Hypothesis Testing

Table 2. Hypothesis Testing

Linear regression

					Number of Obs	= 162
					$F_{(7, 154)}$	= 20.53
					Prob > F	= 0.0000
					R-Squared	= 0.6545
					Root MSE	= .69989

Bc_dac	Coef.	Robust std. Err.	t	P>|t|	[95% Conf. Interval]	
GPM	0.0000475	0.0011936	0.04	0.968	-0.0023104	.0024055
Lev	0.6416283	0.6949697	0.92	0.357	-0.731276	2.014533
FT	-1.032016	0.3164509	-3.26	0.001	-1.657161	-0.4068706
RS	0.0583731	0.1081476	0.54	0.590	-0.1552712	0.2720173
OSHIP	0.1566113	0.0552941	2.83	0.005	0.0473786	0.2658441
IC	-0.111938	0.43198	-0.26	0.796	-0.9652754	0.7413995
_cons	-1.38998	0.2072725	-6.71	0.000	-1.799445	-0.980516

Source: Output Stata 16

T test was conducted to test how significant the independent variable is on the dependent variable partially. A significant effect is if it has a probability value <0.05. In the test carried out in the state, the test uses a two-tailed test, but for one-way hypothesis testing it is necessary to test using a one-tailed test so that the probability of the results that appear will be divided by two to get the results of the analysis.

From the test results as shown in table 2, the following conclusions can be obtained:
1. Financial Stability Pressure has a coefficient of 0.0000475 with a probability value of 0.4840 which means that this variable which is proxied using gross profit margin (GPM) has a positive and insignificant effect on the occurrence of fraud in financial statements at a significance level of 5%, so H1 is rejected.
2. Excessive Pressure has a coefficient of 0.6416 with a probability value after being divided into 0.1785 which means that the variable proxied using leverage has a positive and insignificant effect, so H2 is rejected.
3. Financial Target has a coefficient of -1.0320 with a probability value of 0.0005, which means that this variable, which is proxied using the return on asset (ROA) ratio, has a negative and significant effect, meaning that H4 is rejected.

4. Rationalization, which is proxied using the auditor's opinion has a coefficient value of 0.0583 with a probability value of 0.2950 which is more than 0.05, meaning that it has a positive and insignificant effect on the occurrence of fraudulent financial statements, so H6 is rejected.

5. Personal Financial Need Pressure, which is proxied using OSHIP has a coefficient value of 0.1566 with a probability value of 0.0025, which means this variable has a positive and significant value, which means H3 is accepted

6. Ineffective Control, which is measured using a comparison of the number of independent and non-independent commissioners has a coefficient value of -0.0111 with a probability level of 0.3980, which means this variable has a negative and insignificant effect on the occurrence of fraud in the financial statements, so H5 is rejected.

Effect of Financial Stability on the occurrence of fraud risk in financial statements

The test results of the first variable, financial stability, which was measured using GPM as a proxy, showed a coefficient of 0.0000475 with a significance level of 0.4840, which means that this variable has a positive and insignificant effect, meaning that H1 is rejected. The results of this study are in line with research conducted by Budiyono (2020) which states that the financial stability of a company can affect the occurrence of fraud in financial statements. But this is contrary to research conducted by Widarti (2015) which states that financial stability has a significant influence on fraud in financial statements. Fraud in financial statements will definitely be overcome if the company's internal management can establish good cooperation which will have an impact on reducing pressure within the company.

The effect of Excessive Pressure on the occurrence of fraud in the financial statements

The second variable tested was excessive pressure measured using the leverage ratio, the test results showed a coefficient value of 0.6416 with a significance level of 0.1785, which means it is still above 0.05, which means that H2 is rejected because statistically, excessive pressure has a positive and not significant effect. significant to the detection of fraud in the financial statements. The results of this study are not in line with research conducted by Dewi (2020) which states that excessive pressure has a negative and significant effect on the occurrence of fraud in financial statements. However, the results of this study are in line with research conducted by Sulastri (2019) which states that the independent variable excessive pressure does not have a positive influence on the occurrence of fraud in financial statements because according to him this is due to the company still being able to pay off its debts through the issuance of new shares. thereby reducing pressure for companies to commit fraud in their financial statements.

Effect of Financial Target on the occurrence of fraud in financial statements

The third variable tested is the financial target which is measured using return on assets (ROA). From the test results, the coefficient results are -1.0320 with a probability level of 0.0005, which means that the rate of return on assets has a negative and significant influence on the occurrence of fraud in the financial statements. These results are in line with research conducted by Sulastri (2019) which states that financial targets have a negative effect on the occurrence of fraud in the company's financial statements, because with an increase in company profitability, the company will carry out developments in its technology and information systems through investments in and recruiting experts who implement a series of policies to achieve predetermined targets so that the company will not feel pressure because the intended profitability targets have been achieved.

The influence of Personal Financial Need on the occurrence of fraud in financial statements

The fifth variable tested is personal financial need which is proxied using OSHIP, and from the results of this study, the coefficient of 0.1566 is obtained with a probability value of 0.0025 (<0.05), so that the PFN variable has a positive and significant influence so that H3 is accepted. The results of this study are in line with research conducted by Budiono (2020) which states that personal financial need has a positive and significant influence on the occurrence of fraud in financial statements, this is because management has more control over its financial statements, thereby increasing the occurrence of pressure. of personal financial need will affect the company's performance, the greater the ownership by management, the greater the pressure. However, the results of this study contradict the research conducted by Sulastri (2019) which found that Personal Financial Need did not have a significant effect on fraud in financial statements.

The effect of rationalization on the occurrence of fraud in the financial statements

The fourth variable tested is rationalization measured using auditor opinion and shows the results with a coefficient value of 0.0583 with a probability level of 0.2950 (> 0.05) which means this variable has a positive and insignificant effect, meaning that auditor opinion does not have a significant effect on the occurrence of fraud in the report. finance, so H6 is rejected. The results of this study are in line with research conducted by Widiarti (2015) which states that rationalization as measured through audit reports does not have a significant effect on the occurrence of fraud in financial statements. This can be due to the undetected fraud that exists in the financial statements, which can result in the permitting of bookkeeping using the accrual method through applicable financial accounting standards, so that earnings management allows the company to achieve the profit level to be achieved so as to show the company's performance. Good (Halim et al., 2005).

The effect of ineffective control on the occurrence of fraud in the financial statements

The sixth variable tested has ineffective control which is proxied using a comparison of the number of independent commissioners and commissioners as a whole, from the results of this study obtained a coefficient of -0.0111 with a probability level of 0.3980, meaning this variable has a negative and insignificant effect. This result is inversely proportional to the research conducted by Sulastri (2019) which states that ineffective control has a positive and significant effect. This is because fraud in financial statements can be minimized through good supervision by the board of commissioners who have the responsibility to ensure that the company's strategy is running well and ensure that accountability is running well.

CONCLUSION

In line with the results of the previous discussion, this research concludes through empirical data as follows:

1. The results of the tests that have been carried out show that the Financial Stability Pressure variable which is measured using gross profit margin, which is comparing gross profit with total revenue has positive and insignificant results.
2. The test results of the excessive pressure variable measured using the leverage ratio, which compares the portion of total debt with total assets whose purpose is to determine the company's ability to pay its debts using all of its assets, showing positive and insignificant results.
3. Financial Target variable, which is measured using return on assets by dividing net income divided by total assets, the aim is to determine the company's ability to generate

income through its assets. This variable shows negative and significant results, meaning that the financial target does not affect the occurrence of fraud in the financial statements.

4. Personal Financial Need, is a variable that is proxied using OSHIP by comparing the number of independent commissioners with non-independent commissioners, and the test results obtained positive and significant results.

5. The test results for the rationalization variable measured using a dummy variable, namely auditor opinion, which if the result is WTP is given a code of 1 and other than WTP is coded 0, has a positive and insignificant result. This means that this does not prove that the opinion issued by the auditor can be used as a justification for the company to commit fraud in its financial statements.

6. From the test results on the ineffective control variable, the results are negative and insignificant, meaning that the lack of supervision from management does not affect the occurrence of fraud in the company's financial statements.

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COHERENT RISK MEASUREMENT

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Abstract

In the world of finance, risk management refers to the practice of identifying potential risks in advance, analyzing them, and taking precautionary steps to reduce/curb the risk. When an entity makes an investment decision, it is exposed to many financial risks. The purpose of this paper is to test whether any of the five risk measurements: (1) alpha, (2) beta, (3) standard deviation, (4) Sharpe ratio, and (5) Treynor Ratio are coherent. The results show that none of the five risk measurements are coherent.

Keywords: alpha; beta; standard deviation; sharpe ratio; Treynor Ratio; coherent

INTRODUCTION

In the world of finance, risk management refers to the practice of identifying potential risks in advance, analyzing them, and taking precautionary steps to reduce/curb the risk. When an entity makes an investment decision, it is exposed to many financial risks. The range of such risks depends on the type of financial instruments. These financial risks might be in the form of high inflation, volatility in capital markets, recession, bankruptcy, etc. (Times, 2020).

In the fields of science and financial economics there are some ways that risks can be defined – to clarify the concept of theoreticians have described a number of properties that a risk measure might or might not have A coherent risk measure is a function σ that satisfies properties of *monotonicity*, *sub-additivity*, *homogeneity*, and *translation invariance* (Capital.com, 2020).

LITERATURE REVIEW

Shepheard-Walwyn & Litterman [1998] study how risk measures on internal models might be integrated into a firm's own methodology for allocation risk capital to its individual business units and for determining its optimal capital structure. The study proposes a scenario analysis when assessing the firm's potential exposure to stress loss and therefore determining the firm's optimal capital structure. The result is a new base approach, which is consistent with both regulatory objectives and firm's own internal process, that would provide a basis for a regulatory capital regime for financial firms in the modern era (Shepheard-Walwyn & Litterman, 1998).

Artzner et al. [1999] study both market risks and nonmarket risks, without complete markets assumption, and discuss methods to measure the risks. The study proposes a set of four desirable properties for measuring risk. The satisfying measures are called as "coherent". The findings show that the coherent measures are universal for all scenarios (Artzner et al., 1999).

Yang & Siu [2001] proposes a risk measure for a portfolio of European-style derivative securities for a period using the Black-Scholes method. The proposed risk measure is constructed by using the risk-neutral probability, the physical probability, and a family of subjective probability measures. The result shows that Value-at-Risk is hard to implement when the portfolio contains derivatives, and it is not a coherent risk measure. The proposed method is easy to implement and it is coherent (Yang & Siu, 2001).

Chen and Hu [2018] study the relationship between coherent risk measures and convex risk measures. The study proposes a class of coherent risk measures caused convex risk measures. The result is a new coherent risk measure, the Entropic Conditional Value-at-Risk (ECVaR). The new model is proven and tested to be superior in optimal portfolio selection (Chen & Hu, 2018).

Lesnevski et al. [2020] propose procedures to form simulation-based confidence intervals and simulate them on risk-management problems. The availability of better algorithms for computing coherent risk measures will encourage their use for improved risk management (Lesnevski et al., 2020).

METHODOLOGY

Data

The object of the study is five listed companies in Indonesian Stock Exchange, that is KLBF, INDF, ICBP, ASII, and PTBA. The daily data are taken from Yahoo Finance from April 2016 to March 2020, then for each month, the risk value is calculated. The total observations are 48 for each type of risk.

For the risk-free rate, this paper uses the BI 7-day (Reverse) Repo Rate. Indonesia does not really have a perfect benchmark for the risk-free rate. This benchmark is used for the reason that the data area easy to get and it is commonly used.

Coherent Risk

A coherent risk measure means the risk measure covers all the maximum risks possible. There are four axioms that must be fulfilled for a risk measure can be called coherent (Artzner et al., 1999).

1. **Axiom S (Subadditivity)**

For any two random outcomes, X and Y, the returns from two portfolios or capital assets, then

$$\rho(X_1 + X_2) \leq \rho(X_1) + \rho(X_2)$$

In financial applications, the *diversifications principle*. The effect of diversification is risk reducing.

2. **Axiom M (Monotonicity)**

For all X and Y $\in \zeta$, with X $\leq$ Y. Consider two random outcomes, X and Y, that are the returns from two portfolios or capital assets. If $Y > X$ in all feasible future states, then

$$\rho(Y) \leq \rho(X)$$

For financial applications, this implies that a security that always has higher return in all future states has less risk of loss.

3. **Axiom PH (Positive Homogeneity)**

For all $\lambda \geq 0$ and all X $\in \zeta$,

$$\rho(\lambda X) = \lambda \rho(X)$$

If position size directly influences risk (the positions are so large that the time needed to liquidate them depends on their size) then it is important to consider the consequences of lack of liquidity when computing the future net worth of a position.

4. Axiom T (Translation Invariance)

For any random outcome X, the addition of an additional outcome with a certain positive return (α) with reduce the risk by that amount

$$\rho(X + \alpha) = \rho(X) - \alpha$$

In reality, if an amount of cash α (or any risk-free asset) is added to a portfolio, then the risk is reduced by that amount.

Risk Measurements

Risk measures are statistical measures that are historical predictors of investment risk and volatility, and they are also major components in modern portfolio theory (MPT). MPT is a standard financial and academic methodology for assessing the performance of a stock or a stock fund as compared to its benchmark index.

There are five principal risk measures that will be discussed in this paper, and each measure provides a unique way to assess the risk present in investments that are under consideration.

1. Alpha

Alpha measures risk relative to the market or a selected benchmark index. The formula for alpha is

$$\alpha = R_p + \beta\left(R_m - R_f\right)$$

Where R_p is the realized return of portfolio, R_m is the market return, and R_f is the risk-free rate. Jensen (1968) did systematic test on the performance of stock mutual funds. Jensen specifically tested whether there were any mutual fund portfolios that could defeat the market. Jensen used measurement that was adapted from *the Capital Asset Pricing Model* (CAPM) and focused on *regression intercept α.*

$$R_{jt} - R_{ft} = \alpha_j + \beta_j\left(R_{mt} - R_{ft}\right) + \mu_t$$

where R_{jt} is *return* on portfolio j at time t, R_{ft} is *return* on *risk free asset* (SBI), R_{mt} is *return* on market portfolio, u_{jt} is *error* rate, β_j is the estimated parameter. Positive value of α_j shows that a mutual fund can get significant *abnormal return* about *market-required return* that is normally gained on that risk. This coefficient is popular with the name *Jensen's Alpha* that is the *risk-adjusted selectivity performance measurement* from a portfolio to the market performance. Jensen's research proofed a method to measure empirical performance of mutual fund managers (Jensen, 1968).

2. Standard Deviation (SD)

Standard deviation measures the dispersion of data from its expected value. The standard deviation is used in making an investment decision to measure the amount of historical volatility associated with an investment relative to its annual rate of return. It indicates how much the current return is deviating from its expected historical normal returns. For example, a stock that has high standard deviation experiences higher volatility, and therefore, a higher level of risk is associated with the stock.

The standard deviation is a statistic that measures the dispersion of a dataset relative to its mean and is calculated as the square root of the variance. The standard deviation is calculated as the square root of variance by determining each data point's deviation relative to the mean. If the data points are further from the mean, there is a higher deviation within the data set; thus, the more spread out the data, the higher the standard deviation.

The formula for Standard Deviation is

$$SD = \sqrt{\sum_{i=1}^{n} \frac{(x_i - \bar{x})^2}{n-1}}$$

where x_i is the value of the ith point in the dataset, $\bar{x}$ is the mean value of the dataset, and n is the amount of data in the dataset.

3. Sharpe Ratio

The Sharpe ratio measures performance as adjusted by the associated risks. This is done by removing the rate of return on a risk-free investment, such as a U.S. Treasury Bond, from the experienced rate of return. This is then divided by the associated investment's standard deviation and serves as an indicator of whether an investment's return is due to wise investing or due to the assumption of excess risk.

Sharpe (1966) enhanced the researched of Treynor (1965) about the performance of mutual funds in a simpler way, that was by focusing on empirical tests. Sharpe also researched explicit relationship to the enhancement of capital theory and other alternate models of mutual funds' performance, then did empirical test to the alternate models.

$$E(R_p) = (R_f) + \left(\frac{E(R_m) - E(R_f)}{\sigma(R_m)} \right) \sigma(R_p)$$

where $E(R_p)$ is *expected return* of portfolio, R_f is *return* rate from risk free asset, $E(R_m)$ is *expected return* from the market, $\sigma(R_m)$ is the market risk rate, and $\sigma(R_p)$ is the rate of portfolio risk. The result of Sharpe research shows that performance can be measured theoretically and simple by considering the *mean of return* and *risk*.

Formula and calculation of Sharpe Ratio:

$$Sharpe\ Ratio = \frac{R_p - R_f}{\sigma_p}$$

where R_p is the actual or expected portfolio return, R_f is the risk-free rate, and σ_p is the standard deviation of portfolio excess return.

4. Treynor Ratio

Treynor Ratio uses a portfolio's beta or correlation the portfolio has with the rest of the market. Beta is a measure of an investment's volatility and risk as compared to the overall market. The goal of the Treynor ratio is to determine whether an investor is being compensated for taking additional risk above the inherent risk of the market. The Treynor ratio formula is the return of the portfolio less the risk-free rate, divided by the portfolio's beta.

$$Treynor\ Ratio = \frac{R_p - R_f}{\beta_p}$$

where R_p is the actual or expected portfolio return, R_f is the risk-free rate, and β_p is the beta of portfolio.

5. Beta

Beta is a measure of the volatility—or systematic risk—of a security or portfolio compared to the market as a whole. Beta is used in the capital asset pricing model (CAPM), which describes the relationship between systematic risk and expected return for assets (usually stocks). CAPM is widely used as a method for pricing risky securities and for generating estimates of the expected returns of assets, considering both the risk of those assets and the cost of capital.

The calculation for beta is as follow:

$$Beta\ Coefficient\ (\beta) = \frac{Covariance(R_e, R_m)}{Variance(R_m)}$$

where R_e is the return on an individual stock, R_m is the return on the overall market, *Covariance* is how changes in a stock's returns are related to changes in the market's returns, and *Variance* is how far the market's data points spread out from their average value.

Analysis and Calculation

1. Portfolio Combinations

The five companies are paired in a group of two. There are five groups considered:

- KLBF and WIKA
- ICBP and PTBA
- ASII and KLBF
- INDF and ICBP
- KLBF and ASII

Then all Risk measurements are calculated for each month. There are total 48 observations. For the Portfolio, the weight used is $W_1 = 0.5$ for X1 and $W_2 = 0.5$ for X2. So, Y is bigger than X in all feasible future states. The λ value is 2 and the α value is 3.

2. Recapitulation of Coherent Testing for Risk Measurements

Coherent testing is done by exposing the five Risk measurements to the four axioms and the five combinations of stocks. The detail result of the testing can be found in the Attachment. Table 4-1 shows the recapitulation result of the Coherent Testing. Score 5 means for that Risk and Axiom, all five groups of stocks fit the axiom rule.

Table 1 Recapitulation of Coherent Testing

RISK	Subadditivity	Monotonicity	Positive Homogeneity	Translation Invariance	Coherent
alpha	4	2	0	0	No
beta	5	2	0	0	No
sd	5	1	0	0	No
sharpe	0	0	0	0	No
treynor	3	2	0	0	No

The coherent tests show that for all risk measurements fail to fit the coherent, none of them is coherent. The tests were done using T-SQL programming of SQL Server 2017. Special programs were made to do the tests to avoid human error if using Excel.

CONCLUSION

A coherent risk measure means the risk measure covers all the maximum risks possible. Artzner (1999) says that there are four axioms that must be fulfilled for a risk measure can be called coherent. The purpose of this paper is to test whether any of the five risk measurements: (1) alpha, (2) beta, (3) standard deviation, (4) Sharpe ratio, and (5) Treynor Ratio are coherent. The results show that none of the five risk measurements are coherent.

For further study, it is suggested to use more time range and stocks variation of data to improve accuracy of the result.

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INFORMATION ASYMMETRY, MARKET REACTION AND COMPANY PERFORMANCE: PRE AND DURING THE COVID-19 PANDEMIC

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Abstract

This study examines the effect of information asymmetry and market reaction on company performance before and during the Covid-19 pandemic. The population in this study are all listed companies on the Indonesia Stock Exchange except for the financial sector with the 2018-2020 observation year. We define the observation period as pre- pandemic (2018-2019) and during the pandemic Covid-19 (2020). This study used the purposive sample selection method and obtained 953 observations. Using multiple linear regression analysis models, our study finds evidence that information asymmetry negatively affects firm performance. During the Covid-19 pandemic, this study finds weak evidence of the moderating role of Covid-19 on the relationship between information asymmetry and performance. Furthermore, this study found no evidence that the company's performance gave a market reaction, measured by the earnings response coefficient, but in the Covid-19 pandemic period, the company's performance gave a positive market reaction.

Keywords: Covid-19; firm performance; information asymmetry; market reaction

INTRODUCTION

At the beginning of 2020, the world was shocked by a new virus, the 2019 Novel Coronavirus (2019-nCov) or Corona Virus (Covid-19). Initially, Covid-19 was discovered in Wuhan, the People's Republic of China, in December 2019. The virus spread quickly among the Wuhan population in the first week of 2020. The Covid-19 virus quickly spread to the East Asia region, throughout Asia, and worldwide. The impact that is felt by the world due to the spread of Covid-19 is that it is difficult for people to carry out normal activities. From an economic perspective, consumers and business entities are equally affected. The business sectors affected are tourism, public transportation, hotels, property, credit institutions [1], and the energy industry [2]. Reference [2], for example, found that Covid-19 has a negative effect on the performance of Chinese Stock Exchange companies by lowering the investment value and decreasing total income. Based on data from UNCTAD (United Nations Conference on Trade and Development), international tourism suffered a loss of more than four million US Dollars against global Gross Domestic Product during 2020 and 2021 (https://unctad.org/). The International Monetary Fund has predicted that the global economy will shrink by 4.4 percent in 2020, where the decline will be worse than the Great Depression of 1930 (https://imf.org).

The Covid-19 case in Indonesia was confirmed by President Joko Widodo on March 2, 2020, for the first time. The impact of Covid-19 on the Indonesian economy caused state spending to increase by 12.3 percent, worth Rp 2.593.5 trillion, while in 2020, Indonesia experienced a 16 percent decline in revenue due to many business entities being suspended due to the pandemic. As a result, the 2020's Indonesia State Revenue and Expenditure Budget experienced the largest deficit reaching 6.1 percent of Gross Domestic Product, which has only happened for the last 20 years (https://nasional.kompas.com). This makes business people adapt and make the right decisions for the company's survival. The Covid-19 pandemic also

has a negative effect on stock market returns and raises concerns for investors in the stock market [3]. The Indonesia Stock Exchange noted that the daily stock transaction value decreased by 15.16% in June 2020 (https://cnbcindonesia.com).

Statistical data from the Indonesia Stock Exchange shows a decrease in stock market trading volume, which can affect the company's performance. The decline in company performance during the subsequent pandemic negatively impacted companies competing in the stock market. On the other hand, investors will invest in companies with healthy financial conditions and can compete in the stock market [4]. When the company's financial condition declines, it will further increase the risk of bankruptcy, so it does not rule out the possibility of uncertainty about the company's value caused by information asymmetry [5]. Information asymmetry can affect the company's performance because managers have more favorable information than shareholders who do not have that information [6]. To reduce information asymmetry, companies need to implement transparency as a form of accountability to the public for their financial performance because information asymmetry that occurs within the company can make the company's assessment uncertain [5].

Research prior to the Covid-19 pandemic in Indonesia documented that companies were under pressure from investors and workers to produce more transparent financial reports, but in reality, companies did not necessarily present transparent reports due to the interests of shareholders [7]. In addition, the capital market in Indonesia also experienced market reactions prior to the Covid-19 pandemic. For example, the market reacted positively at the time when Donald Trump announced his victory in the United States [8] and the announcement of the victory of President Joko Widodo in the second period [9].

This study wants to examine the effect of information asymmetry on company performance, especially during the Covid-19 pandemic in 2020. This study also examines investor reactions to company performance before and during the Covid-19 pandemic.

This study is important to do for the following reasons. First, our study wants to examine how information asymmetry affects the overall performance of publicly traded companies on the Indonesia Stock Exchange, except for the financial industry before the pandemic (2018-2019) and during the pandemic (2020). Our study uses the agency theory, where managers as agents have opportunistic behavior that can incur agency costs in their efforts to improve performance through earnings management and other opportunistic behaviors that can harm shareholders before and amid the Covid-19 pandemic [10].

Second, the Covid-19 pandemic, which has occurred for the first time in the world, and in Indonesia in particular since March 2020, has impacted the market-based performance of companies where the market reaction has not been known in previous studies of market-based performance. To the best of our knowledge, no previous studies have tested how the performance of companies affected by the Covid-19 pandemic is captured by the market and reflected in the earnings response coefficient (ERC).

Agency theory posited that there are differences in interests between managers as agents and shareholders as principals, which can lead to agency costs [10]. The existence of separation between the company and the owner causes information asymmetry. Because the company's management always owns broader information than the shareholders, it creates an information gap within the company, even among investors [11]. Companies with a low level of transparency will tend to have a high level of information asymmetry. Previous studies concluded that bid-ask spreads are inversely related to trading volume as a measure of information asymmetry [12] and found that information asymmetry has a negative effect on firm performance [6]. At the time of the Covid-19 pandemic in 2020, it is suspected that information asymmetry will be higher so that the negative relationship between information asymmetry will be even greater on company performance. Based on the arguments above, this study formulates the following hypotheses to be tested:

H1: Information asymmetry is negatively related to firm performance.
H2: The Covid-19 pandemic has a moderating role that strengthens the negative relationship between information asymmetry and company performance.

Furthermore, it is assumed that the market will react positively to the company's reported performance. However, during the Covid-19 pandemic, the market will react more positively to the reported performance, indicating that the market hopes the company can maintain its performance amid the pandemic. Therefore, based on the arguments above, the hypothesis to be tested is formulated as follows:
H3: The market reacts positively to the company's performance
H4: The market will react more positively to the company's performance during the Covid-19 pandemic.

METHODOLOGY

The study uses a sample of all companies listed on the Indonesia Stock Exchange except the financial industry for 2018-2020. The sample selection method was carried out by non-probability sampling technique, while the data processing technique was carried out with the help of Stata software version 15. As a result, we obtain a final sample of 953 firm-year observations using purposive sampling.

Table 1. Sample Selection

No	Description	Total
1	All companies listed on the Indonesia Stock Exchange in the 2018-2020 period	761
2	Companies in the financial sector	(95)
2	Number of companies that did not report complete financial statement data in the 2018-2020 period	(51)
3	Number of companies that presented financial statements in USD in the period 2018-2020	(79)
4	Number of companies that presented financial statements in USD in the period 2018-2020	(151)
	Total companies that meet the criteria	340
	Total companies that meet the criteria multiplied by 3 years	1020
	Data outliers	(67)
	Total final sample used in firm-years	953

To test the H1-H4 hypothesis, this study uses four linear multiple regression models. Equations (1), (2), (3), and (4) are used to test the H1, H2, H3, and H4 hypotheses, respectively, as follows:

$$\text{TOBINS}_{it} = \alpha_0 + \alpha_1 \text{SPREAD}_{it} + \alpha_2 \text{VOLTRADE}_{it} + \alpha_3 \text{LEV}_{it} + \alpha_4 \text{ROA}_{it} + \alpha_5 \text{SIZE}_{it} + \alpha_6 \text{GROWTH}_{it} + \alpha_7 \text{LOSS}_{it} + \alpha_8 \text{BIG4}_{it} + e_{it} \tag{1}$$

$$\text{TOBINS}_{it} = \alpha_0 + \alpha_1 \text{SPREAD}_{it} + \alpha_2 \text{VOLTRADE}_{it} + \alpha_3 \text{SPREAD*COVID}_{it} + \alpha_4 \text{VOLTRADE*COVID}_{it} + \alpha_5 \text{COVID}_{it} + \alpha_6 \text{LEV}_{it} + \alpha_7 \text{ROA}_{it} + \alpha_8 \text{SIZE}_{it} + \alpha_9 \text{GROWTH}_{it} + \alpha_{10} \text{LOSS}_{it} + \alpha_{11} \text{BIG4}_{it} + e_{it} \tag{2}$$

$$\text{CAR}_{it} = \alpha_0 + \alpha_1 \text{UE}_{it} + \alpha_2 \text{UE*TOBINS}_{it} + \alpha_3 \text{UE*LEV}_{it} + \alpha_4 \text{UE*SIZE}_{it} + \alpha_5 \text{UE*GROWTH}_{it} + \alpha_6 \text{UE*LOSS}_{it} + \alpha_7 \text{UE*BIG4}_{it} + \alpha_8 \text{TOBINS}_{it} + \alpha_9 \text{LEV}_{it} + \alpha_{10} \text{SIZE}_{it} + \alpha_{11} \text{GROWTH}_{it} + \alpha_{12} \text{LOSS}_{it} + \alpha_{13} \text{BIG4}_{it} + e_{it} \tag{3}$$

$$\text{CAR}_{it} = \alpha_0 + \alpha_1 \text{UE}_{it} + \alpha_2 \text{UE*TOBINS}_{it} + \alpha_3 \text{UE*COVID}_{it} + \alpha_4 \text{UE*TOBINS*COVID}_{it} + \alpha_5 \text{UE*LEV}_{it} + \alpha_6 \text{UE*SIZE}_{it} + \alpha_7 \text{UE*GROWTH}_{it} + \alpha_8 \text{UE*LOSS}_{it} + \alpha_9 \text{UE*BIG4}_{it} +$$

α10TOBINS*COVIDit + α11TOBINSit + α12COVIDit + α13LEVit + α14SIZEit + α15GROWTHit + α16LOSSit + α17BIG4it + eit   (4)

Company performance on Eq. (1) and (2) was measured using a market approach, namely Tobin's Q, which was estimated using the Lindenberg and Ross model (1981, in [13]). We use two proxies in measuring the asymmetric information in Eq. (1) and (2), i.e., bid-ask spread (SPREAD) and volume trading (VOLTRADE) [12]. While in Eq (3) and (4), we follow reference [14] to measure cumulative abnormal return (CAR) using the earnings response coefficient's main model CARit = α + δUEit + εit (please see [14] for detail computation). We predict that hypothesis H1 is supported if α1 and α2 in Eq. (1) are positive and negative, respectively, and statistically significant. To support H2, in the Covid-19 period, we expect that the interaction variables α3 and α4 in Eq. (2) are positive and negative, respectively, and statistically significant, indicating that the asymmetric information is worsening. Next, to support H3, we expect that the coefficient α2 is positive and significant, while in the Covid-19 period, we expect that the coefficient α4 is negative and significant, indicating that firms' performance is worsening compared to the non-Covid-19 period. We also use variables controls in Eq (1) to Eq. (4) due to their effects on the dependent variables in each model. See Appendix 1 for all variable definitions in each model used.

RESULTS

Descriptive statistics

Table 2 shows descriptive statistics for all study models. The TOBINS variable has an average value of 1.91, with a minimum value of 0.06 and a maximum value of 53.40. The SPREAD variable has an average value of 62.81, a minimum value of 0, and a maximum value of 190.93, while VOLTRADE has an average value of 0.28, a minimum value of 0, and a maximum value of 5.91. The CAR variable has a mean of 2.90, and the minimum and maximum values are -2.35 and 91.70, respectively. Other variables can be seen in Table 2.

Table 2. Statistic Descriptive

Variable	Mean	Standard Deviation	Minimum	Maximum
TOBINS	1.905	3.706	0.063	53.401
SPREAD	62.808	40.237	0	190.930
VOLTRADE	0.281	0.362	0	5.907
CAR	2.897	9.244	-2.345	91.696
UE	0.009	0.385	-5.397	181.301
COVID	0.339	0.474	0	1
BIG4	0.264	0.441	0	1
LOSS	0.317	0.465	0	1
ROA	0.002	0.172	-3.094	0.599
LEV	1.089	1.730	-10.256	10.777
SIZE	14.710	1.742	8.561	19.679
GROWTH	0.022	0.660	-2.617	8.574
Source: Stata output. N= 953 firm-years observations				

Results of multivariate analysis

Before testing the hypothesis, we conducted preliminary tests, including normality, multicollinearity, and heteroscedasticity, to meet the best linear unbiased estimates for all models used. Finally, this study uses clustered robust standard errors provided in Stata. Table

3 reports that the SPREAD variable has a coefficient of 0.002, with a probability value of 0.000 (< 0.01) and a positive direction. The results of this regression indicate that SPREAD positively influences company performance, indicating that asymmetric information is increasing. Meanwhile, VOLTRADE has a coefficient of -0.244, with a probability value of 0.000 (<0.01) and negative. This shows that VOLTRADE has a negative effect on company performance. Therefore, the two proxies of this information asymmetry, SPREAD, and VOLTRADE, support the hypothesis that information asymmetry has a negative effect on company performance, so it can be concluded that hypothesis H1 is accepted.

Table 3. Hypothesis Testing Results H1

Independent Variable	Predicted Sign	Dependent Variable (TOBINS)	
		Coefficient	p-value
SPREAD	+	0.002	0.001***
VOLTRADE	-	-0.244	0.001***
BIG4	-	0.193	0.000***
LOSS	+	-0.104	0.036**
ROA	+	-0.299	0.032**
LEV	+	-0.010	0.176
SIZE	?	-0.067	0.000***
GROWTH	+	0.013	0.725
CONSTANT	?	1.071	0.000
F-test			5.47
p-value			<0.001
Adjusted R^2			0.0440
N			953
Source: Stata output results; ***,**,* significant at 1%, 5%, and 10%, respectively, with the two-tailed tests and robust standard errors.			

Table 4 tests hypothesis H2. The statistical test results show that the VOLTRADE*COVID interaction variable has a coefficient of 0.647, with a probability of 0.4955 (> 0.10) insignificant at the 10% level. This shows that during the Covid-19 period, there was no indication that trading volume was getting lower, which could affect the company's performance. While in Table 4, the SPREAD*COVID coefficient has a value of -0.019, with a probability of 0.058, significant at 10%. This shows that during the Covid-19 period, the bid and ask spread had a lower spread that could affect the company's performance. Thus, we conclude that in the Covid-19 period, we find some weak evidence that affects the relation between information asymmetry and company performance compared to the period before Covid-19.

Table 4. Hypothesis Testing Results H2

Independent Variable	Predicted Sign	Dependent Variable (TOBINS)	
		Coefficient	p-value
SPREAD	+	0.026	0.025**
VOLTRADE	-	-1.440	0.030**
VOLTRADE*COVID	-	0.647	0.390
SPREAD*COVID	+	-0.019	0.058*
COVID	?	0.736	0.117
BIG4	-	0.451	0.006***
LOSS	+	0.063	0.840
ROA	+	-1.306	0.254
LEV	+	-0.177	0.183

SIZE	?	-0.417	0.000***
GROWTH	+	0.866	0.650
CONSTANT	?	7.123	0.000
F-test			4.04
p-value			<0.001
Adjusted R^2			0.0423
N			953
Source: Stata output results; ***,**,* significant at 1%, 5%, and 10%, respectively, with the two-tailed tests and robust standard errors.			

In model 3, the research hypothesis H3 aims to test whether the market reacts to the company's performance, which is reflected in the UE*TOBINS coefficient. Table 5 reports that the UE*TOBINS coefficient is -1.022 with a probability of 0.514 (> 0.10), not significant at the 10% level.

Table 5. Hypothesis Testing Results H3

Independent Variable	Predicted Sign	Dependent Variable (CAR)	
		Coefficient	p-value
UE	+	13.696	0.407
UE*TOBINS	+	-1.022	0.514
UE*BIG4	-	24.515	0.244
UE*LOSS	+	3.075	0.453
UE*LEV	+	-0.113	0.719
UE*SIZE	?	-0.955	0.403
UE*GROWTH	+	0.861	0.119
TOBINS	+	0.118	0.117
BIG4	-	1.234	0.126
LOSS	+	-0.193	0.761
LEV	+	-0.403	0.031**
SIZE	?	-0.153	0.275
GROWTH	+	0.631	0.180
CONSTANT	?	5.029	0.015
F-test			1.76
p-value			0.0451
Adjusted R^2			0.0137
N			953
Source: Stata output results; ** significant at 5% with the two-tailed tests and robust standard errors.			

The test results show that the company's performance as measured by Tobin's Q has no market reaction as measured by ERC. Thus, the results of this study found no evidence that investors react to the information conveyed using the company's performance. Thus, hypothesis H3 is rejected.

The next test of the hypothesis (H4) is to see if the market is reacting more positively to the company's performance, as reflected in the UE*TOBINS*COVID interaction coefficient. Based on table 7, the coefficient of UE*TOBINS*COVID is 16,486 and is positive, with a probability of 0.045 (< 0.05) significant at the 5% level. This test's results indicate an increasingly positive market reaction to the company's performance as measured by the earnings response coefficient (ERC) in the Covid-19 period. Thus this study concludes that hypothesis H4 is accepted.

DISCUSSION

The results provide evidence that information asymmetry, measured using bid and ask spreads and trading volume, negatively affects company performance. The results of this test indicate that the presence of higher information asymmetry will negatively affect the reported company performance. Capital market participants, in this case, are investors who will act rationally to anticipate investment risks arising from, for example, the lack of transparency of financial information submitted to the market. The capital market reaction will be reflected in the bid and ask intervals and trading volume. The higher the information asymmetry perceived by the capital market participants, the wider the bid and ask interval will be, and the lower the trading volume in the capital market. The results of this study are not in line with previous research (e.g. [15]), where information asymmetry increased during the Covid-19 pandemic.

The results of our study find weal evidence that during the Covid-19 pandemic period, information asymmetry has an increasingly negative influence on company performance. In other words, it can be concluded that there is no significant difference between the period before and during the Covid-19 pandemic. The results of this study may be due to the new Covid-19 pandemic that occurred in early March 2020, which could affect the results of this study.

Table 6. Hypothesis Testing Results H4

Independent Variable	Predicted Sign	Dependent Variable (CAR)	
		Coef	p-value
UE	+	32.718	0.126
UE*TOBINS	+	-16.083	0.106
UE*COVID	?	-29.948	0.061*
UE*TOBINS*COVID	+	16.486	0.089*
UE*BIG4	-	20.621	0.125
UE*LOSS	+	1.118	0.736
UE*LEV	+	-0.213	0.633
UE*SIZE	?	-0.329	0.707
UE*GROWTH	+	-0.225	0.751
TOBINS	+	0.116	0.200
COVID	?	-4.229	0.000***
BIG4	-	-4.229	0.250
LOSS	+	0.534	0.406
LEV	+	-0.355	0.042
SIZE	?	-0.043	0.761
GROWTH	+	-0.058	0.905
TOBINS*COVID	?	-0.033	0.758
CONSTANT	?	5.029	0.021
F-test			5.47
p-value			<0.001
Adjusted R^2			0.0701
N			953
Source: Stata output results; ***,* significant at 1%, and 10%, respectively with the two-tailed tests and robust standard errors.			

We find no evidence that the company's reported performance has a market reaction as measured by the Earning Response Coefficient (ERC). The results of this study differ from previous studies (e.g., [16]), which found that the market will react according to the news it receives.

The test results showed that the market would react more positively to better performance during the Covid-19 period. According to theory, the market will react positively if it receives good news. In general, the news during Covid-19 is bad news considering that many companies in various sectors have experienced a decline in performance and resources, including the increasing number of cases every day in 2020, so the stock market will react more negatively. This is in line with Tandelilin's theory (2010, p.221 in [8]), where the market reaction will follow the news it receives. However, our result shows that the better-off company's performance during the Covid-19 pandemic will give good news to the investor and a positive reaction in the stock market.

CONCLUSION

Asymmetry has a negative effect on company performance as measured by Tobin's Q, which is reflected in the bid-ask spread and trading volume. The results of this study are consistent with previous studies [12]. However, in the Covid-19 period, namely 2020, our study finds weak evidence that information asymmetry negatively affects company performance. Subsequent test results found no evidence that the market reacted to company performance during the 2018-2020 period, but this study found that the market reacted more positively to company performance during the Covid-19 period, 2020.

The study results imply that information asymmetry has an economic consequence on the company's performance because capital market players can penalize issuers even if the company's performance is good, including reporting on the company's performance becomes irrelevant to the investment decisions of capital market players.

Our study has several limitations. First, the observations taken as the study sample for the Covid-19 period may not represent an adequate coverage period because the new pandemic Covid just occurred in March 2020 could affect the study results. Therefore, further research is recommended to study a longer pandemic period, namely in 2021, where there is still a pandemic that can affect companies' performance.

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THE INFLUENCE OF TAX AGGRESIVENESS ON FIRM VALUE
WITH CORPORATE GOVERNANCE AS A MODERATING VARIABLE

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Abstract
The objective of this study is to investigate whether tax aggresiveness has an impact on firm value. In addition, this study also examines whether the mechanism of corporate governance influences the relationship between tax aggresiveness and firm value. Examining the moderating effect of corporate governance in the relationship between tax aggresiveness and firm value for the context of Indonesia is still rarely done. Using 213 firm-year samples from 2015-2019 data of 76 public firms registered at BEI from consumer cyclinal sector, this study regresses (1) tax aggresiveness toward firm value, (2) the interaction between tax aggresiveness and corporate governance toward firm value. The test result provides an evidence that tax aggresiveness has a negative impact on firm value. However, this study does not provide an empirical evidence that the influence of tax aggresiveness on firm value can be moderated by corporate governance mechanism.

Keywords: Tax aggressiveness; Firm Value; Corporate Governance

INTRODUCTION

This study investigates the impact of tax aggresiveness on firm value and investigates whether the influence of tax aggresiveness on firm value will be different among companies with different level of corporate governance mechanism. Basing on agency theory, this study examines the impact of management (as agent) action, in term of tax aggresiveness, on the principal interest, in term of firm value, and examines whether corporate governance, a mechanism that ensures the principal interest protected, will interfer such the impact. It is expected that corporate governance mechanism can minimize the impact of negative management actions (in this case, tax aggresiveness) on firm value.

The actions taken by companies in minimizing tax expenses will make companies more aggressive in taxation (Chen et al., 2010). Tax expense is one of company's operating burdens so that companies try to minimize it in order to increase net income. According to Frank et al., (2009), tax aggressiveness represents a plan to make tax burdens as lowest as possible by implementing tax planning, both through a legal way (tax avoidance) and an illegal way (tax evasion). For companies the primary benefit of tax aggressiveness is an explicit reduction of tax paid to government so that the profitability will increase.

In implementing tax aggresiveness, companies spend certain significant expenditures that may have negative impacts on firm value. The expenses caused by tax aggresiveness actions are influenced by the nature of tax policy employed by the company (Chen et al., 2014). Besides these expenditures, companies also should take actions to make sure that tax aggresiveness activities will be not detected by tax authority (Desai dan Dharmapala, 2009). Tax authority will punish companies that are caught doing illegal tax aggresiveness during tax audit process (Campbel et al., 2020). In addition, companies that do not pay tax to government will cause a negative perception among investors (Drake et al., 2017)

Agency theory explains about the efforts by companies in minimizing tax expense. In that theory, agency relationship represents the agreement between at least one principal (government) and agents (companies) to conduct several activities on behalf of the principal interest and agents are given the authority to do so (Jensen dan Meckling, 1976). Conflicts emerge when the agents do not act in accordance with the interest of principal. For the context of this study, agents (management) are given authority to fulfill taxation obligations using self-assessment approach. Principal (government) has a right to receive tax for net income of companies (agents) based on tax laws. However, agents (companies) have a goal of maximizing the profitability by minimizing the payment of income tax. This conflict of interest between agent (companies) and pricipal (government) has an impact on tax revenue for government, which is not optimal yet.

Tax aggresiveness is influenced by different and conflicting interests between government and companies. This can be overcome by corporate governance mechanism. Corporate governance is defined as a system to provide added values to all stakeholders by governing and controlling companies (Desai & Dharmapala, 2007). There are several major elements of corporate governance, such as fairness, transparancy, accountability, and responsibility, to promote the quality of financial statements. These elements can make financial statements showing the real financial conditions of companies. In turn, it can be utilized to reduce the risk of tax aggresiveness at companies.

Corporate governance mechanism indirectly explains about corporate governance that directs company's policy, including taxation policy (Monk et al., 2011). In the context of taxation, corporate governance plays roles of building and monitoring the behaviour of company management, including in taxation aspect. The differences in tax management strategy among companies are affected by the differences in corporate governance mechanisms employed within companies (Wahab et al., 2017).

There are several empirical literatures related to the examination of the impact of tax aggresiveness on firm value with the context of developed countries, especially US (Hanlon & Slemlord, 2009; Desai & Dharmapala, 2009; Drake et al., 2017; Wilson, 2009; Shevlin et al., 2020). Those studies show inconclusive empirical results, some provide evidences of positive impact of tax aggresiveness on firm value and others suggests negative ones. For the context of Indonesia, the study by Putri & Hudiwinarsih (2018), Lestari & Ningrum (2018), and Budiman & Firtriana (2018) can be mentioned.

However, the studies of the impact of tax aggressiveness on firm value with corporate governance as a moderating variable are rarely done in Indonesia. One of the few is the study by Budiman & Fitriana (2021). That study concludes that tax aggressiveness negatively influences firm value, but corporate governance does not affect the relationship between tax aggressiveness and firm value. Budiman & Fitriana (2021) argue that tax aggressiveness causes agency problems between shareholders and managers, so that tax aggressiveness makes firm value decrease. Further, the reason for the failure of corporate governance to influence the relationship between tax aggressiveness and firm value is that tax aggressiveness is more related to accounting issues meanwhile corporate governance has a broader scope and does not specifically influence accounting policy. Therefore, corporate governance can not play the role of moderating variable.

This study has two main research questions. First, does tax aggresiveness have influence on firm value. Second, does corporate governance mechanism have influence in the relationship between tax aggressiveness and firm value. Two hypotheses are proposed and examined with linear regression statistic method using 213 firm-year samples from 2015-2019 data of 76 public firms registered at BEI from consumer cyclinal sector. Hypothesis of the negative influence of tax aggresiveness on firm value is supported by this study. Tax aggresiveness is considered as a negative management action by capital market so that it

decreases firm value. However, hypothesis of moderating effect of corporate governance on the relationship between tax aggresiveness and firm value is not supported by this study. There is no difference in the negative impact of tax aggresiveness on firm value between firms with strong corporate governance and firms with weak corporate governance.

This study provides several important implications to the literatures and practices of management accounting and taxation. The result indicates the negative impact of tax aggresiveness on firm value. Therefore, firms should undertake deep and thorough analysis before deciding to implement a certain tax aggresiveness action since its impact on market perception that may lead to the decrease in firm value. Meanwhile, this study shows a negative association between tax aggresiveness and firm value can not be interfered by corporate governance. Current coverage of corporate governance that is limited to strategic level and not in operational level may be the factor that make it can not hinder accounting policy that lead to tax aggresiveness actions. The result of this study may suggest that the current coverage of corporate governance mechanism at strategic level only should be contemplated.

The remainder of the paper is organized as follows. **Section II** discusses theoretical framework, literature review and hypothesis development. **Section III** presents the research method, including research model, variable operationalization and sample data. **Section IV** analyzes tha data and results. Finally, this paper is closed by **Section V**, which presents the summary and conclusions of this study.

THEORETICAL FRAMEWORK, LITERATURE REVIEW AND HYPOTHESIS DEVELOPMENT

Agency Theory

Agency theory decribes the substance of the relationship between firm managers (agents) and shareholders (principal) in governing the entity, both in operational decision making as well as in strategic decision making (Jensen dan Meckling, 1976). Agents do not always act for the interest of pricipal and often act for self interests. That will raise the agency costs for the principal (Chen et al., 2014). The company accounting policies enacted by managers are considered as opportunistic actions, where agents reallocate the shareholders' wealth to managers (Godfrey et al., 2010).

Watts & Zimmerman (1986) describe some hypotheses for the reasons of managers pursuing opportunistic actions in deciding accounting policies for the company. Those hypotheses are described in the context of positive accounting theory. One of hypotheses, which is relevant to this study, is Political Cost Hypothesis. Under this hypothesis, as increasing political costs has a potent to increase the probability of managers in deciding accounting policies that will minimize the costs. One of the political costs is taxation.

Tax can reduce firm's net income and dividend payment to shareholders. Tax also will reduce firm incentives so that it will trigger managers doing opportunistically in deciding accounting policies in order to decrease tax payment to government. This is a tax aggresiveness action. In doing so managers utilize information asymmetry existed between shareholders (a principals) and themselves (as agents)

Firm Value

Firm value can be defined as actual value per share that will be received by shareholders if the assets of a company are sold at the share price (Gitman & Zutter, 2011). Firm value is also defined as present value of future free cash flows at the discount rate as much as weighted average cost of capital (E. F. Brigham & Ehrhardt, 2005). Free cash flow is cash flow of the

company available for investors (creditors and owners) after considering company expenditures for operating expenses, investment and net current asset.

Promoting firm value by maximizing the profitability is one of the goals of the firms. The success of firms is measured by firm value that increases over time. Firm value is the price paid by incestors (Husna, 1996). Firm value can not be merely seen in the nominal price of share in the market but also in the performance of the firm. Promoting firm value by maximizing the wealth of shareholders reflects the primary goal of the firm to be achieved (Gitman dan Zutter, 2011).

Tax Aggressiveness

According to Frank et al., (2009) tax aggressiveness refers to actions with the purpose of gaining tax benefits through tax planning that can be done using a legal way (tax avoidance) or using an illegal way (tax evasion). Tax aggressiveness takes advantages of grey zones in tax rules (Oktaviyani dan Munandar, 2017). In this case, efforts of reducing tax burdens are done by minimizing tax expenses that do not meet the tax rules, however, by doing so the company does not violiate the tax rules.

In implementing tax aggressiveness, companies should be careful since there is a very slight difference between tax avoidance (legal) and tax evasion (illegal). In tax evasion, tax payers try to hide the real conditions from tax authority in order to reduce their tax obligations (Obafemi, 2014). Actions of reducing tax burdens in tax evasion category includes not reporting all income, expensing non-deductible items, expensing fictitious expenses and fabricating information relevant to taxation.

Companies are said to be aggressive in taxation if they deliberately utilize the loop holes in tax rules to implement tax avoidance even though such actions do not violate the laws. Tax aggresiveness is an effort done by companies to minimize tax obligations (Balakrishnan et al., 2011). Agresiveness in tax reporting is a condition where companies implement certain taxation policies, which have risks of violating the laws (Sari & Martani, 2010).

Corporate Governance

Organization of Economic Cooperation and Development (OECD) defines corporate governance as a system to direct and control the business of companies. Corporate governance structure defines the distribution of rights, obligations and authority of each member in the corporation and defines the rules and procedures of decision making process. According to Komite Nasional Kebijakan Governance (KNKG) (2004), corporate governance represents corporation system and structure that are constructed to promote firm value and in long term to promote the welfare of investors and stakeholders based on the existing rules and laws.

According to Forum for Corporate Governance in Indonesia (FCGI), corporate governance is a bundle of regulations consisting of rights and obligations of parties involved in managing and controlling companies. The parties involved include board of commissioners, board of directtors, managers, shareholders, and stakeholders. A good corporate governance within the company should promote firm value. In this case, company will have clear vision, misssion, goals and strategies. Company also will have code of ethics and values and utilize them as control devices so that company will have policies that ensure conflicts of interest and deviations in business process can be avoided. So, companies will be able to manage business risk in a good way (Price Waterhouse Coopers, 2000).

Tax Aggressiveness and Firm Value

Political Cost Hypothesis in Agency Theory describes that higher political costs will increase the probability of firm managers to employ accounting policies that minimize political costs. One of such accounting policies is implementing tax aggressiveness, where firms try to

reduce tax expenses. Tax aggressiveness has implications on firm value since it includes managerial policies that influence dividend payment, cash retention, cost of capital and capital structure of firms (Herron & Nahata, 2020).

There are two views related to the relationship between tax aggressiveness and firm value. In the first view, managers incresae the wealth of shareholders by minimizing firm tax obligations (Cook et al., 2017; Drake et al., 2017; Goh et al., 2016). Tax aggressiveness tends to reduce cost of equity of the firm so that it can increase firm value (Goh et al., 2016; Cook et al., 2017). In the second view, tax aggressiveness increase the uncertainty and cost of capital, also the behaviour of self interest of managers. Tax aggresiveness activities at present will cause a large amount of cash flows in the future when tax authority audits the company (Henry, 2018). The later view supports that tax aggressiveness decreases firm value.

In addition, tax aggressiveness tends to worsen the agency problem between shareholders and managers. Tax aggressiveness may decresae transperancy so that the delivery information may be hindered or delayed (Balakrishnan et al., 2018). Tax aggressiveness also incresae tax audit risk that will cause direct costs (such as fines or interests) as well as indirect costs (suc ahs reputation). Therefore, investors reject the implied risk, in which it is reflected in discounts for the firm valuation. (Drake et al., 2017).

A study by Putri & Hudiwinarsih (2018) provides a conclusion that tax avoidance has a negative impact on firm value. That result is aligned to that of Lestari & Ningrum (2018), Budiman & Fitriana (2018), and Arora & Gill (2021). The increase in efforts by management to impose tax aggresiveness makes firm value decrease. Wahab & Holland (2012) said that shareholders' concern of the moral hazard related to tax aggresiveness is the reason for the negative relationship between tax aggresiveness and firm value. In general managers tend to be reluctant to convey information regarding tax aggresiveness activities done by the comopany to the shareholders. The market views tax aggressiveness as a negative action so that it can surpress the share price to decrease market value.

For the relationship bertween tax aggresiveness and firm value, this study proposes the following hypothesis.
Hypothesis 1: **Tax aggressiveness has negative influence on firm value.**

Moderating Effect of Corporate Governance on the Relationship Between Tax Aggresiveness and Firm Value

According to Desai & Dharmapala (2006), tax aggressiveness causes the decrease in firm value because of the complementarity between tax aggressiveness activities and managerial rent extraction. It can be caused by the fact that managers tend to reduce transperancy and to promote the chance for the company to realocate company resources for self interest. Shareholders will consider tax aggresiveness activities as negative ones if the company has a weak corporate governance. In contrary, if the company has a strong corporate governance, managers can not pursue managerial rent extraction. Tax aggresiveness activities are viewed as benefecial for the shareholders if the company is well governed (Desai & Dharmapala, 2009). So, shareholders view tax aggresiveness activities through company corporate governance (Hanlon & Slemrod, 2009; Wilson, 2009).

Meanwhile, according to study by Lee et al., (2015), the trust of shareholders to firm managers will increase as aligned to the strength of corporate governance. Under the strong corporate governance environment, tax aggressiveness can be considered as medium to increase firm value. Corporate governance is the mechanism of controlling that is perceived by the market as a mechanism to protect shareholders' interest. Even though companies implement tax aggressiveness, the market will have a positive perception about it because of the existence of strong corporate governance so that the firm value is still high even though tax aggresiveness

activities are high. Therefore, corporate governance weakens the negative impact of tax aggresiveness on firm value.

However, studies by Ramadhani & Azmi (2019) and Arora & Gill (2021) provide different conclusions, in term of those studies conclude that corporate governance does not influence the relationship between tax avoidance and firm value. According to Ramadhani & Azmi (2019), that result is based on argument that tax avoidance is related to accounting issues but coverage of corporate governance is broader and not specifically covers accounting policy. Meanwhile, in study by Arora dan Gill (2021), the majority of sample is Indian companies included in S&P BSE 500 and the companies are governed by families (Bang et al., 2018). Therefore, the low level of institutional ownership in family-owned firms makes firm more vulnerable toward managerial rent extraction related to tax aggresiveness activities by the companies. Consequently, corporate governance can not play the role of moderating variable.

For the moderating effect of corporate governance in the relationship between tax aggresiveness and firm value, this study proposes the following hypothesis.

Hypothesis 2: **Corporate governance weakens the negative impact of tax aggresiveness on firm value.**

RESEARCH METHODS

Research Models

To examine **Hypothesis I** this study regresses the proxy of tax aggresiveness toward the proxy of firm value, using the following Research Model 1:

$$\text{FirmValue} = \alpha_0 + \alpha_1 \text{ TaxAggresiveness} + \alpha_2 \text{ CorpGovernance} + \\ \alpha_3 \text{ Profitability} + \alpha_4 \text{ Leverage} + \alpha_5 \text{ Size} + \alpha_6 \text{ Growth} + \varepsilon \qquad (1)$$

To examine **Hypothesis II** this study regresses the interaction of the proxy of tax aggresiveness and the proxy of corporate governance toward the proxy of firm value, using the following Research Model 2:

$$\text{FirmValue} = \beta_0 + \beta_1 \text{ TaxAggresiveness} + \beta_2 \text{ CorpGovernance} + \\ \beta_3 \text{ TaxAggresiveness*CorpGovernance} + \beta_4 \text{ Profitability} + \\ \beta_5 \text{ Leverage} + \beta_6 \text{ Size} + \beta_7 \text{ Growth} + \varepsilon \qquad (2)$$

where

FirmValue	Proxy for firm value
TaxAggresiveness	Proxy for tax aggresivenes
CorpGovernance	Proxy for corporate governance
Profitability	Controlling variable for profitability
Leverage	Controlling variable for leverage
Size	Controlling variable for firm size
Growth	Controlling variable for firm growth

The construct of tax aggresiveness is represented by Adjusted Tobin's Q. The formula is (MVE+D)/(BE+D), where MVE is market value of outstanding shares based on the year end closing price, BVE is book value of equity, which is total equity shown in the year end balance sheet, and D is book value of total liability (Budiman & Fitriana, 2021).

The main independent variables in this study are tax aggresiveness and corporate governance. Tax aggresiveness is represented by effective tax rate, calculated using the formula of total tax expense divided by net income before tax (Lestari & Ningrum, 2018; Arora & Gill,

2021). The higher/lower of effective tax rate indicates the lower/higher of tax aggresiveness (Budiman & Setiyono, 2012). Meanwhile, corporate governance is represented by the percentage of institutional ownership, where the higher percentage indicates the stronger corporate governance mechanism. This study uses a dummy variable, where 1 if the percentage of institutional ownership is above or on the median in the sample and 0 if the percentage of institutional ownership is below the median in the sample (Huang et al., 2018).

Then, this study includes four controlling variables into the research model: profitability, leverage, firm size and firm age. The profitability of firm is represented by Return on Assets (ROA). The formula is net income/total assets. The leverage of firm is represented by Debt to Assets Ratio (DAR). The formula is total liability/total assets. The size of firm is represented by log value of total assets for research periods. Finally, the growth of firm is calculated by $(Sales_t-Sales_{t-1})/Sales_{t-1}$, where $Sales_t$ is total sales in year t and $Sales_{t-1}$ is total sales in year t-1.

For **Research Model I** the focus is placed on coefficient α_1. This coefficient indicates the influence of tax aggresiveness on firm value (Hypothesis 1). This study predicts that coefficient α_1 will be positive and significant. The positive value of coefficient α_1 indicates that tax aggresiveness is associated with a lower of firm value. Meanwhile, for **Research Model 2** the focus is placed on coefficient β_3. Coefficient β_3 inicates the moderation effect of corporate governance on relationship between tax aggresiveness and firm value (Hypothesis 2). According to Hypothesis 2, this study predicts that coefficient β_3 will be negative and significant. This negative β_3 coefficient will indicate that corporate governance weakens the negative influence of tax aggresiveness on firm value.

Sample Data

Population for this study includes all Indonesian public companies that are registered in Bursa Efek Indonesia (BEI). From that population, 213 firm-year samples from 2015-2019 data of 76 public firms registered at BEI from consumer cyclinal are selected as sample. The selection of this sample is undertaken by using purposive sampling method with the criteria including firms from cunsumer cyclical sector have been registered in BEI (previously Bursa Efek Jakarta) since 2015, firms are never delisted from BEI (BEJ), and financial statements for 2015 to 2019.

THE RESULTS AND DISCUSSIONS

Descriptive Statistics

Table 1 summarizes the descriptive statistics of 213 observations. The achievement of performance for sample firms is represented by average firm value (Adjusted Tobin's Q) 1,525, with the lowest value 0,004 and the highest value 7,320. In the sample, firms have an average level of tax aggresiveness of 0,309, with the lowest ETR 0,005 and the highest ETR 0,858. Meanwhile, proxy for corporate governance shows that in average 50,20 percent of sample has a strong corporate govenance mechanism.

Tabel 1. Descriptive Statistics

Variables	Minimum	Maximum	Mean	Median	Standard Deviation
Dependent Variable:					
Firm Value	0,004	7,320	1,525	1,015	1,442
Independent Variables:					
Tax Aggresiveness	0,005	0,858	0,309	0,309	0,156
CorpGovernance	0	1	0,502	1	0,501

Controlling Variables:					
Profitability	-0,007	0,458	0,059	0,036	0,076
Leverage	-2,214	3,751	0,899	0,710	0,760
Size	11,130	17,620	14,655	14,910	1,391
Growth	-0,998	1,543	-0,122	0,022	0,441

Variables definition:

FirmValue = Firm value, proxied by Ajusted Tobin's Q, calculated with the formula: (MVE+D/BE+D)

TaxAggresiveness= Tax aggresiveness, proxied by ETR, calculated with the formula (Total Tax Expense/Net Income Before Tax)

CorpGovernance= Corporate Governance, proxied by the percentage of institutional ownership. 1 for the percentage of institutional ownership above median and 0 otherwise

Profitability= Profitability, proxied by Return on Assets (ROA), calculated as Net Income After Tax/Total Assets

Leverage = Leverage, proxied by Debt to Assets Ratio (DAR), calculated as Total Liability/Total Assets

Size = Firm size, proxied by logarithm of total assets

Growth= Firm growth, proxied by the growth of sales, calculated as $Sales_t - Sales_{t-1}/Sales_{t-1}$

Then, **Table 2** shows Pearson correlation for all dependent and independent variables used in this study, including interaction variables. The analysis results indicate that almost all independent variables have correlation below 0,8000 except for the interaction variable (TaxAggresiveness*CorpGovernance). The strongest correlation is shown by interaction variables, i.e. between TaxAggresiveness*CorpGovernance and CorpGovernance (0,8607). The weakest correlation is shown by FirmValue and TaxAggresiveness (-0,0262).

Table 2 may also provide the preliminary prediction of hypothesis testing results. For the relationship between tax aggresiveness and firm value is -0,0262. This can be considered as a preliminary indication that Hypothesis 1 is not supported by this study. It seems that Hypothesis 2 will also be not supported by this study if observing the correlation between TaxAggresiveness*CorpGovernance and FirmValue, where the correlation between the two is -0,1414.

Table 2. Correlation Among Research Variables

	1	2	3	4	5	6	7	8
1. FirmValue	1							
2. TaxAggresiveness	-0.0262	1						
	0.7035							
3. CorpGovernance	-0.1930	0.0932	1					
	0.0047	0.1753						
4. Size	-0.1616	-0.1132	-0.1301	1				
	0.0182	0.0994	0.0580					
5. Growth	0.1004	-0.0188	-0.0388	0.0560	1			
	0.1442	0.7849	0.5732	0.4163				
6. Profitability	0.3390	-0.2715	-0.1984	0.1360	0.0300	1		
	0.0000	0.0001	0.0037	0.0474	0.6637			
7. Leverage	-0.1888	0.2761	-0.0651	0.1973	0.1304	-0.1318	1	
	0.0057	0.0000	0.3442	0.0038	0.0575	0.0548		
8. TaxAggresiveness* CorpGovernance	-0.1414	0.3928	0.8607	-0.1697	0.0281	-0.2279	0.0595	1
	0.0392	0.0000	0.0000	0.0132	0.6832	0.0008	0.3875	

Variables definition:

FirmValue = Firm value, proxied by Ajusted Tobin's Q, calculated with the formula: (MVE+D/BE+D)

TaxAggresiveness=	Tax aggresiveness, proxied by ETR, calculated with the formula (Total Tax Expense/Net Income Before Tax)
CorpGovernance=	Corporate Governance, proxied by the percentage of institutional ownership. 1 for the percentage of institutional ownership above median and 0 otherwise
Profitability=	Profitability, proxied by Return on Assets (ROA), calculated as Net Income After Tax/Total Assets
Leverage =	Leverage, proxied by Debt to Assets Ratio (DAR), calculated as Total Liability/Total Assets
Size =	Firm size, proxied by logarithm of total assets
Growth=	Firm growth, proxied by the growth of sales, calculated as $Sales_t-Sales_{t-1}/Sales_{t-1}$

The Results of Hypotheses Tests

Table 3 shows the results of Hypothesis 1 and Hypotheis 2 testing. The regression models have R squared value or determination coefficient value of 0,2168 for Model 1 dan 0,2188 for Model 2, meaning that 21,68 percent and 21,88 percent of variation in FirmValue can be explained by independent variables in the Model 1 and Model 2 respectedly. Meanwhile, the test of significance of model (the test results are not shown) provides F-value of 9,50 with the significance of 0,0000 in Model 1 and 8,20 with the significance of 0,0000 in Model 2. These values indicate that at $\alpha=1$ percent, the regression models can be used to predict the value of Firm Value or it can be said that TaxAgresiveness and CorpGovernance variables and controlling variables simultaneously influence FirmValue. Therefore, both research models are fit and valid.

Table 3. The Results of Hypothesis Testing

This table shows the results of hypothesis testing using 213 firm-year observations. The related research models as as follows:

Model 1
$$FirmValue = \alpha_0 + \alpha_1 TaxAggresiveness + \alpha_2 CorpGovernance + \alpha_3 Profitability + \alpha_4 Leverage + \alpha_5 Size + \alpha_6 Growth + \varepsilon$$

Model 2
$$FirmValue = \beta_0 + \beta_1 TaxAggresiveness + \beta_2 CorpGovernance + \beta_3 TaxAggresiveness*CorpGovernance + \beta_4 Profitability + \beta_5 Leverage + \beta_6 Size + \beta_7 Growth + \varepsilon$$

	Model 1			Model 2		
	Coefficient	t Value	Sig.	Coefficient	t Value	Sig.
TaxAggresiveness	0,937	2,37	** 0,019	0,993	1,88	**0,062
CorpGovernance	-0,087	-0,69	0,492	-0,040	-0,14	0,890
TaxAggresiveness*CorpGov	-	-	-	-0,149	-0,18	0,856
Profitability	4,422	5,72	***0,000	4,434	5,07	***0,000
Leverage	-0,102	-1,35	0,179	-0,100	-1,12	0,262
Size	-0,205	-3,98	***0,000	-0,205	-4,38	***0,000
Growth	0,254	1,96	*0,051	0,254	1,97	*0,075
Constant	2,738	3,67	***0,000	2,731	3,85	***0,000
F Value	9,50 (0,000)			8,20 (0,000)		
R Square	0.2168			0.2188		

Variables definition:

FirmValue =	Firm value, proxied by Ajusted Tobin's Q, calculated with the formula: (MVE+D/BE+D)
TaxAggresiveness=	Tax aggresiveness, proxied by ETR, calculated with the formula (Total Tax Expense/Net Income Before Tax)
CorpGovernance=	Corporate Governance, proxied by the percentage of institutional ownership. 1 for the percentage of institutional ownership above median and 0 otherwise

Profitability=   Profitability, proxied by Return on Assets (ROA), calculated as Net Income After Tax/Total Assets

Leverage =   Leverage, proxied by Debt to Assets Ratio (DAR), calculated as Total Liability/Total Assets

Size =   Firm size, proxied by logarithm of total assets

Growth=   Firm growth, proxied by the growth of sales, calculated as $Sales_t - Sales_{t-1}/Sales_{t-1}$

    *   Signifikan pada $\alpha=10\%$
    **   Signifikan pada $\alpha=5\%$
    ***   Signifikan pada $\alpha=1\%$

The testing of Hypothesis 1 is focused on coefficient α_1 in Model 1. This coefficient indicates the influence of tax aggresiveness implemented by management on firm value. The test results show that α_1 is positive 0,937 and significant at $\alpha=5\%$. Since the higher ETR indicates the lower level of tax aggresiveness, it can be concluded that tax aggresiveness has a negative impact on firm value. The higher level of tax aggresiveness is associated to the lower of firm value. Therefore, Hypothesis I is supported.

Tax aggressiveness may be considered as positive or negative action by the market, depending on how the market assess such an action. If tax aggresiveness implemented by management is assessed as a management action to violate the tax rules, market perception is negative so that tha action may decrease the firm value. However, tax aggressiveness may be a positive action if the market assesses such actions as an effort to increase efficiency so that it can incresae firm value (Hanlon & Slemrod, 2009). The hypothesis testing result in this study shows that tax aggresiveness negatively influences firm value. This result indicates that within the companies in samples tax aggresiveness activity is considered as a negative management action by the market.

The test result of this study supports the study by Arora & Gill (2021). Arora & Gill (2021) argued that the negative relationship between tax aggresiveness and firm value is caused by moral hazzard related to taxation. In this case, in general companies did not disclose the information related to activities of tax aggresiveness done by management to the market so that it increase information asymetry. In turn, this information asymetry enforced the firm value to decrease.

The test result of this study is also aligned to the study by Putri & Hudiwinarsih (2018). That study provides the evidence that the decrease in firm value occurs when the company tries to avoid taxation obligation. This result supports signalling theory, where information disclosed by companies for external parties sends signal for investors and propective investors to invest or not to invest. When companies implement tax aggresiveness by manipulating their financial statements, investors receive inappropriate information of companiy condition. Therefore, investors (capital market) provide negative signal to the companies by decreasing their firm values.

Meanwhile, the result of Hypothesis 2 testing is shown by the value of coefficient β_1 in Model 2. This coefficient indicates the influence of corporate governance mechanism on the relationship between tax aggresiveness and firm value. Contrary to the initial prediction, the regression result produces coefficient β_1 with a negative value and not significant. This means that corporate governance mechanism does not have a moderation effect on the relationship between tax aggresiveness and firm value. Therefore, Hypothesis 2 is not supported.

The test result suggests that the negative perception by capital market about tax aggresiveness activity can not be interfered by quality of corporate governance mechanism. The coverage of corporate governance mechanism that does not take tax aggresiveness actions by management into account may be the factor. In this case, the decrease in firm value is caused by accounting matters related to tax aggresiveness, meanwhile corporate governance mechanism does not specifically involved in accounting policy (Ramadhani & Azmi, 2019).

Budiman & Fitriana (2021) provides another explanation about the lack of moderating effect of corporate governance. Their study argues that tax avoidance can not be detected by corporate governance mechanism. Companies implement tax aggresiveness by exploiting the loopholes in tax rules so that it does not violate the existing tax rules and companies are still able to reveal accounting information without jeopardizing transparency. In addition, like Ramadhani & Azmi (2019), that study argues that tax aggressiveness is related to accounting policy, meanwhile corporate governance mechanism is related to non-accounting scope, so it can not moderate the relationship between tax aggresiveness and firm value.

Also, Yee & Sapiei (2018) provide evidence that the strength of corporate governance mechanisam does not have moderating effect of the relationship between tax avoidance and firm value. Their study further examines whether the impact of tax avoidance on firm value will be different among firms with good corporate governance and firms with weak corporate governance. The result shows that the negative impact of tax avoidance on firm value can not be reduced by good corporate governance.

SUMMARY AND CONCLUSIONS

The purposes of this study are to examine whether tax aggresiveness has an influence on firm value. In addition, this study examine whether the influence of tax aggresiveness on firm value will be different among firms with different strength of corporate governance mechanism. Those two purposes are represented in two hypotheses proposed in this study. The two hypotheses are examined with linear regression statistic method using 213 firm-year samples from 2015-2019 data of 76 public firms registered at BEI from consumer cyclinal sector

Hypothesis of the negative influence of tax aggresiveness on firm value is supported by this study. Tax aggresiveness is considered as negative management action by capital market so that it decrease firm value. However, hypothesis of moderating effect of corporate governance on the relationship between tax aggresiveness and firm value is not supported by this study. There is no difference in the negative impact of tax aggresiveness on firm value between firms with strong corporate governance and firms with weak corporate governance.

This study provides several important implications to the literatures and practices of management accounting and taxation. The result indicates the negative impact of tax aggresiveness on firm value. Therefore, firms should undertake deep and thorough analysis before deciding to implement a certain tax aggresiveness action since its impact on market perception that may lead to the decrease in firm value. Meanwhile, this study shows a negative association between tax aggresiveness and firm value can not be interfered by corporate governance. Current coverage of corporate governance that is limited to strategic level and not in operational level may be the factor that make it can not hinder accounting policy that lead to tax aggresiveness actions. The result of this study may suggest that the current coverage of corporate governance mechanism at strategic level only should be contemplated.

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THE INFLUENCE OF RETURN ON ASSETS, LEVERAGE, CAPITAL INTENSITY, AND CORPORATE GOVERNANCE TOWARDS TAX AVOIDANCE

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Abstract

This research was aimed to know the influences of return on asset, leverage, capital intensity, and corporate governance on tax avoidance. The population in this study were all property, real estate, and building construction companies listed on the Indonesia Stock Exchange in 2017 – 2019. The data used in this study was secondary data. The number of research samples obtained was 31 companies with purposive sampling technique and the number of observations of research data obtained was 93. This study used the multiple linear regression method with a random effects approach model. The results of this study are (1) return on asset has a significant negative effect on tax avoidance, (2) leverage has a significant positive effect on tax avoidance, (3) capital intensity has no effect on tax avoidance, (4) corporate governance has a significant negative effect on tax avoidance.

Keywords: Tax Avoidance; Return on Asset; Leverage; Capital Intensity; Corporate Governance

INTRODUCTION

The government is aware of the role of an active and flexible State Budget as an important factor in responding to the need for medical intervention, protecting the community and supporting the business world (Sri Mulyani, 2021). One of the most important components in APBN revenues is taxes. Taxes are considered as the backbone of a country, the ups and downs of the country's economy depend on the taxes collected by a country (Kemenkeu, 2020). This is evidenced by data sourced from the ministry of finance which states that over the past six years, the average state income from taxes has reached up to 80%, while the remaining 20% comes from outside taxes. this makes the income from taxes relatively high (Statistik, Realisasi Pendapatan Negara, 2021).

Tax revenue in Indonesia is relatively high, but the tax ratio in Indonesia is still relatively low and continues to decline to its lowest point in 2020 of 8.3 (Kemenkeu, 2020). This ratio is far behind compared to developing countries, namely 14-15% and 24-26% for developed countries (Permata, et al, 2018). The tax ratio in the property, real estate, and building construction sectors in Indonesia is only 4.18%, this ratio causes tax revenues in Indonesia to be relatively low and undertaxed (DDTCNews, 2020).

Return on Assets is used to measure whether the company's profit increases or decreases. If the profit generated is higher, the higher the tax to be paid and this will affect the company's after-tax income which will make profits tend to be smaller. To avoid this, the company will minimize tax payments by doing Tax Avoidance. the higher the return on assets, the higher the tax avoidance. Research performed by (Maitriyadewi & Noviari, 2020) and (Darsani & Sukartha, 2021) which found that the return on asset positive effect on tax avoidance.

Leverage is a benchmark in knowing the level of activity financed by debt. As the company's debt increases, the interest expense will also increase. Interest expense is one of the deductions for tax payments. So the higher the level of leverage, the higher the tax avoidance. This statement is supported by the results of research (Alfina, et al, 2018) (Putra, et al, 2019) which shows that leverage has an effect on Tax Avoidance.

Capital Intensity is a measuring tool to determine the size of a company investing its funds into fixed assets (other than land), as well as to determine the level of efficiency of the company in using existing fixed assets in the company to increase sales. Each fixed asset has a depreciation value which will reduce profit before tax (deductible expense). The greater the value of fixed assets, the resulting depreciation costs are also greater and the payment of a company's tax burden will be smaller, thus supporting management to carry out tax avoidance. This idea is supported by the results of research (Kalbuana, et al, 2020) and (Darsani & Sukartha, 2021) which conclude that capital intensity has a positive effect on tax avoidance.

The implementation of corporate governance is very necessary so that shareholders have more confidence in the financial statements produced. High corporate governance has an impact on taxpayers so that they are not aggressive in tax management, and can reduce the occurrence of tax avoidance and have a positive impact on management performance. This study uses the proxy of an independent commissioner in charge of supervising management in making decisions to suit the interests of shareholders. The higher the independent commissioner, the smaller the level of tax avoidance. This idea is supported by research (Mauludin, 2022), and (Alfina, et al, 2018) which say that the proportion of independent commissioners has a significant effect on tax avoidance.

Based on the background and previous research, the researchers decided to conduct a re-test entitled "The Influence of Return on Assets, Leverage, Capital Intensity, and Corporate Governance Towards Tax Avoidance". Based on the background and title above, the formulation of the problem to be studied in this study is : Odes return on assets, leverage, capital intensity, and corporate governance affect tax payment avoidance.

LITERATURE REVIEW AND RESEARCH HYPOTHESES

The frame of thought in this study is the effect of return on assets, leverage, capital intensity dan corporate governance on tax avoidance which is described as follows:
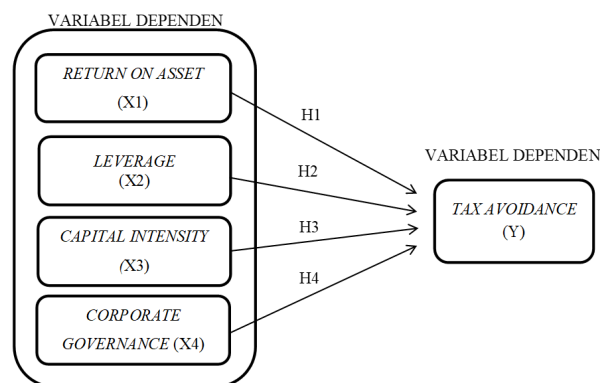

Figure 1. Frame of Thought

H_1: Return on Assets has a positive and significant effect on tax avoidance
H_2: Leverage has a positive and significant effect on tax avoidance
H_3: Capital intensity has a positive and significant effect on tax avoidance
H_4: Corporate governance has a negative and significant effect on tax avoidance

METHODOLOGY

This research is research to test the hypotheses that have been proposed by researchers. Testing in this study using multiple linear regression models, to see the influence of return on

asset, leverage, capital intensity, and the corporate governance towards Tax Avoidance. This type of research in quantitative research is secondary data and information obtained indirectly from the company. Secondary data obtained from the Indonesia stock exchange (BEI) in the form of the financial statements the company's property, real estate, and building construction sector 2017-2019 period.

RESULTS

U.Feasibility test on regression data panel

The purpose of this test to find out which model is the most appropriate used in this study.

Table 3. The Results of Chow Test

Effects Test	Statistic	d.f.	Prob.
Cross-section F	2.114811	(30,58)	0.0073
Cross-section Chi-square	68.728216	30	0.0001

Table 2. The Results of Hausman Test

Test Summary	Chi-Sq. Statistic	Chi-Sq. d.f.	Prob.
Cross-section random	8.575879	4	0.0726

Table 3. The Results Of Lagrange Multiplier Test

	Test Hypothesis		
	Cross-section	Time	Both
Breus ch-Pagan	2.992804	0.967695	3.960499
	(0.0836)	(0.3253)	(0.0466)

After those three-test carried out, Random Effect Model is the most suitable

Multiple Linier Regression

TA = A + B1 ROA + B2 LEV + B3 CI + B4 CG + E
TA = 0.655100 - 1.781728 ROA + 0.110908 LEV - 0.224877 CI - 0.776339 CG + e

Coefficient of Determination Test

Table 4. The Results of Determination's R^2

R-squared	0.280037
Adjusted R-squared	0.247312

Based on the test results in the table above, it can be said that the adjusted R-squared value is 0.247312 or 24.7%. These results show that during the 2017-2019 period the dependent variable, namely tax avoidance, can be explained by the dependent variable consisting of Return on Assets, leverage, capital intensity, and corporate governance of 24.7%. And the remaining 75.3% (100%-24.7%=75.3%) is explained by other variables that are not in the regression model of this study.

F-Test

Table 5. The Result of F-Test

F-statistic	8.557140
Prob(F-statistic)	0.000007

Based on the results of the simultaneous test (F-test) in the table above, the results obtained by the F-statistic are 0.000007. this value is below the significance value of 0.05. Therefore, the researcher concludes that simultaneously Return on Assets, leverage, capital intensity, and corporate governance have a significant effect on tax avoidance.

t-Test

Table 6. The Result of t-Test

Variable	Coefficient	Prob.
C	0.655100	0.0003
ROA	-1.781728	0.0114
DER	0.110908	0.0012
CIR	-0.224877	0.0888
KKI	-0.776339	0.0225

t-test were carried out to know which direction and level of significant variable x to variable y

DISCUSSION

Return on asset effect on tax avoidance

Return on Assets is an indicator in measuring whether or not the company is able to generate profits and how management is able to manage company resources such as implementing cost efficiency, operating efficiency, maximizing asset use, maximizing marketing and so on. The greater the profit obtained, the higher the Return on Assets value. Companies with a high level of Return on Assets usually have good management performance. With good tax planning, tax payments will be optimal, so companies tend to minimize tax avoidance practices. Companies with high profits have the ability to pay all taxes that must be paid, so they are willing to comply with tax regulations without looking for loopholes to practice tax avoidance. On the other hand, if the company generates low profits, it is usually difficult to pay taxes. because tax payments will reduce profits, the smaller the profit, the management's performance assessment will be considered less good and will affect the bonuses earned by management. So the management is trying to find loopholes in the tax law to implement tax avoidance practices.

The results of this study are supported by the results of research initiated by (Jusman & Nosita, 2020), (Rani et al., 2018), (Amiah, 2021)*,* (Debora & Joni, 2021)*,* (Kusufiyah & Anggraini, 2019)*,* and (Suryani, 2020) who said that profitability had a negative effect on tax avoidance.

The effect of leverage on tax avoidance

Leverage calculated by the Debt Equity Ratio (DER) becomes a benchmark for how much the company's operational activities are financed by debt which will cause interest expenses, which reduce the amount of profit. the size of the profit will affect the amount of income tax that must be paid by the company. if the profit before tax is getting smaller, the income tax payment will also be lower. So it can be concluded that the high level of corporate debt can

make management do tax avoidance to produce good financial reports with low tax payments. However, the company still has to be careful in managing the funding, because if the debt is too high, the company's condition will not be good.

The results of this study are supported by the results of research initiated (Wijayanti & Merkusiwati, 2017), (Mariani & Suryani, 2021), (Selviani et al., 2019), (Rani et al., 2018), (Praditasari & Setiawan, 2017), and (Mahdiana & Amin, 2020) which states that leverage has a significant positive effect on tax avoidance.

Capital intensity effect on tax avoidance

Capital intensity is an indicator to measure the size of the company in investing its assets into fixed assets. Fiscally, the depreciation expense of fixed assets reduces income tax, so that the income tax paid will be smaller. However, the results of this study indicate that the company's fixed assets are used to support the company's operational activities in generating maximum profit, and not intentionally invested to take advantage of the depreciation expense of fixed assets. The company's goal is to invest its assets into fixed assets in order to obtain maximum profit, so that it can affect the company's management performance appraisal. The greater the profit, the greater the tax paid. So it shows that capital intensity does not have a significant effect on tax avoidance.

The statement above is supported by statements put forward by (Jusman & Nosita, 2020), (Marlinda et al., 2020), and (Irianto et al., 2017) which say that capital intensity has no effect on tax avoidance. In research (Putra et al., 2019) also said that the results of research in Singapore capital intensity had no effect on tax avoidance.

Corporate governance effect on tax avoidance

Agency theory explains that various parties in the company have their own interests and goals. Therefore, the company requires effective supervision by a party that is independent and does not have a specific motive in its work, namely an independent commissioner. Independent commissioners have the responsibility to supervise management so that they can carry out their duties without compromising the credibility of the company. Basically, management has more information than shareholders. Management also tends to generate short-term profits without paying attention to the welfare of shareholders in order to appear competent in the company. This encourages management to commit fraud by manipulating financial statements so that the company's income becomes greater. This often happens by doing tax avoidance, because it is still in accordance with applicable law. However, tax avoidance can reduce the credibility of the company and go against the wishes of shareholders. Therefore, the implementation of good corporate governance is very much needed so that shareholders and other external parties have more confidence in the company's financial statements that are produced. High corporate governance has an impact on taxpayers so that they are not aggressive in tax management to improve company performance and maximize returns to shareholders, so as to create a clean, transparent and professional management work environment (Jusman & Nosita, 2020). From this quote, it can be concluded that corporate governance can reduce the occurrence of tax avoidance and has a positive impact on management performance, such as being more obedient to paying reasonable taxes and the company's determination to pay taxes.

The statement above is supported by a statement put forward by (Sari & Devi, 2018) which concludes that corporate governance as proxied by independent commissioners has an effect on tax avoidance (Israel & Ebimobowei, 2021), (Mauludin, 2022), and (Alfina, et al, 2018) also say that the proportion of Independent Commissioners has a significant effect on tax avoidance. As well as the results of research (Wijayanti & Merkusiwati, 2017) which says that the proportion of independent commissioners has a negative effect on tax avoidance.

CONCLUSION

The purpose of this study is to know the effect of revealing return on asset, leverage, capital intensity dan corporate governance of tax avoidance on property, real estate, dan building constructor companies that listed on IDX in 2017 to 2019 periods. The number of companies listed in IDX on 2017 to 2019 periods were 98, using purposive sampling technique to get samples with criteria which listed before. The number of company that fulfill the criteria were 31. Those data were acquired from www.idnfinancials.com and www.idx.co.id then those data were processed using Eviews 10. These were data analysis and discussion that's been described previously, so its conclusion:

1. Return on assets has a negative and significant effect on tax avoidance
2. Leverage has a positive and significant effect on tax avoidance
3. Capital intensity has no effect on tax avoidance
4. Corporate governance has a negative and significant effect on tax avoidance

Simultaneously, return on assets, leverage, capital intensity, and corporate governance has a significant effect on tax avoidance.

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CURRENT ACCOUNTS, SAVINGS, AND TIME DEPOSITS TO OPERATING PROFIT: A COMPARATIVE STUDY ON INDONESIAN STATE-OWNED BANKS

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Abstract
This study compares current accounts, savings, term deposits, and operating profit among state-owned banks during the Covid 19 pandemic. This study also compares the effect of current accounts, savings, and term deposits on the operating profit of state-owned banks. The research method used is a comparative study. The study results were that during the Covid 19 pandemic, the most significant amount of current accounts was at BMANDIRI; savings and term deposits at BBRI; and operating profit was at BMANDIRI. The lowest current accounts, savings, term deposits, and operating profit were in BBTN. Comparing current accounts, savings, and term deposits, BBNI does not significantly affect operating profit. At BBRI, BMANDIRI, and BBTN, demand deposits, savings, and term deposits have a significant influence. BBTN's current accounts and savings have a negative effect on its operating profit, while BBRI and BMANDIRI have a positive effect. Term deposits at BBRI, BMANDIRI, and BBTN positively influence operational reports. It can be concluded that during the Covid 19 pandemic in 2020, current accounts, savings, and term deposits significantly influenced operating profit.

Keywords: Comparative Studies; Third Party Funds; Operating Profits; Intermediation Funds

INTRODUCTION

Covid 19 became known to people after it was discovered in Wuhan, China. Covid 19 is a virus that spreads very quickly. This virus began to enter Indonesia in 2019. This pandemic impacts the sustainability of people's lives and includes the economic sustainability of the community and the country. As a result, some companies are temporarily closed or permanently closed. The company's closure resulted in many employees being laid off, which will eventually affect the financial condition of the people and the country. Banks as financial intermediation institutions also feel the impact of the Covid-19 pandemic. Herlina, L (2021), in her research, showed that the acquisition of Third Party Funds (DPK) of banks in the BUKU 4 category during the Covid-19 pandemic, namely from January to 2020, tended to decrease. In his writing, he found that the BUKU IV bank with the highest deposit increase was BNGA (PT). CIMB Niaga Bank, Sugianto, and Hakim (2018) showed that the value of third-party funds (DPK) has a significant influence with a positive correlation to bank profitability. Setiawan (2016), Elvitasari and Dalimunthe (2019), and Puspawati et al. (2016) showed that third-party funds have a significant and positive influence on operating net profit. Increasing banking profitability can predict cash flow in the coming period (Siboro, 2021). Operating Profit information is also essential for investors, related to the predicted dividend that investors will earn (Marismiati and Aini, 2021). According to www.ojk.go.id, third-party funds (DPK) is a non-bank third-party deposit consisting of current accounts, savings, and term deposits.

Banks have an essential role in effectively and efficiently disbursing funds and directly affect the allocation of business capital, industrial expansion, and economic growth of a country (Berger et al., 2004). Banking is essential in mobilizing and allocating funds from one community to another. According to Fahmi (2014), banks, in fulfilling their operational funds,

are sourced from their capital (first party funds), loans (second party funds), and the wider community (third party funds).

According to banking law no. 10 of 1998, current accounts are deposits of third parties whose withdrawal can be made at any time, using a check, warrant, or book transfer. Savings are bank debts to the community. Deposits are time deposits, either short-term or long-term. The term deposits vary greatly, ranging from 3 months to annual periods. Third-party funds significantly influence and positively correlate to the bank's operating profit (Elvitasari and Dalimunthe (2019). So, this study hypothesizes a positive influence on operating profit between current accounts, savings, and term deposits. The higher the current account, savings, and term deposits, the higher the operating profit. Moreover, vice versa, if current accounts, savings, and term deposits decrease, then operating profit also decreases.

In this study, the authors aim to compare current accounts, savings, term deposits, and operating profits between state-owned banks during the Covid-19 pandemic in 1 (one) year. In addition, this study also compared the effect of current accounts, savings, and term deposits on the operating profit of state-owned banks. In previous period studies, most of them conducted DPK research by testing the effect on the level of profitability. In this case, the authors measure the effect on operating profit and are subsequently compared. Why operating profit? Because in previous studies, it was stated that operating funds could predict the company's cash flow and dividends.

The benefits of this paper can provide readers with comparisons of STATE-OWNED Banks, namely BBNI, BBRI, BMANDIRI, and BBTN, related to current accounts, savings, and term deposits. Another benefit of this paper is that it can add insight to readers and reference materials for academics related to comparative studies and related to current accounts, savings, and term deposits to operating profits.

METHODOLOGY

The type of research used is comparative research, which compares intermediation funds (current accounts, savings, and term deposits) and operating profits between state-owned banks (Bank BRI, BNI, Mandiri, and BTN) during the Covid-19 pandemic in 2020. The data source is a secondary data source, namely data obtained from banks' Balance Sheets and Income statements. The Balance Sheet Statement and Profit/Loss Statement used are Monthly Statements. The procedures for data analysis will be:

- Tabulate data related to current accounts, savings, term deposits, and operating profits of state-owned banks (BRI, BNI, Mandiri, and BTN).
- Conduct a comparative analysis of the data using graphs of the development of current accounts, savings, time deposits, and operating profits of state-owned banks.
- Analyze the effect test (current accounts, savings, and term deposits) on operating profit using multiple linear regression.
- Conduct a comparative analysis of the influence test results between state-owned banks.

RESULT AND DISCUSSION

Comparison of current accounts, savings, term deposits, and operating profit between state-owned banks
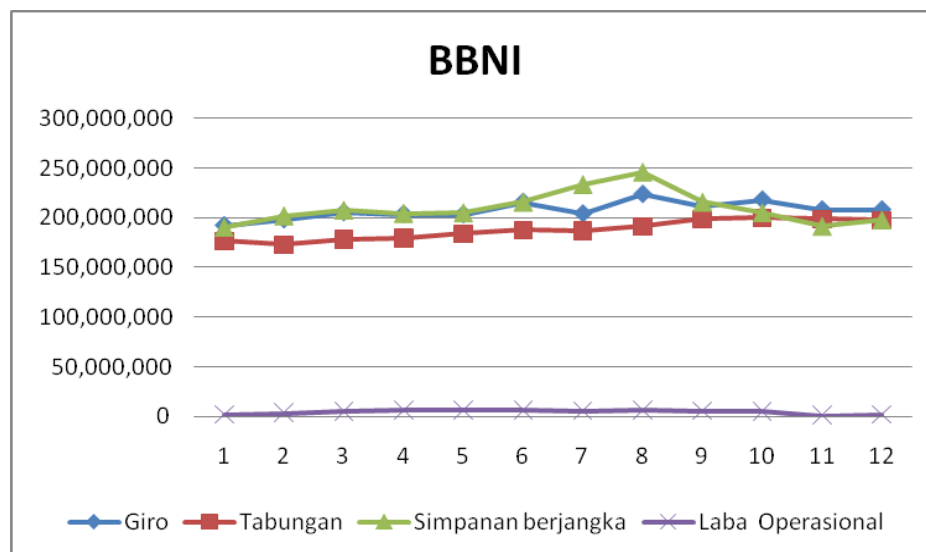
Figure 1. Graph of the development of current accounts, savings, term deposits, and operating profit of BBNI at 2020 (in million rupiahs)
Source: processed data (2021)

Figure 2. Graph of the development of current accounts, savings, term deposits, and operational profits of BBRI in 2020 (in million rupiahs)
Source: processed data (2021)

Figure 3. Graph of the development of current accounts, savings, term deposits and operating profit of BMANDIRI in 2020 (in million rupiahs)
Source: processed data (2021)

Figure 4. Graph of the development of current accounts, savings, term deposits, and operating profit of BBTN in 2020 (in million rupiahs)
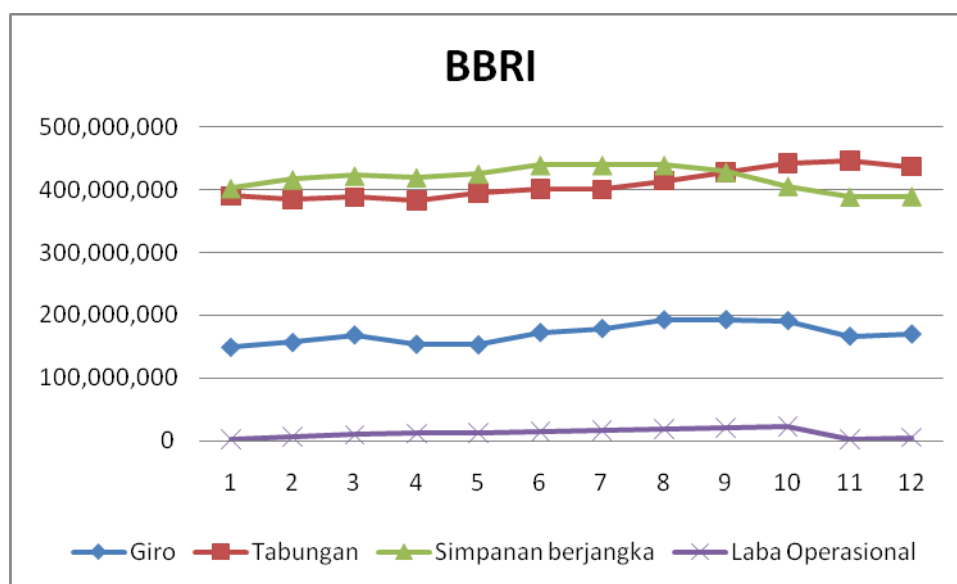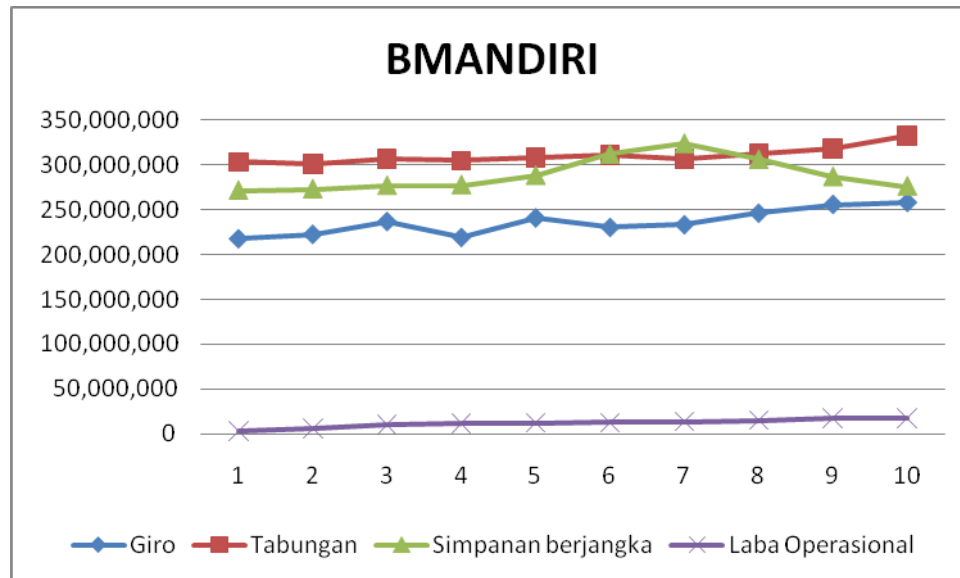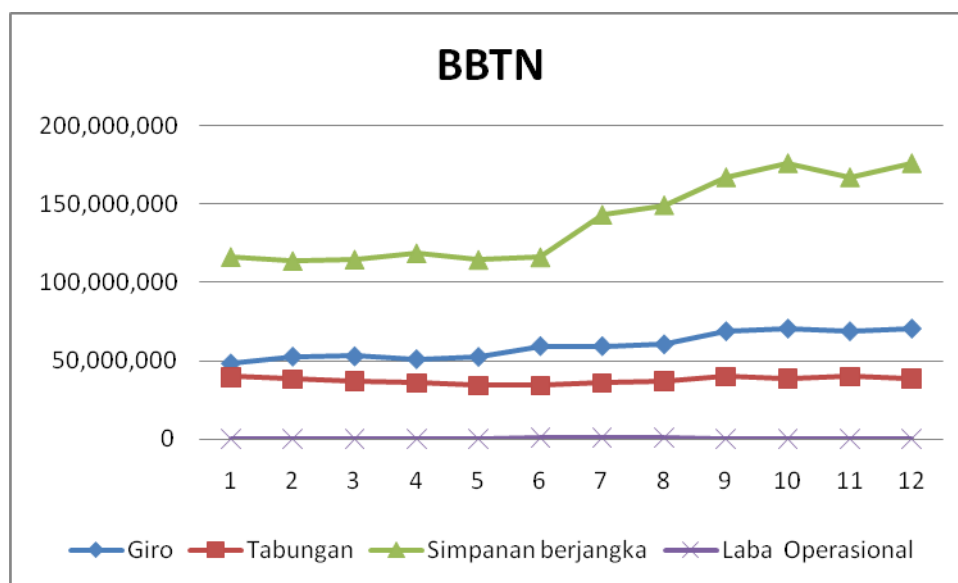Source: processed data (2021)

Table 1. Comparison of Descriptive Statistics between State-Owned Banks

		Giro	Tabungan	Simpanan Berjangka	Laba Operasional
BNI	Mean	209,306,677.09	188,686,404.45	211,315,147.91	4,505,509.18
	Median	208,229,117.00	187,843,757.00	205,132,105.00	5,095,691.00
	Standard Deviation	7,625,240.12	9,425,395.00	15,838,607.47	1,817,359.06
	Minimum	198,305,880.00	172,925,882.00	191,546,999.00	775,415.00
	Maximum	224,055,349.00	199,835,918.00	245,753,369.00	6,103,237.00
BRI	Mean	170,595,108.17	408,653,830.83	417,716,184.50	12,658,507.58
	Median	169,420,972.00	400,531,188.00	420,708,558.50	12,831,058.50
	Standard D	16,158,423.09	23,441,495.11	18,350,615.64	7,030,736.39
	Minimum	148,635,722.00	382,342,265.00	387,949,466.00	2,887,438.00
	Maximum	193,464,541.00	445,715,349.00	439,291,821.00	23,580,368.00
BMANDIRI	Mean	243,853,783.25	313,667,975.08	288,931,091.75	12,932,817.58
	Median	238,996,777.50	309,454,353.00	286,375,684.50	13,231,853.00
	Standard Deviation	22,062,221.81	11,963,697.77	16,599,891.88	4,859,048.95
	Minimum	217,835,273.00	300,960,575.00	271,235,812.00	2,894,052.00
	Maximum	283,986,067.00	338,698,937.00	323,453,843.00	18,774,471.00
BTN	Mean	60,661,187.64	37,136,276.09	141,242,068.18	610,031.36
	Median	59,423,847.00	36,966,853.00	142,912,187.00	510,595.00
	Standard De	7,717,634.64	2,000,691.35	26,765,299.47	349,496.36
	Minimum	51,203,690.00	34,159,966.00	113,429,411.00	275,316.00
	Maximum	70,372,687.00	39,805,416.00	175,821,851.00	1,284,942.00

Source: processed data (2021)

Based on table 1, the bank with the largest current accounts is BMANDIRI while the one with the lowest current accounts is BBTN. The biggest savings are in BBRI while the smallest savings are in BBTN. As to term deposits, the largest is in BBRI while the lowest is in BBTN. And lastly, for the operating profit, the highest is in BMANDIRI while the lowest operational profit is in BBTN.

Comparison of Analysis of the Effect of Current Accounts, Savings, and Term Deposits on BBNI's Operating Profit

BBNI

SUMMARY OUTPUT

Regression Statistics	
Multiple R	0.758399
R Square	0.57517
Adjusted R Square	0.415858
Standard Error	0.516678
Observations	12

ANOVA

	df	SS	MS	F	Significance F
Regression	3	2.891412	0.963804	3.610348	0.065044
Residual	8	2.135648	0.266956		
Total	11	5.02706			

	Coefficients	Standard Error	t Stat	P-value	Lower 95%	Upper 95%	Lower 95.0%	Upper 95.0%
Intercept	-64.7457	71.71701	-0.90279	0.393006	-230.125	100.634	-230.125	100.634
Current Accounts	7.392407	7.200763	1.026614	0.334639	-9.21258	23.9974	-9.21258	23.9974
Saving	-7.44734	4.775222	-1.55958	0.157479	-18.459	3.564345	-18.459	3.564345
Deposits	4.183151	2.945239	1.420309	0.193295	-2.60858	10.97489	-2.60858	10.97489

Based on the regression results, the significance of > 0.05 means that current accounts, savings, and term deposits did not significantly affect operating profit during the Covid 19 pandemic.

BBRI

SUMMARY OUTPUT

Regression Statistics	
Multiple R	0.877259713
R Square	0.769584604
Adjusted R Square	0.68317883
Standard Error	3957381.429
Observations	12

ANOVA

	df	SS	MS	F	Significance F
Regression	3	4.18457E+14	1.395E+14	8.906634	0.006263112
Residual	8	1.25287E+14	1.566E+13		
Total	11	5.43744E+14			

	Coefficients	Standard Error	t Stat	P-value	Lower 95%	Upper 95%	Lower 95.0%	Upper 95.0%
Intercept	-109618892.4	83447243.48	-1.3136311	0.2253899	-302048581	82810796	-302048581	82810796
Current Accounts	0.266028056	0.178579779	1.4896875	0.1746358	-0.14577765	0.6778338	-0.1457777	0.6778338
Saving	0.009394947	0.132435806	0.0709396	0.9451871	-0.29600257	0.3147925	-0.2960026	0.3147925
Deposits	0.174891557	0.142280779	1.2292002	0.2539221	-0.15320851	0.5029916	-0.1532085	0.5029916

Based on the regression results on BBRI, the significance value of $0.01 < 0.05$ means that the hypothesis is accepted, namely current accounts, savings, and term deposits have an influence on operating profit.

The regression function formed is:

Operating profit = -109618892.4 + 0.27 Current Accounts + 0.01 Savings + 0.17 Deposits

The amount of $R^2 = 0.77$ means that 77% of operating profit is influenced by current accounts, savings, and term deposits, and 23% is influenced by other factors. The regression results in the coefficient column show that BBRI's current accounts, savings, and term deposits each positively influence operating profit during the Covid-19 pandemic in 2020.

BMANDIRI

SUMMARY OUTPUT

Regression Statistics	
Multiple R	0.9036383
R Square	0.8165621
Adjusted R Square	0.7477729
Standard Error	2440321.9
Observations	12

ANOVA

	df	SS	MS	F	Significance F
Regression	3	2.121E+14	7.069E+13	11.870499	0.002573528
Residual	8	4.764E+13	5.955E+12		
Total	11	2.597E+14			

	Coefficients	Standard Error	t Stat	P-value	Lower 95%	Upper 95%	Lower 95.0%	Upper 95.0%
Intercept	-98936794	32731097	-3.0227155	0.0164912	-174414838.6	-23458750	174414839	-23458750
Current Accounts	0.077375	0.0748739	1.0334046	0.3316405	-0.095284485	0.2500345	-0.0952845	0.2500345
Saving	0.2007627	0.1376987	1.457986	0.1829542	-0.116770959	0.5182964	-0.116771	0.5182964
Deposits	0.1039299	0.0452122	2.2987131	0.0505723	-0.000329646	0.2081895	-0.0003296	0.2081895

Based on the regression results at BMANDIRI, the significance value of $0.00 < 0.05$ means that the hypothesis is being accepted, namely current accounts, savings and term deposits have an influence on operating profit.

The regression function formed is:

Operating profit = -98936794 + 0.087 Current Accounts + 0.20 Savings + 0.10 Deposits

The amount of $R^2 = 0.82$ means that 82% of operating profit is influenced by current accounts, savings, and term deposits, and 18% is influenced by other factors. The regression results in the coefficient column show that BMANDIRI's current accounts, savings, and term deposits each have a positive influence on operating profit during the Covid-19 pandemic in 2020.

BBTN

SUMMARY OUTPUT

Regression Statistics	
Multiple R	0.8859967
R Square	0.7849902
Adjusted R Square	0.7043616
Standard Error	0.3348068
Observations	12

ANOVA

	df	SS	MS	F	Significance F
Regression	3	3.2740443	1.0913481	9.7358708	0.0047847
Residual	8	0.8967647	0.1120956		
Total	11	4.170809			

	Coefficients	Standard Error	t Stat	P-value	Lower 95%	Upper 95%	Lower 95.0%	Upper 95.0%
Intercept	197.18331	42.753367	4.6121118	0.0017279	98.593867	295.77275	98.593867	295.77275
Current Accounts	-1.3022209	2.2779957	-0.5716521	0.5832579	-6.5552883	3.9508465	-6.5552883	3.9508465
Saving	-12.635613	2.4645266	-5.1269942	0.0008994	-18.318822	-6.9524048	-18.318822	-6.9524048
Deposit	3.1758575	1.8308985	1.7345897	0.1210353	-1.0462019	7.3979169	-1.0462019	7.3979169

Based on the regression results on BBTN, the significance value of 0.00 < 0.05 means that the hypothesis is being accepted, namely current accounts, savings and term deposits have an influence on operating profit.

The regression function formed is:

Operating profit = 197.18331 – 1.30 Current Accounts – 12.64 Savings + 3.18 Deposits

The amount of $R^2 = 0.78$ means that 78% of operating profit is influenced by current accounts, savings, and term deposits, and 22% is influenced by other factors. The regression results in the coefficient column shows that BBTN current accounts and savings accounts have a negative influence on operating profit while its term deposits have a positive influence on operating profit during the Covid 19 pandemic in 2020.

CONCLUSIONS

A comparison of current accounts, savings, term deposits, and operating profits between state-owned banks during the Covid-19 pandemic in 2020, showed that the largest current account was in BMANDIRI. The largest savings and term deposits are in BBRI while the highest operating profit was in BMANDIRI. Meanwhile, the lowest current accounts, savings, term deposits, and operating profit were in BBTN. A comparison of the effect of current accounts, savings, and term deposits on the operating profit between state-owned banks shows that BBNI current accounts, savings and term deposits do not have a significant effect on the operating profit, while current accounts, savings, and term deposits of BBRI, BMANDIRI and BBTN have a significant influence on the operating profit during the Covid-19 pandemic in 2020. The influence of BBTN's current accounts and savings accounts has a negative influence on its operating profit, while BBRI and BMANDIRI have a positive influence. Meanwhile, BBRI, BMANDIRI, and BBTN term deposits have a positive influence on the operational statements of each bank. It can be concluded that during the Covid-19 pandemic in 2020, current accounts, savings, and term deposits have a significant influence on the operating profit of the banks.

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THE EFFECT OF SUSTAINABILITY REPORT QUALITY ON REVENUE GROWTH GENDER OF THE BOARD OF DIRECTORS AS A MODERATING VARIABLE

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Abstract
This study aims to determine the relationship between the influence of the association between the quality of sustainability reports on revenue growth, as well as the gender diversity of the board of directors as a moderator of the relationship between the two variables. This research uses multiple regression model for the analysis tool. A sample of 146 data was collected from 73 industrial, energy, and mineral resource companies listed on the Singapore Exchange (SGX) for two periods (2018-2019). The results showed that the quality of the sustainability report had no significant effect on revenue growth. In addition, the results of this study also show that the gender diversity of the board of directors does not significantly affect the relationship between the quality of sustainability reports and revenue growth.

Keywords: Sustainability reports; revenue growth; board diversity

INTRODUCTION

In the era of information and technology as it is today, it is starting to be realized that the company's non-financial performance is increasingly being seen as important, especially Corporate Social Responsibility activities or often abbreviated as CSR, and its impact on economic, social, and sustainability governance as well as on stakeholders (Kolk, 2008) (O'Dwyer et al., 2005).

Issues regarding sustainability and sustainability reports are also increasingly supported by the Global Reporting Initiative (GRI). GRI is a global body that regulates the procedures and framework for corporate sustainability reports. The more sustainability issues are discussed from a business and corporate perspective, the more studies examine the relationship between the two (Dyllick & Hockerts, 2002). According to the United Nations Development Program (UNDP), this has become increasingly widespread, especially after the United Nations (UN) voiced the 2015 Sustainable Development Goals (SDGs) at a United Nations General Assembly meeting and has a deadline of 15 years until 2030 to reach its goal. Therefore, many member countries have begun to require sustainability reports in their annual reports (Ioannou & Serafeim, 2012).

Due to the increasing prevalence, research on the impact of this sustainability report is also increasing. There are many assumptions and indications that companies that disclose their sustainability reports tend to be more financially and economically successful (Manisa & Defung, 2017; Reddy & Gordon, 2010) this is because these companies have specific goals that have a good impact on stakeholders, and not just shareholders. Thus, because of its effect on the company's financial performance, there are many previous studies showing that the disclosure of sustainability reports has an effect on revenue growth (Lev et al., 2010).

This is also in line with the gender diversity of the board of directors. Many parties are also sympathizers of the gender equality movement (Babu & Kusuma, 2016; Demartini, 2019), which must be acknowledged that there are still few women who have the highest positions

and positions in companies (Abdullah et al., 2016; Gabaldon et al. al., 2016). So there are also previous studies that wrote theories and research that this was because investigators valued the company's performance and efforts more in terms of gender equality activities (García-Sánchez et al., 2019).

THEORETICAL FRAMEWORK AND HYPOTHESES DEVELOPMENT

Legitimacy Theory

At the core of it, legitimacy theory is a theory that is applied in the accounting literature that participates in explaining environmental and social impacts (I. Ali et al., 2020). According to Ali et al, 2020, this theory assumes that to be able to maintain and own a company that can create added value, managers or people who make decisions are needed to ensure that the company operate within the expectations of the community, so that the company can gain a legitimate status in the eyes of the public.

Signal Theory

Signal theory makes the general public understand that sustainability reports are very important for companies to have if they want to compete successfully in the market (Simoni et al., 2020). This signaling theory has the basis that insiders or corporate insiders have more knowledge than external parties so that when the entity chooses to disclose its sustainability report voluntarily, it gives a 'signal' that external parties will consider the company to really provide value. to its stakeholders (Bae et al., 2018).

Sustainability Report

A sustainability report is a report reported by a company within a certain period that discloses activities and their direct and indirect impacts that have occurred due to activities carried out by a company (Brockett & Rezaee, 2012). According to Brockett & Rezaee (2012:27), the history of sustainability reporting can be traced as early as the 1960s and 1970s in Europe and not long after in the United States when organizations began to realize that their figure in society was more than profit seeking. The book also states that in the 1990s, financial and non-financial performance reporting gained acceptance through the introduction of value reporting, with a primary focus on social, environmental, and animal rights protection issues.

Revenue Growth

Revenue growth or revenue growth is measured using the growth rate in percentage size to see the company's revenue growth. This ratio is used to see growth in a certain period in order to be able to analyze further, drivers of income disparity and growth (Greve, 2008). Measuring revenue growth has many uses. Companies can monitor financial performance in a certain period, and set strategies. Revenue growth also looks at the company's profitability and market reaction through activities carried out by the company financially and non-financially, so that higher revenue growth indicates that the company is operating well (Putri & Rahyuda, 2020).

According to Putri & Rahyuda (2020), revenue growth can be a measure for the growth of a company. Company growth is a standard measure that shows the movement of the company's activities from the initial investment to a certain period of business improvement. Revenue growth means that the company has sold its products or services effectively and efficiently because it means that the company has been able to return the initial investment. It is also said that positive revenue growth has a significant impact on firm value.

Gender Diversity of the Board of Directors

Corporate governance is a system of rules, practices, and processes that are regulated, directed, and controlled by companies. Corporate governance refers to the way in which companies are organized and managed and for what purposes. Corporate governance regulates who makes decisions, who has the power to control, who is an independent committee, and other rules (Lenard et al., 2014).

According to a study conducted by Gul et al. (2011), the gender diversity of the board of directors significantly improves the informative level of the company's stock price through a more public disclosure mechanism increased in large firms and the retrieval of private information in small firms. It is argued that gender diversity is especially beneficial when team work demands a high degree of creativity and complexity. The decisions of the board of directors are usually unstructured and emphasize multiple perspectives to help the board of directors assess and assess what strategic steps should be taken in the company. A board of directors chaired by a woman also leads to a leadership style based on cooperation, cooperation, and team trust, thereby facilitating more informative and extensive discussions at board meetings (Gul et al., 2011).

Hypothesis Development

According to Hummel & Schlick (2016), sustainability reporting is a tactic for companies to be able to place companies in a strategic position for good public perception and legitimate status in the view of the general public, especially stakeholders. In addition, the sustainability report can be used as a signal that can be sent by the company as the signaling party to stakeholders, including customers, as the signal receiving party. Given this, the researcher has some tentative assumptions, that sustainability reports, especially quality ones, can be a causal impact of revenue growth, based on both theories. In addition, the gender diversity of the board of directors is also a good signal and helps the company's legitimate status in the eyes of stakeholders. Because of this, the researcher has the following hypothesis:

H1: The quality of sustainability reports significantly affects the company's revenue growth
H2: The gender diversity of the board of directors moderates the relationship between quality sustainability reports and significant revenue growth.

RESEARCH METHODOLOGY

The population is the entire group of data from which the sample is taken. Populations can be in the form of sizes, groups of people and characteristics, objects, events or events, and other things that will be researched and observed in various possible ways (Sekaran & Bougie, 2016). Based on this definition, the population of this study are companies listed on the Singapore Stock Exchange.

Sugiyono (2015:116) defines the sample as "part of the number and characteristics possessed by the population. If the population is large, and it is impossible for researchers to study everything in the population, for example, because there are limited funds, manpower, and time, then researchers can use samples taken from the population."

This study selects and samples based on purposive sampling method. This method selects samples with several criteria that have been selected based on considerations and also requirements that are considered important by researchers that must be met by samples so that they can be selected in their research (Sugiyono, 2015; Sekaran & Bougie, 2016).

In this study, the sample that the author chose was with the following criteria:
1. Is a public company in the industrial, energy, and mineral sectors;
2. Listed on the Singapore stock exchange;
3. Disclosing the sustainability report not in the form of an integrated report so that it is reported and published separately from the annual report;
4. The annual report and its sustainability report ended on December 31 of 2018 and 2019; Its sustainability report also follows the 2016 GRI Standards framework.

According to Sekaran & Bougie (2016:37), in research there are 2 types of data that can be collected, namely primary data and secondary data. Primary data is data collected by the researcher himself for the purpose of the study, while data collected from existing sources is referred to as secondary data. Some secondary data sources are government publications, bulletins, company websites, and others.

The data in this study were taken from several secondary data sources. Data related to the company's financial performance is taken from the company's annual report. Data about the corporate governance and gender of the board of directors are also obtained from the company's annual report which has been uploaded to the SGX official website. Data related to the assessment of the quality of the company's sustainability report is taken from the company's sustainability report which is uploaded on the SGX official website. For variables that use stock prices, stock prices are taken from historical stock price data on available stock screeners.

With the existing variables, the relationship between the quality of sustainability reports and revenue growth can be measured using the following model:

$$RGro = \alpha + \beta_1 SRQ + \beta_2 BGD + \beta_3 SRQ\_BGD + \beta_4 BInd + \beta_5 ROA + \beta_6 Size + \beta_8 NP + \beta_9 Lev + \varepsilon$$

There are 4 typical assumptions that will also be tested in this study, namely autocorrelation test, multicollinearity test, normality test, and heteroscedasticity test (Rumengan et al., 2015). Rumengan et al. (2015) also said that these tests must be carried out in order to ensure that the selected model is a good model.

RESULTS AND DISCUSSION

This study uses a sample of 73 companies listed on SGX in the period 2018 and 2019 in the industrial, mineral, and energy sectors. The sample was selected based on several considerations, criteria, and requirements that the sample had to meet, so that not all companies listed in the industry, minerals, and energy sectors were taken as samples.

According to the official SGX website, there are a total of 661 companies listed on SGX. From the total population, the researchers selected 264 companies engaged in the industrial, mineral, and energy sectors. Of the 264 entities, 119 companies did not report their sustainability reports with the GRI Standards framework for two consecutive years in 2018 and 2019. Of the remaining 145 companies, there were 15 companies whose annual reports and sustainability reports did not end at the end of 31 December, and there were 57 companies that chose to report their company's sustainability performance combined with their annual report, so that the remaining 73 entities from the three sectors were included in the sample criteria. Because this study examines samples for 2 periods 2018 and 2019, so that from these 73 entities, 146 data samples are obtained.

	N	Minimum	Maximum	Mean	Std. Deviation
RGro	146	-1.0007	4570.5941	35.1911	378.4725
SRQ	146	.1447	.6340	.2701	.1000
BGD	146	.0000	.6000	.1016	.1211
Bind	146	.0000	4.5000	.5493	.3660
ROA	146	-1.6863	69.8503	.9149	7.9700
Size	146	7.7249	18.3606	11.8864	1.6984
NP	146	.0050	958477.0437	13297.6291	108741.0943
Lev	146	-6.2683	357.7285	4.1896	30.6298
Valid N (Listwise)	146				

Descriptive statistical analysis was carried out by researchers using software to find out several things, namely the amount of data (N), minimum value, maximum value, average value (mean), and standard deviation of operational variables, namely the quality of sustainability reports (SRQ) as an independent variable, growth income (RGro) as the dependent variable, the diversity of the board of directors (BGD) as the moderating variable, and several control variables, namely the independence of the board of directors (Bind), return on assets (ROA), firm size (Size), firm value (NP), and leverage (Lev). The following table is the result obtained through SPSS. It can be seen from table 4.3 that the dependent variable of income growth (RGro) has a minimum value of -1.0007 and a maximum of 4570.5941 with an average value of 35.1911 and a standard deviation of 378.4725.

R	R Square	Adjusted R Square	Std. Error of the Estimate
.920	.846	.837	152.5880998

The mean value is lower than the standard deviation, so it can be concluded that the data is quite varied. In the description of the independent variable, the quality of financial statements (SRQ) has a minimum value of 0.1447, a maximum value of 0.2704, an average value of 0.2704 and a standard deviation of 0.1000, indicating a lack of data variation.

It can also be seen in the moderating variable, namely the gender diversity of the board of directors (BGD) which has a minimum value of 0.0000 and a maximum value of 0.6000. The average value is 0.1016 and the standard deviation is 0.1211, indicating that the data is quite varied.

This model fit test was conducted to determine the validity of the research model. The research model is considered valid if the significance value in the ANOVA table for the F-Statistics test results is below 0.05 because it is concluded that all independent variables (including control variables) selected affect the dependent variable with a 95% confidence level. Thus, this model is considered to have met the model validity test.

Model	Sum of Squares	dF	Mean Square	F	Sig.
Regression	175	8	219	9	0
Residual	80214.	1	7526.8	4.38	.00
Total	51	37	13	3	0
	318	1	232		
	9788.5	45	83.128		
	65				
	207				
	70003.				
	07				

The normality test was conducted to see whether the data used were normally distributed. Researchers tested normality data using a scatterplot processed by SPSS software. Data is said to be normally distributed if it is in the direction of the centerline, which if the data is closer to the line, it is considered better.

Based on the graph above, it can be seen that the points follow the direction of the line. This indicates that the data is normally distributed and meets the standard of normality test.

Normal P-P Plot of Regression Standardized Residual
Dependent Variable: RG
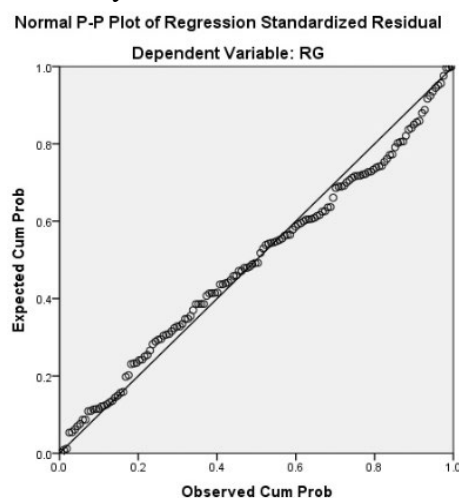
Multicollinearity test was conducted to see whether there was a correlation between the independent variables in the model. According to Priyastama (2020:123), if the tolerance value is above 0.1, and the VIF is below 10, then there is no multicollinearity in that variable. On the other hand, if the tolerance value is below 0.1, and the VIF is above 10, therefore it can be concluded that the occurrence of multicollinearity in these variables.

Model	Collinearity Statistics	
	Tolerance	VIF

1		
(Constant)		
SRQ	.514	1.947
BGD	.091	10.987
SRQ_BGD	.080	12.535
BInd	.834	1.200
ROA	.744	1.344
Size	.882	1.133
NP	.667	1.499
Lev	.983	1.017

According to Priyastama (2020: 125), "heteroscedasticity test is a condition in which the regression model occurs inequality of variance from the residuals from one observation to another."

Model	t	Sig.
(Constant)	-2.933	.004
SRQ	.058	.954
BGD	-.110	.913
SRQ_BGD	-.211	.833
BInd	4.989	.000
ROA	-.777	.439
Size	4.188	.000
NP	-.315	.753
Lev	-1.561	.121

Based on the table, it can be concluded that in this regression model there is heteroscedasticity on the independent control variable of the board of directors (BInd) and on the size of the company (Size).

According to Priyastama (2020:131), "autocorrelation is that there is a correlation between the residuals in period t and residuals in the previous period (t-1)." The autocorrelation test in this study used the Durbin-Watson test. The research model concluded that there was no autocorrelation if the existing Durbin-Watson value was between dU and 4-dU values. Based on the Durbin-Watson value table for data that has n=146 and an independent variable of k=8, the dL value is 1.6157 and the dU value is 1.8462. The Durbin-Watson test on this research model is presented in the following table.

Model	Durbin-Watson
1	2.293

The Durbin-Watson (DW) value is 2.293, while the 4-dU value is 2.1538, so it does not meet the requirements of dU < DW < 4-dU, and the DW value is greater than 4-dU, so it can be concluded that in this regression model, the occurrence of autocorrelation. There are several testing methods that can be used by researchers to test their hypotheses, such as the Hosmer & Lemeshow test and the Cox & Snell test. For this research, the researcher uses a coefficient table which is also known as a t-table (t-table). Researchers use the value of significance in seeing the significance of the effect of the independent variable on the dependent variable.

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig
	B	Std. Error	Beta		
(Constant)	-908.988	100.359	-.029	-9.0507	.000
SRQ	-109.170	176.881	-.015	-.617	.538
BGD	-45.311	346.791	.012	-.131	.896
SRQ_BGD	113.461	1102.220	.897	.103	.918
BInd	927.945	37.925	.007	24.468	.000
ROA	.345	1.867	.177	.185	.854
Size	39.439	7.943	-.072	4.965	.000
NP	.000	.000	-.008	-1.749	.083
Lev	-.105	.417		-.251	.802

Significance is only accepted at the 1%, 5%, or 10% level. Thus, on the operational variables above, it can be seen that the quality of the sustainability report (SRQ) does not significantly affect the dependent variable (RGro), as well as the moderating variable, namely the gender diversity of the board of directors (SRQ_BGD) does not significantly affect the dependent variable.

Based on the tests that have been carried out by researchers, it can be seen that the selected model is valid even though there is autocorrelation and heteroscedasticity. Researchers have also tested the model using ANOVA F-table and it can be concluded briefly that the selected model has a significant effect at the 1% level on the dependent variable (RGro). However, when testing the hypothesis by looking at the t-table coefficient table, the summarized results can be seen in the following table:

	Hypothesis	Result
H1	The quality of the sustainability report has a significant effect on the company's revenue growth	Not Approved
H2	The gender diversity of the board of directors significantly influences the relationship between the quality of sustainability reports and the company's revenue growth	Not Approved

Based on the previous tables, it can be seen that the independent variable model as a whole has a significant effect at the 1% level on the dependent variable, however, in testing the hypothesis, it can be seen that the significance of each independent variable on the dependent variable (RGro) and the quality of the sustainability report (SRQ) has a value of 0.538 or 53.8%, much greater than 0.05 or 5%, so it is concluded that the quality of the sustainability report does not significantly affect the company's revenue growth, so H1 is rejected. This is in accordance with the results of research conducted by Randina & Fachrizal, 2016 and also Kusumawati & Feliana, 2019. In accordance with the theory previously stated, it is said that the possibility of customers will be more likely to be loyal to companies that are judged to operate in accordance with the expectations of stakeholders, so it can be seen in the previous table that the average value of the quality of sustainability reports is only 27.01%. It is known that there are 235 GRI Standards index points, so that the average company does not even reach 50% of the existing 235 points and only reports 63 points out of a total of 235 existing GRI Standards index points.

In the previous table, the moderating variable is represented by the notation SRQ_BGD

because it is the product of the independent variable and the variable chosen to be the moderator. Thus, it can be seen in the table that SRQ_BGD shows a significance value of 0.918 or 91.8%, so it can be concluded that the moderating variable has no effect on the relationship between the independent variable and the dependent variable.

CONCLUSIONS AND SUGGESTIONS

The relationship between the quality of sustainability reports and revenue growth as well as the influence of the gender diversity of the board of directors on the relationship between these two variables is the focus of this study. This study used a linear regression model and passed several tests. Tests were carried out using SPSS software.

The first test that was conducted was the model validity test and it was found that the model chosen by the researcher was already valid. After that, the researcher tested the four classical assumptions and found that the data selected by the researcher was normal and there was no multicollinearity except for the moderating variable, but heteroscedasticity and autocorrelation occurred in the data.

Finally, the researcher tested the hypothesis. The researcher found that the company's revenue growth is not only influenced by the quality of the sustainability report which is represented by the GRI standards index value, but there are other variables, in fact, the sustainability report does not significantly affect the company's revenue growth. Likewise, the gender diversity of the board of directors as a moderator of the relationship between the two, it was found that the gender diversity of the board of directors did not significantly affect the relationship between the quality of sustainability reports and the company's revenue growth.

This research has limitations, so there are several suggestions put forward by researchers in order to improve similar research in order to produce better and higher quality research. The suggestions that researchers give are as follows; It is hoped that in future studies, more and more diverse samples will be used. It is hoped that in future studies the samples used are more than 2 periods. It is hoped that in further research the sample used will examine data from companies operating in different sectors or using more sectors. Further research can consider the selection of more or more reliable control variables, so that a more reliable research model can be obtained. Further research is recommended to use other proxies as moderating variables to see the relationship between the two variables. Further research is recommended to expand the research population, not only on SGX data, but also on other exchanges such as the Indonesia Stock Exchange (IDX), or Bursa Malaysia, or other foreign exchanges.

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