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## e-Proceedings

**Accounting Research and Education:  
The Challenges and Opportunities of The New Normal During and Post Covid-19**

**7 & 8 September 2021**

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**INTERNATIONAL CONFERENCE ON ACCOUNTING RESEARCH AND EDUCATION 2021**

**Accounting Research and Education: The Challenges and Opportunities During Covid-19 New Normal**

**7 & 8 September 2021**

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## **PREFACE**

The 4<sup>th</sup> International Conference on Accounting Research and Education (iCARE 2021) is the continuation of iCARE 2014, iCARE 2016 and iCARE 2019. This conference is organized by the Faculty of Accountancy, UiTM Perak Branch, Tapah Campus in collaboration with the Accounting Research Institute (ARI), Universitas Indonesia (UI), Univesitas Paramadina and Univesitas Islam Indonesia. This event is held on 7-8 September 2021 via online platform with the theme of “Accounting Research and Education: The Challenges and Opportunities During Covid-19 New Normal”, aims to provide a platform for local and international academicians, professionals and researchers to have intellectual interactions with regard to the current situation relating to accounting education, challenges and advancements relating to the accounting field and other fields related to social sciences. This conference also offers numerous opportunities to gain knowledge, to share technical experiences, to build network with colleagues and to communicate with industry partners.

These proceedings contain 88 research papers in the field of accounting, finance, management, business, educational, sustainability and other which focusing to the theme of the challenges and opportunities during Covid-19 New Normal.

Editors

*Faculty of Accountancy, Universiti Teknologi MARA, Perak Branch, Tapah Campus,  
Malaysia*

*September 2021*

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# The 4<sup>th</sup> International Conference on Accounting Research and Education (iCARE2021)

7 - 8 September 2021

## Does Board Diversity Boost Corporate Performance in Pharmaceutical Industry? Preliminary Evidence on Pre- and During Pandemic Covid-19

Siti Marlia Shamsudin<sup>\*a</sup>, Mohd Taufik Mohd Suffian<sup>b</sup>, Liyana Ab. Rahman<sup>c</sup>,  
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### ABSTRACT

Drawing on agency theory, the purpose of the study is to examine the impact of board diversity on the Malaysian Pharmaceutical Listed Companies firm's performance. The data were collected from pharmaceutical companies registered in Bursa Malaysia Berhad from the period 2015 to 2019. The fixed effects model is applied since the data contain observations on different companies' sections across time and cater to the endogeneity problem. After controlling for several firms and board characteristics, we found board diversity has a negative and significant effect on the Pharmaceutical-listed firm performance. The results did not support the agency theory on which corporate governance is seemingly ineffective in enhancing firm performance.

**Keywords:** pharmaceutical industry, board diversity, performance, return on asset

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### 1. INTRODUCTION

Corporate governance is the system of rules, practices, and processes on how the company should be governed and managed. The past study has revealed the factors that caused the global financial crisis is poor corporate governance arising from a lack of diversity, transparency, and independence (Zabri, Ahmad & Wah, 2016). Good corporate governance will promote transparency, regulate the risks, ethics, norms, reduce the opportunity for corruption and build trust with the investors and public (Detthamrong et al, 2017). The investors and stakeholders also feel confident with well-organized companies, thus promoting good public images that could lead to better performance. Additionally, corporate governance emphasizes the role of the board of directors in delivering the stakeholder's value over the long term, establishing the policies for management, and making decisions on the crucial issue to ensure the survival and sustainability of a company.

Board diversity is vital to increase the greater range of perspectives that require deep insight, challenging ideas as different directors will have their own opinion as they come from diverse personal characteristics, backgrounds, and experiences. Thus, a more open communication environment can be created, resulting in a better decision-making process. The decision made is based on groupthink after the debate and raises challenging questions. The board's effectiveness can be maximized by having gender diversity as more perspectives can be integrated into the board's function. Naciti (2019) suggested that based on agency theory, the managers can monitor optimally by having a diverse board. Nowadays, companies are operating based on the global market or environment. Thus, a good image can be created when a balanced board can be achieved. Having women directors as representatives on the board could lead to a positive corporate image. The public will see the symbolic meaning in terms of gender equality, leading to better company performance.

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# The 4<sup>th</sup> International Conference on Accounting Research and Education (iCARE2021)

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## The determinants to become a whistleblower among tax officers in central Jakarta DGT regional office

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### ABSTRACT

This study aims to analyze the effect of the seriousness of fraud, retaliation, procedural justice, and trust in the organization on the intention to become a whistleblower. Respondents of this study were employees at the Regional Office of the Directorate General of Taxes (DGT) Central Jakarta. The results of this study indicate that the level of seriousness of fraud, retaliation, and procedural justice have a significant positive effect on employee intentions to become whistleblowers. Meanwhile, trust in the organization has a positive but not significant effect, which means it has no effect on the intention to become a whistleblower. The study findings imply supporting the Prosocial Organizational Behavior Theory and Expectancy Theory.

**Keywords:** fraud, retaliation, fairness, trust, whistleblower

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### 1. INTRODUCTION

Indonesia is a country with a high level of fraud (Ugaz, 2015). The fraud that occurred was caused by corruption cases in the government and the private sector, one of which was at the Directorate General of Taxes at the Ministry of Finance. The number of corruption cases involving tax officials has resulted in the weakening the reputation of the government. One of the corruption cases committed by tax officials was carried out by Gayus Tambunan. The corruption case carried out by Gayus was accepting bribes worth Rp. 925 million (Lumbanrau, 2016) . Apart from the case carried out by Gayus, another case was carried out by a civil servant namely Dhana Widyatmika. Dhana was proven to have received bribes from PT Mutiara Virgo for managing tax underpayments and from that case Dhana was sentenced to 14 years in prison (Lumbanrau, 2016) . One of the efforts that can be done by the government to eradicate corruption cases is the existence of a whistleblower. Whistleblower is a people who will disclose a fraud. Whistleblower can reduce the level of fraud (Permana & Rohman, 2016) (Vivi, 2013).

1.

Whistleblowers is very important, accordingly many studies examine the factors that influence the intention to become a whistleblower. In Indonesia, studies on the determinants of intention to become a whistleblower in government agencies are mostly conducted with civil servant respondents ( Aida, Helmy, & Setiawan, 2019); (Bagustianto & Nurkholis, 2015); (Dianingsih & Pratolo, 2018); (Lestari & Yaya, 2017) and (Safitri & Silalahi, 2019). Different with previous research, this study examines the intention of tax office employees to become whistleblowers.

Three factors that influence employee intentions to become whistleblowers are: 1) level of seriousness of fraud (Aliyah & Marisan, (2017), Sutrisni & Coryanata, (2018), Dianingsih & Pratolo, (2018), Safitri & Silalahi (2019), Aida, et al., (2019), and Primasari & Fidiana (2020)); 2) retaliation ( Aulia, Primasari, & Azhar, (2019), Efendi & Nuraini, (2019), and Della, Rodiah, & Azmi, (2020)); 3) procedural justice (Tan Giralda & Ramanujam, (2008), Permana, & Rohman, (2016) and Jaya, (2018)). Results of research on the relationship among the three factors above on the intention to do whistleblowing are inconsistent so that it opens up opportunities for new research. The fourth variable

that affects whistleblowing is trust in the organization ((Permana, & Rohman, 2016). Compared to other variables, trust as a determinant of whistleblowing is rarely studied. Therefore, this study aims to analyze whether the level of seriousness of fraud, retaliation, procedural justice, trust has an effect on the intention to become a whistleblower.

## **2.THEORETICAL BASIS**

The first theory used in this study is Prosocial Organizational Behavior Theory that aims to improve the welfare of individuals, groups, or organizations carried out by members in an organization ((Brief & Motowidlo, 1986). The second theory used is the Expectancy Theory of motivation proposed by Victor Vroom in 1964 (Robbins & Judge, 2015). The logical basis for expectancy theory is that motivation depends on the size of our desire for something and how likely we think we are to get it (Moorhead & Griffin, 2013).

## **3.HYPOTHESIS**

The seriousness of fraud is the perception of how one ranks the problem, and also how one perceives the negative impact that the problem might have. Organizations will also be affected by greater harm from more serious wrongdoing than from less serious wrongdoing. This is in accordance with the Prosocial Organizational Behavior Theory described by (Brief & Motowidlo, 1986). Research conducted by Aida et al., (2019) and Primasari & Fidiana (2020) which stated that the level of seriousness of fraud had a positive effect on intentions as a whistleblower. Based on these considerations, the first hypothesis is formulated as follows:

*H1: The level of seriousness of fraud has a positive effect on employee intentions to become whistleblowers*

A very high level of retaliation will increasingly influence employees to remain silent because it allows a negative impact to be received by the whistleblower. Aulia et al., (2019) found that retaliation has a negative effect on interest in whistleblowing. Based on these considerations, the second hypothesis was formulated as follows:

*H2: Retaliation has a negative effect on employees' intentions to become whistleblowers*

Expectancy Theory explains that an employee will be motivated to become a whistleblower with procedural justice created within the organization through fair procedures and policies and in accordance with the expectations and goals of the employee (Robbins & Judge, 2015). Research conducted by Permana & Rohman (2016) show that procedural justice has a positive effect on intentions to become a whistleblower. And also, research conducted by Jaya (2018) proves that procedural justice has a positive effect on employee loyalty work. This description underlies the proposed third hypothesis that was developed, namely

*H3: Procedural justice has a positive effect on employee intentions to become whistleblowers*

Expectancy Theory explains that trust in organizations embodies a sense of pride and care for the survival of their organization, so that with the aim and hope of saving the organization from fraudulent acts, they are motivated to become whistleblowers (Robbins & Judge, 2015). Research conducted by Permana & Rohman (2016) show that trust in organizations affects interest in becoming a whistleblower. Therefore, the review underlies the proposed fourth hypothesis to be tested, namely:

*H4: Trust in the organization has a positive effect on employee intentions to become whistleblowers*

## **4.RESEARCH METHODS**

### **4.1 Sample of the study**

This study uses primary data, obtained from respondents' answers to the questionnaire. Respondents are employees who work at the Regional Office of the Directorate General of Taxes, Central Jakarta.

## 4.2 Operational definition and measurement

The seriousness level of fraud is the existence of a violation, both financial and non-financial, which is the impact that arises due to the seriousness of the fraud (Lestari & Yaya, 2017). The measurement of the seriousness of fraud is seen from the level of materiality. Retaliation is a threat of revenge from the party who committed the violation to the reporting party (Putri, 2012). Retaliation is measured by the threat that the whistleblower may receive; trust between employees; and security in the fraud reporting system. Procedural justice is perceived justice related to the existence of organizational regulations or policies, in relation to whistleblowing reporting (Putri, 2012).

Procedural justice is perceived justice related to the existence of organizational regulations or policies, in relation to whistleblowing reporting (Leventhal, 1980). Measurement of justice in the form of supporting policies; reporting procedures that encourage fraud reporting; easy and fast procedure; consistent procedures; the existence of procedures regarding security guarantees and intimidation; procedures regarding the protection of witnesses and reporters; as well as procedures regarding the security of the reporter's identity. Trust is the trust of employees on organizational behavior that values them (Paillé, Bourdeau, & Galois, 2010). Trust is measured by organizational commitment to eradicating corruption; the organization has high capability; organization has high quality in setting strategy. Intention to do whistleblowing is a plan of behavior that will be carried out in the event of a fraud violation (Near & Miceli, 1985); measured by having the intention to report the fraud; earnestly attempt to report the fraud; have a plan to report the fraud. The answers to each instrument item using 4 Likert scales have an arrangement from strongly disagree to strongly agree

## 5. ANALYSIS

### 5.1 Description of research object

Questionnaires sent to 162 employees. Questionnaires returned 78 or 48% of the total questionnaires distributed. The data shows that the majority of respondents are male as many as 55 people or 70.5%. While the female respondents were 23 or 29.5%. Most of the respondents had the latest bachelor's degree education as many as 40 people or 51.3%.

### 5.2 Descriptive statistic

The average score of the variable is intention to be whistleblowing, the level of seriousness of fraud, retaliation, procedural justice, and trust in the organization are 26.23; 12.38; 22.12; 16.26; and 28, respectively.

### 5.3 Validity and reliability test

Item correlation values with variable scores for intention to become a whistleblower, seriousness level of fraud, retaliation, procedural justice and trust in the organization, is 0.893 to 0.956; 0.466 to 0.830; 0.569-0.806; 0.836-0.938;  $r$  0.811-0.911, respectively. As for Cronbach alpha research variables between 0.630-0.980.

### 5.4 Classic assumption test results

The regression model fulfills the classical assumption test of normality, multicollinearity and heteroscedasticity.

## Regression results

Table 1 Regression

Model	Unstandardized Coefficients		t	Sig.
	B	Std. Error		
(Constant)	-2,263	3,525	-,642	,523
Seriuosness of Fraud	,494	,209	2,361	,021
Retaliation	,241	,119	2,026	,046
Procedural Justice	,703	,161	4,370	,000
Trust	,200	,111	1,807	,075

Source: Processed by author

Based on the test results in table 1, it can be concluded that the level of seriousness of fraud has a positive and significant effect on an employee's intention to become a whistleblower. So that the first hypothesis in this study is supported. And the results of this study are in line with the Theory of Prosocial Organizational Behavior. The results of this study also support research conducted by Primasari & Fidiana (2020). Furthermore, the test results show that the coefficient of retaliation variable is 0.241 and has a significance value of 0.046, it can be concluded that retaliation has a positive and significant effect on an employee's intention to become a whistleblower. Thus, the second hypothesis is not supported.

Table 1 show that the coefficient of procedural justice variable is 0.703 and has a significance value of 0.000. it can be concluded that procedural justice has a positive and significant effect on an employee's intention to become a whistleblower at the Central Jakarta DGT Regional Office. So that the third hypothesis in this study is supported. The results of this study are in accordance with research conducted by Permana and Rohman (2016) and Jaya (2018). Where the procedural justice variable has a positive and significant effect on the intention to become a whistleblower.

Finally, the test results indicate that the coefficient of trust in the organization is 0.200 and has a significance value of 0.075. it can be concluded that trust in the organization has a positive but not significant effect on an employee's intention to become a whistleblower at the Central Jakarta DGT Regional Office. So the fourth hypothesis in this study is not supported. And the results of this study are not in line with the expectancy theory which explains that the higher the trust in the organization created in an organization, the higher the intention to become a whistleblower. The results of this study are not in line with previous research conducted by Permana and Rohman (2016) that the trust variable in the organization has a significant effect on the intention to become a whistleblower.

## 6. CONCLUSIONS AND LIMITATIONS

Based on the data analysis that has been described, it can be concluded that seriousness of fraud and procedural justice has a significant positive effect on the intention to become a whistleblower. Contrary to our prediction, retaliation has a significant positive effect on the intention to become a whistleblower. Finally, trust in the organization has a positive but not significant effect on the intention to become a whistleblower.

The following are the limitations of this study. The data collection method in this study used primary data using questionnaire distributed through Google Form. So that the data is not well distributed, the data collected is only 78 of the total 162 employees. And also, the time of distributing the questionnaire coincides with the reporting of the tax period. This study only uses a population of tax employees in one tax office, namely the Central Jakarta DGT Regional Office.

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## Determinants of Disclosure of the Province Government's Financial Statements in Indonesia

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### ABSTRACT

This study aims to determine the effect of the human development index, legislative size, deviation level and level of dependence on the disclosure of provincial government financial statements in Indonesia. The research was conducted in the period 2016-2018. Government Regulation No. 71 of 2010 explains that the users of regional financial reports are the community, people's representatives, supervisory agency, and government. In this study, the researchers used independent variables in the form of the human development index, legislative size, deviation level and the level of dependence on the central government. The research data was processed using multiple regression. The results showed that the human development index variable have positive effect on financial statement disclosure. While the legislative size, the deviation level and the level of dependence have no effect on the disclosure of financial statements. The results of the study indicate that human quality can encourage the provincial government to prepare financial statement disclosures more broadly.

**Keywords:** human development index, legislative measure, deviation level, level of dependence, disclosure of financial statement

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### 1. INTRODUCTION

The existence of regional autonomy policies affects regional financial management. This is reinforced by Law no. 33 of 2004 concerning Fiscal Balance between the Central Government and Regional Governments which makes local governments (provincial governments and district/city governments) obliged to report their responsibilities, one of which is in the form of financial reports. Based on Government Regulation no. 71 of 2010 concerning Government Accounting Standards, government financial reporting provides useful information for users in assessing accountability and making decisions both economic, social, and political decisions. Transparency and accountability are forms of disclosure in government financial statements.

The research that has been done regarding the level of disclosure of the provincial government's financial statements is still relatively small, because there are many studies that take the City/Regency as the object. Several previous studies include Hendriyani & Tahar (2015) with an average disclosure of 41.76%; Agnecia et al. (2015) of 38.32%; Hilmi & Martani (2011) amounted to 44.56%; Qoyimah (2016) by 64%; and Rahmayanti (2018) of 58.35%. Based on the results of previous studies, it can be said that the average disclosure is still fluctuating, so the researchers want to do research again. This research is expected to provide information about the level of disclosure of provincial government financial statements in Indonesia.

According to Government Regulation No. 71 of 2010 (2010), users of provincial government financial statements include the public; people's representatives; supervisory agencies as well as government. Several previous studies have not covered all users of financial statements, namely in a study conducted by Rahmayanti (2018), Hendriyani & Tahar (2015). Based on this, the researchers decided to carry out a research renewal, using independent variables related to all users of provincial government financial statements. From the community side, researchers used the Human Development Index to be used as



an independent variable. From the side of the people's representatives, the researcher uses Legislative Size to be used as an independent variable. From the supervisory agency's side, the researcher uses the Deviation Level to be used as an independent variable. From the government side, researchers used the Dependency Level to be used as an independent variable. This research aims to determine the effect of the human development index, legislative size, deviation level and level of dependence on the disclosure of provincial government financial statements in Indonesia.

## **2. HYPOTHESIS DEVELOPMENT**

Transparency and accountability are things that are needed by the public as users of these financial statements. The quality of life of the community affects public awareness of the importance of financial statements. The Human Development Index is used as a benchmark for people's quality of life. The higher the Human Development Index, the higher the public awareness of the level of disclosure of financial statements.

Research conducted by Qoyimah (2016), Setyowati (2016) states that the human development index has a significant influence on the level of disclosure of financial statements. This is possible because people with high education and prosperity will be more aware of information, rights, and obligations from the government, so that people will be more aware of monitoring government performance. Based on the explanation above, the hypotheses used in this study are:

H1 = Human Development Index has a positive effect on the level of disclosure of provincial government financial statements in Indonesia.

The role of the legislature as a financial supervisor is expected to be able to control regional financial policies economically, efficiently, effectively, transparently, and accountably. The greater the number of legislative members, it is expected that the greater the level of supervision carried out by legislative members, so that it can encourage local governments to make greater disclosures (Rahayu & Mardiana, 2016). Based on research conducted by Setyaningrum & Syafitri (2012), the more number of legislative members will encourage local governments to increase the level of disclosure of financial statements. The same thing was also expressed by Marliani et al. (2018), the legislature is an institution that has a strategic potential and role in the supervision of regional finances. The greater the number of legislative members, it is expected that the greater the level of supervision carried out by members of the legislature.

H2 = Legislative Size has a positive effect on the level of disclosure of provincial government financial statements in Indonesia.

The level of deviation is one of the factors in the disclosure of financial statements. According to the results of research by Hilmi & Martani (2016), the level of deviation has a positive and significant effect on the level of disclosure of the provincial government's financial statements. This could be because the Supreme Audit Agency encourages the provincial government to disclose more based on the audit results of the State Audit Board.

H3 = The level of deviation has a positive effect on the level of disclosure of the financial statements of the provincial government in Indonesia.

The more funds that the central government disburses to the regions illustrates the high level of dependence on local governments. To reduce the asymmetry that occurs between local governments and the central government, it is necessary to have accountability and transparency in the management of regional finances as a form of accountability for funds provided by the central government. This provides explanations to the central government that funds used by local governments are not misused (Putri & Arza, 2019).

H4 = Dependency level has a positive effect on the level of disclosure of the financial statements of the provincial government in Indonesia.

The following is the model of this research :

### 3. METHODOLOGY

#### 3.1. Population and Sample

In this study, the population used is the Financial Statements of the Provincial Government in Indonesia from 2016 to 2018. The financial statements used are financial statements that have been audited by the State Audit Board (BPK). The sampling method was carried out using a purposive sampling technique with the following: a). The Financial Statements of the Provincial Government in Indonesia for the 2016-2018 period which have been audited by the State Audit Board (BPK). b). Obtaining an unqualified and reasonable opinion with an exception from the results of the audit by the State Audit Board (BPK). c). The Provincial Government Financial Report has complete data on the variables in this study. d). Provides complete data on the 2016-2018 Human Development Index for each province. e). Provide complete data on the number of legislative members for 2016-2018 for each province. By using these criteria, all provincial financial reports meet the criteria, so there are a total of 34 provinces, the research period is 3 years, so there are a total of 102 samples.

#### 3.2. Research Variable

In this study, the dependent variable used is the level of disclosure of the financial statements of the provincial government in Indonesia. The level of disclosure of financial statements in question is in the form of a comparison between the disclosures that have been presented in the Provincial Government Financial Statements with the disclosures that should be presented in the Notes to Financial Statements in accordance with the applicable Government Accounting Standards. According to Government Regulation No. 71 of 2010, the checklist used in this study includes 34 disclosure items that should be in the Notes to Financial Statements. The following formula is used to measure the Level of Disclosure of Provincial Government Financial Statements in Indonesia:

$$\text{DISC} = \text{Disclosure in Financial Statement Disclosure in Government Accounting Standard}$$

In this study, the independent variables are the Human Development Index, Legislative Size, Deviation Level and Level of Dependence. Human Development Index data for each province in Indonesia is obtained by downloading data from the Central Statistics Agency website at [www.bps.go.id](http://www.bps.go.id). Legislative size is measured using the number of legislative members in each province. The data used for the level of deviation is obtained from the Audit Result Report that has been carried out by the State Audit Board (BPK). The deviation rate is obtained by comparing the nominal deviation with the total expenditure. The level of dependence is calculated from the transfer income from the central government divided by the total income. Total income is obtained from Regional Original Income plus transfer income and other legitimate income (Priharjanto & Wardani, 2017). The research data was processed using multiple regression.

### 4. RESULT AND DISCUSSION

#### 4.1. Descriptive Statistics Analysis

Table 1 : Descriptive Statistics analysis

	<b>DISC</b>	<b>HDI</b>	<b>LEG</b>	<b>DEV</b>	<b>DEPEND</b>
N	102	102	102	102	102
Mean	0,801	69,766	63,88	0,016	0,624
Median	0,794	69,985	55,50	0,001	0,634
Minimum	0,559	58,05	35	0,00002	0,284
Maximum	0,971	80,47	106	0,364	0,950

#### 4.2. Classic Assumption Test

Based on the results of the autocorrelation test, the Durbin-Watson value is 1.811, which is higher than the dU value in the Durbin-Watson table for 4 variables with 102 research objects, which is 1.7596. The Durbin-Watson value obtained is also lower than 4-dU (4-1.7596) which is 2.2404, so it can be concluded that this study there is no autocorrelation. Based on the results of the multicollinearity test, it is known that the Tolerance value obtained for 4 variables is more than 0.10, while the VIF value

obtained for 4 variables is not more than 10. It can be concluded that this study did not occur multicollinearity.

From the results of the heteroscedasticity test, it is known that the value of Sig. all variables are more than 0.05. Based on the values obtained, it is concluded that this study does not occur heteroscedasticity. The Kolmogorov-Smirnov test results show that the Asymp value. Sig. (2-tailed) is 0.092, so it can be concluded that the residual value or the confounding variable is normally distributed.

### 4.3. Regression Analysis

Table 2 : Regression Result

Variable	B	Sig
Constant	0,049	0,856
Human Development Index (HDI)	0,009	0,002
Legislative Size (LEG)	0,000	0,427
Deviation Level (DEV)	-0,222	0,157
Dependency Level (DEPEND)	0,119	0,179

Based on the results of multiple regression analysis, the regression model used are:

$$DISC = 0.049 + 0.009 HDI + 0.000 LEG - 0.222 DEV + 0.119 DEPEND$$

### 4.4. Coefficient of Determination Test Results

Based on the results of the coefficient of determination (R2) by regressing the human development index, legislative size, deviation level and dependency level, the Adjusted R-Square value is 0.10. This shows that the variables of the human development index, legislative size, level of deviation and level of dependence affect the level of disclosure of provincial government financial statements in Indonesia by 10%, while the remaining 90% is influenced by other variables outside the model.

### 4.5. Hypothesis Testing

#### 4.5.1. Human Development Index

Based on the results of hypothesis testing, it can be seen that the significance value of the Human Development Index (HDI) variable obtained is 0.002, with a significance level of = 0.05 (5%) . This shows that the Human Development Index (HDI) has a positive effect on the level of disclosure of provincial government financial statements in Indonesia. Thus, it can be concluded that H1 is supported. This result means that if the Human Development Index (HDI) of a province increases, the level of disclosure of financial statements in that province will also increase. The higher the quality of society, it will encourage the government to further increase the disclosure of its financial statements. The public will demand the government to be transparent and accountable in the disclosure of financial statements. The results of this study are also in line with research conducted by Qoyimah (2016) and Setyowati (2016).

#### 4.5.2. Legislative Size

Based on the results of the hypothesis test, the value of sig. legislative size variable (LEG) is 0.427. This indicates that the legislative size (LEG) has no significant effect on the level of disclosure of provincial government financial statements in Indonesia, so the second hypothesis (H2) is not supported. The results of this study indicate that the number of legislative members of a provincial government will not affect the level of disclosure of the provincial government's financial statements. The results of this study show different results from research conducted by Setyaningrum & Syafitri (2012) and research conducted by Marliani et al. (2018).

#### 4.5.3. Deviation Level

Based on the results of hypothesis testing, it can be seen in the table of sig values. Variable Deviation Level (DEV) obtained is 0.179, with significance level = 0.05 (5%). This shows that the level of deviation (DEV) has no effect on the level of disclosure of provincial government financial statements in Indonesia. Thus H3 is not supported. In accordance with the signaling theory in which a provincial government will give a signal to users of financial statements by providing complete information

disclosure without being affected by the large or small level of deviation that occurs in the province. It is possible that the recommendations and corrections given by the State Audit Board (BPK) as an effort to increase financial statement disclosure have not been fully followed up properly.

The results of this study are also in line with research conducted by Priharjanto & Wardani (2017). In this study, Priharjanto & Wardani (2017) stated that the level of deviation had no significant effect on the level of disclosure of the provincial government's financial statements. While the research conducted by Hilmi & Martani (2016) showed different results from the results of this study.

#### **4.5.4. Dependency Level**

Based on the results of hypothesis testing, the significance value of the dependency level variable (DEPEND) was 0.157. This shows that the dependency level variable (DEPEND) has no effect on the level of disclosure of provincial government financial statements in Indonesia. Thus the fourth hypothesis (H4) is not supported. In this study, it can be concluded that the amount of transfer funds obtained by a provincial government from the central government does not affect the disclosure of the provincial government's financial statements. This is probably because the central government does not require the disclosure of provincial government financial statements. The results of this study are supported by research conducted by Hilmi & Martani (2016) and Priharjanto & Wardani (2017) which states that the level of dependence does not affect the level of disclosure of the provincial government's financial statements.

## **5. CONCLUSION**

### **5.1. Conclusion**

From the research conducted, it can be concluded that the Human Development Index has positive effect on the level of disclosure of provincial government financial statements in Indonesia. Meanwhile, the legislative size, the level of deviation and the level of dependence have no effect on the level of disclosure of the financial statements of the provincial government in Indonesia.

### **5.2. Limitations and Suggestions**

Based on the results of the coefficient of determination (R<sup>2</sup>), the Adjusted R-Square value is 0.10. This shows that the variables of the human development index, legislative size, level of deviation and level of dependence only have an effect of 10% on the level of disclosure of provincial government financial statements in Indonesia. For further research, it is hoped that other variables other than the variables used in this study will be used.

### **5.3. Implication**

The results showed that the human development index (HDI) variable had a positive effect on the level of disclosure of provincial government financial statements in Indonesia. Based on the results of the study, the highest HDI with a score of 80.47 and the lowest HDI with a score of 58.05. The relatively large difference in scores between the highest and lowest HDI is expected to encourage the government to equalize development in Indonesia.

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## Forensic Accounting in Tracing the Proceeds of Crime in the Indonesian FIU

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### ABSTRACT

The development of technology advances criminals in modifying their strategies from simple to sophisticated ones. As a response to such modern tactics, there is a greater need to improve the ways of combating crime by law enforcement. The Indonesian Financial Intelligence Unit (FIU) plays a vital role in improving the crime prevention and eradication scheme by applying the financial intelligence approach in tracing the proceeds of crime. However, the current issue that emerged regarding this approach is how effective law enforcement has utilised the information to support the investigation process. This study delineates to what extent the application of strategy in tracing crime proceeds through forensic accounting method. To address the question, this study applies a case study approach to explore the content of the analysis report in which support the investigation undertaken by law enforcement, including the implementation of the 'follow the money' concept, the observation on linkages among persons of interests and the analysis of time frame. Thus, this study shows the importance of forensic accounting techniques in the process of exploring the criminal database and resulting in high-quality intelligence reports to disseminate to respective law enforcement agencies.

**Keywords:** Forensic accounting, fraud, follow the money, proceeds of crime, financial intelligence unit

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### 1. INTRODUCTION

The development of technology makes people easier to conduct financial transaction globally. These conveniences make people more comfortable to carry out financial transaction which are come from legal money as well as illegal money (Jung & Lee, 2017). Based on research conducted by ACFE regarding fraud crimes in 2020, as many as 53% of the methods used by criminals to hide their crimes were to alter or create electronic documents (ACFE, 2020). Not all fraud crimes can be prevented, even in the most secure companies, the system still has the possibility of fraud committed by employees. Furthermore, by understanding what methods fraudsters use to conceal their crimes, companies can effectively detect and prevent similar fraud schemes in the future (ACFE, 2020).

The Financial Intelligence Unit (FIU) as vocal point to preventing and eradicating money laundering crimes, recorded that the number of LTKM received by the FIU tends to increase. In addition to receiving reports from the reporting parties, the FIU also analysing the reports to produce intelligence report, such as Analysis Result (AR). The AR is an independent, objective, and professional analysis which will be sent and followed up to the next stage in the form of an examination or submitted directly to the relevant investigator. The analysis process by the Indonesian FIU can be carried out proactively or upon request (inquiry) through tactical analysis and operational analysis. The analysis itself is a process of gathering information and identifying reports and information on financial transactions with indications of money laundering and other criminal acts (FIU, 2013). The following are a graph of the development of the number of STR received by FIU and a table the level of follow-up AR by investigators from year to year:

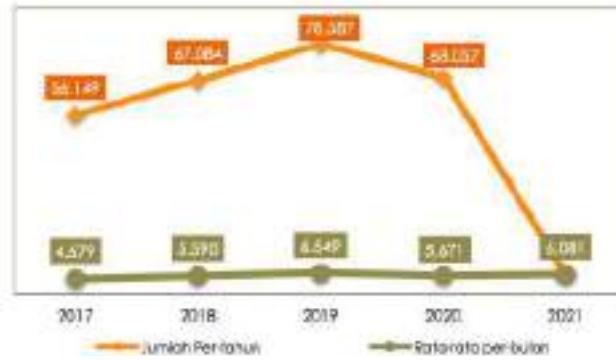


Figure 1. The Number of LTKM per Year

Source: FIU (2021)

Table 1. Follow-up Level of Inquiry Analysis Result

Years	Inquiry			Proactive		
	Total	Followed Up	%	Total	Followed Up	%
2015	244	117	47,95%	112	29	25,89%
2016	332	193	58,13%	105	53	50,48%
2017	280	95	33,93%	132	41	31,06%
2018	335	114	34,03%	163	41	25,15%
2019	437	129	29,52%	195	41	21,03%
Grand Total	1.628	648	39,80%	707	205	29,00%

Source: FIU (2021)

Based on table 1, it is known that the level of follow-up AR submitted by the FIU to investigators is still quite low. However, inquiry for information from investigators on AR from year to year tend to increase, this can be seen in Table 1 which states that the number of Inquiry AR from year to year continues to increase and the highest demand was in 2019 as many as 437 AR. In addition, the results of the proactive analysis from the FIU have an average follow-up of 29%. It becomes a problem faced by the FIU, why the results of the analysis they convey are not followed up by the investigators. Thus, this research is expected to provide input to the Indonesian FIU regarding the strategy to increasing the effectivity of AR by law enforcement to support the investigation process.

## 2. LITERATURE REVIEW

### 2.1 Financial Crime

Financial crimes can occur independently or can also involve other types of crime, it can be financial crimes or non-financial crimes (Jung & Lee, 2017). The definition of a financial crime varies depending on the jurisdiction and context, but the IMF states that a financial crime is a non-violent crime that results in financial loss. One type of financial crime is financial fraud (IMF, 2001). In the other hand, The Association of Certified Fraud Examiners (ACFE) categorizes fraud with the term "fraud tree", namely corruption, misappropriation of assets, and fraud in financial statements (ACFE, 2020). In committing fraud, the motive is to get money, for himself, or for someone else, or for the organization. Even if the perpetrator tries to give the impression that he is not involved, there must be a flow of money or funds to the final destination (Tuannakotta, 2010)

### 2.2 Forensic Accounting

Briefly, the definition of forensic accounting is the use of accounting for legal purposes. Extensively, forensic accounting is the act of identifying, recording, resolving, extracting, sorting, reporting, and verifying past financial data or other accounting activities to resolve current or future legal disputes or using such past financial data to project financial data in resolving legal disputes (Crumbley, Heitger, & Smith, 2015).

Forensic accounting is broader in scope than fraud examination, which includes matters related to assessing the assets of a divorce, determining the value of a loss experienced by the property business, and calculating profit and loss (Tuannakotta, 2010). As a profession, forensic accountants always work in a legal environment, therefore forensic accountants must have knowledge and understanding of the legal system in a country (Hopwood, Leiner, & Young, 2008). In Indonesia, a series of forensic accounting is carried out in several agencies, namely the Supreme Audit Agency (BPK) as the government auditor, Financial and Development Supervisory Agency (BPKP) as the government's internal supervisor, court institutions, law enforcement, and the FIU. The FIU is an important institution for revealing the perpetrators by tracing financial transactions from various sources without having to prove the origin crime. The following are some forensic accounting techniques that can be used in tracing the proceeds of crime (Crumbley et al., 2015):

1. Timeline analysis  
Can be used to show the chronology of a difference or dispute from start to time target. Timeline analysis helps forensic accountants communicate the events in the case as well as summarize them.
2. Tracing schedule  
Can be used to show the flow of funds from bank to bank, from bank to entity, from one entity to another, or from person to person.
3. Link analysis  
Analysis that shows linkages among persons of interests and data.
4. Net worth method  
Net worth method is an indirect calculation of a person's wealth based on their tax reports.
5. Evidence based research

This approach helps companies detect and prevent fraud by using sophisticated tools to analyse and visualize the linking patterns and showing the relationship between the entities who committed the fraud and also gathering information from external and internal database.

Forensic accounting also provide support for litigation and investigative processes in detecting modern frauds such as embezzlement, financial crimes, and money laundering. Several studies have proven that forensic accounting can effectively detect and prevent fraud, especially in the public sector (Hussein, 2020)

### **2.3 Previous Research**

In previous research, it is known that forensic accounting can be applied and can be effectively used as a function to prevent fraud (Wuysang, Nangoi, & Pontoh, 2016). Firman Rizki, Purnamasari, & Lestira Oktaroza (2017) also said forensic accounting and investigative auditing have a positive effect in detecting white-collar crimes. However, based on the table 1 and 2, the follow-up to the results of the Analysis Report is still quite low. Hasani (2015) in his research also stated that the intelligence analysis conducted by the Indonesian FIU failed. One of the reasons for this failure was the incomplete content of the Analysis Results, such as the profile of the party suspected of committing a criminal act was unclear and the indications of the crime were not well defined. Thus, this study aims to see how the application of forensic accounting methods and techniques in tracing the proceeds of crime at the FIU.

### **3. METHOD**

In this study, the case study is one of the methods which can be used to identify and understand the application of forensic accounting in more depth in Indonesia FIU. A case study is a study of the specificity and complexity of a case, which comes from understanding its activities under important conditions (Stake, 1995). Unlike other research methods, case studies do not yet have a standard catalogue in designing a case study (Yin, 2018).

After getting 24 AR which cases have been followed up by the investigators into permanent legal force in 2015-2020 period, these cases will be observed to see the analytical techniques used by analysts in compiling the results of the analysis. Before the observation, researcher will confirm all 24 AR into Supreme Court website to find the legal force document. And we find out there are only 12 AR which cases have permanent legal force. Then, interviews were conducted with 12 analysts who produced the AR to confirm the use of these analytical techniques and ensure that the results of the analysis were proactive.

The data analysis technique used in this study is pattern matching where the matching process will focus on the application of forensic accounting. The pattern matching technique is one of the most widely used



techniques in case study analysis. In addition, if the case study is descriptive, pattern matching is still relevant, as long as the descriptive predictive pattern has been determined before data collection is carried out (Yin, 2018). The analytical techniques used in those AR will later be clustered into 4 group (timeline analysis, tracing schedule, link analysis, and net worth method) by the similarities output of the analysis technique with those forensic accounting techniques. This analysis using Microsoft Excel as a tool to conduct pattern matching analysis.

#### **4. RESULT AND DISCUSSION**

The analysis conducted by the FIU consists of 2 types, proactive and inquiry analysis. Proactive analysis is an analysis triggered by reports that received by the FIU that is Suspicious Transaction Report (STR), Cross-Border Cash Carrying Report (CBCC), whistleblowing, or based on public interest (public concern) as directed by the Head of FIU. The reports will be received by the system and distributed to the Analysts. In the other side, reactive analysis is prepared based on an inquiry letter from the requesting parties or FIU of other countries. In this research, AR proactive will be examine as an origin product of FIU.

In conducting the analysis, the FIU has had an Analysis Technique Manual (ATM) which can be used by the analyst as a guide for conducting the analysis. The ATM consist of template of AR, template of correspondence letter, an explanation of the stages of how financial transaction analysis is carried out, as well as the types of databases and tools that Analysts can use to support the analysis process. Based on ATM, the following is the analysis process carried out by the Analysts:

1. Data processing is the main activity of the analyst in compiling the results of the analysis. It includes profiling, exploring related financial product, exploring the owner of the asset, exploring the sources and purposes of using funds, and matching the profile with the transaction.
2. Field research are activities in the form of coordination, retrieval, validation, clarification, confirmation and/or verification of data that are carried out directly to the reporting party (bank or non-bank). These activities are carried out in the context of accelerating the fulfilment of information, the case has a high level of urgency, or the case being handled is a complex case that requires intensive coordination with the reporting parties.
3. Conclusions are drawn when indications of a criminal act have been identified by the Analyst.
4. Temporary partially/fully suspension transaction recommendation. If the Analyst finds a pattern that is very significant and requires a partially/fully suspension of the financial transaction, the Analyst will make a recommendation to the reporting party to suspense the financial transaction.
5. Interception recommendation. Based on Article 44 paragraph (1) letter h of the Money Laundering Law, the FIU can also provide recommendations to law enforcement officials to conduct interception. The recommendation is based on the results of the analysis which clearly states that a criminal act will or is taking place.
6. Freezing recommendation. Analysts can provide recommendations for freezing account related to funds suspected of being linked to terrorism financing.

Twelve AR have been analysed using pattern matching to see the application of forensic accounting techniques. From this analysis, we categorize techniques analysis based on the similarities output with timeline analysis, tracing schedule, link analysis, and net worth method. The result says that 100% AR are using follow the money, 50% using link analysis, and 33% using timeline analysis. Obviously, follow the money is a technique that has been commonly used by analysts in tracing the proceeds of crime as well as link analysis. The analyst also makes a visualization of the scheme of the flow of funds from one entity to another by using software such as I2 or Microsoft Visio. With this visualization, the recipient of AR can easily understand the flow of funds and the linkage. Another technique is timeline analysis that turns out some analysts are familiar with and use this technique. It is used as an explanation of the time span of the occurrence of suspicious transactions and then compared with the profile of the perpetrator at certain time. Thus, they can see any peculiarity in behaviour at certain periods.

Net worth method is the only forensic accounting technique that is not used. Actually, by using net worth method, analysts can see taxpayers' total assets or total expenses that have exceeded the total income based on their tax report (Eisenberg, 2018). Yet, the net worth method becomes a difficult technique to use when the access of taxation database is limited.

Based on the interviews, it is known that there are 6 analysts who do not know or have never studied forensic accounting. The six analysts carried out the analysis in accordance with existing procedures and according to their experiences. While the other 6 analysts, they know forensic accounting but do not explore the techniques in the analysis process. Moreover, the average length of work for the analysts is 3.42 years. The length of time the analyst works does not affect the application forensic accounting techniques used in the analysis process.

## 5. CONCLUSION

The FIU has an ATM as a guidance for analysts in conducting analysis and compiling AR. ATM also includes a general analysis process so the analysts can easily understand and follow the steps. Based on research, it is known that follow the money is a forensic accounting technique that has been used and understood by analysts in compiling the results of the analysis. This also apply for link analysis and timeline analysis. Although in ATM there is no explanation regarding the use of forensic accounting techniques, it turns out that in practice the analyst has applied forensic accounting techniques.

In addition, 6 of the 12 Analysts interviewed did not know and did not understand Forensic Accounting. Thus, the use of forensic accounting techniques is not used properly or optimally. In fact, forensic accounting techniques are an effective technique used in preventing fraud (Wuysang et al., 2016). To increase the follow-up rate of the proactive AR, the FIU should use forensic accounting techniques by utilizing the data they have so that the analysis results produced can be more targeted and sharper. Things that can be added include:

1. Completing ATM with the explanation of accounting forensic techniques.
2. Provide adequate training to analysts on forensic accounting techniques.

This study does not include the results of a proactive analysis that is not followed up by law enforcement, so the causes of the low follow-up rate cannot be explored in depth. In addition, further research can also involve law enforcers to be able to see the other side of why the results of the AR of the FIU are of low value.

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## Managing and reporting of Shari'ah Non-Compliant Income in Malaysian Islamic banks: The bank's key functions perspective

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### ABSTRACT

The Shari'ah compliance and governance framework is essential to guide the banks on the regulatory requirement hence supports the growth and development in the Islamic Financial Institution (IFI). As stated under Section 28(1) and Section 28(3) of the Islamic Financial Services Act 2013 (IFSA 2013), IFI is compulsory to comply with the Shari'ah principles at all times in all of their activities, besides managing and reporting the Shari'ah Non-Compliance (SNC) incidents. One of the examples of SNC incidents is Shari'ah Non-Compliant Income (SNCI), an unblessed income that should be de-recognized from the bank's income. This study was embarked to explore SNCI besides investigating the end-to-end process of managing and reporting SNCI in Malaysian Islamic banks (IBs). Therefore, in-depth interviews were conducted with the bank's control functions which comprised of the Shari'ah Risk Management (SRM) and Shari'ah Review (SR), assisted by the Shari'ah Research & Advisory (SRA) of ten IBs licensed by Bank Negara Malaysia (BNM). The output from the interviews was recorded verbatim and transcribed before The Six Phases of Reflexive Thematic Analysis was applied to develop an understanding of the patterned meaning across the datasets, eased by Atlas.ti software. From the feedback of the key functions, it was found that the people are the main factor that contributes to the occurrence of SNCI in Malaysian IBs, with similar practices of managing and reporting SNCI in ten IBs. However, there is a slight difference in purification and disposal of SNCI between IBs due to there is no clear guideline by the regulator. This study believed with the infused of prudence to the Stewardship Theory would better explain the end-to-end process of managing and reporting of SNCI in Malaysian IBs. It should be inculcated into the guideline of best practice of managing and reporting SNCI in Malaysian Islamic banks to benefit the industry, the policymaker, and the multiple stakeholders.

**Keywords:** Shari'ah Non-Complaint Income; financial reporting; Islamic banks; The Six Phases of Reflexive Thematic Analysis

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### 1. INTRODUCTION

Due to a dire study on the end-to-end process of managing and reporting Shari'ah Non-Compliant Income (SNCI) incidents in Islamic banks, a basic study is conducted to generate more knowledge and understanding on the incident. Although the term and the incident are not new to the bankers, the findings of this research are believed to be value-added knowledge and impart the understanding of the multiple users and stakeholders on financial reporting of Islamic banking institutions (IBIs) in Malaysia. SNCI can be defined as any earnings derived from any event, contract and, product, or alike that prohibits the principles of Shari'ah and should be de-recognized from the bank income (Johari et al., 2021). It is the outcomes of SNCR that arise from whether (1) the contract contains some elements of interest, gambling, or uncertainty; (2) the area of the formulation and implementation mechanism of the product prone to Shari'ah non-compliance risk, or (3) the process of the structured product is not implemented as advised by the board (Hassan et al., 2017). Therefore, the bank's key functions are required to manage and report the incidents to fulfill the requirement by the regulator, the Bank Negara

Malaysia (BNM). This paper purports to investigate the managing and reporting of SNCI in Malaysian Islamic banks from the bank's key functions perspective that was obtained through the in-depth interview with the personnel in the control functions and Shari'ah Research and Advisory of ten IBs.

### **1.1 Research Objectives**

To obtain a better understanding of the issue of SNCI a review of relevant literature on SNCI was undertaken, followed by a literature review on issues in managing and reporting SNCI. The research objectives of this study were developed based on Section 28 (3) of IFSA 2013 that emphasizes on Islamic bank (IB) to carry on their business, affair, or activity in a manner that complies with Shari'ah or the advice of its Shari'ah committee or the advice or ruling of the Shari'ah Advisory Council. This study purports; (1) to understand the occurrence of SNCI incidents in Malaysian Islamic banks, (2) to explore the current practices in managing and reporting of SNCI by relevant key functions in Malaysian Islamic banks and, (3) to investigate the current process in rectification, purification, and disposal of SNCI by Malaysian Islamic banks. These objectives were achieved through a multiple-case study to be more compelling and robust than a single study (Stake 1995; Yin 2014).

## **2. LITERATURE REVIEW**

Most of the studies on SNCI were concerned with the transparency and disclosure of SNCI in the bank's annual financial statements (Mat Nor & Sawari, 2020; Masruki et al., 2020a; 2020b; Shafiai & Engku Ali, 2019; Puneri et al., 2019, Rosman et al., 2017). Few studied the shortcomings in the practice of the SNCI treatment (Abdul Ghani, 2019; Omar & Hassan, 2019), especially with the absence of clear regulatory guidelines on SNC incidents or matters (Hanefah et al., 2020; Kamaruddin et al., 2020). On the other hand, some other researchers were investigating obscure guidelines on the purification of SNCI (Hanefah et al., 2020; Yunus et al., 2017). The managing of SNCI transactions and reporting became the central issues of past studies. In this regard, the Stewardship theory is believed to be relevant in the end-to-end process of managing and reporting the SNCI to fulfill the objectives of the bank while satisfying the needs of managers (Chiang et al., 2015). It was observed that the pillars in the theory are jointly related to Shari'ah governance, namely accountability, transparency and disclosure, competence, confidentiality, and independence (Obid & Naysary, 2014; Abas, 2017). The theory and its pillars are believed to best explaining the issue of Shari'ah governance particularly in managing and reporting the SNCI of Malaysian IBs. Thus, this study is embarked to fulfill the gaps in the end-to-end process of managing and reporting the SNCI, including its disposal in Malaysian Islamic banks.

## **3. RESEARCH METHODOLOGY**

This paper incorporates the element of the qualitative approach that focuses on the practice of managing and reporting SNCI. This was obtained from the in-depth interviews with the bank's key functions of ten IBs in Malaysia. A multiple-case study design was applied as opposed to a single-case study design due to the multiple-case studies were argued to be more convincing and lead to robust studies (Creswell, 2018; Yin 2014; 2018). By having more than one category of IBs, the researcher can compare the practices of managing and reporting of SNCI by the bank's key functions from different types of IB from a total of ten IBs. It is impossible to achieve if a single case study is applied in which it is evident that multiple-case studies were argued to be more compelling thus, created robust studies (Stake 1995; Yin 2014). In this study, the data was derived from the three categories of IBs; full-fledged Islamic banks (FFIB), Islamic banks subsidiary (IBS), and Development Financial Institutions (DFIs). The research samples for this multiple case study were selected based on the purposive sampling strategy (Md Noor, 2009) whereby only the control functions and Shari'ah Research and Advisory (SRA) were chosen. These control functions comprised of the Shari'ah Review (SR) and Shari'ah Risk Management (SRM) in IB who are directly involved with the managing and reporting of SNCI assisted by the SRA. All the data collected from the in-depth interviews were recorded verbatim and subsequently transcribed and analyzed using a Computer Assisted Qualitative Data Analysis Software (CAQDAS) software, Atlas.ti. 8.6. The data were coded and themed using The Six Phases of Reflexive Thematic Analysis by Braun et al. (2018), a comprehensive method of capturing patterns ("themes") across qualitative datasets, eased by Atlas.ti software. Cohen Kappa test and triangulation of methods were conducted to attain reliability and validity on the themes developed.

## 4. RESULTS AND DISCUSSION

### 4.1 Occurrence of SNCI incidents in Malaysian Islamic banks

The bank's key functions claimed that SNCI could emerge from certain products or services provided by the bank, but mostly from contracts due to invalid *aqad*. It is found that the main causal factor of SNCI is contract-related matters due to human intervention. The findings are in line with the study by Hassan et al. (2017) and, Internationalbankers (2017) that found the main causal factors to the occurrence of non-compliance events are people, process, and system. Out of four root causes or causal factors determined by IFSB, the people factor or human intervention is the core causal factor to SNCI, followed by the process and the system. However, in a certain case, it could also emerge beyond product and contract, for instance, due to wrongness in the marketing material for instance brochure, leaflet and so forth. Hence, it could impact the bank financially and non-financially which could damage the bank's reputation. The feedback from the bank's key functions on the causal factors of SNCI shows in Table 1 below:

Table 1  
The Main Causal Factors of SNCI in Malaysian Islamic Banks

Name of IB	Types of IB	Causal Factor(s)
IB01	FFIB	People, System
IB02	IBS	People, Process
IB03	IBS	People
IB04	IBS	People, System
IB05	DFI	People, Process, System
IB06	IBS	People
IB07	FFIB	People, Process
IB08	IBS	People
IB09	IBS	People, Process
IB10	FFIB	People

### 4.2 Current practices in managing and reporting of SNCI by relevant key functions in Malaysian Islamic banks

Generally, SNCI can be detected either from the ongoing process of review exercises by the Shari'ah Review (SR) or after the auditing process by the audit team. This ordinary process is executed by the control functions to ensure that IBs are complying with the Shari'ah principle in their overall operations. The SR and Shari'ah Audit (SA) have to work together to 'smell' or detect such breaches of SNC incidents. One thing to take note, the review and audit plan carried out by the SR and SA does not mean solely to detect SNC incidents, but it is rather a normal process in IB as an assurance and compliance to the Shari'ah principles. Besides the detection by the SR and SA from their ordinary review and audit plan, all business units are also accountable to do a self-check and detection of such SNC issues before they deliberated to the SRM for further investigation. Then, deliveries to the Shari'ah Committee (SC) are executed through an internal reporting mechanism for deliberation and approval. In most IBs, SRM is the custody of SNC incidents but in some other IBs (IB02 and IB04), it is under the custody of SRA. One of the bank's key functions responded that:

*"Managing the SNCE and SNCI is under the custody of SRM." (R1IB01)*

In which, the end-to-end process of managing the SNCI originates from the identification or detection of SNC incidents up to the disposal of SNCI, either it is distributable for charitable purposes or refunds

to the rightful customers. Each process has to comply with the SOP or a bank’s self-regulated policy and regulatory requirement. As mentioned by one of the respondents:

*“One of the crucial function of SRM roles and responsibility is to manage the SNCI from identification up to its disposal to charity.” (R11B05)*

The SRM and SC are responsible for deliberate SNC incidents through the Operational Risk Integrated Online Network (ORION) platform. This is to notify the BNM of such incidents together with the rectification plan. As revealed by one of the bank’s key functions:

*“Shari’ah risk (SRM) owns SNC event reporting to fulfill ORION...every process has its own SOP. So we follow the SOP.” (R11B10)*

The bank’s key functions are accountable to ensure the SNC incidents are prudently managed and reported for SC deliberations and blessed by the board. This end-to-end process of managing and reporting SNCI can be illustrated in Figure 1 in the next section.

#### 4.3 The current process in rectification, purification, and disposal of SNCI by Malaysian Islamic banks.

Section 28 (3) IFSA 2013 stipulates that when IFIs becomes aware that SNC event in any of its business or activity or any disregard towards the advice and ruling of Shari’ah committee (SC) or Shari’ah Advisory Council (SAC), they have to: (i) immediately notify its SC about the event, (ii) immediately notify BNM of the event; (iii) immediately stop the non-compliant act and cease from carrying on or, taking on any other similar business, affair or activity and, (iv) immediately come up with a rectification plan within 30 days after becoming aware of such non-compliance. Then, the bank must submit to the BNM their rectification plan on corrective and preventive action. One of the bank’s key functions clarified that:

*“Rectification plan is how to rectify that thing (SNCs), we need to get approval from the board within 30 days and we have to update in ORION as well.” (R11B05)*

After such a rectification plan, the bank’s key functions will dispose of any actual SNCI for charity purposes. As revealed by another bank’s key function:

*“Rectification plan approved by Shari’ah Committee. From the rectification plan, there may be non-Shari’ah Income that will be channeled for charity.” (R11B10).*

Therefore, collective involvement of the bank’s key functions starts from the stage where SNC issues detection up to the rectification, purification, and disposal of SNCI for charitable purposes. The overall processes summarized in Figure 1 overleaf:



Figure 1 Role of Bank’s Key Functions in Rectification, Purification, and Disposal of SNCI

Generally, purification is a process undertaken after rectification. It involves a process of ‘cleansing’ the SNCI and must be excluded from the bank’s income. SNCI represents the financial SNC incidents in which the income requires not only corrective and preventive action but also purification of SNCI

for disposal. This SNCI should be disposed of for charitable purposes and approved by the SC. One of the bank's key functions alleged that:

*“After SC decided the potential SNC as an actual SNC, the product owner (business unit) will come out with a purification plan and amount to be purified. The finance function will handle on channeling of the purified amount.” (R1IB03)*

Another respondent added that:

*“The purification we split into two, (1) the principal goes back to the customer or we exchange (refund) to the customer, if the customer is expecting a profit, (2) we channel it to charity. It depends on the case.” (R2IB04)*

From the feedback of the respondents, purification is an important process to de-recognize SNCI from the income of the bank. Therefore, purification needs to be defined clearly to benefit the bank and multiple users. So that the users are aware IBs have prudently managed their SNCI until it is de-recognized from the income of the bank. It is also one of the ways of promoting accountability, transparency, and prudence exercised by the bank and their key functions to manage and report SNCI. The researcher believes that the purification strategy between IBs would be different as it is unregulated in the policy documents of the regulator. Therefore, the parameter and measures implementation for purification could vary between banks. These findings are consistent with Hanefah et al. (2020) who indicated that IFIs have established the purification account to manage SNCI. However, the real practice varies between IFIs.

## **5. CONCLUSION AND RECOMMENDATION**

The main causal factor of SNCI incidents to all IBs was the people factor. Negligence is the main causal factor of SNCI incidents followed by the process, the systems, or the external factors. It is learned from this study that most of the banks initiated an automation or technology intervention in their *aqad*. In this case, digitalization would be the best solution to the issue of human negligence. It is particularly relevant during a hard time of MCO due to the COVID-19 pandemic, where a less human touch is preferred. Abas (2017) indicated that the central element of Shari'ah governance is primarily and essentially the man, whether he is the director, the manager, the shareholder, the auditor, the stakeholder, or even the regulator. In this regard, qualified human resources or the personnel involved in IFIs' operations and activities requires specialized knowledge to perform their duties efficiently (Hanefah et al., 2020; Shafii et al., 2017; Omar & Hassan, 2019; Abdul Ghani, 2019). The detection of Shari'ah issues, developing parameters, internal regulation, making decisions related to SNC incidents on rectification, purification, and disposal of SNCI or any other matters concerning SNCR are crucial to control and mitigate such non-compliances in the bank. Most of the bank's key functions indicated that the toughest and challenging process of managing SNCI is the detection and decision-making process. It is due to every process has its timeline to fulfill, especially within the timeline stipulated in the ORION by BNM.

On the other hand, there is a slight variation in the implementation of SNCI purification between IBs. The study believed that purification parameters and measures should be regulated by the regulator to promote better accountability, transparency, and prudence in reporting the SNCI. Although the bank has set up its internal policies and standard operating procedures (SOPs) in the implementation of rectification and purification measures, SNCE and SNCI still occur. This information needs to be disclosed in the financial reporting of IB as required by the regulator. In which, financial reporting is evidence for the bank to be seen they are accountable, transparent, and prudent in complying with the Shari'ah principles and regulatory requirements. The bank is seen as more credible in the eyes of the multiple stakeholders, market players, and the public at large when accountability, transparency, and prudence are the guiding principles embraced by the bank in managing and reporting SNCI in Malaysian IBs. The importance of prudence and stewardship is also highlighted by the Quran in At-Taubah (Chapter 9) Verse 105 and Al-Qaf (Chapter 50) Verse 17-18:



*'And say "Do deeds! Allah will see your deeds, and (so will) His Messenger and the believers. And you will be brought back to the All-Knower of the unseen and the seen. Then He will inform you of what you used to do (Quran 9:105).*

*'(Remember) that the two receivers (recording angels) receive (each human being), one sitting on the right and one on the left.). Not a word does he (or she) utter but there is a watcher by him ready (to record it)' (Quran 50:17-18).*

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## Computational Thinking approach to Learning Data Science for Business School Students

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### ABSTRACT

Data science has been the top competency required for the 21<sup>st</sup> century. Huge attempts are in the making to provide the proficiencies as it is a highly sought-after career. Many approaches are being introduced to the learning of Data Science, not specific to technically driven computer science but also business school students. However, the existing approaches were commonly established from the adoption of data science designed for computer science learners. This may induce challenges and amplify the struggles for the non-technical students. This article is an effort to introduce a Computational Thinking approach to learning data science for business school students. The pillars for Computational Thinking are Decomposition, Pattern Recognition, Abstraction and Algorithms. Here, we explain the importance of Data Science for current and future jobs and demonstrate the approaches of Computational Thinking to Data Science Problems using its four pillars. Finally, we propose that computational thinking has a more natural-like thought process and is simpler for learners from a non-technical discipline due to the association of real-life practices linking with the four pillars of computational thinking. The future of the study will include experiments that investigate the data science learning style and the effectiveness of Computational thinking intervention among business school students.

**Keywords:** Data skills; Method; Non-computing students; literacy; 21<sup>st</sup>-century skillset; Learning.

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### 1.1 INTRODUCTION

The 4<sup>th</sup> Industrial Revolution era (WEF, 2020) stated that the demand for several skills related to Data Science (DS) is increasing. The DS job is perceived as meant for those who graduated in the field of computer science, information systems, information sciences or software engineering. The said disciplines may provide an advantage to the skills and competencies needed for DS, but it must be understood that DS is contributed also by many fields. Therefore, it is not a surprise for the Association to Advance Collegiate Schools of Business (AACSB) to add Data Analytics from 1<sup>st</sup> July 2019 in Uniform Certified Public Accountant (CPA) Examination Blueprint (2019) for Auditing and Attestation (AUD) and Business Environment and Concepts (BEC).

Pournaras (2017) argued that the highest challenge to learning DS is the ability to perform data processing and visualization. This involves the manual manipulation of data until automatically or at least semi-automatic, which certainly requires computational skills (Shute, Sun, Asbel-Clarke, 2017). Out of all the knowledge domain in DS, the challenge for business school and non-computing disciplines would be the technical or coding abilities (Pournaras, 2017). The ability to code has been argued to associate with the cognition or way a learner thinks, strategize and act. Therefore, Computational Thinking (CT) fits the position nicely. However, CT never limits only to coding or programming, but rather universal in nature (Nuar and Zaidi, 2019, Wing, 2006). CT is broader than computer science, which can be integrated with the daily activities and problems faced (NRC, 2010; Wing, 2006). Thus, several terms from CT concepts or pillars such as decomposition, abstraction, pattern recognition, algorithm are introduced (Lu and Fletcher, 2009).

In this article, we attempt to introduce the Computational Thinking approach for the learning of data science. CT establishes a more natural-like thought process and is simpler for learners from a non-technical discipline due to the association of real-life practices with CT.

## 2. Importance of Learning Data Science and its highly demanded Competencies

The term, “Data is the new Oil”, brought significant impact to the learning and research of DS (Bichler et al., 2017) and even the preparation of computer science graduates to catch up (Jean, et al., 2021). But the fundamental stays the same, where expectations when dealing with data by business and management students involve data input/entry, analysis, interpretation, discussion and finally recommendations. This is quite similar to the processes practised in DS. Except in DS, more computational assistance is necessary, particularly with the huge volume, high velocity, variety and veracity of the datasets. Van der Aalst (2016) defined DS as stated here.

*“Data science is an interdisciplinary field aiming to turn data into real value. Data may be structured or unstructured, big or small, static or streaming. The value may be provided in the form of predictions, automated decisions, models learned from data, or any type of data visualization delivering insights. Data science includes data extraction, data preparation, data exploration, data transformation, storage and retrieval, computing infrastructures, various types of mining and learning, presentation of explanations and predictions, and the exploitation of results taking into account ethical, social, legal, and business aspects” (Van der Aalst 2016).*

Another related point highlighted is by the Director of the Department of Statistic Malaysia (DOSM) during a Facebook Live session entitled *Penyelidikan PhD Berkualiti berpanduan data DOSM* (DOSM, 2021). He informed that many consultants are leveraging the data provided by DOSM and able to profit from it through high-value projects won by them. He advised that PhD students and PhD holders coming from universities and research institutions, should grasp the opportunity and compete with the consultants, therefore becoming competitive. This displays that DS skillsets are critical. Mine and Victoria (2021), argued that introducing a data science course early will help improve students interactivity with data and computational tools, this could increase the benefit for those within a statistical domain. This is good news for business students, as they have vast coverage of statistics content in their curriculum. Several DS essential skills are illustrated in Table 1. All the soft skills are currently available within the business students curriculum, plus the mathematics & statistics and real-world projects or case studies. However, the majority of the technological skills are yet to be embedded for business students to learn. Current Data Science (DS) approaches are designed and aimed at learners from the computing field. The design is developed for computing students or students who are exposed to programming courses and practice. This includes the use of open-source data, portals with highly relevant and timely data such as Kaggle, GitHub, and even DOSM.

Table 1. Data Science 10 Minimum Essential Skills (Benjamin, 2019).

<b>Technological Skills</b>	<b>Soft Skills</b>
<ul style="list-style-type: none"> <li>• Mathematics &amp; Statistics</li> <li>• Coding</li> <li>• Data Wrangling &amp; Preprocessing</li> <li>• Data Visualization</li> <li>• Machine Learning</li> <li>• Real-World Project</li> </ul>	<ul style="list-style-type: none"> <li>• Communication</li> <li>• Lifelong Learning</li> <li>• Team Player</li> <li>• Ethical</li> </ul>

## 3. INTEGRATING COMPUTATIONAL THINKING FOR DATA SCIENCE LEARNING

Much has been seen on the different kinds of thinking methods or approaches for learning and problem-solving. Here, we are only focusing on one thinking method called Computational Thinking (CT), which has gained much attention since its reintroduction by Jeanette Wing from Seymour Papert 1980 work (Wing, 2006, Lodi, 2021). The core idea in CT is the thought processes involved in formulating problems and expressing its solution which an agent (either machine or human) can effectively carry out (Cuny, Snyder, Wing, 2010) and it has been dubbed as a fundamental skill for the 21<sup>st</sup> Century and learnable by all regardless of disciplines (Nuar, Rozan, Bahari, 2021). The idea is by no means to

develop everyone as software engineers or computer scientists but rather is an essential skill demanded every day due to the closeness of humans with computers. This will be seen as the ability to harness their command of computing power (Shute, Sun, Asbel-Clarke, 2017). This skill can benefit everyone in any discipline, not only benefiting those majoring in the field of computer science (Wing, 2010, Nuar, Rozan, Bahari, 2021). As the Computational Thinking (CT) approach have been seen to be effective for all learners regardless of age and discipline, the integrated CT DS approaches outlined in this article may provide some advantage to learning Data Science. This serves as the basis for the integration.

Figure 1 is the similarities and differences between Computational Thinking and Mathematical Thinking. We can see here that the challenge faced by non-computing students in learning Data Science are in the concepts such as Simulation, Data Mining, and Programming that requires high activities of coding.



Figure 1: Similarities and differences between CT and mathematical thinking (Sneider et al. 2014).

### 3.1 Computational Thinking Pillars

The four main pillars or facets of a CT are Abstraction, Algorithm (Pipelining), Decomposition and Pattern Recognition (Hashing) (Wing, 2010). (David, John, Leslie, 2011) added that data organization and analysis, automation, efficiency, and generalization are also the pillars of CT. As a base for the discussion, only four pillars are selected, which is Decomposition, Algorithm, Pattern Recognition, Abstraction (Shute, Sun, Asbel-Clarke, 2017, Wing, 2010). The application of CT when approaching Data Science problems are logical, however, the impact is more on the way the thought processes are being handled by a learner. In this subsection, we will provide some demonstration on several facets in CT that could provide a better explanation of the processes. Any coding function illustrated as examples came from Python programming language Version 3.9.

### 3.2 Decomposition

The first and regularly used thought process is decomposition, which means breaking a complex problem into a manageable bite-sized problem. Once the bite-sized problems are solved, they may be put together and provide a solution to the original problem. In a DS problem, the complexity lies in the size of the dataset and the datatype included. The size may be too large, which would not allow any spreadsheet on a learner's machine to launch, such as MS Excel, and perform exploration on the dataset. By breaking it into several chunks, for example, activities such as how to access the data, how to view the first 50 records and how to know the datatype could be planned. This would help in identifying the kind of tool to use to access the data, such as in Python 3.9 using `df.head(100)` function that returns the first 100 rows of the record and using `type()` to check the data type for the variable.

### 3.3 Pattern Recognition

Recognizing patterns or pattern spotting is a highly important skill set for a data scientist. When decomposing the bigger problem, there are often observed similarities or shared characteristics among the problems. The learner often recognizes the patterns, which indicate outliers, similar or repeated problems, etc. The repeated problems may have shared similarities or shared differences. This is often taken as an opportunity to introduce repeated treatments or called looping or iterations, which solves identical problems occurring in several areas iteratively. This also applies to detecting outliers to address wrong expectations before providing suggestions to a solution, which are critically done in advance. The solution might be a data science model for example a machine learning model.

### 3.5 Abstraction

Abstraction is a process that performs information hiding of certain non-required characteristics or features so that we could focus on others. How a person sees a situation and expresses it, is normally related to the abstraction they could construct. A higher abstraction is due to more information hiding versus the lower abstraction that is more detailed and messy. The degree or the level of abstraction could be contributing to a different expectation of an observer. For example, if a learner explains every detail of a situation of a dataset, it is considered as lower-level abstraction, and if a learner explains with less detail but more general, is considered as a higher abstraction. If abstraction is not considered, the thought process will be clouded with too much information, which will overwhelm the learner and increases their vulnerability and struggle in handling the dataset. NumPy is a library for Python programming, and the use of NumPy as an abstraction tool is common in Python. It contributes to the data representation from models such as spreadsheets, images, audio, etc. Abstraction tools provide the convenience of not performing lower-level codings such as sorting, calculation in loops, and many more. So, the learner could focus on the problems at a higher level. The abstraction can also help the thought process to communicate either detailed ideas, which includes the nitty-gritty points or just simply convey the concept of the idea.

### 3.4 Algorithm

An algorithm is a step-by-step instruction of how to solve a problem. It identifies what should be done and the order of the execution. As for that, the algorithm that should be fulfilled by the learner should be organized step-by-step. Breaking down the task will create many tasks, which introduces a new problem. Which task among many needs to be prioritized and complete? The learner should be able to put in his mind the step on how data is treated; this involves exploring the data, knowing the number of records, the columns, the type of data- character, numerical, etc. Also, the learner should know how to identify missing data or empty cells. Before doing any analysis, these are the compulsory steps to perform. Even at this time, the relevant libraries or functions of the programming suite or the Integrated Development Environment (IDE) should be identified. Function such as `datasetname_df.shape`, `datasetname_df.info()` and `datasetname_df.describe()`, will assist in exploring, wrangling and providing an overview of the dataset. The learner will also operate together with the pillar of abstraction for a better understanding of the required steps and the relevant libraries and functions available. This will prevent overwhelming the learner with the vast list of libraries available for Python 3.9 IDE.

## 4. CONCLUSION AND FUTURE STUDY

With its highly demanded characteristics, data science requires very different learning approaches from the currently available learning targeted exclusively for computer scientists or programmers. This paper concludes that Computational Thinking can be beneficial to a learner that is approaching a Data Science challenge. The advantage of having a proper thought process will contribute to the skillset and generate better actions for the learner. Here, the natural-like thought processes can be simpler for learners from a non-technical discipline, as they could connect to their real-life activities using decomposition, algorithm, pattern recognition and abstraction. As CT and DS are both highly required skillsets for the 21<sup>st</sup> century, going deeper into its integration, applications and assessing its effectiveness is promising. On the other hand, the measurement of the effectiveness of CT intervention has yet to be established. The next phase of the research will investigate the learning style of business school students when approaching data science problems and measuring the effectiveness of practically applying CT as an intervention to their data science learning challenge.

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Thinking & Computer Science (CTCS) National Trainer appointed by Malaysia Digital Economy Corporation (MDEC) since 2016.

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## Reputation Management Analysis through Company's Disclosure : A Case Study of Clinical Laboratory Company in Indonesia

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### ABSTRACT

In Indonesia, there has been only one clinical laboratory company that has gone public, but this company's stock price has fallen and never returned to its IPO price. This study aims to know how the company manage their reputation pre and post IPO through their company's disclosure. To determine the focus of the company's disclosure and to find out if the company's disclosure, this study using case study approach by conducting content analysis and thematic analysis on the company prospectus and company annual reports from 2016 to 2020. The result shows that the company's disclosure in their prospectus are more focused on their services quality to promote the services they provide and their strategy in the future. While analyzing the realization of their strategy, the company mostly cannot realize their strategy, so to maintain their reputation, in the annual report the company disclosure are more focused on their management quality and their financial performance. In the future this study is expected to be used as a way to see how companies manage their reputation after their conduct IPO.

**Keywords:** content analysis; corporate reputation; disclosure measurement; pre and post IPO; thematic analysis.

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### 1. INTRODUCTION

IPO can be used to increase capital for the expansion of the company's operations, increase liquidity for shareholders, improve the company's reputation and create a valuable currency, namely shares, which can be used to make acquisitions and compensate employees (Draho, 2004; Röell, 1996). In 2019, out of 668 companies listed on the Indonesia Stock Exchange there was only one clinical laboratory company that has conducted an IPO. Explained by the company's prospectus, the company that was founded in 1988 is an industry pioneer and leader of the leading private independent clinical laboratory chain in Indonesia, and the number of clinical laboratories owned by this company is also the largest in Indonesia. To increase its company's expansion, this company finally officially conducted an IPO on December 7, 2016, but until 2020 the company's share price had never returned to its initial offering price. This phenomenon is inversely proportional to the clinical laboratory company in India which conducted an IPO in 2015, where its share price has increased. In addition, when compared with the company's own performance, after conducting an IPO, the profit margin of this company has increased quite well and every year the company is able to maintain its performance.

Based on the explanation above, it can be seen that there is a gap between market expectations and company expectations. Company's reputation is a valid signal for stakeholders, because if a company does not act as it should, which is in accordance with its company's reputation, then the company can lose the capital that has been raised by the company (Pérez-Cornejo et al., 2019). Health organizations are mainly customer oriented, thus, the service quality, communication and trust are the key concepts of corporate reputation (Şatır, 2006). According to (Gray & Balmer, 1998) corporate communication is an important link between corporate identity and reputation, which includes all communications made by the company to convey information to various corporate stakeholders which in turn can affect the company's image and reputation.



Therefore, this study using case study method to analyze how the company manages its reputation after conducting the IPO through information that has been carried out by the company through its annual report. This study also wants to see how the pattern of information carried out by the company when compared to the company's financial performance. Content analysis conducted to analyze company's prospectus and annual report from 2016 until 2020. This study is expected to be used as a way to analyze the companies whose stock price has never returned to its IPO price.

## 2. METHODOLOGY

This study is a case study where according to Sekaran & Bougie (2010) case study focuses on gathering information about objects, events, or specific activities, such as business units or organization. Case studies generally describe one of the following three scenarios, (1) the need to make important decisions and potentially persuade other parties to accept these decisions, (2) the need to carry out an in-depth evaluation that outlines the pros and cons or strengths and the weakness of the case subject and (3) the need to carry out a comprehensive problem diagnosis that identifies the root cause of the problem described in the case (Ellet, 2018). Therefore, the case study conducted in this research is a case study which aims to diagnose the problems that occur in the company. The data used in this research are qualitative and quantitative data which will then be used for analysis and interpretation.

To analyze the causes of this problem, the data used in this study were secondary data which was carried out such as company's prospectus, company's annual reports 2016 -2020 and other information related to research through the internet media. The analytical method used in this research is the content analysis method. Content analysis can be defined as a part of a procedure for studying the content of written or transcribed text that allows researchers to enter large amounts of textual information and systematically by identifying its properties such as the frequency of the most frequently used keywords (Klenke, 2016). Castilla-Polo & Ruiz-Rodríguez (2017) also states that content analysis can be considered as a technique for analyzing communication, describing its content, and making reports regarding its effects.

The first stage in this session is to see what words are most often used by companies in the prospectus and annual report 2016-2020 by using the NVIVO-12. According to Bebbington et al. (2008) there are several aspects that according to managers can be used by the public when assessing company's reputation : financial performance, management quality, corporate social responsibility performance, employee quality, and quality of goods or services provided. Therefore, in this study, this aspect is used as a benchmark in this study to see what information disclosures made by companies focus on what. The words chosen to represent aspects of the disclosure assessment are as follows.

Table 2.1 Selected Words for Disclosure Assessment

Aspects of Disclosure Assessment	Word Representative
Financial Performance	asset, debt, financial, growth, investment, market share, profit, return, value
Management Quality	accountable, compliance, control, fairness, governance, independent, performance, reputation, responsible, risk management, strategy, transparency
Corporate Social Responsibility Performance	community, CSR, donation, education, environment, health, responsibility, scholarship, social, sustainability
Employee Quality	training, career, coaching, competency, employee, talent
Service Quality	check-up, customer satisfaction, examination, laboratory , quality, service, test

The next stage is comparing whether the business strategy presented in the prospectus has been carried out properly or not.

### 3. RESULT

Table 3.1 Percentage of Aspect Assessment Disclosure in Prospectus and Annual Report

Aspects of Disclosure Assessment	Prospectus		2016		2017		2018		2019		2020	
	Word count	%	Word count	%	Word count	%	Word count	%	Word count	%	Word count	%
Financial Performance	3.212	37	1.413	35	1.237	24	1.570	32	1.740	25	1.875	28
Management Quality	1.337	15	1.209	30	1.830	35	1.424	29	2.306	33	2.171	32
CSR Performance	471	5	513	13	798	15	580	12	1.347	19	927	14
Employee Quality	436	5	231	6	364	7	322	7	343	5	355	5
Service Quality	3.229	37	704	17	969	19	971	20	1.197	17	1.430	21
<b>Total</b>	<b>8.685</b>	<b>100</b>	<b>4.070</b>	<b>100</b>	<b>5.198</b>	<b>100</b>	<b>4.867</b>	<b>100</b>	<b>6.933</b>	<b>100</b>	<b>6.758</b>	<b>100</b>

Using the framework from Bebbington et al. (2008), disclosures made by companies when they are about to conduct an IPO, through their prospectuses, companies emphasize the quality of the services they offer by emphasizing laboratory services and customer satisfaction, while for financial performance companies tend to repeat the use of the word stock. In 2016 the company still emphasized their financial performance and started to promote the quality of company management. In 2017, the company was more dominant in using elements of quality management where the company favored the company's ability to manage the company and its risks. In 2018 the company tends to emphasize the word finance and its value so that the financial performance aspect is superior to other aspects. In 2019 and 2020, the quality of management becomes the aspect that dominates corporate disclosure where the company again emphasizes the words management and risk and corporate governance.

From the analysis above, it can be seen clearly, since the company conducted an IPO, the company tends to emphasize the company's management compared to other components. When associated with the concept of agency theory put forward by Colombo (2020), the company seems to want to convince investors and potential investors that the company is managed by quality management.

Table 3.2 Result of Analysis of Company Strategy Realization According to Prospectus

Corporate Strategy disclosed in prospectus	Realization of Corporate Strategy			
	2017	2018	2019	2020
1 Continue expand and grow the company's network of outlets in both existing and new markets in Indonesia.				
a Adding three regional reference laboratories, will be located in Medan, Makassar and Semarang	-	-	-	Makassar Medan
b Adding 33 additional clinical laboratories over the next five years	7	7	-1	0
c Adding 13 specialty clinics over the next five years	3	1	2	1
d Open up to 20 new POC collection centers per year	12	-2	-6	-19
e Open up to five new hospital laboratories per year	2	3	0	-2
2 Upgrade existing clinical laboratories to provide wider range of tests and services and increase volume.				
a Introduce new clinical laboratory tests	18	10	16	14
b Upgrade some of our clinical laboratories to PHC Clinics outlets	v	n/a	n/a	n/a
c Expanding up to 20 of company's existing clinical laboratories, including by relocating certain clinical laboratories to larger premises	13	n/a	n/a	n/a

3	Continue to enhance internal operating efficiency				
a	Open three more regional reference laboratories in the next few years	-	-	-	3
b	Implementing a vendor-managed inventory system and Improving productivity by upgrading our laboratory information systems	n/a	n/a	n/a	n/a
c	Upgrade the technology and equipment we employ in our laboratories	v	v	v	v
4	Providing quality diagnostic and related healthcare tests and services and attracting quality laboratory personnel				
a	Upgrade company's clinical laboratory testing equipment to improve efficiency and accuracy	v	v	v	v
b	Developing an online registration and payments portal for our customers	v	v	v	v
c	Continue close collaborations with 23 medical faculties and 54 other educational institutions to recruit the talent to support company's growth	30	30	35	38
5	Focus on the development of next-generation diagnostic technologies for precision medicine	v	v	v	v

When compared to the company's strategy for the next 5 years stated in the prospectus, until 2020, which is the fourth year since the company conducted an IPO, it was found that to expand the company's network, the company had not yet achieved the strategy that was presented and information about several company strategies and their realization was not disclosed in its Annual Report.

#### 4. CONCLUSION

After conducting several stages of analysis this study found that to manage its reputation, the company focused on their management quality to ensure the shareholder since the stockprice was declining. When the company were preparing to conduct an IPO, they tend to promote the quality of the their services in their prospectus, and when presenting the IPO fund management plan, it can be said that the company looks optimistic. The company's optimism about its future prospects affects the company's IPO share price. Since the company conducted IPO until 2020, the company was not able to optimally realize the IPO fund management plan, and the increase in company performance did not show a significant increase so in its annual report the company tended to emphasize the performance of the company's management compared to the quality of its services or its financial performance.

The implication of this study on company management is that the findings of this study are expected to provide management insights and reviews about the impact of information disclosure on the company's reputation which in this study is measured by the company's stock price. When companies reveal more about what services they offer and how they plan to develop their services in the future, the company's stock price at the time of the IPO can be sold at a high price. However, when the company is not able to achieve the target that has been set, the company's information disclosure tends to focus more on the company's management, and this may be the reason why the company's stock price that previously fell could not increase significantly. In other words, indirectly from the investor's point of view, they have a positive view of the services offered by the company and the company's prospects in the future as well as the company's financial performance.

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## The Role of Board of Commissioners and Board of Directors Effectiveness to Reduce the Probability of Financial Distress in Financing Industry

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### ABSTRACT

This paper aims to see the effectiveness of two aspects from corporate governance structure, the board of commissioner (BOC) and the board of director (BOD) for predicting financial distress in the financial industry. Using a sample of 177 financing companies in Indonesia during the years of 2016-2020. In assessing the effectiveness two aspect from corporate governance, several questions were used to measure the implementation of governance on each sample. The measurement includes the board composition, competency and work activities. We found favor for the argument that the effectiveness corporate governance is beneficial for financing companies, as described in a reduced likelihood of financial distress. The result confirms that when the board of commissioners and board of directors implement good governance guidelines effectively, the possibility of the company experiencing financial difficulties will be lower, and vice versa. These results enrich previous research about corporate governance and the probability of financial distress, especially when data about corporate governance of financial companies in Indonesia is limited in public sources.

**Keywords:** board of commissioners effectiveness, board of directors effectiveness, financing industry

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### INTRODUCTION

A financing company is a business entity that distributes financing for goods or services in the form of investment financing, working capital financing, and multipurpose financing. The financing industry has total asset Rp456trillion as of December 2020 and a contribution of 22,86% for the people who are not bankable. In line with the development of the finance company industry, Financing Companies must carry out business activities based on Good Corporate Governance (GCG) principles since 2014 as required by the Indonesia Financial Services Authority regulation number 30 (OJK, 2014). This obligation expects to improve compliance with laws and regulations and Financing Companies' performance to minimize risk exposure due to the business environment's dynamic. However, during the last five years the Financial Services Authority has enforced compliance by imposing sanctions and revoking business licenses due to several financing companies' cases, such as the Company's failure to pay its obligations to creditors and investors. The default condition indicates that some companies were not good at managing cash flow, and less attention to the implementation of GCG principles. (Publikasi OJK, 2020).

Several previous studies had shown that implementing good corporate governance can keep the Company away from financial distress and make business continuity longer and more robust (Fich, 2008). Furthermore, most of China's financial failures occurred due to the poor implementation of good corporate governance (Li, et al 2020). Based on the obligation to implement good corporate governance, the phenomenon of failure of financing companies, and the impact of financial distress on the stability of the financial services industry in Indonesia, this paper aims to examine the effectiveness of two aspects of corporate governance: supervision of the board of commissioner (BOC) and the board of director (BOD) to predict financial distress. This research expects to be a reference for management to monitor their company and regulator to monitor compliance and performance of finance companies

before financial distress occurs. Financial distress is a condition when there is a decline in financial performance in a company before finally heading for bankruptcy, the company experiences liquidity difficulties and has operating profit, net income, and a negative book value of equity (Ross, et al 2016). Factors that can cause financial distress include poor management, unsuccessful business expansion, intense competition, too much debt exposure, court lawsuits, and unfavorable contracts (Emery et al., 2011). Previous studies regarding financial distress using GCG parameters were not specific to the financing industry in Indonesia. The result in this study expects to be an additional tool for regulators in the process of monitoring the compliance and performance of financing companies before financial distress.

## METHODOLOGY

This study conducted to obtain empirical evidence for the hypothesis that the effectiveness of implementing good governance reduces the possibility of financial distress. The method used is the logistic regression, since the dependent variable was a binary variable that only has two categories, experiencing financial distress or not. The sample used in this research was the financing companies that registered in Indonesia Financial Services Authority before 2016 and still active as of December 2020. In addition, companies whose licenses had been revoked during 2018 to 2020 were also the samples of this research, because it has experiencing financial distress. The total sample was 177 companies, consisting of 91 companies experiencing financial distress and 86 companies in normal condition (see Exhibit 2). The independent variable in this research was the assessment of governance effectiveness through two parameters, namely the effectiveness of the board of commissioners (BOC) and the board of directors (BOD). The measurement of effectiveness BOC and BOD was obtained from the total score in GCG's checklist and the data from the report submitted by the company to the regulator on a limited basis and not published to the public.

From Exhibit 1, we can see each independent variable has a parameter checklist, with scores 1 to 3 for each question to measure the effectiveness of corporate governance. The measurement of the effectiveness of BOC used five parameters, namely the composition, the involvement of women in the composition, competence, independence in carrying out the duties and activities. The measurement of the effectiveness of BOD used four parameters, namely the composition, the involvement of women in the composition, competency and work activities. The existence of independent commissioners in the composition was expected to be able to carry out their duties independently and also to provide effective advice and improve performance based on their knowledge or competence (Li et al., 2020). We also used the quality of external auditor, age, and size of company for control variables as other factors that could predict financial distress. The role of external auditors is quite significant because they work independently and using professional judgment to ensure the quality of presentation and correctness of data from financial statements prepared by company management (Muñoz-Izquierdo et al., 2020). The quality of auditor external were categorized into two, big four or not. The big four have better competence in providing audit services and a greater number of professionals, networks and experience. The age of the company affected the company's business continuity, the longer the company exists indicates that the company can survive during dynamic conditions (Ross, et al 2016).

Therefore, the form of the model was specified as follows:

$$\text{Ln} \left( \frac{p}{1-p} \right) = \alpha + \beta_1 \text{EFFBOC}_{i,t-2} + \beta_2 \text{EFFBOD}_{i,t-2} + \beta_3 \text{AUDEXT}_{i,t-2} + \beta_4 \text{AGE}_{i,t-2} + \beta_5 \text{SIZE}_{i,t-2}$$

Where EFFBOC is the effectiveness of board of commissioner, EFFBOD is the effectiveness of board of director, AUDEXT is the quality of external auditor, AGE is how long company exist, and SIZE is total asset of financing company.

## RESULT

The total sample was 177 companies, 91 of them (51.4%) experienced financial distress, and the remaining 86 (48.6%) were in normal condition. Companies experiencing financial distress consist of 17 companies whose business licenses had been revoked from 2018 to 2020, and 74 companies are under special attention because they had negative financial performance conditions or violated regulations, so they need intensive supervision. Based on the Hosmer and Lemeshow Goodness-of-fit test statistics, probability chi-square was 0.0000 or below 5%. Thus the model formed can predict the observed value. Using the logistic regression model, from Exhibit 3. we can see that effectiveness of BOC and BOD, and also size of company had a negative and significant correlation with the probability of financial distress in finance companies. This result was in line with previous research, that the board of commissioners is expected to be able to carry out their duties independently to be able to provide advice effectively and improve performance based on their knowledge or competence about financing (Z. Li et al., 2020). We also used women involvement in BOC and BOD composition as one of measurement, where the previous studies conclude women are considering to have emotional stability when facing crisis conditions and beneficial for evaluating objectively (Adams & Ferreira, 2009). The different result showed in the age of the company, where the longer company exist does not determine to avoid financial distress. The reason follows this may be because the company's management does not consistently apply or aware of the expansion of GCG principles in running the business. The need to complete GCG principles is increasing because the complexity of competition and community needs are growing. Companies that are weak in implementing good governance will increase the probability of management's opportunistic behavior. Then the ethical conflicts between shareholders and management who prioritize personal goals over company goals will increase (La Porta et al., 2000).

## DISCUSSION/CONCLUSION

Corporate governance happens attracted wide academic attention in many disciplines, most of which have found that certain aspects of the corporate governance of a company are linked to its corporate performance or its financial condition (Brédart, 2013). We find that the monitoring of independent board in BOC composition affects corporate performance. If they are present on site and serve their duties well, the risk of poor managerial decisions can be reduced (Li et al., 2020). The BOC must carry out its duties according to its objectives to protect the interests of shareholders who cannot be involved directly with the company's operations. BOD also obligated to ensure that the governance aspect has been running effectively and efficiently, thus opportunistic behavior that increases potential losses for the company can be avoided or minimized. In line with this concept and previous research, the existence of an effective BOD is expected to avoid the company from the potential for bigger losses.

Another factor considered in predicting financial distress was the size of the business. An increase in the total asset of the company will maintain the company's ability to pay off its obligations, so it can avoid financial problems. External auditor has negative but not significant association with probability of financial distress in financing companies. Finding on the age of company to predict financial distress is the only control variable that showed positive but not significant correlation. The company's long experience is not enough to avoid the occurrence of financial distress. Instead, it requires management to have sensitivity and awareness when the business environment change and more complex. In identifying measures of corporate governance which are significantly linked to financial distress, these empirical results directly address issues of effective BOC and BOD thus have important implications for financial stability in practice. The result confirms that when the board of commissioners and board of directors implement good governance guidelines effectively, the possibility of the company experiencing financial difficulties will be lower, and vice versa. Such information is helpful, first of all, for management in preventing potential losses, and also for the regulator in identifying problems and implementing changes accordingly. Finally, we have focused on financing companies that are legally registered in Indonesia for this study, and the data for assessing the effectiveness of BOC and BOD were limited in public sources. These results enrich previous research about corporate governance and the probability of financial distress.

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**Exhibit 1. Parameter in independent variable**

Main Independent Variable	Parameter		Number of questions
The effectiveness of the board of commissioners,	1	Composition	13
	2	the involvement of women in the composition	
	3	Competency	
	4	Independency	
	5	Activities	
The effectiveness of the board of directors,	1	Composition	7
	2	the involvement of women in the composition	
	3	Competency	
	4	Activities	

**Exhibit 2. Sample data**

Description	Number of Company
1 Licence revoked during period 2018 to 2020	17
2 Registered and operationally active during period 2016 to 2020	176
3 The population number	193
4 Sharia Financing Companies	(5)
5 Licence approved during period 2016 to 2020	(5)
6 Changes in ownership structure during period 2016 to 2020	(6)
7 Total sample	177

**Exhibit 3. Logistic Regression Result**

Variable	Exp sign	$\beta$	Std. Error	p-value	Odds Ratio ( $e^{\beta}$ ) $e^{\beta}$ )
Constanta		13.75842	2.512386	0,000 ***	0,0000
EFFBOC	–	-11.27641	2.816384	0,000 ***	0,0000
EFFBOD	–	-4.664412	1.808213	0,005 ***	0,0094
AUDEXT	–	-1.069795	0.944291	0,129	0,3431
AGE	–	0.000607	0.025239	0,490	1,0006
SIZE	–	-0.429098	0.208117	0,020 **	0,6511

\*\*\* significance level  $\alpha = 1\%$  (one-tailed)

\*\* significance level  $\alpha = 5\%$  (one-tailed)

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## Strategic Partnership Model in Creating Value: Case Study of Online Education Provider

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### ABSTRACT

The rise of technology and start-ups has made major changes in the education industry where people are able to receive education from informal institutions such as education start-ups combined with online capabilities to create online classes. The purpose of this study is to analyze business development inside online education. To analyze it, the researcher takes two main points that contribute directly to the business development of an online education provider, strategic partnership and value creation, from an online education start-up and the method used for data collection is in-depth interview. Research shows that the current strategic partnership is still lacking in terms of start-up's control and power on the partnership due to ineffective communication process and also revealed that customers play a big role in determining the value that online education startups offer which determines their future development in providing the services based on customers' preferences.

**Keywords:** business development; communication; education; start up; value creation

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### 1. INTRODUCTION

The current pandemic outbreak that started since 2019 has created many changes in how the society live which also include changes in how we receive our education. Although learning through internet or using various platforms to obtain a certain knowledge is not something uncommon before the pandemic due to massive development in technology, the current infectious epidemic COVID-19 that spreads all over the world forced institutions such as schools and universities to closed down in order to stop the spread of the virus and conduct their learning activities using various online platforms such as Zoom or Google Meet (Chakraborty et al. 2020). This change further encourage the development of informal study through internet that is provided by companies as an education provider. Moloney and Oakley (2010) stated that the expected number of growths for online enrolments could exceed 20% annually. With the current situation of pandemic, the number of online enrolments growth might even higher than 20% as more people start tuning in to online classes which stress the massive opportunity for online education provider business. With the accessibility despite having restriction in terms of time or location (Moloney and Oakley 2010), the new system able to make learning available anywhere anytime.

The problem arise as now more online education provider business emerging one after another (Capper 2001) which makes the market for this industry become even more saturated. Although online platform could eliminate restrictions such as time and location, new restriction which is limitation in giving the best education experience make it hard for the company to differentiate themselves and stand out. Company needs to adapt towards the current technology changes and clients' requirements as a way to differentiate themselves (Capper 2001). Thus, business development strategy are crucial to ensure the company able to distinguish themselves with other player within the industry and decrease the chance of failure due to not focusing on business development that often happen to start-up (Cantamessa et al. 2018).

Although there is no solid definition of business development, research shows that business development requires 3 main categories which is identify new opportunities, clients, and partners to achieve growth and profitability by engaging and developing a long term value creation commitment (Kind and zu Knyphausen-Aufseß 2007). Two main business development that often found in online education providers are strategic partnership and value creation which serves different purpose.

Strategic partnership aim to create collaboration (Lasker, Weiss, and Miller 2001), which for online education provider company it's important to collaborate with the speakers as the material provider for online course. Meanwhile value creation aim to ensure that the customers able to perceive value when using the company's products or services and includes the customer in the company's value creation process (Ramaswamy and Ozcan 2018). These two strategies are the main point to create the best education experience for the customers because what differentiate one company and another is the content and how the content is delivered to the customers (Capper 2001).

This paper aims to answer two questions: First, what is the implemented strategies of strategic partnership and value creation inside an online education provider? Second, how is the current process of strategic partnership and value creation?

## **2.METHODOLOGY**

The method use to answer the research questions in this paper is qualitative method in a form of a case study (Yin 2013). Case study are relevant to understand phenomenon that requires "in-depth" description and to explain "what" and "how" that phenomenon could happen (Yin 2013). The unit of analysis for the case study would be choosing one of online education provider in Indonesia and to obtain an in-depth description over the phenomenon, the researcher conduct an interview to participants which takes part in the online education provider's strategic partnership and value creation process.

This paper choose Venidici, an online education provider from Indonesia, as the unit of analysis. Venidici is a start-up that provides education materials for college students focusing on business, technology, and art fields. This start-up has been running for almost 2 years providing education in various forms such as online course, workshop kit, and also bootcamp. Venidici has around 40 employees and has collaborated with more than 15 speakers either as an individual or representing an organization. Venidici was selected because their main business process used to be offline but then change completely into online which they have no experience in how to handle online classes before. Thus, the researcher could study on how this company plan and implement their business development strategy from offline to online business process.

The participants for interview are 3 people from the Venidici's management team which is the product managers for each product Venidici currently provided, 5 loyal customers which has repurchase history, and 3 speakers with various background collaboration history which in total 11 participants.

## **3.RESULT**

### **3.1 Strategic Partnership**

The result able to show interesting findings in terms of strategic partnership that Venidici currently implemented. The process of strategic partnership are conducted in form of a flow from theme planning until payment to the speaker which is marked as the end of Venidici's collaboration with the speaker. The strategic partnership flow process can be seen as follows:



**Figure 1.** Strategic partnership process flow in Venidici

*Source: Venidici management interview*

Based on the management statement, the current strategic partnership process only work for a short period of time. After the speaker finished teaching the course, the contract between Venidici and the speaker also completed after Venidici give the speaker's payment. Venidici then will look for new speakers to collaborate with or start a new contract with the previous speaker. The agreement only applied for one online course. Based on 9 basic form of strategic partnership (Isoraite 2009), Venidici's partnership are very similar to joint venture which focuses on collaboration between two or more parties to work on a certain project.

The management also stated that due to the one time agreement, they need to constantly looking for new theme and new speakers to collaborate. This system is not time effective because the process from the beginning until the speaker sign an agreement to collaborate takes a lot of time. Ineffective communication also contribute to the long process of agreement approval by the speakers. According to statement given by the management and also validated by one of the speaker, the speaker often times giving late responses to Venidici even when Venidici urgently need fast response. Not just impacting the process of agreement approval but also impacting the process of event preparation by Venidici. Management claimed that late responses also make them unable to prepare the best material for the online course and decrease their ability to ensure the quality of the material for online course.

### 3.2 Value Creation

As for value creation, the current system that Venidici implemented to engage with customers and understand deeper about customers are through feedback form that Venidici share at the end of online course and conduct independent customer research by interviewing their customers. Through those methods, Venidici able to establish their value and ensure that the customers able to receive the same value that Venidici intend the customers to perceived. Venidici also claimed that the constant direct communication with the customer are aimed to keep improving the quality and capabilities of their products and services to be able to serve directly what the customers' wants and needs.

Using the current value creation method, customers claimed that they feel like Venidici care about customers and also become part of Venidici as their recommendations and ideas from the feedback form or interview are used by Venidici as their next project or reference in the future. This is proven by one of Venidici's online course were inspired by one of the customers that stated she wants a certain type of topic and not long after her recommendation through feedback form, Venidici created an online course with the same topic as what the customer recommends. Customers also stated some values that they felt when using Venidici's services which is in line with value that Venidici aim for in the beginning.

Direct communication between Venidici and customers frequently use platforms such as Instagram and WhatsApp. From the interview, there is no known special platform or environment for Venidici and customers to communicate which indicates that there is no community formed under and managed by Venidici. Both management and customers stated that the current communication process and platforms

are enough for them and there is no obstacle known to the point it is urgent to create a new environment solely for communicating between Venidici and customers.

Despite the communication process and result between Venidici and customers relatively going well without obstacle, there is one concern coming from the management team of Venidici. stated in the interview that the feedbacks received from customers are not deep enough for the management to understand the actual wants and needs from the customers and what kind of value that the customers really looking for. This could indicates that there is a lack in process or ineffective method which the company need to improve in order to finally identify and understand deeply about their customers.

## **4.DISCUSSION**

### **4.1 Result of Strategic Partnership**

Based on 4 aspects of partnership implementation and 4 partnership outcomes categorization (Todeva and Knoke, 2005), Venidici able to implement a successful partnership with favorable outcome.

However, a certain point in implementation such as communication between Venidici and the speakers still needs improvement. There is also a need to improve the effectiveness of the partnership to shorten the time and increasing Venidici's online course quality through more preparation time given to Venidici.

Based on interview, indications of possibility to improve their partnership's effectiveness through creating long term partnership that has stricter rules and MOU. The product manager explained that their latest Bootcamp project were created not just to increase the value that can be given to customers but also to strengthen the partnership with speakers for a long run and build the foundation of trust as Venidici collaborated with the speakers.

Venidici's strategic partnership process flow can be considered as the basis of how the partnership established from the beginning until the end of the agreement. This flow is also important because improvements in the future can be made by analyzing and identifying the flow to determine which part that can be eliminated or added and also the chance that perhaps the flow needs to be longer or shorter.

### **4.2Result of Value Creation**

Based on Value Creation Sphere theory (Grönroos and Voima 2013), Venidici as producer able to fulfill their duty in provider sphere by creating potential value to be used by the customers and even engage customer into the joint sphere where Venidici and customer are connected through direct communication. Venidici also able to deliver their potential value to the customers because the real value that customers felt are the same as the potential value that Venidici offers. Thus, the current value creation methods are effective enough even to the point the customers felt as if they are part of Venidici. It is important in order to ensure that the company able to deliver what they promises to the customers and fulfill customers' expectations. By creating the environment of co-creation with customers, company could directly understand the customers about their wants and needs. Co-creation process could influence how the customers see the product and increase the probability of repurchasing (Grönroos and Voima 2013).

### **4.3Limitations**

This paper mainly look at the perspective of the company and try to analyze what the company have done so far in order to maintain their business through the scope of strategic partnership and value creation. The researcher aware that there is more factors to contribute in company's chance of survival in the industry such as marketing capabilities which means that further research are needed in this field. The lack of description in value creation through customer's perspective are also the limitations of this paper because this paper focus on the company's actions and the questions given to customers are act as an information to validate the company's answers. Thus, further research regarding value creation through customers' perspective are also needed in order to understand deeper regarding what value customer actually perceived when using the company's product.

## 5.CONCLUSION

This study is to identify how one online education provider, which in this case study is Venidici, create and implement their strategies in strategic partnership and value creation scope. It is also for the purpose of evaluating and identifying key problems that might occur during planning and implementing the strategies. From the result of the research, the strategic partnership model in creating value inside Venidici requires two important stakeholders which is the speakers and the customers.

With the role of speakers creating value through their materials and the role of Venidici creating platform for the speaker to share their value with customers. As for the customers, they are bound under Venidici's value creation process where interaction and communication happens to create value together. All of the stakeholders are merge into one, fulfilling their own roles and communicating with one another under Venidici's interactional co-creation environment.

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## Student Online Shopping Patterns in Indonesia During the Covid-19 Pandemic

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### ABSTRACT

Online shopping is a transaction between individuals that involves exchanging value through digital technology. Initially it can be done with a web browser, now it can be with applications installed in our mobile phone. Covid-19 Pandemic had an impact on shopping activities. Online shopping is the alternative way to decrease the people mobility in order to prevent from the spreading of the covid-19 virus. Students are the major population that used online media as they grew with the technology. This research examined factors that influence online shopping patterns and to study students acceptance of the online shopping during the Covid-19 pandemic. Using the theory of acceptance and use of technology based on UTAUT2 with changing the price value variable into price saving orientation. The questionnaire for data collection distributed to eight universities students in Yogyakarta, Indonesia. From 205 respondents obtained, only 196 that met the criteria. The data then analyzed using multiple regression analysis. The results showed that social influence, facilitating conditions, habits and price saving orientation had a positive influence, however performance expectancy, effort expectancy and hedonic motivation did not have an impact on student online shopping patterns during the Covid-19 Pandemic.

**Keywords:** online shopping, pandemic covid-19, shopping patterns, students, UTAUT 2

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### 1. INTRODUCTION

Currently, the world is facing an outbreak of a global infectious disease called Severe Acute Respiratory Syndrome Coronavirus (SARS-CoV-2) which causes coronavirus disease 2019 (Covid-19). The virus was first discovered in Wuhan, China. Due to the virus that has widely spread throughout the world, The World Health Organization (WHO) declared that the Covid-19 virus as a pandemic.

Prevention from coronavirus spread with social restrictions triggered a change in people shopping patterns, from shopping at offline stores to shopping at online stores (Republika.co.id, 2020). The high mobility of people to fulfill their needs made online shopping the main choice of shopping today. Simply by relying on a device and an internet network, one can reach the market anytime and anywhere. In addition, the limitation space because of the pandemic Covid-19 has an impact on people's daily life activity. People forced to be online to avoid contracting with the deadly virus. Hasanat et al. (2020) said that changes in shopping that occur in the society are influenced by the lack of products and services availability in offline stores so that people have to rely on e-commerce to fulfill their needs. One of the reasons for the lack of products and services availability at offline stores was delayed supplies as a result of new regulation of importing goods from infected countries. The online service was chosen because it allows customer to buy product without having to look for it directly. Moreover, customers behavior in shopping has changed as the way to avoid contacting with the Covid-19 virus. Survey from the Indonesian Internet Service Providers Association (APJII) showed the number of internet users in Indonesia increased from 171.17 million to 196.71 million users in the second quarter of 2020 compared to 2019. 56.8% of the total internet users shopped at online stores and most users were young people (APJII, 2020).

The research examined the factors that affect students online shopping patterns and to study their acceptance of the online shopping during the Covid-19 pandemic using UTAUT2 model developed by Venkatesh et al. (2012). This research conducted in Yogyakarta as the city of education in Indonesia. Many students from all over Indonesia came to Yogyakarta to get their higher degree.

## **2. LITERATURE REVIEW AND HYPOTHESES FORMULATION**

### **2.1 Online Shopping**

Online shopping offer products and services using internet technology so that consumers can look products or services in photos or videos (Kurnianto, 2020). Initially shopping was done by face-to-face and currently shift to the online system. Online shopping provides a lot of convenience for its users. Simply by using their device customers can reach the market anywhere and anytime. Laudon & Traver (2017) defined online shopping or e-commerce as a transaction between individuals that involves the exchange of value using digital technology.

Decision making includes various stages from recognizing problems, finding solutions and evaluating alternatives (Mowen & Minor, 2002). Decision to choose a product is the result of decision making process from searching to selecting. During selection, evaluation of a product is made. This process is faced by costumers when they decide to purchase online.

### **2.2 Unified Theory of Acceptance and Use of Technology (UTAUT) 2**

Venkatesh et al. (2003) first introduced UTAUT model to explain the various phenomena that affect the acceptance and behavior of using technology. UTAUT is based on eight pre-existing models by combining and interacting the best phenomena from the various models. UTAUT model consist of four factors, which are Performance Expectancy, Effort Expectancy, Social Influence, and Facilitating Conditions. Over time, the UTAUT model is updated to improve its effectiveness, called the UTAUT2 Model. The most basic difference is that this model studies technology acceptance in the context of consumers, in contrast to the previous model which emphasizes more on the employee (Escobar-Rodríguez & Carvajal-Trujillo, 2014). Moreover, UTAUT2 added three new variables which are hedonic motivation, price value and habit.

### **3.3 Hypotheses Formulation**

#### **Performance Expectancy**

Performance expectancy is the believes of a person when using technology will provide benefit for them when performing certain activities (Venkatesh et al., 2012). Performance expectancy is described as the conditions in which people felt that his work is beneficial when using a system, took advantage and continued to use it. Similar results stated by Sheikh et al. (2017) and Macedo (2017) who stated that performance expectancy will affects interest and usage behavior. On the contrary Piarna et al. (2020) explained that performance expectancy has no impact on internet use of technology. Thus, the hypothesis that can be developed is:

H<sub>1</sub>: Performance Expectancy has a positive effect on online shopping patterns during the Covid-19 pandemic

#### **Effort Expectancy**

Effort expectancy is interpreted as the level of convenience associated with the use of technology (Venkatesh et al., 2012). The more efficient the system, the more people will continue to use the system. Moreover, Macedo (2017) illustrated that effort expectancy affect usage interest, However Sheikh et al. (2017) and Piarna et al. (2020) stated that effort expectancy has no effect on interest and behavior in using technology. Therefore the hypotheses is formulated as follows:

H<sub>2</sub>: Effort Expectancy has positive effect on online shopping patterns during the Covid-19 pandemic

#### **Social Influence**

Social influence is described as how an individual perceives other when they use new system (Venkatesh et al., 2012). Social influence explained as the efforts made to influence others through beliefs, perceptions, and behavior. Social influence came from external pressures such as family, friends, co-workers, and others. Social influences form surrounding environment would bring people



to try new system with their self-awareness. This opinion is supported by Macedo (2017) and Piarna et al. (2020) who stated that social influences affect usage behavior. However, Sheikh et al. (2017) stated that social influence has no impact on interest and behavior in using technology. Thus, the formulated hypothesis is the following:

H<sub>3</sub>: Social Influence has positive effect on online shopping patterns during the Covid-19 pandemic

### **Facilitating Conditions**

Facilitating conditions described as a person believe of their organizational infrastructure supported their use of technology (Venkatesh et al., 2012). Facilitating conditions described a condition in which an organization develops various facilities that make their users comfortable using software. Each of the system must be adjusted to user needs and developed periodically to meet the needs of potential users. This opinion is supported by Sheikh et al. (2017) who stated that facilitating conditions affect interest and usage behavior. On the contrary, Macedo (2017) and Piarna et al. (2020) stated facilitating conditions has no effect on interest in using technology. Therefore the hypothesis that can be drawn as follows:

H<sub>4</sub>: Facilitating Conditions has positive effect on online shopping patterns during the Covid-19 pandemic

### **Hedonic Motivation**

Hedonic motivation defined as the pleasure of using technology and it has an important role in determining the acceptance and use of technology (Venkatesh et al., 2012). Motivation described as the condition which hedonic person tend to like to use technology due to their thought and psychology aspect of trying new things and would use it again if they feel satisfied. This opinion is supported by Sheikh et al. (2017) and Macedo (2017) who stated that hedonic motivation affects interest and usage behavior, on contrary Piarna et al. (2020) illustrated that hedonic motivation has no impact on interest in using technology. Thus, the hypothesis that can be developed is:

H<sub>5</sub>: Hedonic Motivation has positive effect on online shopping patterns during the Covid-19 pandemic

### **Habit**

Habit is defined as how far people tend to perform their natural behavior and learned from their day to day activities (Limayem et al., 2007). Habit described as a condition in which a person performs certain behaviors continuously as they are used to do it. The more familiar a person use of a system, the more difficult they have to live without it. This opinion is supported by Sheikh et al. (2017), Macedo (2017), and Piarna et al. (2020) who stated that habits affect interest and usage behavior. Thus, the researcher wants to re-test these variables by formulating the following hypothesis:

H<sub>6</sub>: Habit has positive effect on online shopping patterns during the Covid-19 pandemic

### **Price Saving Orientation**

Price value is a perception of the money spent in using technology to obtain some benefits (Venkatesh et al., 2012). The price value is perceived as its relation to time, distance, and costs along with the benefits obtained. In this study, online shopping did not costly for consumers as its provides the advantage of being able to save money by comparing product prices from various online shopping sites and choosing the best product at the lowest price. Sheikh et al. (2017) considered price savings has strong impact for users to accept technology. Consumers who find low prices and more benefits in shopping online would increase their intention to repurchase online. Sheikh et al. (2017) stated that price savings orientation has positive and significant impact on the interest used of technology but has no direct impact on the usage behavior. Moreover, Kurnianto (2020) stated that the higher the suitability of the offered price in a system, the consumers interest for online shopping will increase. On the contrary, Piarna et al. (2020) stated that price value of a product has no effect on interest use on it. Therefore, the hypothesis formulated as follows:

H<sub>7</sub>: Price Saving Orientation has positive effect on online shopping patterns during the Covid-19 pandemic

### 3. RESEARCH METHOD

#### 3.1 Population, Sample and Data Analyses.

The population of this study is undergraduate students in Yogyakarta, Indonesia. Students from A accredited University were taken for samples. Yogyakarta was chosen because it is one of the city with the highest number of the best universities in Indonesia. This research used primary data sources by distributing questionnaires to students. The questionnaire used 6 Likert scale ranging from "strongly agree" to "strongly disagree". The questionnaire used for all variables are adopted from Sheikh et al. (2017). This research used multiple regression method for data analyses.

### 4. RESULTS AND ANALYSES

#### 4.1 Data Collection Results

The questionnaires distributed to 205 respondents. However, only 196 met research criteria from 8 universities (2 public and 6 private universities). The students were from year 2015 until 2020. Most of the students (40%) bought online product 2 to 4 times on a monthly basis.

#### 4.2 Multiple Regression Results

**Table 1 . Multiple Regression Analysis Results**

Construct	Unstandardized		Standardized	T	Sig.
	$\beta$	Std. Error	$\beta$		
(Constant)	0.774	2.551		0.303	0.762
Performance Expectancy	0.216	0.120	0.108	1.795	0.074
Effort Expectancy	0.272	0.165	0.109	1.648	0.101
Social Influence	0.619	0.120	0.291	5.146	0.000
Facilitating Conditions	0.620	0.253	0.172	2.454	0.015
Hedonic Motivation	-0.102	0.145	-0.044	0.700	0.485
Habit	0.393	0.081	0.277	4.850	0.000
Price Saving Orientation	0.549	0.137	0.208	3.998	0.000

Source: primary data, processed 2021

The regression model based on table 1 data analyses results are formulated as follows:

$$Y=0.774+0.216 X_1+0.272 X_2+0.619 X_3+0.620 X_4-0.102 X_5+0.393 X_6+0.549X_7+\epsilon$$

#### 4.3 Hypotheses Analyses

##### **H<sub>1</sub>: Performance Expectancy has a positive effect on online shopping patterns during the Covid-19 pandemic**

The results of significance testing which is (0.074 > 0.05) indicated that performance expectancy has no impact on online shopping during the Covid- 19 pandemic, therefore H<sub>1</sub> is not supported by the data. This results is consistent with Piarna et al. (2020) who found that performance expectancy has no impact on interest in using technology.

##### **H<sub>2</sub>: Effort Expectancy has positive effect on online shopping patterns during the Covid-19 pandemic**

The results significance testing obtained 0.101 > 0.05 indicated that effort expectancy has no significant effect on online shopping during the Covid-19 pandemic, Thus H<sub>2</sub> is not supported by the data. The results are consistent with Sheikh et al. (2017) and Piarna et al. (2020) who found that effort expectancy has no effect on interest and behavior in using technology. T the university students is familiar using the latest technology, so that online shopping activities do not take a long time to learn and they find it easy to use.

**H<sub>3</sub>: Social Influence has positive effect on online shopping patterns during the Covid-19 pandemic**

The significance value obtained  $0.000 < 0.05$  indicated that social influence has significant effect on in online shopping consideration during the Covid-19 pandemic. Therefore H<sub>3</sub> is supported by data. The result is consistent with Macedo (2017) and Piarna et al. (2020) who stated that social influence affects interest and usage behavior. These results were able to prove that the higher the pressure intensity from the important people in life, the higher the demands to purchase online.

**H<sub>4</sub>: Facilitating Conditions has positive effect on online shopping patterns during the Covid-19 pandemic**

The significance value obtained is  $0.015 < 0.05$  which indicated that the facilitating conditions has a significant effect in online shopping during the Covid-19 pandemic. Therefore, H<sub>4</sub> is supported by the data. This result is consistent with Sheikh et al. (2017) who stated that facilitating conditions affect usage behavior. These results proved that the more facilities that support online shopping the more interest in doing it.

**H<sub>5</sub>: Hedonic Motivation has positive effect on online shopping patterns during the Covid-19 pandemic**

The significance value obtained is  $0.485 > 0.05$ . This indicated that hedonic motivation has no significant effect on considerations in online shopping during the Covid-19 pandemic. Thus, H<sub>5</sub> is not supported by the data. The results were consistent with the research of Piarna et al. (2020) who stated that hedonic motivation has no effect on interest in using technology. From this study, it can be assumed that university students in Yogyakarta tend to spend their money to buy only what they need because as a student, they did not have their own income so that the pocket money they had is better spent on useful items.

**H<sub>6</sub>: Habit has positive effect on online shopping patterns during the Covid-19 pandemic**

The significance value obtained is  $0.000 < 0.05$ . This showed that habit has significant influence in online shopping during the Covid-19 pandemic. Therefore, H<sub>6</sub> is supported by the data. The result is consistent with Sheikh et al. (2017), Macedo (2017) and Piarna et al. (2020) who stated that habits affect interest and usage behavior. These results proved that if students got used to purchase online, they will repeatedly doing it and felt something was missing if they did not do it.

**H<sub>7</sub>: Price Saving Orientation has positive effect on online shopping patterns during the Covid-19 pandemic**

The significance value results obtained is  $0.000 < 0.05$  which indicated that the orientation of price savings has a significant effect on considerations in online shopping during the Covid-19 pandemic. Thus, H<sub>7</sub> is supported by the data. The result is consistent with Sheikh et al. (2017) dan Kurnianto (2020) who stated that price saving has a positive and significant effect on interest in using technology. These results were able to prove that students who found more benefits such as discounts or cash back will increase their intention to buy online.

**5. CONCLUSION**

Based on the discussion of the results, it can be concluded that social influences, facilitating conditions, habits, and price saving orientation have a positive and significant impact on online shopping. However, performance expectancy, effort expectancy, and hedonic motivation did not have an impact on student online shopping patterns in Yogyakarta, Indonesia during the Covid-19 pandemic. Moreover, this study found that students are used to purchase online. During Covid-19 pandemic students choose to buy online rather than came directly to the store for anticipating the spread of Covid-19 virus. Moreover, university student in Yogyakarta tend to choose products with cheapest prices, despite the benefits such as free shipping and cashback.

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## The Effect of Capital Regulation Motives in Earnings Management on Loan Loss Provisions with Type of Ownership as a Moderating Variable (Evidence from Indonesian Banking)

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### ABSTRACT

The research objectives are to investigate the influence of earnings management motives namely capital regulation motives and type of ownership as moderate variable on the Loan Loss Provisions (LLPs) in the national banks in Indonesia. The data were collected from public bank's financial statements for the period of 2015 until 2017 based on the Indonesian banking website and financial report published by the bank in the newspaper. It is aimed to collect representative samples with settled criteria. There were 246 years-bank that fulfilled the sample criteria. This research is causal research which seeks to investigate the causality relationship or cause and effect between research variables. The research variables tested included the dependent variable (LLPs), the independent variable (capital regulation motives), and the moderation variable (a type of ownership). The result shows that the empirical research on the effect of earnings management (capital regulation motive) and type of ownership to the bank performance can be explained by agency theory. Analysis of the banking industry using the agency theory approach provides different conclusions from the theory predictions due to the inconsistency of the coefficients and the probability values of each variable. The research findings are: capital regulation motive brings about a significant and positive effect on LLPs; the different types of bank ownership moderates capital regulation motive effect on LLPs.

**Keywords:** Capital Regulation Motives, Earnings Management, Loan Loss Provisions

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### 1. INTRODUCTION

Competition between financial institutions forces bank managers to become more risk-takers, namely by reducing or easing the requirements for allocating productive assets, especially in the form of credit. Government interference in credit policy often actually exacerbates the level of problem loans that occur. Apart from that, Amat et al. (2006) explain that there have been many unintentional (engine error) and intentional (error by commission) violations committed by bank managers. Financial problems in banking are inseparable from the characteristics of the banking industry itself which has a specific business nature (nature of the firm) that is different from other industries. Macey and O'Hara (2003) suggest differences in characteristics between banks and other industries, namely:

1. A bank is a "non-transparent" business model that allows agency problems. Agency Theory has been widely used to understand the problem of agent and principal relationship structures (Eisenhardt, 1989) including problems in banking, but the agency theory approach that has been used to understand problems in the industry needs to be reviewed given the basic assumptions of the agency theory used are different from the characteristics the banking industry itself.
2. Banks are business models that have a high level of rules/regulations compared to other business sectors. In certain conditions, regulations actually provide incentives (opportunities) for managers to act that harm other stakeholders. Agency problems due to debt as also occur in banks arise when the level of debt to equity ratio is very high, so that bank owners have the desire to transfer the

wealth of fund owners (bondholders) through increased business risk. The bank owner, through the manager, tries so that the desired financial strategy can be applied. When the decision goes as expected, the benefits are enjoyed by all company owners. If there is a failure, the owners of the funds (especially the depositors) must share in the loss (Husnan, 2001). Supriyatno (2006) has identified agency conflicts in banks including conflicts between: (1) Managers and owners; (2) Regulators with bank owners; (3) Regulators with the bank as a whole (represented by managers as management decision-makers); and (4) Banks and customers (depositors) and between banks and borrowers.

The agency problem in the banking world is related to the separation of ownership from control. Agency problems arise because the owner cannot oversee the company's activities from time to time so the owner delegates the company's control authority to the manager of the company (manager). Differences in risk level preferences, differences in diversification, and asymmetric information between managers and other stakeholders also trigger moral hazard actions. This condition encourages managers to achieve strategies that can benefit their interests at the expense borne by other parties (Went, 2002). Managers have ample opportunity to make decisions and actions according to their interests. This is due to the separation between ownership and control (Jensen and Meckling 1976).

### **1. The Changes Process for Loan Loss Provisions**

In principle, the purpose of LLPs discretion is to adjust the amount of allowance for losses that are formed by the development of the condition (quality) of the portfolio of productive assets. Allowance for possible losses on productive assets should always reflect the estimated losses on the portfolio of productive assets (Francis et al., 1996). The discretion process occurs since the process of estimating losses, the formation of LLPs, write-off of productive assets losses and changes in the allowance for possible losses on earning assets.

The manager performs earnings management through the process of changing LLPs when the amounts previously formed are considered to be incompatible with the assumptions at the beginning of their formation. If the allowance for possible losses on earning assets is not adequately established, the actual loss of earning assets directly increases the book value of the loss of earning assets. Finally, these losses reduce the profit rate of the period concerned (Docking et al., 2000).

Changes in the allowance for earning assets losses are often considered to reflect more accurately the value of bank assets (current assets value) (Hatfield and Lancaster, 2000). Aggarwal et al., 2002 state that a decrease in the amount of allowance for earning assets losses will increase the amount of profit before tax, payment of tax obligations, and retained earnings. An increase in retained earnings will increase equity. An increase in the number of LLPs will have the opposite effect. Two reasons banks do earnings management by increasing the amount of LLPs reserves are: (1) non-performance credit portfolios and (2) inexpensive ways to form bank capital (Hatfield and Lancaster, 2000). The bank can choose the right time to increase the amount of the bank's portfolio loss losses when there is a future bank cash flow that needs to be covered up. Hatfield and Lancaster (2000) describe three considerations in assessing the adequacy of the allowance for earning assets losses before carrying out earnings management, namely: First, on the assumption that the bank's experience of problematic productive assets in the first interim is related to the growth of the second interim earning assets; Second, allowance for a write-off of cumulative earning assets is related to the size of the portfolio of earning assets, Third, allowance for a write-off of cumulative earning assets is related to non-earning productive assets. Normatively, the method that can be used to engineer the allowance for possible losses on earning assets is the use of valuation and classification methods for troubled productive assets. This method is based on the ratio of problematic earning assets to total earning assets for the last several periods.

## 2. RESEARCH METHODOLOGY

This research is causal research which seeks to investigate the causality relationship or cause and effect between research variables. The research variables tested included the dependent variable (LLPs), the independent variable (capital regulation motives), and the moderation variable (a type of ownership). This study uses panel data methods (pooling data) in accordance with the affirmation of Ghozali (2010) that panel data can improve the ability of data prediction. Samples were selected by purposive random sampling.

### 1. Research Variables

This study uses one dependent variable is the magnitude of LLPs (Ahmed et al., 1999; Lobo and Yang, 2001, and Kanagaretnam et al., 2003, 2004a). The independent variable consists of two variables, namely capital regulation motive (Ahmed et al., 1999; Lobo and Yang, 2001) and types of ownerships (Husnan, 2001; and Supriyatno, 2006).

Dummy variable A1 is a score of 1 mixed bank (shares owned jointly by foreign and domestic parties) and a score of 0 for other types of ownership. Dummy variable A2 is a score of 1 privately closed-owned bank (not yet public) and a score of 0 for other types of ownership. Dummy variable A3 is a score of 1 bank that is privately owned (go public) and a score of 0 for other types of ownership. Dummy variable A4 is a score of 1 state-owned bank and a score of 0 for other types of ownership. Foreign banks are used as a benchmark for good bank governance models. This dummy variable is used to support the type of ownership which functions as a moderating variable (interaction).

### 2. Research Model

The research model using the regression model with variables based on the type of ownership group is as follows:

$$LLP_{sit} = \alpha_0 + \alpha_1 CAR_{it} + \beta_1 A1 + \beta_2 A2 + \beta_3 A3 + \beta_4 A4 + \delta_1 CAR_{it} * A1 + \delta_2 CAR_{it} * A2 + \delta_3 CAR_{it} * A3 + \delta_4 CAR_{it} * A4 + \epsilon_{it}$$

where :

$\alpha_0$  = constant

$LLP_{sit}$  = allowance for possible losses on earning assets divided by total productive assets of banks i period t

$CAR_{it}$  = capital (core and supplement) divided by weighted assets according to the risk of bank i period t

A1-4 = type of ownerships, namely a mixed bank, privately owned closed private bank, public private bank and state owned bank

$\delta$  = parameter coefficient

$\epsilon_{it}$  = error term

### 3. Data Collection and Analysis

The following table explains the distribution of the banking population in Indonesia by type of ownerships according to Bank Indonesia (2018). Table 1 shows that the type of bank ownership is dominated by closed private ownership banks, as a whole 46.00 percent of the total population, while per year is 41.30 percent for 2015; in 2016 amounted to 49.04 percent; while in 2017, it was 47.12 percent. Furthermore, public-private banks accounted for 19.24 percent of the total population, while annually was 17.43 percent for 2015; by 19.23 percent for 2016; while in 2017 it was 21.15 percent. Mixed banks are in third place with 16.72 percent of the total population, per year at 17.43 percent for 2015; by 3.11 percent for 2016; while in 2017 it was 16.35 percent. Foreign banks rank fourth, at 10.41 percent of the total population, while per year it is 10.09 percent for 2015; by 10.58 percent for 2016; and in 2017 10.58 percent. Government banks are ranked last at 4.73 percent of the total population, while per year it is 4.59 percent for 2015; by 4.81 percent for 2016; and in 2017 4.73 percent.

Table 1. The Distribution of the Banking Population in Indonesia by Type of Ownership

Type of Ownerships	2015	%	2016	%	2017	%	Total	%
Foreign	11	10.09	11	10.58	11	10.58	33	10.41
Mixed	19	17.43	17	3.11	17	16.35	53	16.72
Non Public Private Public Private	38	41.30	51	49.04	49	47.12	138	46.00
State Owned	19	17.43	20	19.23	22	21.15	61	19.24
	5	4.59	5	4.81	5	4.81	15	4.73
Total	92	100	104	100	104	100	300	100

Source: Bank Indonesia (2018)

The following table explains the distribution of the sample banks in this study. Table 2 shows that the sample is dominated by closed private ownership banks, amounting to 52.03 percent of the entire sample, while per year it was 53.01 percent for 2015; by 57.32 percent for 2016; and in 2017 45.68 percent. Furthermore, public-private banks amounted to 23.39 percent of the total sample, while per year amounted to 22.35 percent for 2015; in 2016 amounted to 20.73 percent; while in 2017 it was 27.16 percent. Mixed banks are in third place at 10.48 percent of the total sample, per year at 10.59 percent for 2015; by 3.11 percent for 2016; and while in 2017 it was 11.11 percent. Foreign banks ranked fourth, overall the sample was 10.08 percent, while per year it was 8.24 percent for 2015; 9.76 percent for 2016; and in 2017 9.76 percent. Government banks are ranked last at 3.63 percent of the total population, while per year it is 4.71 percent for 2015; by 2.44 percent for 2016; and in 2017 3.70 percent.

Table 2. Sample Distribution

Type	2015	%	2016	%	2017	%	Total	%
Foreign	7	8.24	8	9.76	10	12.35	25	10.08
Mixed	9	10.59	8	9.76	9	11.11	26	10.48
Non Public Private	44	53.01	47	57.32	37	45.68	128	52.03
Public Private	19	22.35	17	20.73	22	27.16	58	23.39
State Owned	4	4.71	2	2.44	3	3.70	9	3.63
Total	83	100	82	100	81	100	246	100

### 3. THE PRINCIPAL RESULTS

The results of testing the model for equation in Table 3 shows that the results of the Simultaneous Effect Test (F-test) of 10,287 and probability 0,000, which means the interaction between types of ownerships with capital adequacy ratio affect LLPs. This equation gives an adjusted R<sup>2</sup> of 0.428 which means that the variability in LLPs be explained by the capital adequacy ratio and type of ownerships by 42.8 percent while 57.2 percent is explained by other variables. The value of the Adjusted R<sup>2</sup> model 2 (0.428) is greater than the value of the Adjusted R<sup>2</sup> model 1 (0.075) which means that the type of ownership is indeed a moderating variable in capital adequacy ratio to LLPs (Ghozali, 2010).

Table 3. Regression Analysis Results by Type of Ownership

Variable	Coefficient	Prob	Sig
Constant	2.784	0.000	**
CAR	-0.375	0.002	**
A1	-0.555	0.001	**
A2	-0.473	0.071	
A3	-0.996	0.997	



Variable	Coefficient	Prob	Sig
A4	0.002	0.001	**
A1*CAR	0.424	0.003	**
A2*CAR	0.180	0.300	
A3*CAR	0.654	0.000	**
A4*CAR	-0.094	0.810	
<b>Test of Suitability of the Regression Model</b>			
Adj. R <sup>2</sup>	0.428		
F-Test	10.287	0.000	**
N	246		

\*\* indicate statistically significance respectively at 5% level

The results of the type of ownership regression moderating the effect of capital regulation motives on LLPs shows mixed results. Regression results on mixed banks produce positive coefficients (+0.424) and have a significant probability value (0.003). The results of the regression type of ownership in private banks produce a positive coefficient (+0.180) and have a non-significant probability value (0.300). The results of type regressions on public-private banks produce positive coefficients (+0.654) and have a significant probability value (0,000). The results of the regression of ownership types in state banks (A4) produce a negative coefficient (-0.094) and have a non-significant probability value (0.810). Thus, the type of ownerships moderates the effect of capital regulation motives on LLPs in joint venture banks and public-private banks. These results indicate that the type of ownerships moderating the effect of capital regulation motives on LLPs is accepted.

#### 4. CONCLUSIONS

Based on the research findings described, the conclusions in this study are as follows: the results of testing the effect of capital adequacy ratio on LLPs indicate that capital regulation motive has a positive and significant effect on LLPs. Furthermore, the results of this study provide main evidence that the type of ownership moderates the effect of capital regulation motives on LLPs. The coefficient of variation of the capital adequacy ratio shows positive and significant results in mixed banks and public-private companies. The coefficient of variation test for capital adequacy ratio as a proxy for capital regulation motives shows that there is not equal to zero and significant coefficient value for all types of ownerships. These results support the use of capital adequacy ratio that can be used as a proxy for capital regulation motives. The results of empirical research on the effect of capital regulation motives and type of ownership on LLPs can be explained by agency theory.

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## Motivation towards corruption in the time of COVID-19: A survey study of Indonesia

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### ABSTRACT

This study presents the empirical results about the motivation for corruption or being involved in corruption in the public and private sectors. A total of 2,093 respondents was successfully gathered from two rounds of a nationwide survey, non-anonymous and anonymous, with 107 respondents admitted conduct or participate in the practice of corruption during the first year of the COVID-19 pandemic in Indonesia. The practice of corruption is predominantly in the public administration and finance sector amid the pandemic in Indonesia. Using ordinary least-square (OLS) regression, this study shows that corruption in the public administration, finance, and digital finance sector is most likely to be motivated to influence the decision making and receive access to the public services. In the finance sector, individuals are also motivated to receive the public fund and avoid legal consequences. The findings indicate that the practices may be related to structural and opportunistic behavior. By drawing on insights from behavioral economics, this study suggests that more robust public policy interventions, such as better institutional governance and accelerated digital innovations, are required to prevent and eradicate the practice of corruption. Finally, this study provides practical implications and new ideas for further studies with behavioral approach.

**Keywords:** corruption; motivation; behavioral economics; COVID-19; Indonesia

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### 1. INTRODUCTION

The research of motivation for corruption lies in the cross-sections between social and natural science. It is not solely because of the science behind motivation but also the nature of corruption. The complexity of corruption is not always related to socio-economic consideration and other aspects such as cultures and individual perceptions. The abstract value of morality in a particular society, for example, is suggested to be a determinant of whether the practice of corruption can bring construction or destruction to the society (Torsello & Venard, 2015). Another case study from Indonesia shows that family domination in local politics drives the practice of corruption, benefiting from the unequal distribution of power (Hamid, 2014). Challenges to draw the underlying understanding behind the rationale of individual corruption or participating in corruption have attracted many scholars' interest.

Yet, there is a limited study about the motivation behind the practice of corruption in Indonesia. Prihanto and Gunawan (2020) observe that poor leadership plays an essential role in promoting corruption among public officials. They further suggest that improved governance, for example, setting the leaders with clear duties and obligations, can prevent and eradicate the practice of corruption. Corrupted leaders tend to abuse their power for their irresistible temptation for their wealth participation. Prabowo (2014) finds that the decision-making for corruption involves assessing benefits and costs from engaging the corruption. Even though so, the perspective of rational decision making in social science is not satisfactory to explain individual motivation in the light of growing discussion on behavioral economics. The decision making is not purely logical (Barberis, 2018).

This study aims to examine the motivation to engage in corruption in Indonesia. Two nationwide surveys with 2,093 respondents are used to conclude individual motivation. Because the surveys are conducted amid the pandemics of COVID-19, the conclusion will be carefully drawn. The economy deteriorates during pandemics. Indonesia sees a shrinkage of the economy in 2020 to -2.1% (Muhyiddin & Nugroho, 2021). This paper will provide a literature review outlining the theoretical discussion on behavioral economics in Section 2. Section 3 will present the study methodology, along with the model and its estimation technique. Section 4 will provide the estimation results, and Section 5 will bring the findings and conclusion along with some possible research avenues for future works.

## 2. LITERATURE REVIEW

In behavioral economics, motivations beyond financial and monetary aspects influence how individuals make everyday choices and decisions. Non-monetary motivations such as pride, satisfaction, trust, and moral sentiment, influence individuals to engage in the practice of corruption (Baddeley, 2019; Di Donato, 2018). Under this approach, the individuals are not autonomous decision-makers somewhat influenced by other people's thoughts and framing. The classical dichotomy of intrinsic and extrinsic motivations is still relevant when discussing motivation under this approach. Therefore, a multidisciplinary discussion between economics and other disciplines, such as psychology and sociology, is intense as the individuals are considered not pure self-interest creatures, rather *homo socialis* (Baddeley, 2019). The classical economic argument that corruption is more likely to perform if the perceived benefit crowds out the expected consequences are no longer valid. Chugh (2019) concludes that modification in the psychological process is required to prevent and eradicate the practice of corruption. Learning from India, he finds that corruption is not merely a politically driven behaviour but a psychosocial phenomenon. Many use behaviour economics in the study of corruption by scrutinizing the incentive from intrinsic and extrinsic motivations (Johann, 2015; Kown, 2012).

Table 1. Motivation and behavior to corrupt

<b>Behavior</b>	<b>Intrinsic motivation</b>	<b>Extrinsic motivation</b>
Structural	+	++
Opportunistic	++	+

Note: + less likely, ++ more likely

Taking into account the social context, individual connection with the surroundings shapes the motivation. Social norms can create a punishment that may discourage individuals to violate the norms. However, corruption is not always perceived as destructive behaviour. Torsello and Venard (2015) mention that corruption can bond the people in some societies (i.e., Italy, Latvia, Mexico, or Colombia). The cultural approach emphasizes the roles of cultural orientation (collectivism, uncertainty avoidance and power distance) and social norms (injunctive norms and descriptive norms) in explaining corruption. Many studies have found connections between cultures (national, organizational, local)-distributed in social norms (injunctive, descriptive) and level of corruption (Akbar & Vujic, 2014; Barr & Serra, 2010; Campbell & Goritz, 2014; Sahu, 2017; Taylor & Torsello, 2015; Zhang, 2015). It is because of rationalization of the good-bad feeling based on the culture. Pillay and Dorasamy (2010) suggest that a society with collective culture will enhance the pervasiveness of corruption regardless of whether the corruption is perceived as constructive or destructive behaviour. An example how the role of culture in Indonesia stimulates the corruption is tribute culture ("Budaya Upeti") (Abraham, Suleeman & Takwin, 2018). A study about corruption among Nigerian shows that extrinsic motivation tends to promote the practice of corruption (Agbo & Iwundu, 2020). They argue that a single standard does not exist in such societies. Thus, loyalty standard becomes important than other standards (i.e., social justice). This complicated situation enforces the policymakers to carefully design corruption prevention and eradication programs based on extrinsic motivations. Moreover, the interaction between intrinsic and extrinsic motivation can worsen the practice of corruption. Better performance pay eradicate corruption is damped by lower political patronage in the public sector (Campbell, 2020). Muramatsu and Bianchi (2021) suggest that these programs, if designed poorly, may diminish the intrinsic motivations of individuals not to corrupt (i.e., public integrity and honesty).

There are times when individuals corrupt or are involved in corruption because the social or political conditions allow them to do so. Systemic factors such as power distribution, leadership, law enforcement, the quality of the institution, and cultures may drive individuals to participate in structural behavior for corruption (Albanese & Artello, 2018; Graycar, 2015). The extrinsic motivation that is more driven by social norms intensifies structural behavior to corrupt. The study case in Bandung reveals that the working environment in the public sector allows public servants to engage in corruption (Engkus et al., 2020). They find a strong and massive structural behavior in such a case, both vertical and horizontal working relationship. In contrast, opportunistic behavior occurs when participation in corruption is collusive (Graycar, 2015). The individuals are willing and agree to corrupt for their benefit. Albanese and Artello (2018) mention this act as the result of the free-will decision. Nevertheless, there are times when opportunistic behavior invites individuals who are unwilling to corrupt. In this case, their involvement in corruption is most likely due to the exert of power from other individuals.

### 3. METHODOLOGY AND DATA

This study uses data from the distributed questionnaires targeting respondents living around Indonesia, both in urban and rural areas. Out of 2,093 responses, the survey collects 107 respondents who corrupt or participate in corruption amid the COVID-19 pandemic. The survey comprised two rounds: a non-anonymous survey (first round) and an anonymous survey (second round). The questionnaires for both surveys are the same. The method for the first survey is using surveyor while the method for the second survey is using a web-based survey. The first round consists of 1,560 responses, with 4% of the respondents (N = 66) indicating corruption. The second rounded, however, find that 8% of the 533 respondents (N = 41) corrupting or participating in corruption.

Table 2. Result of t-test for non-anonymous and anonymous survey

Data Set	N	Mean	Std. Err.	Std. Dev
1 = non-anonymous	1,560	1.957692	0.005098	0.2013548
2 = anonymous	533	1.923077	0.0115529	0.2667197
Difference (diff)		0.0346154	0.0048154	
Ho: diff = 0				
Ha: diff < 0		Pr (T<t) = 0.9991		
Ha: diff != 0		Pr ( T > t ) = 0.0017		
Ha: diff > 0		Pr (T>t) = 0.0009		

The data sets are then analysed using ordinary least squares (OLS) regressions. The dependent variable is the sector where the corruption occurs, while the independent variable is the motivation behind the corruption. However, a statistical evaluation using the unpaired student's t-test shows that the data is not identical. Table 2 shows that the null hypothesis that the data is identical can be rejected ( $p = 0.0017$ ) and alternative hypothesis that the difference is not zero and more than zero can be accepted ( $p = 0.9991$ ). The result suggests that there is a statistical difference between both respondent groups and population means. Thus, both data sets are not combined in this study.

The model specification in this study uses the relation between the response to corrupt or be involved in corruption and the motivations. The linear model is specified as follows:

$$CORR_{i,j} = 0 + 1MOT1_j + 2MOT2_j + 3MOT3_j + 4MOT4_j + 5MOT5_j + 6MOT6_j + \beta 7MOT7_j + 8MOT8_j \quad (1)$$

Where  $CORR_{i,j}$  is the dependent variable measuring the count of individual  $i$  who commits or is involved in the practice of corruption for a particular sector, while  $MOT_j$  is shown in Table 2 above. The explanation of the dependent and independent variables used in this study is shown by Table 3. A test of validity and reliability on nineteen variables for non-anonymous shows a Cronbach's alpha of 0.8642 survey while for anonymous survey shows a Cronbach's alpha of 0.7477.

Table 3. Survey explanation

Sector (dependent variable)	Motivation (independent variable)
Public administration	MOT1: Taking a decision in government (i.e., election, procurement, etc.)
Agriculture, forestry, and fishery	MOT2: Influencing the decision-making in the government (i.e., election, procurement, etc.)
Energy	MOT3: Solving and expediting administration inquiries with the government (i.e., certificate of verification, permits, etc.)
Public services	MOT4: Receiving access to public services
Digital public services	MOT5: Gaining position or authority in the government structure
Public health	MOT6: Receiving public funds for own and/or community's benefit
Manufacturing	MOT7: Avoiding legal consequences from police, customs, army, or other legal institutions
Construction	MOT8: Other motivations (unlisted)
Finance	
Digital finance	
Other sectors (unlisted)	

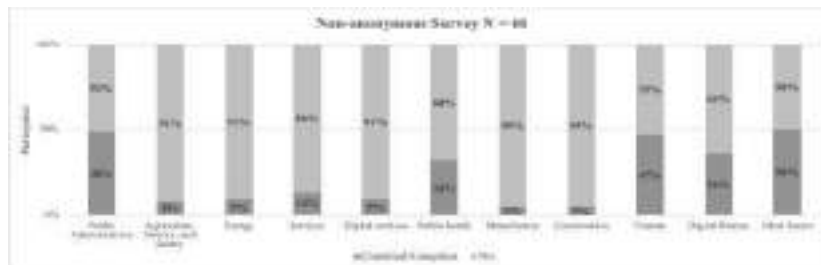


Fig. 1. Sector where respondents participate in committing corruption for non-anonymous (N=66)

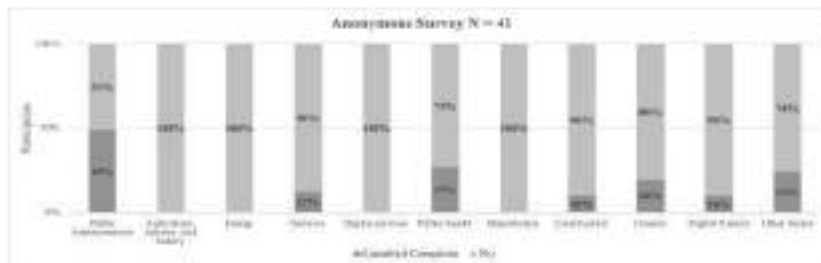


Fig. 2. Sector where respondents participate in committing corruption for non-anonymous (N=41)

In the analysis, this study analyses only the three sectors receiving the most responses. The respondents are allowed to answer more than one sector in accordance to their experiences. The responses for each sector are shown in Fig. 1 and 2. Other sectors are excluded from the analysis due to the limited information as the respondents are not asked to list down the sectors. The analysis for non-anonymous survey includes public administration (response = 48%), finance (response = 47%), and digital finance (response = 36%); while for anonymous survey includes public administration (response = 49%), public health (response = 27%), and finance (response 20%). This means that there are six regression models to analyse. Table 4 shows the result for three regression models (public administration, finance, and digital finance) of non-anonymous survey. Table 5 shows the result for three regression models (public administration, public health, and finance) for anonymous survey.

#### 4. RESULTS

Table 4 summarizes the results of OLS regression for three sectors receiving the most responses for the non-anonymous survey (N = 66). They are public administration (response = 48%), finance (response = 47%), and digital finance (response = 36%) sectors. The r-squared value for those sectors is

accordingly 59.59%, 60.96%, and 46.46%. Independent variables in the model are the motivation for corruption, as shown by Table 3. The regressions show that the motivation to influence the decision-making process in the government is highly significant. The coefficient for this motivation is positive in all three observed sectors, accordingly public administration ( $p = 0.000$ ), finance ( $p = 0.001$ ), and digital finance ( $p = 0.000$ ). This suggests that the exercise of power over the election or procurement process in the public sector in Indonesia is still dominant. Financial and political benefits from corruption are evident for the individuals who corrupt or are involved in the corruption. A study about the election in Indonesia shows that expenses for the political campaign during the regional election bring eminent burden for the running candidates. Money politics is among the ethics, administration, and criminal violations in the election in Indonesia (Sutarih & Agustina, 2019).

Table 4. Ordinary least-square (OLS) regressions of motivation for corruption for non-anonymous survey

Motivation for corruption	Public Administration	Finance	Digital Finance
	-0.3029776	-0.0784138	-1.711659
Taking decision	0.2332706	0.2289566	0.2584537
	0.199	0.733	0.510
	0.6331355	0.3692063	0.4679337
Influencing decision-making	0.1126411	0.110558	0.1248014
	0.000	0.001	0.000
	0.0880292	-0.0692062	0.1847053
Solving and expediting administration inquiries	0.1335202	0.1310509	0.1479345
	0.512	0.599	0.217
	0.2703644	0.4430077	0.318999
Receiving access to public services	0.134734	0.1322423	0.1492793
	0.050	0.001	0.037
	0.0523926	0.0071034	0.2687452
Gaining position or authority	0.3016593	0.2960805	0.3342253
	0.863	0.981	0.425
	0.0502336	0.4633783	0.425
Receiving public fund	0.1448225	0.1421442	0.160457
	0.730	0.002	0.554
	0.1445248	0.4969697	0.4006397
Avoiding legal consequences	0.1847123	0.1812963	0.2046531
	0.437	0.008	0.055
	-0.1364723	-0.099876	0.1204934
Other motivations	0.09586	0.0940872	0.1062086
	0.160	0.293	0.261
	0.1130798	-1.309192	-1.386926
Constant	0.8587996	0.8429173	0.9515124
	0.896	0.126	0.150
Observation	66	66	66
R-squared	0.5959	0.6096	0.4646
Adj. R-squared	0.5392	0.5548	0.3894

Note: Standard errors in second row, p-values in third row

Secondly, in the finance sector, individuals are most likely to be motivated to engage in corruption to receive public funds ( $p = 0.002$ ) and avoid legal consequences ( $p = 0.008$ ). All coefficients are positive. Economic motivation is primarily relevant when the individuals engage in corruption for receiving public funds. Amid the COVID-19 situation, economic relief package for easing the impact of the crisis on the society may attract the practice of corruption. Steingrüber et al. (2020) mention that individuals in power can be prevented from taking advantage of the crisis for their private benefits using an adequately designed monitoring procurement process and budget spending.

Table 5. Ordinary least-square (OLS) regressions of motivation for corruption for an anonymous survey

Motivation for corruption	Public Administration	Public Health	Finance
Taking decision	-0.1687848	0.4170977	-0.1230481
	0.2431438	0.2388147	0.2073229



	0.493	0.090	0.557
	0.1552387	-0.2728683	-0.2142752
Influencing decision-making	0.2663343	0.2615922	0.2270969
	0.564	0.305	0.352
	0.1588715	0.3111793	-0.041993
Solving and expediting administration inquiries	0.1922505	0.1888275	0.1639274
	0.415	0.109	0.799
	0.4605438	-0.0908083	0.0101965
Receiving access to public services	0.1848663	0.1815747	0.1576311
	0.018	0.620	0.949
	0.0020442	0.5218708	1.079996
Gaining position or authority	0.6418333	0.6304055	0.5472759
	0.997	0.414	0.057
	0.0669302	0.2010123	0.2757746
Receiving public fund	0.2005716	0.1970005	0.1710226
	0.741	0.315	0.117
	-0.0108246	-0.1911113	-0.1404611
Avoiding legal consequences	0.2793442	0.2743705	0.2381901
	0.969	0.491	0.560
	-0.210981	0.0213721	-0.0288102
Other motivations	0.2352512	0.2310626	0.2005931
	0.377	0.927	0.887
	0.757943	0.0608837	0.2114305
Constant	1.079181	1.059966	0.9201918
	0.488	0.955	0.820
Observation	41	41	41
R-squared	0.3831	0.2425	0.2864
Adj. R-squared	0.2288	0.0532	0.1080

Note: Standard errors in second row, p-values in third row

Table 5 shows the ordinary least-square (OLS) regression results for three sectors receiving the most responses for an anonymous survey (N = 41). They are public administration (response = 49%), public health (response = 27%), and finance (response = 20%). The r-squared value for those sectors is accordingly 38.31%, 24.25%, and 28.64%. The expectation to have the anonymous survey is to reduce the respondent bias due to the feedback as the practice of corruption is deemed unethical and against social normal. Unfortunately, the argument that the results is less likely to be influenced by unbiased feedback cannot be verified in this study.

OLS regression results observe that the motivation to receiving access to public services is highly significant ( $p = 0.018$ ) with a positive coefficient. Access to public services can be minimal amid the crisis, mainly when the interaction is limited because the administration is closed and public servants must work from home. Many shows that public services and administration encountering turbulent problems with the emergence of disruptive and uncertain events (Ansell, Sørensen, & Torfing, 2020; Di Mascio, Natalini, & Cacciatore, 2020; Klich, 2021; Zilincikova & Stofkova, 2021).

## 5. FINDINGS AND CONCLUSION

Corruption is a multi-faceted problem with a high degree of complexity. COVID-19 pandemic brings unpredictable and erratic events to the institutional organization in Indonesia. The response from a nationwide survey shows that 4% of the respondents engage in the practice of corruption during the pandemic in the non-anonymous survey. The response is slightly higher for the anonymous survey; 8% of the respondents engage in the practice of corruption. The lower rate of response is due to the so-called social desirability bias. Respondents encounter dilemmas when reporting unethical situations. In this case, it is the practice of corruption. The respondents do not dare to report due to the social and legal consequences that may arise in the future for them. Chung and Monroe (2003) study that the social desirability bias is higher for unethical actions, for example bad debts and bribes.

Despite the same questionnaires for both surveys, the findings are different between non-anonymous and anonymous surveys. The r-squared value is much better fitter for the non-anonymous survey. One possibility is that the number of observations for the non-anonymous survey (N = 66) is larger than the anonymous survey (N = 41). Even though so, the preservation of anonymity may open the opportunities for individuals to express themselves without having any anxiety being suppressed under normal circumstances (Kasakowskij et al., 2018). This study does not observe that anonymity does not lead to a much larger number of observations. The response rate for the anonymous survey is indeed larger than the non-anonymous survey, accordingly 8% and 4%. Unfortunately, the number of observations for modelling is the contrary. Another possibility is the instructions of the survey. This is the same finding that Mühlenfeld (2004) observes in his study. He concludes that different instructional methods may yield different results.

The main finding of this study is that the motivation to influence the decision making, receive access to the public services, receive the public fund and avoid legal consequences are predominant for the individuals to engage in corruption during the pandemics. The respondents say that they engage in corruption in public administration, finance, and the digital finance sector for the motivation of influencing the decision-making in the government. Indonesia has a structural problem with the deepening corruption involving corrupt officials, according to the study of Hellman (2017). Corruption practices were carried out in a secure manner because they relied on secrecy, collusion, and little trust so that illicit transactions did not leak out (Awaludin, 2016). Thus, it makes the practice of corruption tend to be structural behavior. According to Albanese and Artello (2018), the prevention method for corruption is more to change legal and structural changes to election processes to balance power distribution in the government and more vigorous enforcement of the rule of laws. We argue that the effect of corruption on structural behavior is most likely to be influenced by extrinsic motivation. However, it should be noted that in a country with a more robust collective culture like Indonesia, designing a public policy to overcome such extrinsic motivation can be more costly than intrinsic motivation. Individual factor plays a significant role in deciding corruptive behavior, and every individual has the motivation to display it. Two different studies by Kwon (2012) and Johann (2015) suggest that incentives for intrinsic motivation tend to be more effective than extrinsic motivation. Nevertheless, better institutional governance is imperative in light of preventing and eradicating corruption in Indonesia. However, one should realize that policy and process can still be corrupted.

Another important finding is that the motivation to receive public services is significantly observed in the public administration, finance, and digital finance sectors. In the middle of the COVID-19 pandemic, public services and administration face a high-turbulent environment that requires a fast and radical change so businesses and citizens can still receive the services without delay. Otherwise, individuals are triggered to corrupt to obtain access to public services. Such opportunistic behavior is more evident during the crisis. Studies in two different countries (Italy and Poland) show that digitalization can improve public services (Klich, 2021; Zilincikova & Stofkova, 2021). To solve bureaucracy's compartmentalized and siloed hierarchy, Indonesia needs to accelerate its administrative reform by digitalizing public services.

Studying corruption is an exciting field to explore due to its entangled relationship between social, political, economic, and cultural aspects. Due to the lower response rate, future studies in behavioural social science should aim to have 20-30% of response rate to represent the larger population. In term of the research topics, the studies can include more grounding and comprehensive experiments on how the implementation of public policy in Indonesia can motivate people not to engage in corruption. The question of whether digitalization can eradicate corruption remains a thought-provoking avenue. Addo and Senyo (2020) suggest that digitalization in Ghana is not adequate yet to eliminate corruption. Incorporating insights from behaviour economics and psychology can bring a better understanding of corruption in Indonesia. However, it is worth noting that isolating behavioural factors in the controlled environment is required to shed new light on this topic (Muramatsu & Bianchi, 2021). For example, a study finds that prosocial incentive to promote intrinsic motivation among the workers is less effective if conditional (Cassar & Meier, 2018).

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## Evaluation of the Implementation of Good Public Governance in Local Church (Case Study on Church X)

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### ABSTRACT

This research was conducted to evaluate the implementation of good governance in church organizations, at local level namely Church X. Based on its characteristics, the church is included in public sector, which seek profit is a supporting factor to realize quality services as its ultimate goal. The number of congregations tends to decrease is a fact, one of main factors is weakness of leadership. Good governance is needed in order to get continuous support from the congregation. The sustainability of the church organization will continue if it is well maintained, so that quality services can be achieved. The research of implementation of good governance in Church X uses the principles of good public governance as indicators. There are five principle components in good public governance consist of democratic, transparency, accountability, culture of law and fairness and equality. This research uses a qualitative approach with case study method. The result of this research is the church leaders generally been applied the principles of good public governance. Increasing the implementation of good governance in some aspects are needed to get continuing support from the congregation. It's necessary also the awareness of the congregation fulfilling its rights and responsibilities accordance with church guidelines.

**Keywords:** good governance; good public governance; local church; principle component; sustainability

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### 1. INTRODUCTION

The implementation of good governance is believed to contribute positively to people's welfare, business climate, competitiveness, and effective against irregularities, corruption and bribery practices. This is supported by various studies, both at local and abroad, that the implementation of good governance can improve the performance and value of the organization, which has an impact on sustainable business continuity. Good governance has a broad meaning, but the concept is based on the process of achieving a decision and its implementation can be properly accounted. The implementation of good governance is not only aimed at the private sector but also the public sector.

In Indonesia, the issue of governance in the public sector has received attention since the mid-decade of 2008. The Indonesian National Committee on Governance Policy (KNKG) then issued the General Guidelines for Good Public Governance to further encourage the effectiveness of state administration aimed at the welfare of the people based on the principles of democracy, transparency, accountability, culture of law as well as fairness and equality.

Church is included in the public sector organization, whose main goal is not to seek profit, but to serve God through act of service to the congregation. Based on this, the church needs to implement good public governance (GPG), so that its credibility can be accounted and sustainable support can continue. The sustainability of the church organization will continue if it is well maintained, so that quality services can be achieved.

The decreased in the congregation, especially the youth, who no longer go to church has become a fact, according to David Kinnaman, Chairman of the Barna Group which is an ecclesiastical research institution in the United States. In his book, *You Lost Me: Why Young Christians are Leaving Church and Rethinking Faith*, published in 2011, states that nearly 60% of young people who used to be active in the church then stop attending church. In Indonesia, a similar survey was also conducted by the Bilangan Research Center, which is a organization that provides reference data on Christian spirituality in Indonesia. The survey results show that the percentage of young adult who do not worship regularly increases consistently with age groups, namely from the youngest age range to the adult age range. Then the results of a survey of teenagers who are regularly in going to church can be said, 1 in 3 teenagers has the potential to no longer go to church regularly. One of the biggest reasons they stop coming to church is feeling bad church leadership. The leadership meaning is that there is no big vision that challenges, is not involved in service responsibilities and does not understand the mindset of young people because it is old-fashioned and authoritarian. Church X which is the subject of this research is a local organization which influenced by Javanese cultural values. Church X facing the struggles and challenges in church life. One of the criticisms was from some of congregations themselves that the church was less likely to grow. Several indicators can be look at from the following points from a quantitative and qualitative perspective. The study shows, from the quantitative, in the period from 2017 to 2020 the number of congregations who are the members of Church X has decreased. The number of the congregation's attendance to Sunday services in the last 2 years has tended to decrease to an average of only 60% of the total members of Church X. Then from the qualitative perspective, the congregations are less enthusiastic to be involved in the church's activities. Both these situations have caused the regeneration process has not been working optimally where some church ministries and supporting departments have double titles and/or responsibilities. Church X, whose main income comes from offerings and tithes of its member and often encounters difficulties with its limited human resources, needs to build good governance for obtained sustainability supports especially from its congregations. Londong (2019) in his research on churches stated that the failure of an organization to achieve goals optimally is not because of the lack of available funds or the management of the organization, but because of the lack of understanding of the importance of governance in the organization. Based on the description above, the formulation of the problem that becomes the research question is "How is the implementation of the principles of good public governance (democracy, transparency, accountability, culture of law and fairness and equality) in Church X". The purpose of the study was to evaluate the implementation of good governance in Church X by referring to the principle of good public governance, consist of democracy, transparency, accountability, legal culture, fairness and equality. This research contributes to improve the quality of service therefore the congregations can obtained optimal services. As for the academic, it can provide knowledge and information in general to parties who need studies related to good governance practices in local church.

## **2. LITERATUR REVIEW**

### **2.1 Agency Theory**

The agency theory describes a possible conflict in the relationship between agents and principals (Jensen and Meckling, 1976). In the perspective of agency theory, it is difficult to believe that the agent will fully act in the interests of the principal. Both parties, namely the principal and agent, each have a bargaining position in placing their position and role. In this regard, monitoring activities need to be carried out to reduce the potential for conflict. One of them is through financial performance which is reflected in the financial statements. The principal requires the auditor to verify the information submitted by the agent. On the other hand, for agents, verification is the agent's legitimacy for their performance in managing the principal's resources.

### **2.2 Stewardship theory**

Stewardship theory emerged as an alternative to agency theory. The basic assumption used by this theory is contrary to agency theory. The fulfilment of this theory is supported by the principal's conscious attitude to protect agents by paying attention to their welfare. Agents are automatically motivated to carry out their functions responsibly and so that supervisory actions from the principal can be minimized. Stewardship theory can be applied in the public sector, including the management of government and non-profit organizations. This is influenced by demands in the public sector that act as

stewards who aim to provide services to the principal (community). In some research results in both sectors, it is known that steward actions are more dominant than agents, because they are influenced by the services provided, management capacity, incentives and sanctions. So it is very relevant if research on stewardship theory is carried out in the public sector, including religious organizations.

### 2.3 Public Sector

The public sector has different characteristics from the private sector (business). In general, the public sector is understood as a sector that is oriented to the public interest, namely the fulfilment of public services and rights. While profit is a supporting factor to be able to meet the public interest as the ultimate goal.

Furthermore, the characteristics of public sector organizations according to Bastian (2010) are shown in Table 2.1. following:

**Table 2.1. Characteristics of public sector organizations**

Purpose	Welfare of the community gradually, both in basic needs and other needs (physical and spiritual)
Activity	Public services such as education, health, security, law, transportation and food supply
Sources	Public funds, in the form of taxes and levies, state company profits, government loans and other income that are legal and do not conflict with the laws and regulations
Accountability	Responsible to the community through representatives in state administration institutions (executive, judicial and legislative), while in foundations and NGOs, namely the supervisory board
Organizational Culture	Bureaucratic, formal and tiered
Budgeting	The planning is carried out with the community. Public budget reductions are published for public criticism and discussion. Then it is ratified, among others, through representative institutions of state administrators, councils, management boards of foundations or NGOs
Stakeholder	Can be detailed as Indonesian people, employees, investors, creditors, international institutions including international donor agencies

### 2.4 Good Public Governance

The initial form of the GPG principles was in line with the development of new public management which began to be applied in the implementation of public sector organizations in the early 1980s. This is because the idea of good governance is the same as new public management, which applying management values to the public sector so that the goal of establishing a public sector organization is achieved. Heyer (2011) stated that what is meant by new public management are actions aimed at improving the efficiency and effectiveness of public services and public service organizations, which prioritize accountability and improvement of public services.

### 2.5 Good Public Governance in the Churches

Based on the above criteria, the church belongs to the public sector. For the purpose of this research, the Researcher modified the principles of the General Guidelines for GPG issued by the KNKG with customizing to the church environment which was the object of this research. The researcher uses references from the principles for public sector organizations published by IFAC together with CIPFA in the International Framework: Good Governance in The Public Sector (IFAC, 2014), the OECD also publishes The Recommendation on Public Service Leadership and Capability (OECD, 2019). Researcher also using additional references from research on the application of good governance principles to churches. The following are the GPG principles used for this research, shown in Table 2.2.:

**Table 2.2. Customizing of Principles of Good Public Governance**

Principle of GPG	Description
Democracy	The principle of democracy contains three main elements, namely participation, freedom to express views and the realization of the public interest of the congregation. The participatory element is carried out by involving the congregation and acknowledging differences of opinion and being open to criticism and suggestions regarding church management. Then the element of embodiment of the public interest is carried out by prioritizing programs that are the needs of the congregation.
Transparency	The principle of transparency contains elements of disclosure and provision of adequate and easily accessible information for the congregation. It is intended that the supervision of church management is carried out objectively. So that easy access to information and related documents is needed.
Accountability	The principle of accountability contains elements of clarity of function and being able to account for it. Implementation of accountability requires church administrators to have a clear structure of main tasks and functions. Regulations and policies serve as guidelines in carrying out assignments to avoid abuse of authority.
Culture of Law	Culture of law contains elements of obedience to the rules and guidelines in the church. The stipulation of regulations and guidelines is carried out on the basis of the public interest and is carried out consistently. Church administrators need to build a sustainable legal culture at every stage, starting from the design, establishment, implementation and accountability. The church does not enforce the implementation of church law by making it state law, such as cracking down on people who violate church law.
Fairness and Equity	The principle of fairness and equality implies that in the ministry by church leaders applying elements of justice and honesty must be considered. Equal treatment of the entire congregation will be able to realize a fair and responsible quality of service. It also makes church leaders and congregations aware of obeying the agreed rules and guidelines to avoid conflicts of interest.

### 3. RESEARCH METHOD

#### 3.1 Research Approach

This research was conducted to obtain a complete and in-depth picture of the implementation of good governance in Church X, hence the approach that was used is a case study. The case study approach is used as an intensive and systematic study, to answer the manageable research questions, in much deeper from a phenomenon at the level of individuals, institutions, as well as complex organizations. The analytical technique used in this research is descriptive qualitative analysis through interpreting, describing and then concluding data related to the object of research. In this research, data were collected through interviews, observation and documentation study.

The list of interviewees is shown in Table 3.1. following:

**Table 3.1. Detail of Interview**

No	Respondent	Church Title	Steps
1	Respondent 1	Head of Division	<ol style="list-style-type: none"> <li>1. Convey the intent and agree on the interview schedule</li> <li>2. Submit a list of interviews</li> <li>3. Conduct interviews</li> </ol>
2	Respondent 2	Secretary	
3	Respondent 3	Treasury	
4	Respondent 4	Congregation	
5	Respondent 5	Congregation	

Observations were made by attending several activities held by Church X, observing the workings of the member of church leaders and its employees, and visiting the offices of Church X. Documentation studies of various relevant documents were obtained from the member of church leaders at Church X, internal bulletin, and the website of Church X. In this study, the findings of the data obtained from the results of interviews, observations and documentation studies in the field, then tested with a predetermined theoretical framework. The following shown in Table 3.2. is analytical tools, analytical methods and results.



Table 3.2. Analytical Tools, Analytical Methods and Results

No	Step	Analytical Tools	Analytical Methods	Results
1	Generally analysis	General review	<ul style="list-style-type: none"> <li>• Study the vision and mission statements of Church</li> <li>• Identify through observation to the X Church environment</li> <li>• Attend the activities held by Church X</li> </ul>	Profile of Church X
2	GPG analysis	<ul style="list-style-type: none"> <li>• Compare with guidelines</li> <li>• Benchmarking</li> </ul>	Analysis of the implementation of the principles of democracy, transparency, accountability, culture of law, fairness and equality.	Adherence to principles

## 4. ANALYSIS AND DISCUSSION

### 4.1 Democracy

The church leaders has provided space for the congregation to express their concerns. It is not limited to formal forums, but during service activities, the church leaders tries to capture the concerns of the congregation. The characteristics of the congregation which are influenced by Javanese culture and culture affect the application of democratic principles. Congregations tend not to express their opinions directly in open forums, such as in Congregational Meetings. The church leaders tries to take a certain approach, such as how the congregation can convey its concerns without knowing its identity so that the democratic process can run in a balanced way between the church leaders and the congregation.

### 4.2 Transparency

The church leaders already has the media in reporting information regarding service activities at Church X. Apart from the printed version of the media, the church leaders also distributes it online via WhatsApp, website, and social media. With the pandemic conditions at the time of the research, the distribution was mostly through online media. The church leaders did not present detailed financial statements in the publication of financial information. but only in the form of an overview of income and expenditures as well as a brief explanation of the financial statements. For the display in internal bulletin to be even more minimal, it only shows income and expenditures from several activities and a recap of the receipt of the congregation's offerings.

### 4.3 Accountability

The Congregational Meeting is a form of accountability of the church leaders to the congregation regarding organizational management, but the accountability process is not running optimally because the attendance and participation rate of the congregation is low. The church leaders already has a guidance on its duties and functions, but the collegial nature causes the members of the church leaders not only to be responsible according to their positions. The church leaders internal meeting is a process of collegially controlling the performance of the church leaders.

The church leaders has a standard operating procedures (SOP) regarding the receipt and expenditure of funds. The other SOPs were in the process of being drafted at the time of the research. The church leaders also has an team of verification and evaluating to audit the financial statements prepared by the Treasurer, but the audit results have never been published.

### 4.4 Culture of Law

The implementation of the legal system will be more optimal if it is accompanied by awareness in its implementation not only for the church leaders, but also for the congregation. Church X already has guidelines and rules in managing the organization.

With a collective form of leadership, the decisions taken can be more rational. The obstacle that arises in decision making is the process that can run slowly because of the many opinions and considerations that are sometimes irrelevant.

#### 4.5 Fairness and Equality

An organization is said to apply the principles of fairness and equality if it pays attention to the interests of all stakeholders in its environment. This principle also provides equal opportunities and rights in carrying out their activities. The church leaders in its service seeks to involve the congregation as well as the community and the environment. The church leaders in providing services or opportunities to serve does not look at gender, background and certain groups who can receive services. Regeneration is one of the things that the church leaders struggles with, in terms of the involvement of the congregation to become the church leaders and members of supporting departments. There is a different treatment for the dissemination of information regarding the search for replacement needs of the church leaders and members of supporting departments who are about to end their term of service.

#### 5. CONCLUSION AND RECOMMENDATIONS

The GPG principles in church management have generally been applied by the church leader of Church X. The spirit to serve the congregation is shown by continuously trying to improve the quality of its services and actively involving the congregation in every church activity.

The following are suggestions of Researchers to improve the application of GPG principles in Church X:

- a. The church leaders needs to increase the understanding of the congregation about the importance of congregation participation and consider the influence of Javanese culture, so that the democratic process runs in balance between the church leaders and the congregation through a personal approach to the congregation.
- b. The church leaders also needs to publish the financial statements audited to provide confidence in the management of funds from the congregation.
- c. The church leaders can initiate by strengthening internal control in the management of the organization. The use of an independent auditor may be considered to validate the performance of the church leaders in managing the organization. So that offerings and fulfilling obligations from the congregation can be returned in the form of higher quality services.
- d. The implementation of the principle of culture of law will be more optimal if it is accompanied by awareness in its implementation not only for the church leaders, but also for the congregation. The existence of a match between what Church X offers and the needs of the congregation, can raise awareness of the congregation in church services as a form of fulfilling the rights and responsibilities of the congregation itself.
- e. Providing equal opportunities to be involved in being the administrators of Church X by distributing information evenly or being informed openly, regarding the need for replacement of administrators who will finish their term of office.

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## Corporate Governance And Pandemic Disclosure: Evidence From Malaysia

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### ABSTRACT

The coronavirus Covid-19 pandemic has been a clear and present danger spreading into earth rapidly since early 2020, raising a sad significant number of death cases. Multiple measures have been taken to contain the virus which have substantially drowning economic activities. Henceforth, corporate disclosure responsibilities are now being demanded even more than ever. During this high uncertainty period, it is vital for the companies to proactively communicate their responds on the crisis to their wider stakeholders. The objective of this study is to look into the extant of communicating disclosure to the stakeholder on action taken by the companies in combating the pandemic. An examination done to the top 100 companies listed in Bursa Malaysia according to their market capitalisation for year ended 2020, using secondary data published on the web and online reporting on action and initiatives taken to respond on the pandemic. The findings show that, there are positive relationship between Corporate Governance (Board Female Directors and Education level) and reporting extant in communicating disclosures to the stakeholders.

*Keywords: Corporate Governance, Pandemic Disclosure, Covid-19*

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### 1. INTRODUCTION

The coronavirus disease which started in 2019 (Covid-19) pandemic has been indisputably set off many instabilities in every aspect of our modern life. Business and societies have had to crumble with the pervasive changes of global health pandemic enforcements on its surroundings. Many corporations have shift to safe mode and restructure to ensure the interests of stakeholders have been put to in the best review. Within the wildfire, corporate disclosure and reporting has become a more priority alongside with profit maximisation (Kyriakogkonas et al., 2021). As a retort, the World Bank Corporation's IFC Guidelines of disclosure and transparency framework has been established to assist corporations in communicating their strategic pandemic responses. This framework promotes the issuance of standardised corporate reports and data which in essence provides stakeholders with the information they need to assess the company's resiliency, preparedness, and continued management of material environmental, social, and governance issues. The guidelines spread both during and after the crisis (IFC,2021). This study is motivated to the limited research of literatures conducted on the relationship between corporate governance characteristic and the extant of reporting as a rejoinder to the companies initiatives and actions in combating the pandemic issues. Herein, this research acts to examine the corporations' annual report, sustainability reports and websites of such reporting. The framework of this research is guided by the IFC's guidelines of disclosure and transparency issued in February 2021. There were three main elements commissioned during the investigations in relations to the disclosures, which includes; strategy, governance and performance. In this grave period of high uncertainty, it is important for corporations to proactively communicate how they are responding to the crisis to their investors and myriads of stakeholders including their employees, customers, and the communities in which they are operating. In extension, disclosing the mitigative action, initiative, changes in strategy,

governance and restructured performance need to be properly communicated. The remainder of the paper is organised as follows. The next Section 2 read previous literature on corporate governance and reporting. Section 3 describes the research methodology, and, evidences data and sample collected. Section 4 presents the empirical analysis and discussion on the findings, and Section 5 final provides the summary and conclusion of the study

## **2. LITERATURE REVIEW**

The raging inferno of Covid-19 is one of the most impingement hailstone in our modern economic ecosystem. Even in its early stage, the effect to the market environment, governance and society is remarkably chaotic due to the uncertainty caused by the Covid-19 virus which forced governmental caution measures. The economic catastrophic meltdown from this pandemic is now being evaluated and can be seen clearly (Saleh F.A Khatib & Nour, 2021). Although it is early to estimate the accurate effect of the pandemic, the fundamental need to documented research on this area ought to be done. The impact of the pandemic has already been documented in many areas, such as in; supply chain (Sharma et al., 2020), corporate solvency (Mirza et al., 2020), demand-supply mismatch (Eroğlu, 2020), abnormal stock returns (Liu et al., 2020), cash holdings (Qin et al., 2020), leverage (Slater, 2020), technology readiness (Sharma et al., 2020), firm performance (Mirza et al., 2020; Qin et al., 2020; Shen et al., 2020) and corporate governance (Saleh F.A Khatib & Nour, 2021). However, the study on the corporate governance and pandemic disclosure has received limited attention.

### **2.1 Corporate Governance Mechanism**

Previously, research on corporate governance and disclosure has been widely documented in the literatures. Many studies have examined the effect of corporate governance mechanisms, such as; board size, composition, independence and ownership structure, and also toward the level or quality of disclosures (e.g. environmental, climate change and sustainability). With the current pandemic state, issues concerning transparency and accountability have now becoming increasingly more important in the corporate world. Stakeholders, especially investors and capital fund providers, require assurance on financial security and stability to protect their interests. Therefore, corporate governance is in the limelight as one of the tools which to ensure the corporations' manner are well administered by the management team. Good corporate governance practices are as one of the best solutions or rather, the first line of defense that provisions to reduce or mitigate any given uncertainty and risks. There are a number of corporate governance mechanisms that are available to employ in ensuring that the stakeholders' interests are protected. Amongst the common mechanism are; the separation of the roles of CEO and Chairman of the board, imposing time limit to the CEO's contracts, composition of the boardroom through the appointment of minimum number of independent directors, as well as formation of board level committees such as audit, nomination and remuneration committees (Crowther & Seifi, 2011). Nevertheless, this research had identified three corporate governance mechanisms to focus. They were examined in the motive to understand their effects toward corporations' disclosure decisions on pandemic issues, namely; board size, CEO's educational background, and board gender diversity and ownership. The first named mechanism is the board size, being boards of directors who are the elected representatives of the stakeholders. They are responsible with monitoring the performance and activities of the top management in ensuring that they acted in the best interests of all stakeholders. An effective board has the ability to detect the problem of manager's ill opportunism, and proactively stop such unfavourable behaviours in order to preserve corporate performances. As the board is considered as driver for the firm to achieve sustainable competitive advantage, the board size is one of the major factors that can affect the corporation's corporate governance effectiveness (Amran et al., 2014a). However, empirical evidences from the previous literatures show mixed result on the effect of board size against corporations' disclosure and financial performance. The second mechanism is being the director's education background, the characteristics of a CEO such as the education background and tenure of service; have been found to positively impact on the willingness of a corporation to voluntarily disclose environmental information (Lewis et al., 2014). In a study by Lewis et al. (2014) where they examined corporations' responses to the CDP, it was found that corporations led by newly appointed CEOs and CEOs with Master of Business Administration ("MBA") degrees are more likely to respond to the environmental issues. It was also found that the quality of employee has direct positive relationship with the quality of disclosure that the corporation made, regardless of the mandatory or

voluntary nature of the disclosure (Call, Campbell, Dhaliwal and Moon Jr., 2017). The third focused mechanism, being board gender diversity. Fernandez-Feijoo (2012) found that boardroom with more female directors tends to disclose more Corporate Social Responsibility (CSR) information. The study also suggested that boards with three or more women are associated with a higher quality of CSR reporting, i.e. more information is disclosed including an assurance report that adds credibility to the disclosure. This is due, according to Fenandez-Feijoo (2012), with presence of at least 3 female members in the board, it mediates the effect of power distance in the boardroom (i.e. level of democratic or autocratic in the boardroom). In addition, the presence of female directors in the boardroom also mediates the production of stand-alone reports as well as moderates the masculinity and individualism on the CSR strategy disclosure. Hyun, Yang, Jung and Hong (2016) stated that one of the reasons why corporations with more female participation in the boardroom tend to do better in CSR is because they are more often empathetic and caring as compared to their opposite gender.

## 2.2 Pandemic Disclosure

Investors and stakeholders rely on corporate disclosure to make informed decision about the value of corporations they invested. By looking into the current scenario, the pandemic is now changing the operating environment of corporations everywhere. New risks and opportunities need to be assessed and addressed on how this will have an impact on the stakeholders. Corporations are obliged to disclose information about the new operating environment and any changes in their business model, strategic objectives and management of sustainability issues. Being the study's focussed matter which cover the three elements i.e. strategy, governance and performance. The Covid-19 pandemic provides a unique opportunity to examine disclosure practices of corporations relative to peers in real time about a somewhat unprecedented shock that impacted (David F. Larcker, 2020), particularly to publicly listed corporations in Malaysia. A research by (Tasios S., et al., 2021) looking into 40 corporate non-financial corporations listed in ASE, Greece in 2020 shows that the level of pandemic disclosure was significantly positively associated with corporation size, profitability and board size. This indicates that during the pandemic, larger companies, more profitable and with more board members, disclosed more information on their websites on the impact of the pandemic to their corporations. Another research done by Loughran, T. & MacDonald, B. (2020) shows that less than 21% of the 10-K listed corporations in United States disclose related reference to pandemic in their annual report and website. This findings are contradict with another research by Sawalqa F. (2020), which stated that, 100% of the corporations listed in Amman Stock Exchange (ASE) disclosed the impact of pandemic in their disclose. Results also show that those corporations that were suspended completely and impacted badly during the Covid-19 pandemic provided risk disclosures in more details. Looking into the importance of both variables, i.e. corporate governance characteristics and the extent of pandemic disclosure in the current situation and the adoption with the previous literature, this research propose to look into:

*H1: There is an association between CEO Education level and Pandemic Disclosure*

*H2: There is an association between Board Gender Duality and Pandemic Disclosure*

*H3 : There is an association between Board Size and Pandemic Disclosure*

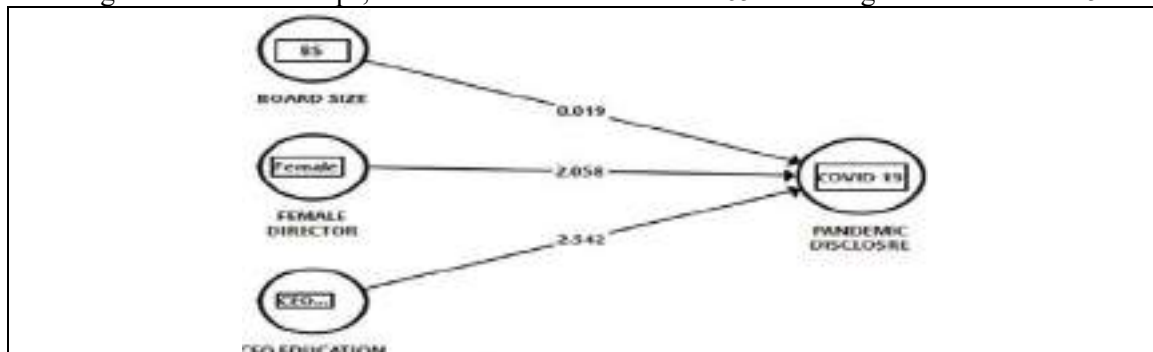
## 3. METHODOLOGY

In the pursuit to collect sample data concerning corporate governances, relevant information were extracted and obtained from the publicly available published annual report which are available in Bursa Malaysia website for the year ended 2020. All the information needed for the research is publicly available in the annual report. Within the same source of sample, i.e. the annual report is required to make avail the Board of Directors profile. In this section it provides details of the directors' experience and profile. As for the pandemic disclosure, data are collected using two approaches. The first approach uses indexes to measure the extent of the disclosure (Bekiaris et al., 2014; Waweru et al., 2019; etc.). The second approach utilises a coding system that takes the value 1 if a company uses Internet reporting, annual report, sustainability report and 0 otherwise (Basuoni & Mohamed, 2014; Dolinšek & Lutar-Skerbinjek, 2018; etc.). The data are collected from top 100 corporations listed in Bursa Malaysia by market capitalisation in 2020. There are two parts of analysis, by using the SPSS, which are the *descriptive* and the *demographic*. After, completion of the descriptive and demographic analysis, SEM approach using the PLS technique was applied to further test the whole model. PLS was used for each

of the hypothesis testing and examine the relationship between the entire variable to capture the relationship between pandemic disclosure.

#### 4. FINDINGS

Figure 4.1 shows three (3) paths of tested hypotheses. Out of the three (3) tested paths, two (2) paths have significant relationships, with a t-value of more than 1.65 with a significance level of 5%.



**Figure 4.1 Path Coefficient – Corporate Governance and Pandemic Disclosure**

The result shows that the education level of CEOs has a significant relationship with the pandemic disclosure, i.e. the higher the education level of the CEO (with Master's degree as the benchmark), the higher the extent of pandemic disclosure made by the public listed company, i.e. ( $t=2.542$ ). The second item that shows significant relationship is the between the percentage of female directors in the board composition of the public listed companies and pandemic disclosure. The result shows that the higher the ratio of the female director to board size have significant effect to the company's pandemic disclosure, which is reflected by the value of  $t=2.058$ . The third item which tested is the board size, shows a  $t=0.019$ , which shows insignificant relationship between the pandemic disclosure.

#### 5. CONCLUSION AND DISCUSSION

This research used secondary data of top 100 public listed companies by market capitalisation published in 2020 as a sample to examine the relationship between corporate governance and pandemic disclosure. Out of three (3) components of corporate governance examined were board size, CEO's educational background, CEO's and board gender diversity, two (2) have shown positive relationship with the pandemic disclosure. In conclusion, it is found that adopting good corporate governance practices will positively lead to the corporation's be more vigilant on issues concerning such crisis which impacted the strategy, governance and performance of the company. The instant Covid-19 pandemic, which had prompted corporations to embark voluntarily in disclosing information related to their respond on the related issues that may affect the corporation's going concern, hence more comprehensive pandemic disclosure had being produced. The corporation's ability to be innovative and creative in developing such adaptive and mitigative action towards pandemic issues, will adds sterling credibility. In turn, leads to the better firm performance, which thus be beneficial to all the stakeholders. The adverse chaotic economic state created by the crisis of the Covid-19 pandemic have naturally emphasised the importance of corporate disclosures and the usefulness of the Online assortment advantage for the timely dissemination and availability of information (Tasios, S. et al. 2021) to the stakeholders. The investigation covers a period of one year, thus being the limitation for robust analyse. Future research to include multiple years may provide us further understanding of the subject matter.

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## Analysis of Financial Transaction Examination Standards in Disclosure of Money Laundering: A Case Study at Indonesian Financial Intelligence Unit

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### ABSTRACT

Money laundering is a financial crime that is increasingly occurring and is a serious problem faced by Indonesia. In preventing and eradicating money laundering, the Financial Intelligence Unit plays a central role by conducting investigative examinations of suspicious transaction reports. This study aims to evaluate the standard implementation of financial transaction examinations conducted by the Indonesian Financial Intelligence Unit. This research uses a qualitative methodology with a case study design that involves several methods of data collection and analysis including document analysis and interviews. The authors examining relevant documents regarding examinations and conducting semi structured interviews on five examiners. The results of this study indicate that there are several weaknesses in the examination standards and procedures. Through this study, it is expected that the Indonesian Financial Intelligence Unit will improve the standard operating procedure for the financial transaction examination and evaluate the supervision carried out on the implementation of the standard.

**Keywords:** Examination standards, financial intelligence unit, investigative audit, money laundering

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### 1. INTRODUCTION

Money laundering has become a serious global problem that threatens the financial system and the global economy (Hendriyetty & Grewal, 2017; Jayasekara, 2020). UNODC, (2019) estimates that the amount of money laundered globally in one year is around 2-5 percent of global GDP or US\$ 800 billion to US\$ 2 trillion. The phenomenon of money laundering is increasingly prevalent in Indonesia. Based on the PPATK statistical bulletin, from 2015 to October 2020 the total number of court decisions related to money laundering was 367 decisions (PPATK, 2020). The number of these court decisions is increasing every year.

Money laundering is the act of changing the proceeds of crime as if it came from a legitimate source (Fauzi, Szulczyk, & Basyith, 2018; IMF/WorldBank, 2004). According to the United Nations (UN) 2000 Convention (UNODC, 2004), money laundering is the process of altering or transferring assets, knowing that the assets originate from the proceeds of crime, with the aim of concealing the source of the crime or assisting the perpetrators involved in committing the crime. Money laundering operations are getting more sophisticated and growing. Criminals and organized crime networks seek to hide the proceeds of their crimes by rapidly transferring assets between bank accounts, currencies, and different jurisdictions (Pavlidis, 2020).

The Financial Intelligence Unit (FIU) is a national institution that functions as a centre for receiving and conducting examination of suspicious financial transaction reports and other information relevant to money laundering and related predicate crimes, as well as for disseminating the results of the examinations to law enforcement or regulators (FATF, 2020). Based on the statistics data on the examination report, it is known that the utilization of the examination report of suspicious financial transactions conducted by the Indonesian FIU is still not optimal (PPATK, 2020). In the feedback from



law enforcement regarding the submitted examination report, the main reason the report was not followed up was the lack of supporting evidence and the connection of transactions with the criminal acts.

Considering the increasing prevalence of money laundering crimes that cause huge losses, as well as the difficulty of disclosing money laundering crimes by law enforcers, the Indonesian FIU as a central institution in the prevention and eradication of money laundering crimes must have high quality audits of financial transactions so that it can produce an examination report that has value added for law enforcement in detecting and uncovering money laundering crimes. Therefore, it is necessary to have an evaluation of the examination standards of financial transactions applied to carry out the duties and functions of the Indonesian FIU. This study is aimed to evaluate the financial transactions examination standards and provide a recommendation for improvement of identified weaknesses by conducting comparative analysis with best practices in investigative audits.

## **2. LITERATURE REVIEW**

Financial transactions examination is a process of problem identification, analysis, and evaluation of suspicious financial transactions carried out independently, objectively, and professionally to assess suspected criminal acts (Republik Indonesia, 2010). The examination of suspicious financial transactions conducted by the FIU is a financial investigation aimed at finding indications of money laundering or related predicate crimes. The examination mainly uses investigative audit methods and techniques. Investigative audit is the process of searching, finding, collecting, analysing, and evaluating evidence systematically by competent and independent parties to reveal facts or actual events regarding indications of criminal acts of corruption and or other specific purposes in accordance with applicable regulations (BPKP, 2017). An investigative audit is a more specialized and in-depth audit, which leads to the disclosure of fraud (Tuanakotta, 2015).

The examinations process uses fraud audit methods to investigate suspected fraud, therefore this study uses Fraud Examiners Manual from ACFE as benchmark to evaluate the examination standards. Fraud Examiners Manual is a guideline used by fraud examiners in conducting fraud audit or investigations. When conducting a fraud examination, the fraud examiners should assume litigation will follow, act on predication, approach cases from two perspectives, move from general to specific, and use the fraud theory approach (ACFE, 2021).

According to the guideline, fraud examinations should begin when there is proper predication which is a sufficient basis and legitimate reason to take each step in an examination. Once it is determined that an allegation will be investigated, then begin the formal investigation. The steps in the formal investigations include planning the examination, collecting evidence, and writing the examination report. Planning the examinations include activities such as completing engagement letters, assembling investigation team, learning about the organizations at issue, and developing an investigation plan. Evidence collection includes obtaining testimonial evidence, digital evidence, and documentary evidence. The last step is writing the reports to communicate the results of the examinations to the responsible party.

## **3. METHODOLOGY**

This study uses qualitative research methods and utilises a case study approach. The case study approach used to describe the state of the research object in one unit of analysis based on existing facts and describe as carefully as possible the existing data into discourse and conclusions in logical thinking (Yin, 2014). The case study was conducted at the Indonesian FIU. The Indonesian FIU is an independent institution that has the task of preventing and eradicating money laundering. In carrying out its duties and functions, the Indonesian FIU receives financial transaction reports from the Reporting Party and receives data/information from another FIU and other government agencies. The FIU then perform analysis and examination of the financial transaction reports and submit the results of the analysis and examination to law enforcement agencies.

This study used several methods of data collection, such as document analysis and interviews. Document analysis is carried out by identifying and collecting relevant documents from the unit analysis such as examination regulation, standard operating procedures, technical guidelines, and other related documents to gain an understanding of the processes and the rights and authorities of examiners in carrying out financial transaction examination.

Interviews were conducted using a semi-structured approach, the researcher prepared several questions before the interview while also remaining open to the possibility of developing further questions relevant to the responses of the interviewees (Bryman, 2012). Semi-structured interviews were conducted with 5 (five) respondents. The interviewees were examiners from different hierarchical levels in the examination team: supervisor, team leader, and team member. Details of the interviewees are shown in Table 1. The interviews questions are about the implementation of the examination, the examiner's perception of the applicable procedures, and the obstacles experienced in conducting the examination, as well as the conformity of standards with best practices in the implementation of the examination.

Table 1. List of Interviewees.

<b>Interviewees</b>	<b>Position</b>	<b>Working Experience</b>
Interviewees 1	Supervisor	8 years
Interviewees 2	Team Leader	13 years
Interviewees 3	Team Leader	10 years
Interviewees 4	Team Leader	8 years
Interviewees 5	Team Member	5 years

Variations in data collection methods and evidence serve to strengthen the validity of the results of the analysis and obtain an adequate understanding of the interpretations obtained during data evaluation. To ensure that the interpretation of the results of the document analysis is accurate, it is necessary to perceive from another point of view the information obtained. Triangulation is done by using interviews with parties related to the implementation of the examination in order to verify meaning and relevancy of data analysis that has been carried out.

#### **4. RESULTS AND DISCUSSION**

Based on the data collection through document analysis and interviews with respondents, it is known that the examination of financial transactions at the Indonesian FIU is carried out by referring to the regulatory documents on examination procedures and standard operating procedures. The examination process carried out by the Indonesian FIU can be divided into 4 (four) stages, namely pre-examination, planning, implementation, and preparation and dissemination of examination reports.

##### **4.1 Pre-Examination Phase**

Before the inspection is carried out, an initial review of the report or request for an examination is carried out first. Not all reports or requests for examination will be followed up with an examination. The report or request must first be evaluated or reviewed whether there is sufficient information to be followed up with an examination. The adequacy of a report or request for an examination for follow-up is measured based on several criteria such as information regarding the alleged parties involved, what crime or fraud occurred, the period or time of the crime, the location of the crime, the motivation or reason for the crime, how the crime was committed, and the estimated value of losses incurred. The examination of financial transactions can only be started if there is a strong predication or basis for carrying out the examination. If there is a predication, the Examiner can develop a hypothesis of fraud or crime that occurred and develop an examination plan. This stage corresponds to the initial stages in the Fraud Examiners Manual ACFE, (2021), the initial stage of an investigation or examination of fraud is to conduct an initial assessment to collect information related to indications of reported fraud and assess whether the information is adequate to conduct an investigation.

## **4.2 Planning Phase**

The planning of the examination is carried out by determining the scope and objectives of the examination, proposing an examination plan detailing the period, place, method, object, audit team, budget and cost plan, examination program, as well as notification of the examination plan to the reporting party/financial service provider. In the preparation of the examination plan, there is a gap where there is no examination program that details the roles and duties of each member of the examination team. The examination program that is prepared only contains general audit procedures that will be carried out without any division of roles and tasks from team members. The determination of the roles and duties of the team members will be given when the examination is carried out based on the initial data/information obtained during the implementation stage.

Determination of the roles and tasks of each team member at the time of planning is carried out so that each member of the examination team understands and knows what to do when examination activities begin (ACFE, 2021). For efficiency and effectiveness of coordination, all team members must understand their roles and responsibilities and how they work to meet the examination objectives. Examination planning should also involve every member of the audit team. The absence of determining the roles and duties of each team member causes the examination to be ineffective and not completed on time. This is because the initial planning was only prepared by the team leader and the team formation was carried out in a short time so that there was not enough time to detail the examination program which contained the division of tasks from each member.

## **4.3 Implementation Phase**

In this phase, the examination is conducted by collecting relevant and sufficient evidence. The evidence that has been collected must be properly organized from the start of the examination and it must be continually rearranged as the case progresses. The purpose of organizing evidence is to make it easier for examiners to analyse and evaluate relevant evidence in proving a case. Examiners can more easily relate facts based on relevant supporting evidence. In the applicable examination standards, documentation of the evidence collected must be kept safe and confidential. However, there are no arrangements regarding the organization of evidence such as the creation of a database or register of data/information that has been collected during the examination. Based on the interview, the collected evidence is stored in a separate file according to the case, but there is no register or master file containing a list of evidence that has been collected. This raises several problems such as repeated requests for data to the reporting party and difficulties in finding the evidence when needed. Repeated requests make the examination ineffective, causing the completion of the examination not being timely.

The implementation of the examination also includes the preparation of working papers that contain every procedure carried out in the examination. Audit working papers are the primary frame of reference used by supervisory personnel to review the audits. The preparation of working papers has been regulated in the applicable examination standards in which every activity during an examination must be documented in the working paper. However, the working paper documents are not reviewed by the director or the supervisor. The format of the working papers does not contain information about who did the work, when it was done, who reviewed it and the date of the review. The examination manager and supervisor only conduct a review of the interim audit report or at the time of exposure and preparation of the audit report. A tiered review of examination working papers is very important to ensure quality and that the examination has been carried out in accordance with applicable procedures.

## **4.4 Preparation and Dissemination of Examination Reports**

The preparation of the examination report is carried out after the process of collecting data and information on financial transactions has been completed and there were sufficient and relevant evidence obtained. The examination report must contain four characteristics: accuracy, clarity, impartiality and relevance, and timeliness. The examination report then communicated to the designated parties or law enforcers. Communicating the results of the examination is necessary to ensure the adequacy of all elements of the indication of a criminal act and so that designated parties can immediately follow up and determine the appropriate action to deal with the fraud that occurred.

After the report is submitted to the relevant parties, examiners must monitor the follow up action that the law enforcers take. Unfortunately, there is no detailed procedure regarding follow-up monitoring activities in the Indonesian FIU's examination standard. The monitoring carried out is passive, where the examiner only monitors the cases through media and waits a request for coordination from law enforcement agencies. Follow-up monitoring should be carried out periodically by requesting confirmation of the status and progress of the handling of the examination report that has been submitted. The follow-up monitoring procedure must also ask for an adequate explanation to law enforcement on the reasons the report has not been followed up.

## 5. CONCLUSION

This study aims to evaluate the standard implementation of financial transaction examinations carried out by the Indonesian FIU. Based on the results of the analysis and discussion in the previous section, it can be concluded that the process of financial transactions examination has accommodated the stages in the investigative audit in accordance with the best practice, but there are still some gaps that have not been accommodated in procedures owned by the Indonesian FIU. Some of the identified gaps are: 1) the planning of the examination is not accompanied by the determination of the roles and duties of each team member; 2) documentation of evidence collected is not sufficient; 3) supervision of audit working paper documents is not sufficient; and 4) there is no systematic follow-up monitoring mechanism. For the identified gaps, to overcome weaknesses in the examination standards and procedures, it is expected that the FIU will improve the standard operating procedure for the financial transaction examination and evaluate the supervision carried out on the implementation of the standard.

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# The 4<sup>th</sup> International Conference on Accounting Research and Education (iCARE2021)

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## Lively Accounting: Combining Flashcards and Augmented Reality in Accounting Education

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### ABSTRACT

The substantial changes and developments in technologies call for accounting educators to continuously create new teaching and learning methods. Students on the other hand facing the challenge to not just understanding the technical know-how, but also the concepts and theories of the accounting processes. The aim of this study is to record and provide preliminary evidence of the usefulness and acceptance of Lively Accounting, an interactive learning tool that combines flashcards with augmented reality. As past exams results show that students have difficulties in memorizing and understanding accounting terms, concepts and theories, Lively Accounting creates a unique experience where users can learn offline and online. A survey and an explanatory video about Lively accounting were distributed to students. The results show that the key features of lively accounting do meet the needs and preferences of students. More importantly, most students will want to use the tool once it is made available to the public. However, this study also found that the implementation of new tool will face many challenges and barriers. This study concludes that there is a need for a modern accounting learning tool and Lively Accounting is one of them.

**Keywords:** Accounting education; lively accounting; teaching and learning; flash cards; augmented reality

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### 1. INTRODUCTION

Teaching accounting subjects has always been a challenging task for educators. Other than making sure that the students get the numbers correct, educators need to make sure that the concepts, theories and justifications are well understood by the students. Rebele and St. Pierre's (2019) suggested that emphasis on technical skills is very important and Apostolou, Dorminey and Hassel (2020) further added that the development of soft skills is also equally important. These arguments were supported by Fogarty (2019) and therefore suggested that educators are facing a tricky task of balancing the growth of students' technical and soft skills.

Innovations and advancement in teaching and learning methods and materials in accounting have become very important to ensure students get the highest quality learning experience. Wang, Tsiligiris, and Hartley (2019) adopts the A3 planner, a project management technique used by Toyota, to be used by students in managing their projects. They have found that the majority of the students have agreed that the method had improved the management of assignments and projects. More interestingly, Silva, Rodrigues, and Leal (2019) found that games can significantly improve the learning process. However, Calabor, Mora, and Moya (2019) claims that many issues need to be considered as implementing something new in education has many barriers such as time constraints and incentives. Other creative and innovative learning methods include choice-based learning (Opdecam & Everaert, 2019), collaborative learning (Tan, 2019), experiential education (Butler, Church, & Spencer, 2019) and

storytelling (Freeman & Burkette, 2019). These efforts in developing a better learning environment shows that the opportunity to create, innovate and improve the approaches in teaching and learning process is always present.

This study focuses on a new creative learning tool that combines short notes on flashcards with augmented reality called Lively Accounting. The aim of this tool is to provide versatile and portable short notes for accounting students. The flash cards can be scanned using the Zappar App to make the cards come to life and play videos that are linked with YouTube to explain the related concepts. The main feature of Lively Accounting is that it can be used online and offline as well as reduce the time students need to prepare short notes. There are many grounds on why this tool was created. One of the main reasons is the analysis of past exam results shows that students were able to score calculation questions but a worrying 72% failed to get at least 50 marks for theoretical questions.

The objective of this study is to examine the features of Lively Accounting (Table 1) by understanding students' favoured learning materials. This study also serves as preliminary evidence regarding the development and the usability of Lively Accounting from the users' point of view. Furthermore, this study aims to document comments and reactions by potential users of the tool.

Table 1: Features of Lively Accounting

Features	Description
	Can be used offline and online; mobile
i. Versatility	
. Understandability	Use short notes; designed to look like presentation slides; use simple terms; use short explanation videos to explain the concepts and theories; focus more on helping users to understand rather than memorize.
. Use technology	AR Users can scan the flashcards using Zappar App to watch and listen to the explanation of the related terms.

## 2. Literature Review

With the rise in the usage of mobile devices and the internet in the past decade, the use of augmented reality (AR) is poised to be one of the important tools in education. The use of AR in education is widely documented especially in medical schools (see Kavoor & Gupta, 2021; Moro, Smith & Finch, 2021). Gandedkar, Wong and Darendeliler (2021) found that the use of AR in orthodontic teaching and research had enhanced the ability of students and educators in assimilating and imparting knowledge. Other researchers have also documented positive results relating to the use of AR in education. Radu (2012) claimed that AR will increase context understanding, favours long-term knowledge retention and increases learning motivation. Wu, Lee, Chang, and Liang (2013) added to the benefits of AR by saying that it empowers, ubiquitous, collaborative and situated learning, visualizing the invisible and bridging formal and informal learning. A more recent study by Akçayir and Akçayir (2017) also mentions the learning gains by using AR approaches. However, they also mentioned about the difficulties of the AR technology to be used by students. This supports Calabor et al. (2019) assertions that many issues must be considered in implementing AR in teaching such as time constraints and incentives.

Technological advancements drove the need for educators to shift from the traditional in class approach to a more sophisticated modern style of teaching. As documented by McCarthy, Kusaila, and Grasso (2019), online and hybrid delivery modes were significantly and positively associated with exam averages in teaching higher level accounting subjects. They further reported that students can perform at the same level even when exams are taken online. Kotb, Abdel-Kader, Allam, Halabi, and Franklin (2019) explored technology development in accounting curriculum in Britain and the Republic of Ireland and concluded that information technology elements should be implemented across the curriculum. The growing popularity of YouTube videos have allowed educators to post teaching videos

for online students viewing have shown positive effect (D'Aquila, Wang, & Mattia ,2019). Coetzee, Schmulian, and Coetzee (2018) analysis of accounting undergraduates from South Africa found that students agree that academic performance will improve if they regularly attend online tutorials.

### 3. RESEARCH METHODOLOGY

Questionnaires were distributed to the accounting students in Universiti Teknologi MARA Perak Branch, Tapah Campus. The survey was designed to capture students' responses as per the research objectives identified earlier. A YouTube video showing the features and attributes of the Lively Accounting prototype was posted online to capture reactions and comments.

### 4. RESULTS AND DISCUSSION

A total of 362 respondents have participated in the survey. The respondents consist of students from the first year (50%) and second year students (49%) and others (1%). Almost all students (99.4%) have readily internet access. It is also important to note that 51.4% of the students are from B40 families, 26% are from M40 families and 12% are from T20 families. 9.9% of the respondents came from families with a household income of less than RM1,000.

Concerning the versatility of Lively Accounting, it was found that students do prefer offline materials over online materials. As presented in Table 4.1, 77.3% students favour offline materials and 66% of their learning materials to be in hardcopy. It was also documented that the students use both online materials and offline materials to study. This shows that although they prefer hardcopies of learning materials, online resources are equally important to complement the printed materials.

Table 4.1: Response on versatility

Features	Yes	Percentage	No	Percentage
Prefers hardcopy over softcopy	239	66%	123	34%
Prefers offline materials	280	77.3%	82	22.7%
Uses offline materials more often	197	54.4%	165	45.6%

N = 362

Table 4.2 records students' preference on the design and understandability of Lively Accounting. The results show that the features of Lively Accounting meet the students' needs. By proving short notes designed to resemble teaching presentation slides, it meets 89.5% of students' preferred learning material. The results also show that 50% of the students prepare their own short notes. Lively Accounting will reduce the time needed in preparing those notes. As per the results documented, the majority of the students (98.1%) uses explanation videos and prefer it to be in short duration (91.2%). Lively Accounting also links the flashcards with online videos which most students (74%) use in their learning activities. The results are consistent with Taylor, Marrone, Tayar, and Mueller (2018) that digital materials will enhance students' engagement and conceptual understanding. The inclusion of videos will positively affect students learning effectiveness as suggested by D'Aquila et al. (2019)

Table 4.2: Response on understandability and use of Lively Accounting

Features	Agree	Percentage	Neutral or disagree	Percentage
Uses presentation slides to study	324	89.5%	38	10.5%
Make own short notes	182	50.3%	180	49.7%
Use video materials to study	355	98.1%	7	1.9%
Prefers short explanation videos	330	91.2%	32	8.8%
Stream online to watch videos	268	74%	94	26%
Use Lively Accounting	289	79.8%	73	20.2%

N = 362

The most important finding is that 79.8% of the students will use Lively Accounting. Some of the probable reasons for not achieving 100% ready use rate is that students realise that this tool comes with a price and the result of the study shows that on average students are only willing to pay up to RM15

for the tool. This finding further supports Akçayir and Akçayir (2017) and Calabor et al. (2019) findings that implementing a new tool in education will face some challenges and barriers.

The promotional video of Lively Accounting concept and prototype in YouTube received 1,809 views and was liked by 804 viewers. 39 positive comments were received highlighting the creative and innovative features of Lively Accounting as an accounting learning tool. Some viewers highlighted that they agree that students tend to focus more on calculations resulting in weak understanding of theoretical concepts. One viewer mentioned that the tool will engage students to learn more about accounting. Most of the viewers agree that the concept of using AR in teaching accounting is innovative and will benefit the users.

## 5. CONCLUSIONS

The challenges and the need of modern teaching tools is well documented by previous researchers. Educators may use technological advancements in innovating teaching methods and creating new learning materials. The results of this study documents that Lively Accounting will be a useful tool as it meets students' preference of learning materials and provides features of a modern accounting education tool. However, the result may only serve as a preliminary understanding of how Lively Accounting would fit in accounting education as the survey was done based on the prototype and not the full version. More research must be done to better understand the product and make better conclusions on its usefulness. The use of Technology Acceptance Model in future research would give better insight and interpretation regarding the application of Lively Accounting.

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## Factors Influencing Students' Satisfaction and Academic Performance in Open and Distance Learning (ODL)

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### ABSTRACT

The worldwide education systems are crippled, inevitably leading to the near-total closure of school establishments, early childhood educations, colleges as well as universities due to the COVID-19 pandemic. As of May 2021, approximately 1.2 billion students from all over the world were affected. As a result, education essentials dramatically adjust with the distinctive rise of e-learning tools, wherein teaching is now undertaken remotely on digital platforms. Realizing the grave current situation and the importance of education, this study aims to identify the main factors affecting student's satisfaction and their academic performance in an open and distance learning (ODL) environment. The data were collected from 279 respondents via online surveys, which comprises of accounting students in UiTM Perak branch, Tapah campus. The analysis of the findings shows that the quality of instructors is the main factor that influenced student satisfaction in ODL and in terms of academic performance, students performed well during ODL.

**Keywords:** Student satisfaction, quality of instructors, performance, COVID-19, education

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### 1. INTRODUCTION

COVID-19 pandemic has dramatically changed the education world. Starting from the initial outbreak of COVID-19 malady in December 2019 in Wuhan, China; in early 2020 it had rapidly appeared in other parts of the world (Sahu, 2020). Due to the nature of the transmission capability of the disease, the World Health Organization (WHO) declared the COVID-19 plague a public health emergency of international concern (Spina, Marrazzo, Migliari, Stucchi, Sforza & Fumagalli, 2020). In the same vein, 107 countries had implemented national school closures in response to the COVID-19 pandemic (Viner, Russell, Croker, Packer, Ward, Stansfield, Mytton, Bonnel & Booy, 2020). Worldwide, universities have either cancelled all campus events including conferences, workshops, sports, and other programs and have rapidly moved to change many courses and programs from physical to online delivery mode (Gewin, 2020). In the effort to break the malaise transmission and ease the now over-burden of the health system, the Malaysian Government has taken drastic action for school closures as part of the physical distancing policy. Most higher education institutions (HEIs) are unprepared, while other universities that are quick and proactive in response, have their contingency online learning tools at hand. Nevertheless, the online teaching mode is new and requires advance upskill, in some cases, reskill requirements by the academic sector. Prior to COVID-19, there was already high growth and adoption of online education technology. In response to the significant demand, many online learning platforms were forced to move rapidly without proper training, insufficient bandwidth conditions and little hardware-software preparations, hence resulting in poor user experience which is un conducive to sustained quality (Cathy, 2020). Both the students and educators now need to adapt to the new norm of the education environment. Therefore, this study conducts an examination to understand the factors affecting the students and how they perceived these changes, which are reflected through their satisfaction level and finally translate into their academic performance.

This paper is structured as follows: Section 2 provides previous literature on factors that influenced student satisfaction and academic performance during open and distance learning (ODL). Section 3 describes the research methodology and includes the data of participants, materials, and data analysis. Section 4 represents the descriptive analysis and discussion on findings, and lastly section 5 provides a summary and conclusion of the study.

## **2. LITERATURE REVIEW**

### **2.1 Students' satisfaction factors in ODL**

Student satisfaction is an essential element to enhance the learning process, especially in the ODL mode. During ODL, classes are conducted via a blend of asynchronous (without real-time interaction) and synchronous (real-time interaction) sessions. Literally, factors affecting students' satisfaction in ODL vary in the past studies. A study was done by Mason and Welle (2000) regarding students' satisfaction towards the web course revealed that the support of their tutors, their devotion to the course (time, patience and motivation) as well as the level to which the course design fit the students' expectations and learning style are the key factors for students' satisfaction. It is not surprising for a course without face-to-face tutorials, trying to teach IT skills and expecting students to work collaboratively, is going to rely heavily on the quality of its tutors for the satisfaction and success of its students (Mason & Welle, 2000).

According to Lee (2014), the student satisfaction level is closely associated with two factors; human factors (course instructor's knowledge of materials) and design factors (course structures and technical aspects). The study found that instructors' and content experts' availability was a key component of student effective learning in online Math methods courses. In terms of course structure, students highlighted clear assignment rubrics and guidelines as factors for online learning satisfaction. As not all students are experts in using technology, a user-friendly system is believed to be another important factor in their satisfaction level.

These above arguments have been supported in the literature by Rajabalee and Santally (2020) and Gopal, Singh and Aggarwal (2021). Rajabalee and Santally (2020) reported that technical difficulties and lack of tutors' support create a sense of frustration which eventually impact the overall satisfaction of students in online learning. Furthermore, Gopal et al.(2021) indicated that by delivering the course content properly, the instructors may affect the student's satisfaction during online classes. In fact, the initial stage of online education was highly dependent on instructors who played a major role in the educational process (Hamdan, Al-Bashaireh, Zahran, Al-Daghestani & Al-Habashneh, 2021). According to Hamdan et al.(2021), enhancing students' interaction, self-regulation, internet self-efficacy and decreasing the number of e-learning theoretical courses may increase students' satisfaction with online education.

In another interesting finding by Alzahrani and Seth (2021), the study showed that service quality did not influence students' satisfaction, while information quality and self-efficacy both had a significant influence. This study analysed the critical factors influencing students' satisfaction with their continuing use of online learning management systems in higher education during the COVID-19 pandemic.

### **2.2 Academic Performance during ODL**

Theory of Performance (ToP) proposed that level of performance depends on personal factors, among others (Elger, 2013). Examples include the quality of a student's learning environment, and this is especially crucial in the online learning setting. Previous literature has seen various outcomes following the ODL implementation. A study performed by Shaw, MacIsaac, and Singleton-Jackson (2019) found that despite the limited engagement in cognitive learning, students still received high test marks using the online tool. In a different point of view, online pedagogy seemed to have a negative impact on the academic achievement of undergraduate engineering students compared to their counterparts enrolling in the traditional pedagogy (Bir, 2019). Surprisingly, there is another variant of ODL outcome, which is no different than the physical mode, provided that certain situations are abided by. This is evident in the study conducted by Francescucci and Rohani (2019) who found that virtual, interactive, real-time,

instructor-led online learning has the same level of student outcomes as the face-to-face format. Thus, it is observed that ODL greatly impacts academic outcomes at university, both positively and negatively.

Therefore, this study aims to determine the main factor that influences students' satisfaction and to observe the academic outcomes in online and distance learning.

### 3. RESEARCH METHODOLOGY

The data for this study were gathered from 279 respondents who are pursuing Diploma in Accountancy and Diploma in Accounting Information System in UiTM Perak branch, Tapah campus. The questionnaire was created using Google Form and was distributed to respondents via Whatsapp. The research instrument used for the data collection is an online survey that includes the four factors being measured: instructors' quality, course design, prompt feedback and student's expectations. The measurement of the variables was adopted from Gopal et al. (2021) with some selections made to only include items relevant to the study. In contrast to that of Gopal's, this study fills the gap in terms of providing additional literature in Malaysia setting, particularly in the accounting field. The statements in the survey were assessed on a four-point Likert scale ranging from "1 = strongly disagree" to "4 = strongly agree". Descriptive analysis is applied in searching for the focal point of the study.

### 4. FINDINGS AND DISCUSSION

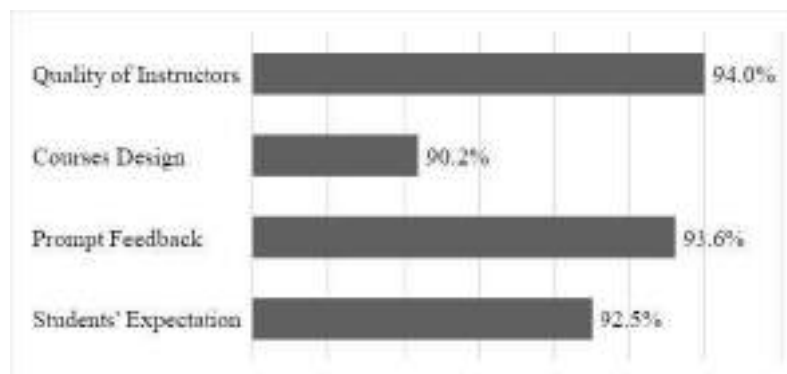


Figure1. Factors that influence students' satisfaction in ODL

Figure 1 shows the factors influencing students' satisfaction with ODL. In general, more than 90% of respondents agreed that all four factors had an impact on their satisfaction. Furthermore, the four factors listed above were chosen to determine which one will have the greatest impact on students' satisfaction. According to the finding, most respondents (94 %, n=262) agreed that the quality of instructors is the most important factor affecting students' satisfaction during ODL. The finding is consistent with those of Gopal et al. (2021), who discovered that teachers' enthusiasm and ability to deliver course content appropriately improve the quality of online learning and thus influence students' satisfaction. Furthermore, effective content delivery during online classes may result from efficiency in lecturing and understanding student psychology. It is also supported by Musa, Alia, Baharuddin, and Ibrahim (2020), who discovered that educators must be aware of students' conditions for them to participate in online learning and effectively engage with educators. This study concludes that the quality of instructors should comprehensively include teaching skills and passion, good communication and attention for any difficulties raised by students to satisfy them throughout online classes.

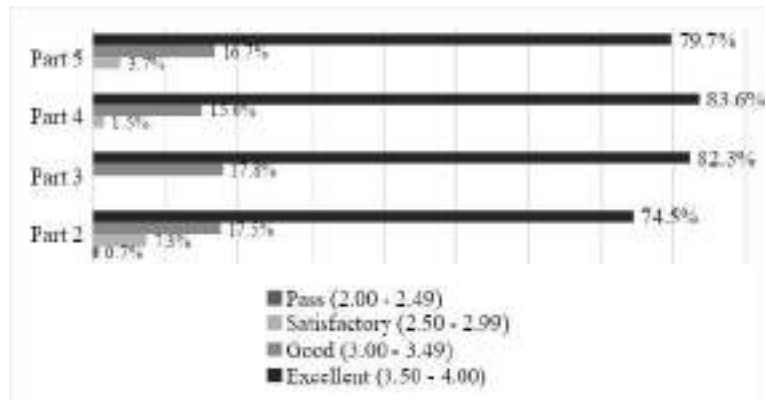


Figure 2. Academic performance during ODL

Figure 2 illustrates a summary of students' Grade Point Average (GPA) during ODL implementation. The GPAs from previous semesters within ODL sessions were analysed among Part 2 until Part 5 students. Part 1 students were excluded from the analysis since they have not sat for any final examination yet. Notably, the result shows that most students in each part 2 through part 5 performed well, with GPAs ranging from 3.50 to 4.00, which is considered as excellent performance. Part 4 students outperformed the others with 83.6% of the excellent result, followed by Part 3, Part 5, and Part 2. The findings were also supported by Elger (2013) through his Theory of Performance whereby one of the components to establish a level of performance is the personal factor. It includes the personal situation of an individual, for example, the student's performance is affected by the quality of their learning environment. Students will be able to focus on what they have learned since ODL provides a flexible teaching and learning environment through asynchronous sessions using video, leaflets, articles, and PowerPoint presentations utilising the Learning Management System (LMS) (Rindaningsih, Findawati, Hastuti, & Fahyuni, 2021). Furthermore, using video for learning purposes led to positive emotional engagement (Kort & Reilly, 2002) and a pleasant learning environment (Strobel & Van Barneveld, 2009), which was helpful to their motivation to study, learning process, and outcome (Meyer & Tuner, 2002). Thus, the study concludes that students performed well throughout ODL sessions.

## 5. CONCLUSION

This paper describes the factors affecting student's satisfaction and academic performance in ODL. Following Gopal et al. (2021), four factors were determined to influence students' satisfaction which are quality of instructors, course design, prompt feedback and students' expectations. This study found that the quality of instructors is the main factor that influences students' satisfaction. Teaching skills, passion, good communication and attention for any difficulties raised by students are among the qualities that must be possessed by instructors to satisfy students during online classes. Furthermore, instructors, according to Hamdan et al. (2021), may play an important role in online learning. The second factor is prompt feedback followed by students' expectations and course design. In addition, this study noticed that a lot of students performed well during semesters with ODL implementation. The Theory of Performance (Elger, 2013) components, which are personal elements such as learning environment, which relate to ODL session in this study, may be utilised to establish what characterizes a learning-to-learn students' performance. It is important to identify the factors that influence students' satisfaction during ODL since it helps educators and universities to improve the quality of online learning during ODL sessions. The current study, however, restricts descriptive analysis to factors influencing students' satisfaction and performance. Future research may examine a more in-depth examination of the relationship between these two variables, as well as a comparison with pre-ODL performance.

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# The 4<sup>th</sup> International Conference on Accounting Research and Education (iCARE2021)

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## The Impact of Macro-Environment Factors on Strategic Business Risks in ASEAN Countries During COVID-19 Pandemic

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### ABSTRACT

The COVID-19 pandemic is impacting businesses globally by disrupting economic activities and growth, i.e. travel restriction, imbalance production and consumption, disoriented operations and unstable financial markets. Being one of the regions close to China, ASEAN countries was one of the first regions to get affected with COVID-19. Since then, the business activities were restricted because of lockdowns and other measures implemented by governments to minimize the spread of the virus. As a consequence, it is expected that the ASEAN economies will sink deep into minus growth. Hence, the rapid assessment of macro-environment impacts of the COVID-19 pandemic are important since this analysis is essential in determining the most appropriate and targeted measures at mitigating the pandemic's impacts and risks. Undeniably, risk is an integral part of every company's strategy to determine the objectives and direction of the company, thus, company have to emphasize the risk which is inherent in the strategy. To execute strategic decisions effectively during the crisis of uncertainty, companies need sufficient information about business performance and market as well other relevant aspects of internal and external environmental factors. Therefore, this paper is intended to study the impact of macro-environment factors namely, political, economic, social and technological on strategic business risk in ASEAN countries during the COVID-19 pandemic. The finding of this research will contribute to the development of businesses in determining the strategic risks during the crisis of uncertainty.

Keywords: economic; external; political; social; technological

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### 1. INTRODUCTION

The COVID-19 pandemic is impacting businesses globally by disrupting economic activities and tapering growth prospects around ASEAN countries, which include travel restriction, imbalance production and consumption, disoriented operations and unstable financial markets. Governments, communities, organisations and individuals have been hit hard by sudden fall in demand for products and services, that leads to the closure of businesses and loss of work. Furthermore, death rates, hospitalization and infection rates differ widely between countries as their governmental response has differed in speed of response and isolation measures imposed. From economic development perspective, several issues including supply chain failures, closure of offices, technology impacts of working from home, together with increased risk of fraud, corruption, theft and cyber-attacks have limited the ability for some organisations to carry out business (CPA Australia, 2020). Being one of the regions close to China, ASEAN countries was one of the first regions to get affected with COVID-19. Since then, the business activities were restricted because of lockdowns and other measures implemented by governments to minimize the spread of the virus. As a consequence, it is expected that the ASEAN economies will sink deep into minus growth.

However, economic activity is expected to rebound gradually once infection rates are under control, but weakness could be protracted if business failures become more prevalent due to liquidity issues,

lack of credit, the loss of income, and ongoing weak business. Governments' decisions to ease social distancing measures and exit from lockdown will be a necessary balancing act between the risks to public health and the risks to the economy (United Nations Report, 2020). Nonetheless, as in many regions in ASEAN, the pandemic has inflicted real suffering, with a hard impact on the most vulnerable party, and it has featured prevailing inequalities, and also the unsustainability of the current development pathway. It has also exacerbated existing risks and exposed new challenges to a business. Therefore, the exit strategies of countries from lockdowns should also be coordinated to the extent possible in order to minimise the risk of recurrence in a business, and to speed up the economic recovery (IMF,2020).

The impact of COVID-19 has shown that many businesses were not prepared for a major crisis. From technology risk point of view, insecure virtual private networks, or applications previously only available inside offices now being accessed remotely, create a bigger attack surface for cybercriminals to attempt and exploit vulnerabilities. According to Risk Management Survey Report by Governance Institute of Australia (2020), during a crisis such as the current pandemic, cybersecurity and data privacy are key risks for all organisations since the employees and management may be distracted with the significant business disruption and fail to apply the same level of cyber awareness as they do during normal operations. Apart from that, it may also expose to human risk as working from home is different to working from an office as informal interactions that are often integral to innovation and psychological well-being do not readily occur. Equally, workplaces at home are not always designed for corporate work, with interruptions from household members and the psychological impact of being at home impacting productivity and job satisfaction. Thus, when forced to work from home, standard work practices can be affected and this situation may lead to operational risk. Due to this, fraud is a significant area of risk during these times. While most employees can be trusted and should be treated as both trustworthy and reliable, the disruption to work practices might be seen by some as an opportunity for taking shortcuts in standard processes. Some employees may not properly observe operational and financial controls. In addition, the simultaneous global, health, financial and operational impacts of pandemics significantly increase the risk of financial instability and insolvency. Mitigating operational, technology, human and other risks bring costs to the organization (CPA Australia, 2020). Due to this reason, boards need to weigh the costs and benefits to the organisation, to determine which risks should be eliminated and those risks to be mitigated. Thus, the current pandemic situation demands a strong financial modelling of risks which their impacts is a critical part of making these determinations (McKinsey & Company, 2020).

Therefore, this research seeks to analyze the impact of macro-environment factors namely, political, economic, social and technological on strategic business risk in ASEAN countries during the COVID-19 pandemic. This study based on the in-depth exploratory and descriptive studies about macro-environment factors and strategic business risk. This study was divided in twofold: firstly, it focusses on theory and understanding of strategic business risk and PEST analysis; and secondly, to provide an insight inference based on the secondary research. Thereby, this research intended to give awareness on how the PEST analysis impact the strategic business risk during crisis of uncertainty and provide a better understanding on PEST analysis factor in improving and assisting business operation during pandemic.

## **2. FINDINGS OF LITERATURE**

The literature review includes relevant literature to gain insight about strategic business risk in ASEAN countries. It covers theoretical reviews and empirical studies that show light on the impact of macro-environment factors on strategic business risk during COVID-19.



## **2.1 PEST ANALYSIS**

According to Khodaveysi, Mobarakabadi, and Slambolchi (2016), the critical success factors have been introduced by D. Ronald Daniel in 1960s which comprises of five main sources of critical success factors identified as industry, competitive strategy and industry position, environmental factors, temporal factors and managerial position (Forster & Rockart, 1989). Out of five main sources of critical success factors, this study focused on the environmental factor as the researchers want to look at the impact of macro-environment factors on strategic business risks in ASEAN countries. According to Bullen and Rockart (1981), the environmental factors under critical success factors involved competition, new technology and regulatory issues. Hence, PEST analysis is the best analysis to be used in this study in order to look at the impact of macro-environment factors on strategic business risks. Supported by Sammut-Bonnici and Galea (2015), PEST analysis widely accepted and an authoritative instrument being used to study on strategic risk. Even though macro-environment involves the factors beyond the control of a company, however it is important for the company to readjust their corporate strategy by analyzing the macro-environment factors.

PEST analysis is a measurement tool which is used to assess markets for a particular product or a business at a given time frame. PEST is an acronym for political, economic, social and technological. It is a way to assess these four factors and understanding how these external forces impact the industry in making strategic business decisions, planning marketing activities, product development and research (Aguilar, J, 1967). PEST analysis is a powerful tool for understanding strategic risk, since it identifies the changes and the effects of the external environment (Porter, 1985; Olaganathan, 2021). Generally, external environment are those influences, circumstances or situations that a business cannot control which affect the business decisions that the business owner and stakeholders make. (Rakesh, 2014). Precisely, changes in the external environment factors can have a direct impact on not only the business but also can impact other players in the industry itself. Different markets have different norms or environmental standards which can impact the profitability of an organization in those markets (Olaganathan, 2021). Even within a country often states can have different environmental laws and liability laws. Moreover, in coping with global pandemic situation, there are a lot of challenges like globalization, technology advancement, the emergence of new industry and market and also restructuring of economics that have reinforced the organization to be more pro-active in strengthening its firm's strategies (Al Ghamdi, 2005).

## **2.2 Political factors**

Political factors play a significant role in determining the factors that can impact ASEAN business's long-term profitability in a certain country or market due to COVID-19 crisis that affected the countries. According to Ghani and Nayan, (2010), the pro-active involvement of government and its support have an impact on strategic planning. Factors of bureaucracy and approval of plans become the most important factors that affect the dimension of business performance during the crisis. They found that the changes of government policy during COVID-19 towards the financial institutions affect the sales of houses. It can be supported by Mohamad (2004), where reasonable rate offers by banks in housing loans can help the sale of houses and the development of real estate policies. Boiral et. al., (2021) stated that the COVID-19 outbreak has made the government take hard restrictions to avoid the spread of the virus. When COVID-19 arrived in South-East Asia, the government took more rapid containment actions by alerting the public about the virus soon after the first global confirmed case was reported. Further, to combat the COVID-19 pandemic, the government of Malaysia, Indonesia, Singapore had moved rapidly to develop new regulations and develop technologies to address COVID-19 (UNCTAD, 2020). Furthermore, Boiral (2021) stated that government and related organizations can focus on contingencies and plans to mitigate the risk by offering economic support to companies to remain profitable during the crisis.

## **2.3 Economic factors**

The ASEAN countries economic growth were affected largely with the hit of COVID-19 pandemic (Chong, T. T. L, et al., 2021). The economic growth of ASEAN countries will show a slow-paced growth in 2020. In ASEAN countries, China is known as an important trading partner, foreign investor and top tourist source (Cheng, C., 2020). The economic growth during a pandemic state mostly affects

the country economy and welfare of the citizen as a whole. Cheng, C. (2020) viewed that Malaysia's economy is affected in twofold: first, indirect impact from other coronavirus countries, and second, the movement control order (MCO) in Malaysia. This view seems to apply to other ASEAN countries because they are also facing the same state. He also stated that the lockdown measures in China have caused wide-ranging demand and supply shocks across the globe (Cheng, C., 2020). The MCO measures were implemented with the objective to reduce the number of COVID-19 cases, but it has affected the country's economy to a certain extent. Undoubtedly, the measures have impacted several industries and personal delivery services which result in tremendous shocks in country supply and demand (UNCTAD, 2020). With the MCO measures, the business and individual livelihood were adversely affected and led to high risk to business cash flows constraints and reduction in individual incomes, as well caused bankruptcy among individual and business insolvent (Cheng, C., 2020). Most countries are dependent on the tourism industry, however, with the hit of pandemic, it adversely affects the ASEAN countries economy with the decline of national revenue (Hamilton, C., 2020 & UNCTAD, 2020). The unemployment rate in ASEAN countries seems to be increasing since the start of the pandemic in 2020, which caused more citizens to lose their job in this state of pandemic with the implementation of lockdown (Chong, T. T. L, et al., 2021).

#### **2.4 Social factors**

The COVID-19 outbreaks represent a numerous crisis that affects the main dimensions of corporate strategic planning sustainability, where it is defined as the balanced consideration of social, economic, and environmental issues through the strengthening of the social responsibility of companies. Boiral et al, (2021) stated that the COVID-19 pandemic has raised major social issues such as risk contamination, protection of employees, and health due to W.H.O had announced travel restrictions which are necessary to avoid the spread of the diseases. Limitations in the movement of people including tourism and the reduced flow of goods and services have caused a sharp decline in the company's production and had made many companies facing low demand started to lay off workers (Boiral et al. 2021). In Malaysia, AirAsia Berhad lay off more than 300 employees to slow down its operations following the difficult situation faced due to the pandemic. The movement control order was implemented to reduce the number of COVID-19 cases, but it has indirectly affected the country's social factors to a certain extent. Many employees suddenly found themselves without work or with less money in their pockets (Fowler, 2020). The impact of losing jobs will give employees emotions down and till the worst, they can commit suicide (Boiral et.al., 2021). Various social factors as unemployment and social distancing are to be seriously considered. According to Singer and Lamm (2009), the period of lockdown was also seen as an evolution in the concept of producing new perspectives for the company.

#### **2.5 Technological factors**

In the current pandemic state, technological factors are the key player in mitigating the disruption occurring during pandemic. With the Internet, we may communicate with people around the globe and may ease our job. Indirectly, the adoption of technology i.e. artificial intelligence (AI), robotics and data analysis technology has changed how we do our job and business through the digital economy (Kam, A., 2020). Technology becomes the mode of communication in conducting our daily lifestyles and also business. Kam, A. (2020) stated that technology actually has facilitated the ASEAN meetings and has become the digital platform to accommodate the disruption of physical meetings, as well as conducting business. Furthermore, the ASEAN countries have been the smart cities with the adoption of technology and digital solutions since 2018 (Clavier and Ghesquiere, (2021). In 2020, Singapore becomes the first nation to launch a Bluetooth based application for contact tracing known as TraceTogether (Clavier and Ghesquiere, (2021).). Further, ASEAN countries also had to develop the digital infrastructures to support public health strategies to combat COVID-19 viruses in the region (Clavier and Ghesquiere, (2021). In some of ASEAN countries, they had introduced "new online marketplaces" and "peer-to-peer donations platforms" with the objective to provide aid for local business and workers who had been impacted during pandemic (Clavier and Ghesquiere, (2021). The micro-, small, and medium-sized enterprise (MSME) in ASEAN countries were guided by ASEAN Strategic Action Plan for SME Development 2016-2025, by providing directions, training, consultation and advice on how to acquire digital tools and solutions to improvise the MSME business in the nation (Ali, N. and Karimah, V., 2020). The pandemic state of the world has led ASEAN countries to adopt

and learn digital infrastructures and solutions to accommodate the country's economic growth in the pace of digital age and new normal. The technology transformation of digital platforms has facilitated the nation in conducting business, online education, online transactions, and other types of services during the pandemic.

## **2.6 Strategic business risk**

Managing risk effectively has always been a benchmark of the most successful companies. But in today's risk-filled business environment and during COVID-19 pandemic, it can be hard for businesses to have confidence that their plans and strategies will play out as expected. A significant reason is that, strategic risks those that either affect by external environment or created by business strategy decisions can impact more quickly during crisis, hastened along by rapid-fire business trends, technological innovations, changes in demographic preferences, economic conditions and government policy. Polinkevy, Khovrak, Trynchuk, Klapkiv and Volynets (2021) found that, external risks, which are always present in the business process, are classified into competition, political and legal, socioenvironmental, information security and currency risks. Since some of the risk cannot be prevented, they should be mitigated using risk insurance by involving stakeholders to offset risks. They also emphasized that, the main stages of managing strategic business risks during pandemics and crises are modelling and identification of risks, risk analysis and assessment, selection of management tools, creation and implementation of risk minimization strategy, and also monitoring of strategic risk minimization processes.

Additionally, strategic risk can be seen as the probability and consequences of a failure of strategy. It is important to note that strategic risk is not just about the management of risk but also that of strategy (Johnson, Scholes and Whittington, 2005). Allen and Beer, (2006) pointed out that, strategic risk emerges from strategic decision-making because the future is uncertain and therefore all outcomes of strategic choice will be accompanied by varying degrees of uncertainty. On the other hand, Tura et al. (2019) also established a macro-environment framework of critical success and risk factor for circular economy businesses across various industrial sectors, proposing seven main categories known as environmental, economic, social, institutional, technological-informational, supply chain, and organisational. It has been supported by Vermunt et al. (2019), who performed the study on barriers in business model found the external barriers were related to the supply chain, markets and institutions, and government policies and standards. Hence, through a precautionary strategy, the effects of macro-environment factors towards company are able to be mitigated especially during pandemic. According to Polinkevych et al. (2021), strategic risks are affected during crisis and pandemic such as risk of ineffective business strategy and the risk of goals and objectives of the market situation. The company has the potential of to experience poor and less effective business strategy. Other than that, company also can be affected by the market changes, market acceptance, the opportunities and limitation of new markets and regulatory compliance during crisis and pandemic. Therefore, it is important to understand the impact of macro-environmental factors on strategic business risk during Covid-19 Pandemic.

## **3. IMPLICATIONS**

Strategic business risk is determined by board decisions about the direction of the organisation. It will include board planning and decision-making process. To take strategic decisions effectively especially during pandemic, boards must have relevant or sufficient information about how the business is performing. The impact of political and social factors and other relevant aspects of the economic measures need to be considered by companies to make a good decision making. However, even all the procedures have been followed for the strategic decision making, it will still have a positive and negative impact on business environment. To understand the factors and impact on decision making, boards need to understand the major risks that strategies are involved. Hence, Hanggaraeni et al,(2020) stated that the main advantage is to decrease the possibility and the number of losses and to increase the shareholder value. Specifically, risk and initiative cannot be separated from business decision making. It can be supported by Tonello (2007), mentioned that the companies can reduce the costs and loss through better integration of risk assessment especially during the pandemic. Moreover, Callahan and Soileau (2017) found that the failure of companies to identify the impact of external factors and managing risk will bring significant effect on their business.

With the current economic situations across the world, it truly affects the growth of the economy in ASEAN countries as well it directly affects the employment of citizens for a longer period of time (Cheng, C., 2020 and Chong, T.L.L, et al., 2021). The unemployment rate in ASEAN countries is expected to increase due to slowdown in country recovery and supply of foreign laborers (Cheng, C., 2020 and Chong, T.L.L, et al., 2021). Besides, it also affect the supply chain of business operation, cross border trade and business survival during pandemic, so the businesses should reassess their business plan and strategy in curb the issues (United Nation, 2020). Therefore, the ASEAN countries has introduced the fiscal packages with the aim to support their frontliners, businesses, households and employees with the stimulus packages and monetary policy, so that the country economic activities can be sustained and maintained without any liquidity (United Nation, 2020). With that it provide support to the business continuity as well as assist the financial sector stability in the nation.

The present situation of pandemic has given positive growth opportunities for the technology sectors with the adoption of digital platforms in conducting business across the country, which allow the users to reach each other (Kam, A., 2020 and Clavier and Ghesquiere, 2021). The ASEAN countries has equipped with the application of technologies in addressing the pandemic with the invention of “contact tracing using smartphones, Bluetooth and mapping interfaces” to identify and detect infected individual immediately, and enable the researcher to gather big data information from the apps (United Nation, 2020). Indirectly, it shows that the ASEAN countries has arranged the strategic business risk with measuring it with the adoption of technology to assist the nations with strengthening the health system. The digital adoption also can be apply in cross-border trade and supply chain of businesses with the digital trade facilitation to accommodate the trade barriers during pandemic with the implementation of digital regulations and trust policies (United Nation, 2020). In addition, the government should introduced a comprehensive legal and regulatory of digital economy to the citizen and businesses to enable them to use the platform with confidence and conveniently, so that it will build a rapport relationship between government and their citizen (United Nation, 2020).

#### **4. CONCLUSIONS**

The COVID-19 pandemic is unprecedented, not only in ASEAN economies but worldwide. Inappropriate measure could lead to a prolonged, deep recession, exacerbated by closed borders and characterized by rising social tensions, vulnerabilities and a return to environmentally unsustainable development. To be specific, it is difficult to estimate the impacts of a shock that is uncertain in itself. This uncertainty highlights the need for caution in establishing risk assessments where it emphasizes the need for rigorous modelling and scenario analyses. The external environmental factors are largely beyond the control of an organization and its success will depend to a very large extent on its adaptability to the environment. This PEST analysis acts as a major tool for analysis and helps to understand the macro-environmental risk and opportunities that include political stability, economic growth, social factors and technology development. One thing which may change is greater acknowledgement of the value of strong risk management practices. Perhaps the global COVID-19 pandemic will change the views of boards and corporate executives around ASEAN countries.

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## Identifying students' preferred learning materials for online learning during Covid-19 pandemic

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### ABSTRACT

The Covid-19 pandemic has forced the education system to shift from face-to-face to virtual learning almost instantaneously. Although changes are taking place thick and fast, these situations could be dealt in a more effective manner by understanding the needs and requirements of both educators and students. This study aims to identify students' preferred learning materials during the pandemic. A survey was conducted requiring respondents to rank their most preferred to least preferred materials. The result shows that the students are considered to be more traditional and does not put total reliance on digital materials. Students also prefer educator-centred approaches and gave higher value to materials provided by their lecturers. This study can help educators to plan and create better learning materials that suits the students need in order to safeguard teaching and learning quality.

**Keywords:** Accounting education, Covid-19, learning materials

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### 1. INTRODUCTION

The Covid-19 pandemic has affected the education system in many ways. In Malaysia, lockdowns and movement control orders have resulted in the migration from face-to-face classes to virtual classes. Both educators and students were not prepared to have online classes and undergo teaching and learning activities from home. Although Langford and Damsa (2000) claimed that it is easier for tertiary institution students to migrate, Oyedotun (2020) pointed-out that developing countries may face some challenges for a compulsory shift to rapidly implement, consolidate and embrace technology in a very short period of time.

This study was conducted to identify learning materials suitable for online or virtual learning based on students' preference. This study is believed to have a huge importance to reduce complexities in full online education and ensuring the quality of teaching and learning is maintained. The migration to full online basis may seem simple to the naked eye, however, Zhang, Wang, Yang and Wang (2020) asserted that the vulnerabilities in teaching infrastructure, the inexperience of educators, information gap and complex home environments contribute to the inability of the students to effectively learn new knowledge.

To identify students' preference, this study divides learning materials into three categories as presented in Table 1. Each of the categories will be discussed based on the common related materials that are usually available to the students. Students were required to rank the learning materials based on their preference and opinion on the best material suitable for online learning.

Table 1: Categories of learning materials

Categories	Definition	Examples
Visual	Printed or on-screen documents	Books, short-notes, lecture-slides, study guide, PDF documents, flashcards
Audio	Voice recordings	WhatsApp voice notes, voice recordings, Podcast, Radio
Audio-visual	Combining both visual and audio elements	Videos, online classes, explainer videos, animations
Interactive Apps	Application that requires students to respond and get feedback	Google form, Kahoot, Quizlet, Scratch, Apps designed specifically for a certain course.

## 2. LITERATURE REVIEW

Covid-19 pandemic has transformed the way we usually perform teaching and learning activities. Prior research has documented many evidence relating to the benefits, advantages, difficulties, barriers and challenges in the shift towards virtual learning. Zhang et al (2020) asserted that the government play a crucial role in ensuring that educators are equipped with relevant skills on online learning platforms. This could be done through professional development, with legal, financial, and administrative support. Kyriakides, Christoforou, and Charalambous (2013) argued that teachers guidance plays an important role in achieving learning outcomes. This suggests that an educator's role is significant in determining learning quality. Mukuka, Shumba and Mulenga (2021) pointed out that it is important to orientate teachers on lesson planning and delivery during the Covid-19 pandemic and beyond.

Adler, Whiting, & Wynn-Williams (2004) claimed that the theoretical structure of accounting and the education quality of accounting students are related not just with the learning style adopted by the students, but as well as the quality instructive methods and course material. Therefore, online learning can be as effective as offline learning providing that teaching and learning methods are adjusted accordingly and the students are equipped with the required learning materials. This is supported by Fortin, Viger, Deslandes, Callimaci, and Desforjes (2019) which explained that accounting students undergoing lessons with equivalent content and design perform similarly and have the same level of course satisfaction across online and offline delivery formats.

Prior research has also documented the challenges faced in shifting to virtual learning. Lavy & Naama-Ghanayim (2020) highlighted that the students themselves must be able to cope as some online classes become long and sometimes stressful. They further added that if students are resistant or minimize their investment, attention or effort on their participation, they will not gain much in the learning process. Oyedotun (2020) claimed that most students found it challenging to maintain focus during online teaching. This is supported by Sutton (2020) as he explained that the online delivery mode forced many students to be working at home where they are under enormous distractions and other domestic issues. Oyedotun (2020) found that many students who were accustomed to the traditional face-to-face method of teaching found the online method is burdensome, with some becoming rude and impolite to lecturers because of the stress experienced in adjusting to online education. She further added that students' mental health may be affected due to the sudden change. Regarding students' preference, Taplin, Kerr, and Brown (2017) found that students prefer face-to-face classes over online delivery and educator-centred rather than student-centred activities. From their findings, it implies the need for educators to understand the difference between online and face-to-face learning other than the need to balance learning approaches and students' preference.

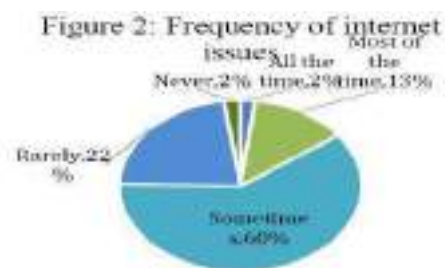
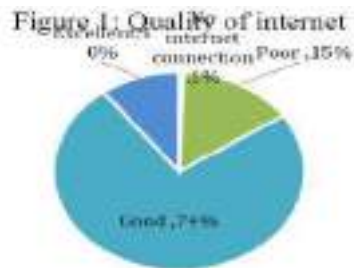
## 3. RESEARCH METHODOLOGY

A survey was conducted involving Diploma in accountancy and Diploma in Accounting Information System students of Universiti Teknologi MARA Perak Branch, Tapah Campus. The survey requires students to give marks based on their preferred leaning materials. A higher mark given indicates that the student favours the materials better. The survey was divided into six parts. The first part was to collect the respondents' demographic data. The second part of the survey requires respondents to rank their preferred leaning materials based on its category. The later part of the survey further collects data

of each category of leaning materials which are visual, audio visual, audio and interactive application. This survey was conducted in year 2021.

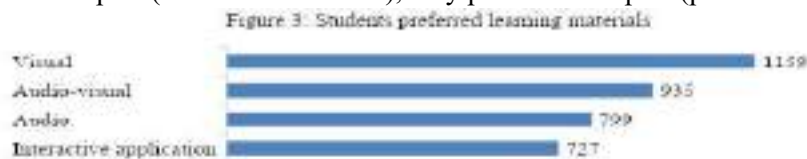
#### 4. RESULTS AND DISCUSSION

A total of 362 students participated in the survey. Most of the respondents are from the second semester (47.5%) and the fourth semester (46.7%). At the time the survey was distributed, 337 (93.1%) respondents were at home. Since the survey was conducted during the Covid 19 pandemic where most of the teaching and learning activities are conducted online, it is important to understand students' internet accessibility. Figure 1 shows the internet quality and Figure 2 documents the frequency of internet connection issues faced by the students. The figures indicates that the most respondents have good (74.3%) internet quality and sometimes (60.5%) face internet connection problems.



#### 4.1 Students preferred learning materials.

The survey documented that although students use both online and offline materials, most of them essentially prefers offline learning materials. Offline materials are learning materials that are available without internet connection. Furthermore, it was documented that although most of their learning materials are in softcopies (available on screen), they prefer hardcopies (printed materials).



As shown in Figure 3, the respondents prefer visual materials the most followed by audio-visual, audio and interactive application learning materials. The results show a different finding than Wynder (2018) who analyze the preferred materials by post-graduate students that ranked audio-visual materials as the most favoured material followed by audio only and visual static materials.

#### 4.1 Students preferred learning materials

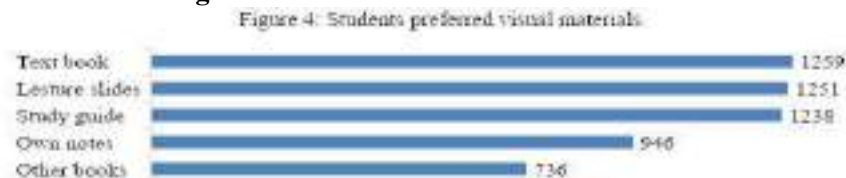


Figure 4 further detail out the type of visual material preferred by students. As per the marks given by respondents, Textbooks remain relevant and considered to be the main source of learning materials. Still, compressed or simplified learning materials such as lecture slides and study guides are also highly valued by students. Many of the respondents do prepare their own handwritten notes but the notes are mostly written on the printed slides or in the textbooks or study guides.



### 4.3 Students preferred audio-visual material.

Audio-visual materials are the second most used materials by the students. This category of learning materials are considered to supplement students understanding of what was obtained from visual materials. Additionally, students will be able to see step-by-step demonstration, detailed examples and many more benefits from watching audio-visual materials. From the score presented in Figure 5, students prefer recorded classes rather than live class. This may be due to the fact that 61% of the students sometimes experience internet connection issues. Therefore, a recorded online class is preferred as students may watch the videos when they see fit. Short explainer videos also received a good score as it is considered to provide simple and easy to understand information and examples. The effectiveness of audio-visual materials has been documented by Coetzee, Schmulian, and Coetzee (2018) who founded that online tutorials improve students' grades and understanding. In addition, Miley and Read (2019) also documented that online video (through YouTube) had a positive impact toward students' motivation to learn.

Figure 4: Students preferred audiovisual materials



### 4.4 Students' preferred audio material.

Figure 3: Students' preferred audio materials



Audio materials, although can easily be made available by educators, seems the most unlikely sources of leaning materials to be used. The survey records that 82.3% of the respondents do not use audio materials. Furthermore, 62.2% of the students would look for other materials with visual aids rather than using the audio materials to study. The probable reasons that audio materials are ranked third is mentioned by Taplin, Kerr, and Brown (2017) that most students prefer educator-centred rather than student-centred approaches. This implies that students will value any materials from the educators as significant and important.

### 4.5 Students preferred interactive application content.

The last part of the study identifies the contents of interactive application that the students would likely value the most. The results are presented in Figure 5. It was found that applications that allows the students to answer questions, get quick notes and provide video links are the characteristics of a good application. The use of games in the applications are still not widely available. Most students consider that the long notes are already available in the textbooks. Most students feels that interactive application involving questions and answers is appealing due to the quick feedback it provides. This is consistent with Helfaya (2019) who discovered that students preferred working with applications that provides timely feedback.

Figure 5: Students' preferred interactive application content



## 5. CONCLUSION

As the pressure to perform and meet students' expectations are increasing, educators must be able to strategize and appreciate the constraints and opportunities. Though the pandemic has resulted in many

challenges, an understanding of the student's current situation is vital in ensuring quality teaching and learning activities. The results show that students will highly value the material given by the educators. Among the important findings are (1) students still prefer the traditional method of leaning where hardcopy textbooks and notes are valued the most. However, Other short (2) materials such as lecture slide and key-terms are considered to be precious to compliment the textbooks. (3) Students are very less likely to use audio materials and will try to find something better to be used to study. Interactive application was ranked bottom as not many materials are viable online. A more detailed analysis must be made to understand the subject. The use of regression analysis is highly recommended as the results may be influenced by students' internet quality or even their learning style.

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## COVID-19 and Movement Control Order (MCO) in Malaysia: Access to Financial and Social Capital for Microenterprise Sustainability

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### ABSTRACT

Micro, small and medium enterprises (MSMEs) have always been recognized as a major contributors to the Malaysian economy. The global COVID-19 outbreak has severely affected the economic landscape of Malaysia and impacted the microentrepreneurs because they mainly do not have enough financial resources to support their business. However, as the COVID-19 cases keep increasing, the third MCO has been imposed and this situation continues to disrupt the business activities of microentrepreneurs. Despite the stimulus packages provided by the government to cushion the impact on businesses, different microentrepreneurs have different experiences and capabilities to mitigate the negative impact of COVID-19. The purpose of this study is to understand the challenges faced by microentrepreneurs during MCO 3.0 and to investigate to what extent their access to resources influences their business strategy. This study employed a qualitative approach and collected data using phone interviews with five selected microentrepreneurs in Perak. The main challenges surrounding these microentrepreneurs are a lack of financial resources and supply chain issues. This study also found the access to financial capital and social capital influence microentrepreneurs to undertake business strategies that can ensure their businesses sustain during the pandemic crisis.

**Keywords:** COVID-19; MCO; microentrepreneurs; sustainability; Malaysia

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### 1. INTRODUCTION

COVID-19 outbreak has been causing hostile effects globally. It marks the utmost challenges faced by everyone around the world. Malaysia is now fighting its deadliest Covid-19 outbreak since the start of the pandemic amid growing concern about sporadic cases that have come to dominate infections in the country. Since 18 Mac 2020, the Government of Malaysia had imposed the Movement Control Orders (MCO), which was implemented as a preventive measure to curb the spread of the virus. The sudden increase of COVID-19 was reported in a few states of Malaysia. Following this situation, the MCO 2.0 was implemented on 13 January 2021 in 6 states; Penang, Selangor, Wilayah Persekutuan, Melaka, Johor and Sabah. Since then, the number of reported cases continues to provide a worrying sign. Malaysia government announced the third Movement Control Orders (MCO 3.0) came into effect on 1 June until 14 June 2021. Until this paper is written, the MCO 3.0 is still being implemented and Malaysia is still fighting with the highest number of COVID-19 cases and fatality rates.

The Malaysian Government has announced the National Recovery Plan in June 2021 to increase public healthcare facilities, support public welfare, and support business continuity. With regards to MSMEs, the government will be providing additional assistance under the Prihatin Special Grant (GKP) 4.0 program, and give MSMEs one-off payments of RM500 in September and another RM500 in November 2021. As such, this plan is expected to help MSMEs in their business' post-MCO recovery. The state government in Malaysia has also planned its Stimulus Package to further support the recovery of MSMEs in each state. Under Perak Stimulus Package 2021 which has been launched on 2<sup>nd</sup> June 2021, the Perak State government has allocated RM19.5 million to assist affected peoples and businesses in Perak.

Previous studies revealed microenterprises in Malaysia are facing a tremendous impact during MCO because they mainly do not have enough financial resources and capital to support their business, lack financial management skills, and have outdated marketing strategies. Despite the financial aids provided in the stimulus package by the government since the first MCO, no studies have been found to look into aspects of financial and social capital into business strategy for business sustainability. Therefore, this study aims to explore the challenges faced by microentrepreneurs during MCO 3.0 and to investigate to what extent their access to financial and social capital influences the microentrepreneurs' business strategy for survival and sustainability of their business.

## **2. LITERATURE REVIEW**

### **2.1 Microenterprise in Malaysia**

The term microenterprise, also known as a microbusiness, refers to a small business that employs less than ten people. Khaw (2019) defined microenterprises as those with ten or fewer employees. As they are small, microenterprises are much more flexible and responsive to market as well as demand from customers. This type of business started with a small amount of capital advanced from a bank or other organization. A small or micro-enterprise is generally a one-man show, where all the activities are mainly carried out by one of the partners or directors and the others are simply as sleeping partners who mainly provide funds. Wayne Lim, group chief editor of Malaysia SME reported that there are five million informal and formal micro-businesses in Malaysia. Microenterprise comprises 78.7% of all businesses in Malaysia (Sabli, Latiff, & Wahi, 2018). Furthermore, Khaw (2019) stated that 694,000 microenterprises in Malaysia make up 75% of total firms. His study found that 94% of microenterprises are mainly in the service sector. Microbusiness is a type of small business that employs fewer than ten people. The main differences between a microbusiness and a small business are in terms of size and scale as a sole proprietorship. In Malaysia, SME Corp categorizes microenterprise as a business in the manufacturing sector, service and other sectors with a sales turnover of less than RM300,000 and have a maximum number of employees of five (SME Corp, 2019).

### **2.2 Financial and social capital**

Microenterprises are facing a tremendous impact during MCO because they mainly do not have enough financial resources and capital to support their business (Tajudin, Rahim, Idris, & Arshad, 2021, Hamdan, Kassim, & Lai, 2021), reduce in cash flows due to losses in daily income (Fabeil, Pazim, & Langgat, 2020), operation disruption (Che Omar, Ishak & Jusoh, 2020) and laying off workers and supply chain disturbance (Fabeil et al., 2020, Hamdan et al., 2021 and Megat Tajudin et al., 2021). Furthermore, microenterprises are found to have difficulty accessing stimulus package and causes them to the potential risk of bankruptcy (Che Omar et al., 2020). The business possesses certain unique resources and capabilities to achieve a competitive advantage. The theory of Resource-Based View developed by Barney (1991) posits those resources and capabilities are valuable, rare, inimitable, and non-substitutable and they can constitute a source of competitive advantage.

From a resources perspective, access to scarce resources is critical to entrepreneurial success (Liao, Welsh & Moutray, 2008). These resources include human capital in the form of related experience and education, social capital in the form of useful social networks, and financial capital (Chandler & Hanks, 1998). These resources are critical because they influence entrepreneurs' confidence and assurance in their ability to perform tasks and roles associated with entrepreneurship (Marshall, Meek, Swab & Markin et al., 2020). This study focuses on two types of resources; financial and capital resources. Social capital relates to the relationship among members in the teams and external stakeholders such as investors, suppliers, and customers (Adler & Kwon, 2002). Social capital includes information, social support, financing from these relational networks and supports the growth and performance of the business (Hitt, Ireland, Camp & Sexton, 2002). Meanwhile, financial capital obtained externally through investors or internally by business owners represents money available for running the operations of the business (Klyver & Schenkel, 2013). The greater the access of the microentrepreneurs to financial and social capital may enhance the microenterprise capability and performance. Thus, during pandemic and MCO, the government provides financial capital to the affected microenterprises

and the government agencies responsible to ensure the access of microenterprises to the social capital in the form of online training and network.

### 2.3 COVID-19 and stimulus package

The global COVID-19 pandemic does not only affect global health condition but also impending the structure of global economic order. The MCO, lockdown, and social distancing are amongst the government effort to control the spread of the COVID-19 virus. The closure of economic sectors has a great impact on Malaysia's economy especially the MSMEs. The government has prepared several stimulus packages to assist businesses in the country. On 27 March 2020, the Prime Minister announced the Economic Stimulus Package Prihatin Rakyat (PRIHATIN) worth RM250 billion. A special PRIHATIN Grant amounting to RM2.1 billion is established for eligible microenterprises. Each eligible company will receive a grant of RM3,000 (Ayman, 2020). In early January 2021, Malaysia announced the Malaysian Economic and Rakyat's Protection Assistance Package (PERMAI) to support businesses. As to assist the micro-enterprises, the implementation of micro-credit schemes under PRIHATIN and PENJANA valued at RM1 billion is also expedited.

The government has also allocated RM300 million for providing training on digitalization for micro-entrepreneurs to switch to the e-commerce platform. For further enhancement of micro-credit for microenterprise, Bank Simpanan Nasional (BSN), the Small and Medium Enterprises Corporation, Government agencies MARA, National Entrepreneur Group Economic Fund (TEKUN) have allocated a further RM1.5 billion at 3% interest (Ayman, 2021). Pakej Perlindungan Rakyat dan Pemulihan Ekonomi (PEMULIH) is announced by the Prime Minister on 28 June 2021 as a respond for the extension of the MCO 3.0. Among the incentives announced is the continuation of a wage subsidy program, special grant for MSMEs, additional payment for Prihatin Special Grant receivers, government guarantee scheme, enhancement of micro-loans, loan moratorium for MSMEs, electricity discounts, and small entrepreneur digitalization empowerment program (Ayman, 2021b).

### 3.0 METHODOLOGY

This study used a qualitative approach using semi-structured interviews via telephone. This method was selected to gain insights from the microentrepreneurs on the challenges they faced and their business strategy to survive during the crisis of COVID-19. Lo Iacono, Symonds & Brown (2016) proposed the use of internet based-method of communication using voice and video across the internet via a real-time connection. The phone interview is selected for this study since some of the micro entrepreneurs prefer to have a phone interview and it is a suitable method during the pandemic. Although it cannot completely replace face-to-face interaction, it works well as an alternative collection tool for qualitative study (Lo Iacono, Symonds & Brown, 2016). Five micro-entrepreneurs were selected with the following criteria; (i) registered their businesses with Ipoh City Council and Batu Gajah District Council in Perak, (ii) has been running the business for more than four years and (iii) annual sales less than RM300,000 with fewer than five employees. The sample was selected through the non-probability sampling technique (purposive sampling) as the criteria of the respondents are already set. The interviews were conducted in the fourth week of June 2021 and recorded with the respondents' permission. The interview recordings were transcribed and analyzed using the thematic analysis approach. Using NVIVO-12 software, the data were coded and analyzed to search for patterns and emerging themes. Table 1 list the background of the respondents.

Respondent	Gender	Types of business	Category	Location	Business experience	No of staffs
RESP 1	Male	Grocery	Essential	Batu Gajah	10 years	3
RESP 2	Female	Saloon	Non-essential	Ipoh	8 years	2
RESP 3	Female	Dobby	Non-essential	Batu Gajah	7 years	1

RESP 4	Male	Food	Essential	Batu Gajah	11 years	2
RESP 5	Female	Traditional food	Essential	Ipoh	12 years	1

#### 4.0 RESULTS AND DISCUSSION

Findings from the data highlighted two sets of themes according to the two research objectives. The themes that emerged for challenges faced by microentrepreneurs are (i) lack of financial resources and (ii) supply chain issues. For business strategy used to survive during the pandemic and MCO, the major themes are related to (i) access to financial capital and (ii) access to social capital and networking.

##### 4.1 Lack of financial resources

The implementation of MCO 3.0 has further caused financial implications to microentrepreneurs especially those under non-essentials business. Respondent 2 who is the owner of the hair saloon stated her business was impacted due to the closure of the business operation. She still needs to pay for the rental of the premises and wages for her staff. Similar to respondent 3, the owner of the hobby shop, expressed her worry because of her sudden decline in her business income. She needs to borrow from her mother as her saving is already used to sustain during MCO 1.0. However, those selling essential items do not facing bad financial problems since they still can continue operations during MCO. For respondent 4, his business capital is still sufficient to run the business. But he needs to spend more to buy a larger quantity of stocks because of supplier did not travel frequently from Ipoh.

##### 4.2 Supply chain issues

Furthermore, the major challenge faced by microentrepreneurs is on the supply chain issues. For respondent 1 who is selling local products in the markets such as *ikan kering*, *kerisik* and coconut milk revealed even though there are demands of the products, it is difficult to get ensure the stocks are sufficient because the suppliers take a longer time to deliver stocks due to restriction of cross-district travel. For respondent 5 who is selling traditional *kuih*, instead of selling six types of *kuih* daily, now she is only able to make four types of *kuih* because of a shortage of materials like grated coconut. However, she is still grateful because there are still customers coming to her stall although the number of customers is slightly decrease compared to before MCO.

##### 4.3 Access to financial capital

Meanwhile, the respondents have mixed opinions on the financial aids provided by the government. Other than the stimulus package by Federal Government, the Perak State government also provides financial support for these microentrepreneurs affected under Perak Stimulus Package 2021 announced on 2<sup>nd</sup> June 2021. For respondents 4 and 5, the one-off RM300 financial assistance for registered micro-businesses and one-month stall rental exemption for micro-businesses registered with the local authority of Perak are really helpful to sustain their businesses. However, they admitted that the one-off payment is insufficient to cover the impact if MCO is prolonged. For respondent 2, she has to change the salary scheme of her workers from fixed salary into daily based salary. Although she applied for the loan moratorium, she is still worried because her business currently has no income. She is intent to apply for the newly announced government incentive despite she never applies for any government incentive package during MCO 1.0.

##### 4.4 Access to social capital and networking

Respondent 3 informed that government agency such as Sekretariat Usahawan Negeri Perak (STEP) assists her because only by using Facebook, she able to get access to free online courses, especially on digitalized marketing. Currently, she ventured into selling online baby clothes which can support the impact of the closure of her hobby shop. Similar to respondent 2, upon suggestion from her friend in Kelab Usahanita Perak, she is now selling cosmetic products through dropship while waiting for her saloon to operate. For respondent 1, with the help of her daughter, he now ventured into selling his products online using Facebook. There are also customers ordered through phone and upon request, he

provides delivery for nearby customers. On the other hand, respondent 5 views that as long as she has sufficient cash to run the business, she does not need to venture into online marketing. She hopes her business will be back to normal after MCO.

## 5.0 CONCLUSION

This study provides evidence on the challenges faced by the microentrepreneurs and how the financial and social capital influence their strategy to sustain during MCO 3.0. The findings revealed two main obstacles for microentrepreneurs in Perak; lack of financial resources and supply chain issues. These findings are consistent with the previous studies of Megat Tajudin et al., (2021), Hamdan et al., (2021), and Fabeil et al., (2020). Moreover, the microentrepreneurs took certain strategies to ensure the survival and sustainability of their businesses. Access to financial capital such as financial aids through stimulus package and social capital like networks and social media are important for microentrepreneurs to decide on business strategy. This study found the financial aids provided by the federal government and state government bring hope to the microentrepreneurs in facing the challenge during MCO. Moreover, entrepreneurial government agencies play a crucial role because they provide an online platform and network for microentrepreneurs to enhance their skills and knowledge and venture into new business opportunities. Social support from family members is also crucial for microentrepreneurs' self-belief, thus decrease the possibility of future business failure. Future studies should focus on self-efficacy and entrepreneurial persistence among microentrepreneurs as these factors are important for the sustainability strategy of the business.

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## Disclosure of Takaful Information in Malaysia: Users Perspective

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### ABSTRACT

Takaful is still in its early stages as compared to conventional insurance with regard to regulatory maturity and market penetration. In Malaysia, Bank Negara Malaysia has issued guidelines to ensure the operational efficiency of takaful operators, safeguard the interests of participants and promote uniform practices between operators. From a reporting perspective, in the Financial Stability and Payment Systems Report 2013, Bank Negara Malaysia (2014) mentioned the importance of having meaningful disclosure to protect participants. However, it did not provide details of the elements of meaningful disclosure. This study focuses on disclosure of takaful information from user's perspective. A checklist was developed to represent desirable level of disclosure based on various requirements and standards. To measure the voluntary disclosure level, the checklist was distributed to takaful agents to examine their perception of the disclosure on takaful information. It was found that majority of the users (86.14%) agreed that all disclosure items on takaful policy requirements are meaningful. It is hoped that the findings will assist authorities in formulating guideline or policy pertaining to meaningful disclosure for the users in the future.

**Keywords:** Takaful, voluntary disclosure, takaful operational framework, takaful policy requirements

### 1. INTRODUCTION

Conventional insurance differs from takaful primarily because of its inconsistency with Islamic law (Shariah) in terms of uncertainty in the transactions (*gharar*), interest income, interest expense (*riba'*) and gambling elements (*maisir*) applied in the conventional insurance. Unlike insurance which transfer risk, takaful is based on the principle of *tabarru'* (donation) and the concept of risk sharing. In term of reporting, takaful has to adhere to various standards and regulations to ensure the takaful operations according to Shari'ah principle.

#### 1.1 Background of the study

Takaful is a fast growing industry and Malaysia hold a second largest takaful gross contribution of USD1.962b (EY, 2013). Malaysian takaful market is the fastest takaful growth in South East Asia and is more focussing on family takaful unlike other major players (Saudi Arabia and UAE) which are more focussing on general takaful products. Malaysia has the world's largest family takaful market with a proven model and a better regulatory (EY, 2014).

Malaysian takaful operator is free to choose any takaful model (mudharabah, wakalah, hybrid or waqf model) unlike Saudi Arabia, which only allow cooperative insurance based on mudharabah model.

In term of flexibility and efficiency, takaful insurance is more effective compared to cooperative insurance (Benyoussef & Hemrit, 2019). However, the need of information to be disclosed is higher as variety of model, products and information must be adhered to Shariah principles disseminated to the potential participants to assist them in making decision.



## **1.2 Problem statement**

Bank Negara Malaysia (2014) highlighted meaningful disclosure perception to help consumers or participants to understand the costs, benefits and associated risk of financial products. Indirectly, it assists the potential customers or participants to decide on which takaful product that suit their needs. This is to ensure a better protection to the participants.

Although there are rules and guidelines produced by Bank Negara Malaysia (National Bank), Islamic Financial Services Board (IFSB), Islamic Financial Services Act (IFSA), Malaysian Accounting Standard Board (MASB) and Malaysian Deposit Insurance Corporation/ Perbadanan Insurans Deposit Malaysia (PIDM), there is no specific standard of disclosure items to fulfill the needs of potential consumers or participants.

This study focusses on the needs of potential consumers or participants on disclosure level of voluntary information pertaining to takaful policy requirements.

## **1.3 Objective and significance of the study**

The objective of the study is to examine the desired disclosure level of potential consumers or participants that fulfill their needs to make decision on the most preferred takaful products or investments. The study employs a set of disclosure index of takaful policy requirements developed based on takaful operational framework and Islamic Financial Services Board (IFSB). The findings of the study will lead to further research study and indirectly will assist the regulator to set a disclosure standard in the future.

## **2. LITERATURE REVIEW**

As Takaful industry grows, the number of studies focusing on takaful has increased significantly. However, most of these studies cover almost the same areas with some focus deviation. Takaful is relatively new compared to conventional insurance and many researchers study the concepts and applications in takaful.

Previous studies can be classified into three main theme; research on knowledge and perception of takaful products, the basic concepts of takaful and consumer behaviour and preferences of takaful products. Several studies examining the level of awareness , knowledge and perception on takaful products and services (Maysami & Williams, 2006; Abdul Wahab, Lewis, & Hassan, 2007; Hamid, Osman, Ariffin, & Nordin, 2009; Bashir & Mail, 2011; Ayinde & Echchabi, 2012; Salleh, Abdullah, & Razali, 2013). Other studies explore and clarify the basic concepts and products of takaful (Maysami & Kwon, 1999; Bekkin, 2007; Altuntas, Berry-stölzle, & Erlbeck, 2011; Muhamat@Kawangit et al., 2012). Consumer behaviour and preferences in takaful are among the focus area of studies of researchers (Ab Rahman, Ali, Che Seman, & Wan Ahmad, 2008; Redzuan, Abdul Rahman, & Aidid, 2009; Matsawali et al., 2012; Sherif & Shaairi, 2013).

There are only 2 studies on takaful reporting by Abu Kasim (2012) and Mohd. Puad & Abdullah (2014). Abu Kasim (2012) studied the disclosure of Shariah compliance via annual reports by takaful operators while Mohd Puad & Abdullah (2014) examined Takaful accounting reporting and regulations and the current practice of accounting standards among all the Takaful operators in Malaysia.

Under decision usefulness theory, the core principle of accounting information is to meet the information requirements of users located in the considerable environment of any focal organisation (Bebbington, Gray, & Laughlin, 2001) Under behavioural accounting research (BAR) approach, it is assumes that the user is in the best position to determine the information that will affect their decision or behaviour. As for this study, the main focussed is on the needs of disclosure by potential consumers or participants to make decision on takaful products and investments.

### 3. METHODOLOGY

A set of disclosure index on shari'ah compliance and governance and takaful policy requirements were developed based on takaful operational framework and Islamic Financial Services Board (IFSB). The disclosure index consists of 20 items on takaful policy requirements.

Most of the disclosure items are quite difficult to understand as it is related to technical term in takaful operations. Therefore, samples are taken from respondents who possess takaful policy and have gone through takaful training. We decided to choose takaful agents who meets the two criteria to represents users. Takaful agents were chosen because they have formal takaful training and they are a better group of respondents who understand the technical information to represent the whole population of takaful participants.

The disclosure index was distributed through emails and social media applications (WhatsApp, Telegram and Line). Google Form were used as a medium to disseminate and gathered responses from the users. The index distributed to 250 takaful agents to gain their responses. The disclosure index was distributed from 1<sup>st</sup> January 2021 until 14<sup>th</sup> February 2021. Only 79 respondents reply and give their response. The data were gathered and analysed using SPSS.

### 4. FINDINGS

#### 1. Demographic Information

There are seventy-nine respondents answering the survey, consists of 44 (55.7%) male and 35 (44.3%) are female. In term of age, 6 respondents (7.6%) are under 25 years, 23 (29.1%) are between 26 to 35 years, 23 (29.1%) are between 36 to 45 years, 20 (25.3%) are between 46 to 55 years, 6 (7.6%) are between 56 and 65 years old and 1 (1.3%) is over 65 years old.

The academic qualification of the respondents, are SPM 3 (3.8%); STPM 4 (5.1%); Diploma 30 (38.0%); Degree 33 (41.8%); Master 6 (7.6%); PhD 3 (3.8%) and others qualification is 1 (1.9%). In terms of academic background, 38 (70.4%) respondents are from Business/Management; Law 7 (13%); Engineering 3 (5.6%) and Science 6 (11.1%).

#### 2. Information on Takaful Policy Requirements

The respondents are required to evaluate 20 voluntary information relating to takaful policy requirements for takaful operator in Malaysia. The respondents are required to rank the information according to its importance; 1 – Least important to 5 – Most important. Table 1 below shows the descriptive statistics for the information pertaining to takaful policy requirements. For transparency and briefness, the percentages of more important and most important (4 and 5 on Likert scale) were added together and report it as “percentage that perceive statement to be important” in the last column of the table 1. Those who are uncertain (3 on the Likert scale) were classified as perceiving the statement not to be important as the middle point of the Likert scale (3) suggest neutrality in the perception of the importance of the statement. The statement was ranked according to the percentage of users that perceive statement to be important which was adopted from the previous studies (Charl De Villiers & Van Staden, 2010:233-234; Kamala, 2014:295).

*Table 1*  
*Descriptive statistics for information pertaining to takaful policy requirements*

Takaful Policy Requirements	Means	Standard Deviation	Std. Error of Mean	Rank	Percentage that perceive statement to be important
Obligations of participants	4.7722	0.47903	0.0539	1	97.47%
Statement of assurance	4.7468	0.49273	0.05544	2	97.47%
Obligations of takaful operators	4.6835	0.51997	0.0585	3	97.47%

Complaints handling policy	4.6203	0.56168	0.06319	4	96.20%
Procedures of claim processing	4.6203	0.60561	0.06814	4	93.67%
Remunerations policy	4.6076	0.66829	0.07519	6	92.41%
Tabarru' concept	4.5949	0.63081	0.07097	7	92.41%
Operational model	4.5823	0.56857	0.06397	8	96.20%
Exit options	4.481	0.63772	0.07175	9	92.41%
Underwriting policy	4.443	0.69332	0.078	10	88.61%
Investments mgt strategy	4.2911	0.87928	0.09893	11	77.22%
Policies on loss rectification	4.2785	0.83107	0.0935	12	81.01%
Policy on PRF surplus	4.2658	0.85798	0.09653	13	81.01%
Specific investment objectives	4.2532	0.79208	0.08912	14	81.01%
Retakaful mgt strategy	4.2405	0.83536	0.09399	15	81.01%
Surrender value basis	4.2278	0.84655	0.09524	16	78.48%
Publish on websites	4.1646	0.82323	0.09262	17	75.95%
Policies to manage operating costs	4.1266	0.95229	0.10714	18	74.68%
Allowable expenses	4.0633	0.82185	0.09246	19	74.68%
Commissions and agency fees	4.0633	1.06629	0.11997	19	73.42%
Average	4.4063				86.14%

From table 1 it was found that majority of the respondents perceive all 20 voluntary disclosure items in takaful policy requirements to be important. 97.47% (with mean of 4.7722) of respondents feels that obligations of Takaful participants (to make full disclosure of material facts relevant to the proposed transaction before signing any documents, to avoid any conflicts in the future) is either more important or most important. The lowest percentage is information on commission and agency fees, where 73.42% (with mean of 4.0633) of the respondents perceived that the information is either more important. More than 80% of the respondents perceives that the 15 out of 20 of the information related to takaful policy requirements are either more important or most important. On average, 86.14% (overall mean of 4.4063) of the respondents perceive that information on takaful policy requirements to be important.

## 5. CONCLUSIONS, RECOMMENDATIONS AND FUTURE RESEARCH

The findings of the study provide valuable insights to the standard setter as they are made aware of potential customers' or participants' needs based on how they ranked the information related to takaful policy requirements.

The average percentage of users perceive that the information on takaful policy requirements to be important is 86.14% which is high. According to the decision usefulness theory, (based on users' knowledge and needs), users may agree or disagree with the meaningful disclosure index developed. As for this study, majority of the users agree with the standard and guidelines of the authorities.

This is the first study in Malaysia to evaluate the disclosure of takaful policy requirements information which is consistent with the available standards and regulations in the takaful industry. The findings of the study provide significant insights to Bank Negara Malaysia as regulator to undertake the task of formulating new legislation and standards. With input from the users, Bank Negara can improve the existing regulation by revising the existing guidelines especially on the consideration to classify the information as mandatory requirements.

Further research is needed to extent the scope and to include other voluntary information listed in the takaful operational framework, IFSB and other related rules and standard. The current practice of

disclosure needs to be observed and analysed to match against the desired level of disclosure needed by the potential customers or participants.

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## Impact Of Behavioural Factors On Investors' Financial Decision Making In Malaysian Stock Market

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### ABSTRACT

Malaysia economy has grown rapidly for the past 10 years. Bursa Malaysia has acted as one of the platform to raise fund for Malaysia listed company in order to expand their business. In the past, stock market movement has been explained by efficient market hypothesis (EMH). However, in recent year, some literatures have actively investigated investors' behavioural factor that affect investors' decision making. There is lack of research in behavioral finance in Malaysia. This paper attempts to fulfill the gap by analyzing behavioral factors in Malaysian stock market. The objective of this paper is to propose a robust framework based on the analysed literatures. The methodology that will be used in this research is survey questionnaire. The survey plans to collect responses from respondents who are retail investors in Malaysia. This paper will use SmartPLS to analyze the effect of investor sentiment, overconfidence, overreaction and under-reaction and herd behavior on investment decisions. The findings of this paper would help to understand the behavioral pattern of individual investors in Malaysia. This will help the government to educate the new generation of the importance of investment especially in Malaysia stock market. This also helps to identify the common mistake made by the investors in Malaysia so that the younger generation will be able to learn from more experience investors. As a result, this will lead to the growth of Malaysian stock market.

**Keywords:** investor sentiment, overconfidence, overreaction and under-reaction and herd behavior

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### 1. INTRODUCTION

Malaysian economy has grown for the past 10 years due to the successfulness of Malaysian Development Plan such as Tenth Malaysian Development Plan and Eleven Malaysia Development Plan. Malaysia is also one of the most open economies in the world with a trade to GDP ratio averaging over 130% since 2010. Malaysia's economy has been growing at an average growth rate of 5.4% since 2010, it is expected that Malaysia will transit from middle-income economy to a high-income economy by 2024 (The World Bank, 2021). As a result of the effort of government and private sector, there were high influx of foreign direct investment flowing into Malaysia and there are a lot of different types of investment available for local investors and foreign investors.

Malaysia stock market, known as Bursa Malaysia, was one of the most active stock market in term of trading volume in 2020. The volume data reported in April 2021 was 150,227.092 million shares and 210,954.105 million shares traded respectively in March 2021 (Global Database's Malaysia, 2021). In Aug 2020, trading volume on Bursa Malaysia went on as high as 26.65 billion shares and worth RM9.05bil changed hands per day compared to as low as 1,993.334 million shares traded in Mar 2001. It has recorded the highest daily volume in the region compared to Singapore which has recorded 1.52 billion shares traded on the same day while the Philippines had volume of 5.27 billion. Meanwhile, Thailand and Indonesia had recorded shares volume traded at 16.62 billion and 12.3 billion, respectively (TheEdge, 2021).

There had been numerous literature in the past that used mathematical model for example efficient market hypothesis (EMH) to explain the movement of stock price in stock market, this helps the

investors to make profit in stock market with minimum risk (Fama, 1965; Lintner, 1965). However, there are another behavioural research which investigate on human emotional and psychological factors that may affect individual investment decision. Those factors include fear, greed and overconfidence (Statman et al., 2006; Lo et al., 2005; Shefrin, 2002; Daniel et al., 1998).

Since mathematical model cannot explain all of the movement of stock price, there must be other behavioural factors that may affect individual investment decision. The motivation that make me research on this topic is because I notice that there is a gap to be filled for topic on behavioral finance in South East Asia as there were not many literatures on this part of the world (Yang et. al, 2012). Most of the past literature were on developed countries in North America and European countries (Guo et al., 2017, Pikulina et al., 2017).

Hence, this study will concentrate on human psychological factors that affect individual investment decision. The objective of this paper is to propose a robust framework based on the analysed literatures. This study will provide benefits to practitioners as well as academicians. This is because this study will provide a deeper understanding of how psychological and behavioral factors affect investors' decision making, knowing this will allow practitioners to avoid these biases. Academically, this study also contributes to the body of knowledge on the stock marker investors' investment decision behaviour.

## **2. LITERATURE REVIEW**

### **2.1 Investment decision**

It is important to identify the decision behavior of the investors. This is because these investors constantly interact in the stock market (Stout, 2002). The dependent variable is investment decision. This investment decision includes decision to purchase, to hold and to sell. This decision can be measured by investors' reaction to buy or sell the securities based on the released financial performance of the company thru media, on technical analysis by reading the chart and volume analysis, or from fundamental analysis or the company Glaser and Weber (2007). Studies on investors' investing decision has proven to help both retail investors as well as the fund managers (Jaiyeoba and Haron, 2016). Researcher such as Massironi and Guicciardi (2011), suggested that the future research to research on this topic based on a more constructivist perspective because they believed this will be able to understand investors decision making process on a more formal basis. The reflective investment decision attitude and developed constructs and cognitive processes will create greater constructive awareness and efficacy (Mohamad and Perry, 2015).

### **2.2 Investor sentiment**

Investor sentiment is defined as investors' beliefs about the future cash flows of the company or cash generating ability of the company as opposed to current fundamentals of the company (Baker and Wurgler, 2006). Investor's optimism or pessimism will affect investors' trading on mainstream models (Black, 1986) which may result in investor react differently according to his perspective although the fundamental of the stocks was bad. This is further supported by Lee et al. (2002). According to them, when the investors are pessimistic, the stock return will reduce and vice versa especially in small firm where the discount of the share are larger. Evidence was found in the research of Leonard and Shull (1996) that investor sentiment is priced in the share price. This is further supported by Mian and Sankaraguruswamy (2012) that share price response to news and noise in the market. This moves investors' sentiment and in turn moves the share price. This is even more obvious in a volatile market. In a highly volatile market, stock price moves positively in a good earning season because market sentiment is high compared to the low sentiment market where volatility is low. As a result of investor sentiment and noise in the market, investors' decision making are being affected (Ben-Rephael et al., 2012). However, Lemmon and Portniaguina (2006) found no evidence of basing on market sentiment to predict or forecast the share price and momentum premiums. Guo et al. (2017) who did the research in China also concluded that predicting the share price based on market sentiment will only be valid if investor put attention on share price. Otherwise, there is no correlation between investor sentiment and stock price.

### **2.3 Overconfidence**

Individuals tend to overestimate the chances of success but underestimate the chances of failure or risk (Hirshleifer et al., 2012). This result in investors' overconfidence and overestimation of their skills of trading. Investors who are overconfidence over their own investment knowledge will tend to trade excessively, whereas, investor who are lack of confidence will underinvest, while investor with moderate confidence will trade with cautious and obtain good result (Pikulina et al., 2017).

Dittrich et al. (2005) showed that investors tend to be overconfidence when dealing with complex decisions, however, it will get lesser with the increase in investors' age. Wang (2001) concluded that overconfident investor survived in a highly risky market. Whereas, pessimistic investor get flush out from the market. This is supported by Besharov (2004), that overconfident will help in the absent of accurate information.

According to the research by Gervais and Odean (2001), traders tend to be overconfident in their early stage of trading history career, this started to diminish when they have accumulated their trading experience. In a research done in Taiwan stock market by Lin and Shiu (2003), they found that overconfident investors tend to trade more frequently and their return is lower compared to mature investors. They are also over-optimistic over the value of IPO company and overvalue the share price of the companies. Investors who have past record of making accurate forecasting may eventually underperform in their subsequent prediction because of overconfidence. Young and male investors with lower education level tend to be overconfidence in trading behavior because they are less rational and informed (Hilary and Menzly, 2006). This is further supported by Al-Hilu et al. (2017) who found that the individual investors in the UAE who are overconfident have bias toward selling 'winner' stock but keeping 'loser' stock. This is because they tend to believe in themselves and lack of reasoning and analytical skill. Eventually, they made decision based on rumors or their own channel or information and familiarity when making investment decision.

### **2.4 Overreaction and underreaction**

Market inefficiency occurred when investors overreact to unexpected news (De Bondt and Thaler, 1985). This is because investors put attention on stock performance in the past and ignore the possibility of change of trend of the stock. It is proven that company which have good performance now once had bad past performance (Lakonishok et al.,1994). His research concluded that investors overreact to bad performance and ignore the possibility of reversion of stocks which produce good return in the future.

Mean reverting and trend are the two stages of earnings that are observed by the investors. Investors underreact to earning reversion as they believed that it might only be temporary. However, investors will also overreact to false trend believing that the trend will repeat itself (Daniel et al.,1998). Investors who are overconfidence will overestimate on the signal they perceived to be true of a stock and underestimate the public signal. As a result, they have gain in the short-term but eventually make a loss in the long-run. This is because public information eventually outweighs personal behavioral anomalies (Hong and Stein, 1999). Testing of overreaction and underreaction was carried out by Kausar and Taffler (2005), under-reaction effect was found when investors received bad news and they overact to good news. This was further supported by Daniel et al.'s (1998) model. Under-reaction evidence was also found in Ikenberry et al. (1996)'s research when they analyzed post stock splits performance. Similarly, Desai and Jain (1997) also found evidence of underreaction in post stock split. Overreaction was found in emerging markets as well. According to Boubaker et al. (2015) "losers" tend to outperform the "winners" over short term, hence it means that in the short-term investors underreact to earning but in the long term they overreact to unexpected earning. Del Giudice and Paltrinieri (2017) also found evidence of overreaction by retail investors in Africa stock market.

However in Brazil stock market, Piccoli et al. (2017) found that stocks overreact to both positive and negative news. They also found that share reaction is more obvious when market is less volatile. This result is different from prior research result where share price showed higher volatility in highly volatile market.

## 2.5 Herd behavior

In economics and finance, herding is the phenomenon when investors follow the crowd in making investment decision but not based on their own decision. With the help of technology, internet blog serves as communication channel which lead to herd behavior among the investors. As a result, this leads to a collective behaviour of buying or selling a particular stocks or assets in large numbers. This is evident from the irregular share trading of GameStop Corp (GME) at Dow Jones in January 2021 (Moreau, F, 2012). Herd behaviour is more obvious during market asymmetry because during this period market are more volatility, this makes the markets more fragile and vulnerable. As supported in the past research, investors resorted to significant herding in trading during uncertainty due to lack of information (Bikhchandani and Sharma, 2000). Hirshleifer (2012) concluded that herding was due to conformity bias, because people feel more comfortable by following others during investment. This is evident at mutual fund manager where they purchase stocks based on past performance but sell the stocks at the same time, this showed evident of herd behavior (Grinblatt et al.,1995).

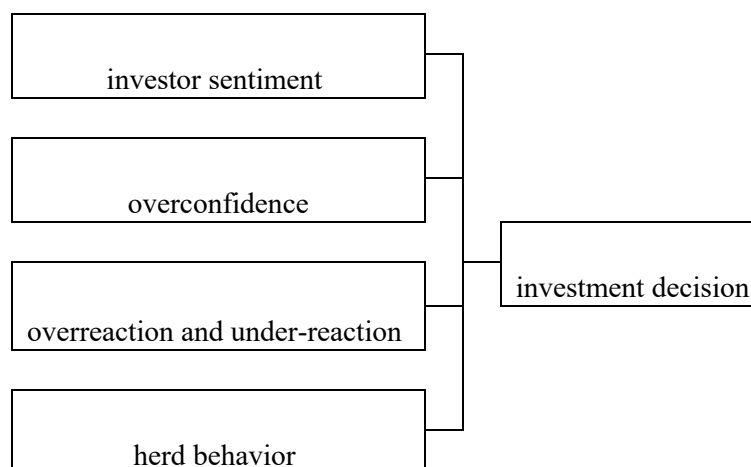
Herd behavior causes deviation of asset price (Chiang and Zheng, 2010). Balcilar and Demirel (2015) also found strong evidence of herding behaviour in Middle East stock markets, however, herding behavior is the least at Abu Dhabi stock market. Asian markets has more obvious herding behavior compared to American markets during market volatility (Chiang & Zheng, 2010). This is due to bigger component (80%) of institutional holding in American market compared to only 50% in Asian Market (Bloomberg, 2017). It is believed that institutional investors will be able to make more objective assessment compared to individual investors. As individual investors received different information from different sources, this will result in different sentiment and herding effect (Philippas et al.,2020). Lao and Singh (2011) found a significant presence of herding in the Chinese stock market but not in Indian stock market. This is further supported by Kumar et al. (2016) and Dutta et al. (2016) who did not find significant presence of herding in Indian stock market.

## 3. RESEARCH METHODOLOGY

The objective of this paper to investigate the relationship between investor behavioural factors and investment decision in Malaysian stock market. The hypothesis of this paper are:

- H1. There is a significant positive effect between investor sentiment and investment decision.
- H2. There is a significant positive effect between overconfidence and investment decision.
- H3. There is a significant positive effect between overreaction and under-reaction and investment decision.
- H4. There is a significant positive effect between herd behavior and investment decision.

Below is the conceptual framework.



## 4. CONCLUSION

The objective of this paper is to propose a robust framework based on the analysed literatures. Data collected will be analysed using SmartPLS. The explanation will be used to analyses different



behavioural effect that will affect individual investor investment decision. The findings of this paper would help to understand the behavioral pattern of individual investors in Malaysia. This will help the government to educate the new generation of the importance of investment especially in Malaysia stock market. This also helps to identify the common mistake made by the investors in Malaysia so that the younger generation will be able to learn from more experience investors. As a result, this will lead to the growth of Malaysian stock market.

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## The effects of budgetary participation, job satisfaction, and justice on organizational citizenship behavior among lecturers: role of the organizational values of Muhammadiyah

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### ABSTRACT

This paper investigates the role of the organizational values of Muhammadiyah on the relationship between budgetary participation, job satisfaction, and justice on organizational citizenship behavior based on Self Determination Theory. An online survey was conducted to 350 lecturers and grouped based on their experience in receiving education in Muhammadiyah's school or college. The data were then analyzed using a partial least square-based structural equation model (PLS-SEM). The PLS-SEM path result does not support the hypotheses of association between budgetary participation, job satisfaction, and organizational citizenship behavior, as the self-determination theory explained. We found support for the hypothesis of an association between distributive justice and OCB. However, we have supports that indicate the experience of education in Muhammadiyah's school or college affects the association of justice-OCB. The findings of this research provide practical implications for the management of higher educational institutions. The management should orient the lecturers and other staff to implement the organization's values to improve the goals congruence between elements in the institution and the institution's goal. Every member of the institution should be encouraged to improve their OCB for a better institution's performance.

**Keywords:** Altruisme; compliance; multi groups analysis; PLS-SEM; self-determination theory

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### 1. INTRODUCTION

This paper applies two theories to examine the antecedents of Organization Citizenship Behavior (OCB). The first theory, self-determination theory (SDT) (Deci & Ryan, 2000, 2008), applied to investigate job satisfaction (JS) as the antecedent of OCB. We also empirically test the mediating effect of job satisfaction on the relationship of budgetary participation (BP) and OCB. Self-determination theory suggests that the higher JS leads to a higher OCB, while BP positively affects JS. Thus, a person with a higher BP tends a higher OCB. The second theory, justice theory (JT) (Rawls, 1971, 1999), applied to test the dimensions of justice as OCB's antecedent. The three dimensions are distributive justice, interactional justice, and interpersonal justice. The higher the perception of justice, the higher the OCB. The current research is motivated by three reasons. First, the association between budgetary participation and job satisfaction has revealed by Chenhall (1986) and Chenhall & Brownell (1988), while the association between JS and OCB is examined by Ang et al. (2003). However, the research that examines the relationship between budgetary participation, job satisfaction, and OCB using the SDT framework is still limited. Second, researches on OCB topics are excessively conducted on business or work organizations, while research on this topic in an educational setting is still minimal, especially on the lecturer. Third, Muhammadiyah is one of the most prominent religion-based organizations snowballing with "charity movement" (Nashir, 2015). One of Muhammadiyah's focuses is education and teaches the "charity movement" to all students. This research is the pioneer in investigating the internalization of "charity movement" on Muhammadiyah's educational institutions' alumnae and its effect on OCB. Previous research on OCB, especially on the higher education institution were conducted, among others, by Abror et al. (2020) and Munawir et al. (2019). Using

lecturers in a state-owned university in West Sumatera as samples, Abror et al. (2020) found that satisfaction significantly impacts OCB. Munawir et al. (2019) conducted research using heads of programs in religious-based private universities in Makassar and Aceh City. They found empirical evidence that OCB has an impact on performance. They also found that good university governance was mediated the relationship between OCB and performance. This study contributes to the OCB literature in the following ways. The recent studies on OCB, especially in a higher education setting, are ubiquitous to focus on students (Azila-Gbettor et al., 2020; Khaola, 2014). However, this research focuses on the role of budgetary participation and justice in promoting lecturers' OCB. Second, this research expands the earlier studies on OCB by examining the role of value adopted in the lecturers' educational organizations on their OCB. Finally, this research provides insight for Muhammadiyah to evaluate their educational institution's success in educating and internalizing their organizational values.

## **2. LITERATURE REVIEW AND HYPOTHESES DEVELOPMENT**

### **2.1 Job satisfaction and justice as antecedents of OCB**

The attachment of organizational members and their commitment to organizational goals has a considerable influence on the organization's continuity. An organization can operate effectively when all members of the organization have ties to the organizational structure and social environment in the organization (Katz, 1964). This concept was later put forward as citizenship (Bateman & Organ, 1983; Organ, 1988; Smith et al., 1983). Many motives drive people to do OCB (Matsushita, 2015; Rioux & Penner, 2001). However, the later research focused on job satisfaction and justice as the antecedent factors. People in an organization with a high level of job satisfaction and a high perceived justice level would do OCB as a reciprocity action (Organ, 1977, 1988). This emergence process of OCB is consistence with the self-determination theory. Deci & Ryan (2008) explained how people shifted their motivation—extrinsic to intrinsic—as a reaction to the needs, wealth, and basic personality. This theory is well-suited in explaining why people would do voluntary acts (Güntert & Wehner, 2015). Organizational citizenship behavior might be considered as a voluntary act because OCB has no relation with reward system. Satisfaction's role, as a general concept, in affecting OCB revealed by Koys (2001), Podsakoff et al. (1990), Farh, Zhong, & Organ (2004), and Zenker & Rütter (2014). Other researchers responded to Organ's (1977) statement that the work environment was also associated with OCB. They were then revealed that job satisfaction has a direct effect on OCB as claimed by Organ (1977; 1988) (Ang et al., 2003; Moorman et al., 1993; Somech & Drach-Zahavy, 2000; Van Dick et al., 2008; Williams & Anderson, 1991; Xie et al., 2017). As Rawls (1971) stated, justice is a social contract that assigns rights and duties between members of society and determines the division of social benefits. Thus, according to the utilitarianism concept, men would act differently based on their perception of justice as fairness. There are empirical shreds of evidence that justice as fairness affected the performance (Ghosh et al., 2017; Lam et al., 2002), satisfaction (Alwin, 1987; Chan & Lai, 2017), and also motivation (Folger, 1993; Olafsen et al., 2015). Lavelle et al. (2009) elaborated on the association between fairness perception on a particular source of justice and OCB. Their finding is consistent with Rupp & Cropanzano (2002), who stated the positive association of procedural fairness and OCB. However, research on association between dimensions of justice and OCB result various findings (Lambert & Hogan 2013; Chou et al. 2013; Lavelle et al. 2009). Organ and Moorman (1993) pointed out the importance of justice in explaining OCB. They argued that there was a possibility of the occurrence of misperceptions of justice and job satisfaction. Thus, it is important to draw a clear association between job satisfaction, justice, and OCB. Testing the role of job satisfaction and justice as predictor of OCB is important.

### **2.2 Budgeting and job satisfaction**

Budgeting is an essential process in an organization. This process focused on resource allocation for business activity in an organization. The budgeting process might be initiated from the top level of the organization, known as “top-down” budgeting, or initiated from the lower level management, known as the “bottom-up” budgeting process. However, the “top-down” has a more significant effect compared to its counterpart (Covaleski, 2003). The attainability of budget in the “top-down” budgeting has an interesting association with the employee's motivation. The employees will be motivated and will have higher motivation when the budget attainability located somewhere between easy to attain and impossible to attain (tight but attainable). This association show an “inverted U-shaped curve”

(Argyris, 1953; Kenis, 1979; Ronen & Livingstone, 1975; Stedry, 1960). A different kind of association occurred when an organization implemented “bottom-up” budgeting that involving participation across level of employees. This budgeting process tends to create a more attainable budget. However, there has been various evidence of a positive relationship between participation in the budgeting process and motivation (Kenis, 1979; Merchant, 1981). However, Brownell & McInnes (1986) found an insignificant correlation between participation and motivation. The final budget acceptance was expected to be shifted up by involving employees in preparing the budget (Aranya, 1990), and finally would shift up the performance (Kenis, 1979). Those findings were contrary to Milani (1975), who stated that the association between participation and performance was weak. Those two conflicting evidence was due to the role of the budget instrumentality (Cherrington & Cherrington, 1973). Aranya (1990) found the interaction effect between budget participation, satisfaction, and budget instrumentality. He explained that high satisfaction was associated with high participation and low budget instrumentality, otherwise, low participation and high instrumentality. Other two research show that budget participation and satisfaction have an association with budget emphasis and organization commitment as moderating variables (Lau & Chong, 2002), and role ambiguity as mediating variable (Chenhall & Brownell, 1988).

### **2.3 OCB in Muhammadiyah**

Muhammadiyah is one of the most prominent spiritual organization in Indonesia. Its name means the follower of Muhammad, the last prophet in Islam. The organization has a mission to purify Islam in Indonesia and focused on improving the community level of health and education as a strategy. This strategy leads Muhammadiyah to found educational organizations and health and social organizations across the country. The latest data shows that this organization has 9000 schools, 171 higher level educational organizations, 2119 hospitals and clinics, 454 nursing houses and other residential-care facilities, and thousands of mosques across the country (Pimpinan Pusat Muhammadiyah, 2018a). In building so many facilities, Muhammadiyah depends on internal funding and “hibah” or “wakaf” (grant) from sympathizers, including grants from the international social organization. It is interesting because Muhammadiyah is an independent organization, including independence on the fund (Nakamura, 2012). It is interesting to understand how Muhammadiyah raises the internal potencies and manages it to build many social facilities. The founder of Muhammadiyah, Kyai Haji Ahmad Dahlan, told his followers to look after the organization and not join this organization just for a living (Fakhrudin, 2012). This quote becomes a principle that must be held by all members. This principle told that every member of Muhammadiyah should prioritize the organization above personal interest. This principle then becomes the guidance of the Islamic way of living for all its members (Pimpinan Pusat Muhammadiyah, 2018b). The principle that prioritizes organization than personal interest is consistent with an attribute of organizational citizenship behavior, the organizational concern (Rioux & Penner, 2001). Thus, it is clear that Muhammadiyah urges its members to improve their level of OCB. The principle that prioritizes organization than personal interest is consistent with an attribute of organizational citizenship behavior, the organizational concern. Although not a primary performance indicator, OCB is still very important to an organization. OCB may improve the social mechanism and affect the environment that leads to better individual performance, and in the end, a better organization’s performance (Katz, 1964; Smith et al., 1983).

### **2.4 Hypotheses**

As discussed above, job satisfaction is a strong predictor for OCB (Organ, 1977, 1988; Smith et al., 1983). However, there is a possibility that misperceptions and job satisfaction occur in research, especially when the research only involving one of these constructs (Organ & Moorman, 1993). Thus, we testing the following hypotheses:

- H1: Job satisfaction positively affects the OCB.
- H2a: Distributive justice positively affects the OCB.
- H2b: Procedural justice positively affects the OCB.
- H2c: Interactional justice positively affects the OCB.

Tested partially, we found evidence on the relationship between budgetary participation, job satisfaction, and OCB (Aranya, 1990; Chenhall & Brownell, 1988; Cherrington & Cherrington, 1973; Kenis, 1979; Lau & Chong, 2002; Milani, 1975). We test whether budgetary participation might be applicable to improve OCB on the higher educational institutions. Thus, we test the hypothesis as follows:

- H3: Budgetary participation positively affect the job satisfaction
- H4: Job satisfaction mediates the relationship between budgetary participation and OCB
- H5: The relationship<sup>2</sup> between budgetary participation, job satisfaction, and OCB are different between lecturers who have experience in Muhammadiyah educational institutions and those who do not.

### 3. METHODOLGY

This research was using a positivistic-quantitative approach. Data was collected using an online survey with lecturers in Indonesia as respondents. The online survey link was sent to 25 public universities/colleges and 100 private universities (including Muhammadiyah's institutions). Using a snowballing sampling, we received 350 responses. Data were then analyzed using a PLS-SEM in STATA 16.1. The procedure for performing PLS-SEM in Stata was developed by Venturini & Mehmetoglu (2017). Survey instruments were developed based on the existing instruments developed by Lambert & Hogan (2013), Milani (1975), Ramkissoon (2016), and Spector (1985). A back-translation was performed to verify semantic equivalency as recommended by Maneesriwongul & Dixon (2004).

### 4. RESULT

This research was carried out on high educational institutions in Indonesia. The participants were lecturers in various universities. An online survey was carried out by sending the questionnaire to lecturer groups in universities across the county. Three hundred and fifty (350) data were collected consist of 149 (43%) were lecturers in public schools/universities and 201 (57%) were lecturers in private schools/universities. We find support for the H<sub>2a</sub> and H<sub>3</sub> (see table 1 below). There are positive associations between distributive justice on OCB (H<sub>2a</sub>:  $\beta=0.2210$ ,  $p<0.05$ ) and budgetary participation and job satisfaction (H<sub>3</sub>:  $\beta=0.4420$ ,  $p<0.000$ ). The variance explained are 0.158 and 0.193 for OCB and job satisfaction respectively. According to the effect size defined for  $R^2$  by Cohen (1988), these effects can be classified as medium (small: 0.02; medium: 0.13; large: 0.26). As mentioned above, we use GoF proposed by Tenenhaus et al. (2005) because we intended to compare the model with two set data. The GoF is useful to assess how well the model explains different sets of data but not suitable for model validation (Henseler & Sarstedt, 2013). We performed a multi group analysis PLS with 200 replications. We find support for H<sub>5</sub> with absolute difference=0.5990 (group 1-group 2) and  $p$  value=0.0200 (see table 2 below). We only find a difference in the path between distributive justice and OCB. The  $\beta$  for the global data is 0.2210. The coefficient ( $\beta$ ) for group 1 (lecturers with no experience in the education in Muhammadiyah institution) is higher than the  $\beta$  for the global data. In contrast, the  $\beta$  for group 2 (lecturers with experience in Muhammadiyah educational institution) is much lower (-0.3200). Results presented in table 2 and table 3 below indicated that only distributive justice impacts OCB. However, there is a difference in the relationship between distributive justice and OCB. Lecturers with the internalization value of Muhammadiyah show different responses on their perception of distributive justice.

<b>Structural Effect</b>	<b>Group 1</b>	<b>Group 2</b>	<b>Statistic</b>	<b><i>p</i> value</b>
Distributive Justice -> OCB	0.2790	-0.3200	2.3310	<b>0.0200</b>
Interactional Justice -> OCB	0.1320	0.3000	0.7620	0.4460
Procedural Justice -> OCB	0.0560	0.3970	1.1360	0.2570
Job Satisfaction -> OCB	-0.0030	0.0530	0.1260	0.9000
Budgetary Participation -> Job Satisfaction	0.4170	0.5100	1.3930	0.1640

*number of replications: 200*

group labels:  
 Group 1: No Experience  
 Group 2: Have Experiences in Muhammadiyah's  
 education  
 group sizes:  
 Group 1: 265  
 Group 2: 85

Variable	OCB	Job Satisfaction
Distributive Justice	<b>0.2210</b> <b>(0.011)</b>	
Interactional Justice	0.1550 (0.134)	
Procedural Justice	0.0450 (0.697)	
Job Satisfaction	0.0290 (0.747)	
Budgetary Participation		<b>0.4420</b> <b>(0.000)</b>
$r^2_a$	0.1580	0.1930
*p-values in parentheses		
Number of obs =		350
Average R-squared =		0.1818
Average communality =		0.7044
GoF =		0.3578
Average redundancy =		0.1068

#### 4.1 Sensitivity analysis

In this additional analysis, we regroup the data based on institutional affiliation. We make three groups, which are (1) public institution, (2) private non-Muhammadiyah, and (3) Muhammadiyah. We make this group because, in Muhammadiyah's institution, there is no condition that a lecturer should be a Muhammadiyah institution alumnae. Conversely, a Muhammadiyah alumna also can apply to a public institution or other private institution for a lecturer position. We performed this test to assure whether the value of Muhammadiyah is embedded in the organizational level and thus may affect the organization's members. The result is presented in table 3 below and shows that there are no differences between groups. We then conclude that the value of Muhammadiyah does not exist at the organization level.

Structural effect	Group 1	Group 2	Group 3	P 2vs1	P 3vs1
Distributive Justice -> OCB	0.2900	0.2250	0.1010	0.8380	0.2640
Interactional Justice -> OCB	-0.0130	0.2690	0.2140	0.2070	0.3600
Procedural Justice -> OCB	0.1920	-0.0610	-0.0030	0.2930	0.4710
Satisfaction Justice -> OCB	0.0040	0.0380	0.0840	0.8930	0.5290
Budgetary Participation -> Job Satisfaction	0.4890	0.3810	0.4130	0.2210	0.6350

number of replications: 200

legend:

Group 1: Public

Group 2: Private Non Muhammadiyah

Group 3: Muhammadiyah

group sizes:

Group 1: 149

Group 2: 118

Group 3: 83

## 5. DISCUSSION AND CONCLUSIONS

This study aims to ascertain the relationship between distributive justice, interactional justice, procedural justice, budgetary participation, job satisfaction, and OCB in higher educational justice with lecturers as participants. The second objective is to discover whether the value of Muhammadiyah

affects those relationships. A PLS-SEM procedure using Stata 16.1 was performed to test the proposed hypotheses. The result of the model indicates the following:

1. For the relationship between distributive justice and OCB, a significant relationship exists with an estimated coefficient is 0.2210 ( $p < 0.05$ ).
2. The relationship between budgetary participation and job satisfaction exists with a coefficient of 0.4420 ( $p < 0.01$ ).
3. The relationship between distributive justice and OCB on lecturers who are alumnae Muhammadiyah institutions is different from those relationships on lecturers who are non-alumnae on Muhammadiyah institution.

The result is inconsistent with Farh et al. (2004), Organ (1988), Podsakoff et al. (1990), and Smith et al. (1983). There is no evidence for the existence of the relationship between job satisfaction and OCB. Any other motives for OCB might be taken into account. The management impression motives on OCB might exist (Bolino, 1999; Bolino et al., 2009, 2010, 2012; Bolino & Turnley, 2005). Furthermore, the management impression motives will be reflected in a negative correlation between job satisfaction and OCB. If the two motives emerge coincide in a research, the effect will cancel each other and result in non-significant findings. Moreover, a non-linear model might be applied in future research to reveal the relationship between job satisfaction and OCB more clear. This research analyzed the role of job satisfaction and justice on OCB in a higher educational institution with lecturers as respondents. The result shows that only distributive justice has a relationship with OCB and indicates that OCB might be affected by the changes in distributive justice perceptions. Further, higher educational institutions' management may boost the lecturers' OCB by promoting distributive justice in lecturers. Further analysis reveals the difference in the relationship between distributive justice and OCB on lecturers who are alumnae of Muhammadiyah educational institutional on lecturers who are not ( $p < 0.05$ ). Additional analysis found that there is no difference in job satisfaction-OCB relationship between institutions' affiliation. This result indicates that the value of Muhammadiyah appears on individuals as a result of previous educations and affects their behavior, especially on OCB. The difference in the relationship between distributive justice and OCB in Muhammadiyah's institutions and the person with experiences in Muhammadiyah's educational institutions might result from the recruitment systems in Muhammadiyah's institution. Having experiences in Muhammadiyah's educational institutions is not a must. This research, however, is a subject of common limitations of survey research. Moreover, the samples in this research are limited to lecturers only, while the management in a particular institution might be involved, non-lecturers staff.

Thus, the generalizations of the results should be made with caution.

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## Bureaucratic corruption in community sport program management: a networking perspective

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### ABSTRACT

This study explores the network that raises the features of bureaucratic corruption in implementing fiscal decentralization. The analytical approach applies Actor Network Theory (ANT) to investigate a series of episodes of local bureaucratic corruption related to spending on public goods and services, the largest type of expenditure allocation in most local governments in Indonesia, which is packaged in the community sport program business in Bantul Regency. The analysis shows that corruption networks are increasingly spreading to the joints of the regency bureaucracy at the lowest level, obscuring the involvement of many actors through pressure on power and administrative sophistication within the framework of fiscal decentralization. This study develops a useful analysis to promote an anti-corruption strategy by analysing the execution of public expenditures by Indonesian local governments within the framework of fiscal decentralization to address the expansion of corrupt behaviours of the actors involved. As such, this study provides relevant insights for policymakers and local and national institutions.

**Keywords:** ANT; Corruption; Decentralization; Local Government; Public Expenditures

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### 1. INTRODUCTION

Local government corruption in Indonesia in the last two decades has shown an increase (ICW, 2019), which is in line with implementing fiscal decentralization (Law 32/2004). In fact, the local government apparatus within the framework of fiscal decentralization has broader authority to execute the budget to provide services according to the needs and preferences of the local community (Kim, 2008). In contrast, fiscal decentralization also provides an open space for bureaucrats to engage in corruption that hinders public welfare in developing countries (Alfada, 2019; Kim, 2008; Kolstad et al., 2014; Martines-Vasques et al., 2017).

This study argues that government bureaucrats use their authority to execute budgets that benefit themselves (Rose-Ackerman, 1978: 88), so that fiscal decentralization further fosters bureaucratic corruption in local governments (Prud'homme, 1995). Here, the administrative skills of local government officials play a role in disguising the interests of actors involved in implementing the public budget, in that context we concentrate on the corruption network of the community sports program (CSP) in Bantul Regency involving business people, mediators, and legislators. The protagonists of the corruption episode in the CSP are legislators, among them Mr. NS, Mr. SS, and Mr. ES, which have the political power to intervene in the authority of local government officials.

This study reveals the emergence of corruption through the process of translation (Callon, 1986), which explains the role of power and authority of the makers through the ANT approach (Latour, 2005). The analysis uncovers and provides insight into the relationship between corruption and fiscal decentralization, the web of corruption disguised through administration, and the flow of money to few people. Thus, this study develops a useful analysis to promote an anti-corruption strategy by analyzing the execution of public expenditure budgets by Indonesian local governments within the framework of

fiscal decentralization to deal with the expansion of corrupt behavior involved. As such, this study provides relevant insights for local and national policymakers and institutions.

## **2. BUREAUCRATIC CORRUPTION AND FISCAL DECENTRALISATION**

Fiscal decentralization triggers growth in the level of corruption in local governments because of the great potential to exploit the budget for the benefit of the apparatus (Alfada, 2019). The broad and monopolistic authority of the local government apparatus to offer bureaucratic services in government agencies is an open space for corruption (Klitgaard, 1998; Rose-Ackerman, 1978). Thus, bureaucratic corruption brings about spending in the regions is getting worse with exist broad powers through fiscal decentralization.

Until now, improving public services through the implementation of fiscal decentralization is still unclear to improve the welfare of local people due to the corrupt behavior of the apparatus (Alfada, 2019; Kim 2008; Kolstad et al., 2014; Martines-Vasques et al., 2017). This condition is increasing difficult because fiscal decentralization narrows the central government's control and supervision space for regional financial management carried out by local governments (Prud'homme, 1995). This supports corruption in the region is increasing pervasive and hidden.

## **3. AN ACTOR-NETWORK PERSPECTIVE**

ANT is a methodological tool based on a particular worldview that aims to trace the practices through which society congregates (Johannesson and Baerenholdt, 2020), through which people are constantly reconfigured (Callon, 2001). They do the configuration through translation, which means displacement, shift, discovery, mediation, creation of links that did not exist before (Latour, 1999: 179). These make it possible to trace the corrupt practices of bureaucrats that arise from the confusion between carrying out their obligations in the public interest or the interests of themselves and their cronies (Latour, 2005).

Callon (1986) identified and explained that there are four elements in ANT which are referred to as translations that allow each other to precede, namely problematization, interessement, enrolment, and mobilization. Here problematization is the determination of the identity and interests of other actors that are in line with their interests, which must go through mandatory channels. Next, the interessement stage is to make sure other actors agree and accept the definition of the main actor. Next, the enrolment stage, where an actor accepts the interests defined by key actors and seeks to achieve them through actor alliances aligned with the Actor-Network. Finally, the mobilization stage, where the main actor is confirmed to represent the interests of other actors. Here is the possibility of treason, a situation in which actors do not comply with the agreements arising from the enrolment of their representatives (Callon, 1986).

## **4. METHODS**

Exploration of bureaucratic corruption is more suitable for the agency network approach (Groenendijk, 1997), through a case study strategy (Scapens, 2004). We developed data collection and analysis for case studies in three ways, according to those carried out by Pianezzi and Grossi (2020). First, an investigation to understand the macro-context of local government bureaucratic corruption in Indonesia; second, focusing on implementing fiscal decentralization policies in which the regional apparatus implements the public expenditure budget for CSP in Bantul Regency in 2019; and third, the collection of all publicly available data to develop a thorough understanding of cases of bureaucratic corruption.

The three-step analysis focused on four different data sources. First, online mainstream newspaper articles are the principal source of information for chronological and contextual analysis of cases of bureaucratic corruption that occur. Second, prioritizing regulatory and policy documents to analyze the implementation of fiscal decentralization. Third, we use the Bantul Regency internal budget realization report document for the 2019 period and the results of its examination from the State Audit Office (SAO) to focus on the case of implementing public spending in the CSP. last, Interview to find out how the network functions, model it, and do a detailed reconstruction of how the case unfolded. The

informants comprised 15 people who had information or were involved directly in the CSP program, which are presented in Table 1. The interviews lasted from 40 minutes to 90 minutes. To protect the identity of the interviewees, their real names do not show in this paper.

Table 1. Key information regarding interviewees

No.	Position	Organization
1	Treasurer	
2	Financial official	
3	Planning official	
4	Accounting official	Bantul Regency
5	Internal auditor	
6	Internal auditor	
7	Secretariat official	
8	External auditor	State Audit Office
9	Accounting consultant	Development Supervisory Board
10	Prosecutor	Attorney-General's Office
11	Policeman	Attorney-General's Office
12	Political party official	Partai Demokrasi Indonesia Perjuangan
13	Legislative staff	Bantul Legislative Body
14	Legislative staff	Bantul Legislative Body
15	Head of village	Village in Bantul Regency

## 5. BUSINESS OF COMMUNITY SPORT PROGRAM: BANTUL REGENCY BUREAUCRAT CORRUPTION CASE

CSP is a routine activity of local governments in Indonesia to promote sports, such as fitness, cycling, and leisurely walks. CSP in Bantul Regency is managed the Youth and Sports Division (YSD) of Bantul Regency and the Youth and Education Commission of the regency's legislative body. This expenditure is a public expenditure budget as expenditure on goods and services (SAO AR Bantul, 2020:13).

CSP activities come from the results of the absorption of community aspirations by the local legislative during recess. They convey these aspirations to the executive to be programmed, which is budgeted in the sports and recreation development program. Legislators use their campaign teams as community groups to submit proposals for CSP activities to the council secretariat. The proposal was submitted to YSD to fulfil administrative requirements (SAO AR Bantul, 2020: 19). The proposal from the community group did not go through adequate verification by the officials at YSD (SAO AR Bantul, 2020:15). The Goods and Services Procurement Officer at YSD stated, "We can't do much because there is intervention and our position is at stake." Thus, the approved proposal is one that includes the name of the legislator as a facilitator for the implementation of CSP activities (SAO AR Bantul, 2020:12). The implementation of CSP activities should be left entirely to community groups and accounted for by them, where the YSD apparatus acts as a supervisor (presidential decree 16/2018).

Incumbent legislators get the double benefit of the event, namely increasing their popularity for re-election and financial gain. Other actors also enjoy financial advantages, the bulk of which comes from payments for food and drinks services.

## 6. DISCUSSION

The story of corruption in the CSP business begins with an episode of problematization (Callon, 1986). The Bantul Regency Government intends to carry out CSP programs and activities in a targeted way and its budget according to rules. This CSP involves many actors, including the YSD apparatus and the Bantul Council Secretariat, community groups, village officials, legislators, and the private sector. The actors involved have different roles and authorities and are related to each other in a network. Structurally, it is very vulnerable to use through poor control mechanisms, supported by low accountability (SAO AR Bantul, 2020: 14). This is the beginning of the disguise of corruption by actors in a network.

The problematization of implementing CSP activities is framed in a frame in which important actors work together to find solutions. Some important actors have more dominant authority than others. These parties are legislators who use their political position to give their “name” to community groups as a guarantee for implementing activities. The legislator becomes an “obligatory passage point” in the ANT (Callon 1986) in the CSP implementing procedure. The second stage is interessement (Callon, 1986) in which actors build networks to link their interests with other new actors. Referring to the offer to the community group that will carry out the CSP, proof of the bidding document that the community who submitted the bid was including the name of the legislator in their proposal (SAO AR Bantul, 2020:12).

The third stage is enrolment (Callon 1986), which is to identify the roles of the actors in the CSP. The key actors here are legislators who have several roles over the power as councils they have. First, the legislator determines the community group that is actually their success team for submitting the implementation of CSP activities. Second, they have intervention on the apparatus in YSD for determining community groups that will carry out activities. The intervention is showed by including the name of the legislator on the proposal for implementing CSP activities (SAO AR Bantul, 2020: 12). This is in line with head of village’s explanation that, “it is impossible for any community group to carry out CSP without the backup of council members.”

Finally, the legislator intervened in the disbursement of funds from these activities. SAO findings show that the document for submitting payments for CSP activities contains the name of the legislator as a facilitator of the activity (SAO AR Bantul, 2020: 12). As stated by the YSD goods and services procurement official (interview result) that, “the official (YSD apparatus) concerned cannot avoid intervention, his position and reputation are at stake.”

The last stage is mobilization in which the network of actors translates corrupt deals into practice. At this stage, there is a real social and physical transfer of resources (Callon, 1986). The move is through a complex administrative network. At this stage the role of bureaucratic actors disguises the corrupt activities of the actors involved, including himself, through neat administration to meet the demands of the rules. This is in line with the explanation of the treasurer at YSD that, “we ensure payments are made carefully, especially for sensitive activities so that certain signs are needed.” This of course fosters bureaucratic corruption disguised through administrative sophistication which overlaps legally and illegally at each stage (problematization, interessement, enrolment and mobilization) here (see Figure 1).

## **7. CONCLUSIONS**

A strong desire to get out of the trap of corruption in Indonesia seems to have met a dead end called bureaucracy. The factory of corruption was initially at the center, but fiscal decentralization shifted it to the regions. Local bureaucrats disguise this corruption using their administrative skills to facilitate the corrupt interests of local legislators and officials, while profiting from complex bureaucracies (Neu et al., 2013). This reinforces the notion that decentralization creates regional political elites that are difficult to control by the center (Harun et al. 2019), which expands the scope for corruption in the regions.

The description of corruption as a translational process allows us to identify several factors and mechanisms that direct the creation of corruption networks (Pianezzi and Grossi 2020). The abuse of political power and administrative skills goes hand in hand through the complexities of rules that legislators, apparatus, and other interested parties exploit to secure their advantage (Neu et al., 2013). Under these conditions, conventional controlling corruption is not effective, so it is important to identify alternative instruments that allow to increase control of authority and accountability of the actors involved. Here, ANT helps to decipher the complex network of bureaucratic corruption through how the network of actors (human and non-human) is involved in shaping it so that it is possible to prevent it from happening again.

This study is limited to one case study. This allows for further studies using several cases for comparison.

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## The Quality of Accounting Information in the Industrial Sector of ASEAN 5: Before and During the Pandemic Covid-19 Pandemic

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### ABSTRACT

The purpose of this paper is to examine the effect of the Covid-19 pandemic on the quality of accounting information in terms of accrual quality and value relevance. This study uses a sample of companies listed on stock exchanges in five ASEAN countries, Indonesia, Malaysia, the Philippines, Singapore, and Thailand, for the period 2009-2020. OLS pooled regression model was estimated with panel data. The results showed that the COVID-19 pandemic impacted earnings quality, but not on value relevance of accounting information quality. Enforcement of accounting and auditing standards can reduce the impact of the COVID-19 pandemic in improving earnings quality. However, investor protection is not adequate to improve the quality of accounting information during the COVID-19 pandemic.

**Keywords:** Covid-19, ASEAN, accounting information quality, accruals quality, value relevance

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### 1. INTRODUCTION

The Covid-19 pandemic has had a significant impact on all activities of life and business. This pandemic resulted in a reduction in international trade activities to reduce the spread of the virus. It causes a sudden and intense impact on economic activity and financial markets around the world. The US stock market index S&P 500 plunged nearly 34 percent from February 20 to March 23, 2020 (Bloomberg, n.d.). The same is reported by the Croatian index value CROBEX (Zagreb Stock Exchange, n. d.). This decline follows the previous 11% decline of the China CSI 300 stock market index from January 23 to February 3, 2020 (China Securities Index, n.d.). The COVID-19 pandemic has had a mixed impact on financial markets and companies' financial performance (Palma-Ruiz et al., 2020). It is not clear how long the crisis due to the Covid-19 virus will last, so it is not possible to estimate the impact of the loss. The pressure faced by management raises the potential for manipulating accounting information to meet market targets and expectations. Management may try to use accounting discretion to adjust financial statements with pessimistic expectations for the future. Previous research related to the impact of the crisis has not been conclusive. Several studies have shown an increase in earnings management during the financial and economic crisis (Silva et al., 2014; Flores et al., 2016), while others document a decline in earnings management during the crisis. It is suspected that poor company performance reduces earnings management intentions (Chintrakarn et al., 2018) or the need to attract investors (Cimini, 2015). The purpose of this paper is to examine the effect of the COVID-19 pandemic on the quality of accounting information. It is hypothesized that the COVID-19 pandemic has a degrading effect on the quality of accounting information. Previous research has suggested that the crisis reduces the quality of accruals (e.g., Persakis & Iatridis, 2015; Kousenidis et al., 2013; Chen et al., 2018) and the value relevance of accounting information (Graham et al., 2000; Choi et al., 2011; Adwan et al., 2020). Investors and other stakeholders must determine the company's future financial prospects, for example through the quality of accounting information. This study contributes to the literature in the following perspectives. First, this study is one of the first studies to investigate the quality of accounting information in ASEAN countries' practice in the context of the ongoing pandemic. ASEAN countries are countries, some of which are developing countries that Covid-19 has financially developed. Second, this research extends Palma-Ruiz (2020) by examining the quality of accounting information from both



an accounting and market perspective during the pandemic crisis. Finally, this study helps ASEAN country authorities and investors better understand how Covid-19 affects accounting practices and the quality of accounting information. The practical implication is on the quality of accounting information of public companies, which may decrease due to the motivation to display financial statements that look different from what they are. Theoretically, this research will add to the literature on the quality of accounting information, especially financial reports published during the COVID-19 pandemic.

## **2. LITERATURE REVIEW AND HYPOTHESES DEVELOPMENT**

### **2.1 Quality of accounting information during the Covid-19 pandemic**

Stakeholder theory emphasizes the interconnections between business and all those who stake in it: customers, employees, suppliers, investors, and the community. It suggests that a company must seek to maximize value for its stakeholders (Freeman, 1984). According to Freeman (1984), a company places all stakeholders at risk due to the company's activities, which legitimizes all stakeholders' claims to the company's decision-making process. The fraud triangle theory (Cressey, 1950; Schuchter & Levi, 2016), explains the motivation for companies to adjust their financial results with future expectations. During the financial crisis, investors and other market participants paid more attention to profits, which tended to be unstable and showed a downward pattern. The role of accounting information for firm valuation when a firm's financial health deteriorates is the subject of several studies in the accounting literature (e.g. Barth et al., 1998; Davis-Friday et al., 2006). Previous research stated that COVID-19 had a huge impact on business activities, for example, a decrease in financial performance (Rababah et al., 2020; Shen et al., 2020). DeFond & Park (1997) find that when estimates of future performance are below the previous year's standard of financial success, management tends to transfer earnings to future periods and vice versa. Since the COVID-19 crisis occurred, it is suspected that companies have the motivation to shift some of their profits from the previous year to future turbulent periods. Previous literature has investigated market valuations of accounting information when a company's financial condition is deteriorating (e.g., Davis-Friday et al., 2006; Burgstahler & Dichev, 1997; Barth et al., 1998). The quality of accounting information is related to the usefulness of accounting information for users of financial statements. The quality of accounting information is a level, which in this case, financial reporting can reflect the actual economic conditions of a company. Because changes in market values are unpredictable and financial statement items are updated every period, earnings become more volatile and less persistent. Less persistent earnings are less predictable and less useful for equity valuation (Bhattacharya et al., 2003; Dichev & Tang, 2009). Adwan et al., (2020) found evidence of a significant decrease in the value relevance of net income in times of financial crisis. Prior studies focused on the impact of the financial crisis on the value relevance of accounting information (the book value of equity and net income). For example, Graham et al., (2000) found that after the financial crisis in Thailand, the value relevance of the book value of firms' equity increased, while the value relevance of net income decreased. Meanwhile, Davis-Friday et al., (2006) revealed variations in the value relevance of the book value of equity and net income after the Asian financial crisis. According to Chintrakarn et al., (2018), managers can manipulate reported earnings more aggressively during the financial crisis. The current pandemic scenario also determines the implementation of earnings management. Increased earnings management will reduce the quality of accounting information. COVID-19 has significantly affected the economic activities of listed companies in ASEAN countries. Therefore, the first hypothesis is as follows:

H1: During the COVID-19 pandemic, companies listed in ASEAN countries experienced a decline in the quality of accounting information

### **2.2 The impact of strong country institutions on the quality of accounting information**

The accounting and financial literature provide evidence that a country's strong institutional infrastructure is critical in determining opportunistic managerial behaviour and the quality of accounting information (e.g., Leuz et al., 2003; Fernandes & Ferreira, 2008; Kim & Shi, 2011). We suspect that investor protection and enforcement of accounting standards are essential to the credibility of accounting information reported during the crisis. This implies that state-level legal institutions play a complementary role in the value of accounting information (e.g., Ball et al., 2003; Choi & Wong, 2007). Consistent with this argument, Hung, (2000) reports that the value relevance of accruals is lower

in countries with weak legal institutions compared to strong institutions. Therefore, we propose an alternative hypothesis as follows:

H2. The decline in the quality of accounting information during the COVID-19 pandemic crisis was more severe in countries with weak institutions than in countries with strong institutions.

### 3. RESEARCH METHOD

#### 3.1 Measures of the accounting information quality

##### *Earnings quality*

The quality of financial reporting is proxied by the quality of earnings with the argument that earnings are the basic measure used by investors (Francis et al., 2006). Earnings quality is measured by the absolute value of the estimated residuals of the modified Dechow-Dichev model (Dechow & Dichev, 2002). Choi & Pae (2011) state that accrual quality reflects managers' opportunistic behavior concerning reported earnings and their reactions to unfavorable economic news. This study follows McNichols (2002) and estimates the following cross-sectional model for each industry year (defined as Fama-French 48 industry classifications) as follows:

$$ACC_{it} = \beta_0 + \beta_1 CFO_{it-1} + \beta_2 CFO_{it} + \beta_3 CFO_{it+1} + \beta_4 \Delta REV_{it} + \beta_5 PPE_{it} + \epsilon_{it} \quad (1)$$

ACC is defined as earnings before extraordinary items and discontinuing operations minus operating cash flows (CFO), taken directly from the cash flow statement following Hribar & Collins (2002). REV is the change in sales from the previous year, and PPE (property, plant, equipment) is the gross value of property, plant, and equipment. Property, plant, and equipment (PPE) explain non-current accruals, which are mostly depreciation. Earnings quality is estimated as the residual from model (1) across all sample firms sorted by industry sector and year. This study adopts the cross-sectional approach of modified Dechow-Dichev models instead to the firm-specific time-series approach. Subramanyam (1996) shows that the cross-sectional model provides a more accurate parameter estimates than the time-series one due to the larger number of freedom degrees. The lower residual number indicates a higher quality of earnings.

##### *Value relevance*

This study follows Persakis & Iatridis (2017) using the value relevance model estimated by Ohlson (1995). Ohlson (1995) used the explanatory power ( $R^2_{i,t}$ ) of the following regression model:

$$P_{it} = \beta_0 + \beta_1 E_{it} + \beta_2 BV_{it} + \epsilon_{it} \quad (2)$$

where,  $P_{it}$  is stock price;  $E_{it}$  is price per share;  $BV_{it}$  is book value per share; and  $\epsilon_{it}$  is the error term. The value of the  $\beta_2$  coefficient obtained from the regression of Ohlson's (1995) model shows the value relevance. The higher the coefficient value, the higher the value relevance.

#### 3.2 Measures of country institutions

##### *Investor protection*

This study uses the investor protection score reported by the World Economic Forum (the Global Competitiveness Report) 2019. Other studies use other measures to measure investor protection, for example, the investor protection index by La Porta et al., (1998).

##### *Enforcement of accounting standards and audit*

This study follows Wijayana & Gray (2018), which uses the measurement of accounting standards and audit enforcement recommended by Brown et al., (2014). Accounting standards enforcement and auditing indexes capture country differences in the environment in which accounting standards board's operate and in which auditors perform their role regarding compliance with accounting standards (Brown et al., 2014). The combined index of accounting and auditing standards enforcement has a maximum score of 56 (Brown et al., 2014). The accounting and audit enforcement measures developed by Brown et al., (2014) directly capture the strength of financial reporting enforcement and audit quality.

#### 3.3 Hypothesis testing

This study tested H1 and H2 using the Ordinary Least Square, which was estimated using the following model:

$$IQ_{i,t} = \alpha_0 + \beta_1 COVID-19 + \beta_2 INVESTOR_{i,t} + \beta_3 ENFORCEMENT_{i,t} + \sum CONTROLS + \epsilon_{i,t} \quad (3)$$

where,

IQ: accounting information quality (measured by accrual quality and value relevance)

COVID-19: dummy variable specified 0 before the pandemic and 1 during the pandemic

INVESTOR: investor protection (measured by investor protection scores reported in the Global Competitiveness Report 2019 provided by the World Economic Forum)

ENFORCEMENT: accounting standard and audit enforcement (an index developed by Brown et al. 2014)

CONTROLS: the control variables used in this study include institutional level (legal system and capital market developments) and company level (firm size, leverage, and growth).

$\epsilon$ : error term

We conducted additional analyzes to test for differences in earnings quality and value relevance before and during the COVID-19 pandemic. The test was carried out by t-test for paired samples.

## 4. RESULTS

### 4.1 Samples and descriptive statistics

The research sample consists of companies registered in five ASEAN countries, Indonesia, Malaysia, Philippines, Singapore, and Thailand, whose data are available in 2009-2020. To measure accounting information's earnings quality and value relevance, we used financial data provided by OSIRIS in 2009-2020. We measure earnings quality using residuals of the modified McNichols' model (McNichols, 2002), estimated from 2009-2020 pooled data regression per industry per country. We use the standard deviation of the residuals of each company to determine earnings quality. The value relevance of the accounting information is measured by the coefficient  $\beta_2$  (book value per share) from Ohlson's regression model (Ohlson, 1995). We also perform additional analysis to measure the quality of accounting information, using earnings management estimated using Dechow & Dichev (2002) regression model for 2009-2020 data. Table 1 shows the sample selection procedure. Table 2 presents the descriptive statistics of the sample.

Table 1. Sample selection.

Country	Publicly listed companies	Financial sector	Final sample
Indonesia	723	(239)	484
Malaysia	948	(85)	863
Philippines	266	(41)	225
Singapore	628	(41)	587
Thailand	768	(113)	655

Table 2. Descriptive Statistics.

Variable	Obs	Mean	Std. Dev.	Min	Max
AQ	4,641	43895.78	235749.7	-3932009	9045943
EM	4,344	72393.93	275167.1	-3932009	9045943
VR	4,925	-.0056171	.3062866	-11.4655	4.480403
LNTA	4,029	11.87083	1.811285	2.935207	18.25464
REV	4,847	-24763.96	447170	-1.98e+07	7949669
PPE	4,724	537641.3	2807870	0	9.24e+07
GCI	5,628	72.47932	7.559493	61.9	84.8
ENF	5,628	13.43461	4.521515	6	19
MARKET	5,628	.7133876	.203476	.2868648	.8362726
DEVELOP	5,628	.5152807	.4998109	0	1

### 4.2 Hypothesis testing

We used the ordinary least square method to test the hypothesis. H1 states that the COVID-19 pandemic impacts the quality of accounting information as measured by earnings quality and value relevance. Appendix 1-2 shows the results of both regression analysis. It shows that H1 is supported for earnings quality proxy (p-value = 0.000), but not supported for value relevance proxy (p-value = 0.584). H2 testing (Appendix 3-4) shows that both strong institutional factors (investor protection and enforcement

of accounting standards) impact improving earnings quality (p-value = 0.000 and p-value = 0.001, respectively). However, different results prove that the strength of institutional factors (investor protection and enforcement of accounting standards) does not significantly impact the value relevance of accounting information (p-value = 0.767 and p-value = 0.762, respectively). We control for both firm (i.e., firm size, leverage, and growth) and country (i.e., capital market developments and developing/developed categories) factors.

We conducted a t-test to examine differences in the quality of accounting information before and during the COVID-19 pandemic. The results (Appendix 5-6) show differences in accounting quality before and during the COVID-19 pandemic (p-value=0.000). The value relevance test showed no difference before and during the COVID-19 pandemic (p-value=0.8822).

## 5. CONCLUSIONS

The results showed that the COVID-19 pandemic impacted earnings quality as a measure of the accounting information quality, but not on value relevance. Enforcement of accounting and auditing standards can reduce the impact of the COVID-19 pandemic in improving earnings quality. However, investor protection is not adequate to improve the quality of accounting information during the COVID-19 pandemic. The implication is to expand the enforcement of accounting standards to reduce the impact of the crisis on value relevance.

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Appendix 1: Results of Hypothesis Testing H1—Earnings Quality

Source	SS	df	MS	Number of obs	=	2,406
Model	4.44444444	4	1.11111111	F(4, 2021)	=	138.43
Residual	1.03046410	2021	0.00050987	Prob > F	=	0.0000
Total	5.47490854	2025		R-squared	=	0.8040
				Adj R-squared	=	0.8010

VR	Coef.	Std. Err.	t	P> t	[95% Conf. Interval]
COVID	48877.48	8960.02	5.45	0.000	30994.04 66760.90
GCI	34975.43	3091.07	11.31	0.000	28803.90 41147.97
ENF	34740.35	4935.45	7.04	0.000	24809.97 44670.73
INTA	34259.46	3244.17	10.56	0.000	27849.70 40669.19
BBV	88888888	88888888	1.00	0.319	-88888888 200000000
MARKET	-81478.7	38783	-2.10	0.034	-159886.5 -30671.0
DEVELOP	-210390.4	87027.92	-2.42	0.016	-382034.7 -438746.0
_cons	-488888	244440	-2.00	0.044	-977777.6 -0

Appendix 2: Results of Hypothesis Testing H1—Value Relevance

Source	SS	df	MS	Number of obs	=	3,311
Model	3.84340688	8	0.48042586	F(8, 2022)	=	3.45
Residual	341.28031	2022	0.16873412	Prob > F	=	0.0000
Total	345.123716	2030		R-squared	=	0.0093
				Adj R-squared	=	0.0055
				Root MSE	=	0.4108

VR	Coef.	Std. Err.	t	P> t	[95% Conf. Interval]
COVID	-888744	81144	-10.95	0.000	-1050148 -727380
GCI	8818829	882412	9.89	0.000	7054284 10583374
ENF	8818829	882412	9.89	0.000	7054284 10583374
INTA	-8818829	-882412	-9.89	0.000	-10583374 -7054284
BBV	0.000000	1.000000	0.00	0.999	-0.999999 0.999999
MARKET	1.488888	3.888888	0.38	0.701	-6.277777 9.311111
DEVELOP	-888888	888888	-1.00	0.319	-1777777 0
_cons	-8873288	-382312	-2.32	0.021	-9748034 -8000000

Appendix 3: Results of Hypothesis Testing H2—Earnings Quality

Source	SS	df	MS	Number of obs	=	3,408
Model	5.3330e+13	7	7.6188e+12	F(7, 3399)	=	129.89
Residual	1.7000e+14	3,399	5.0140e+10	R-squared	=	0.2404
Total	2.2330e+14	3,408	6.5524e+10	Adj R-squared	=	0.2360
				Delta MSE	=	2.20e+08
VARIABLE	COEFF.	STD. ERR.	t	Pr >  t	[95% CONF. INTERVAL]	[CONTRAST]
CONSTANT	4489.704	506.4099	8.87	0.000	3524.905	5064.507
COMPSH2	-4048.509	1676.404	-2.42	0.010	-7400.91	-1061.000
LRI1	17066.87	2247.83	7.59	0.000	12463.07	21689.67
REV	.0381818	.0088902	4.27	0.000	.0191627	.0592007
REC	.0380632	.001423	26.68	0.000	.0322732	.0378512
MARSH	-20047.92	24512.4	-0.82	0.495	-69907.96	29210.20
DEVELOP	11481.51	8979.289	1.27	0.199	-6020.7	29499.22
_cons	-188211.8	34257.81	-5.49	0.000	-255578.5	-121044.4

Appendix 4: Results of Hypothesis Testing H2—Value Relevance

Source	SS	df	MS	Number of obs	=	3,911
Model	5.0040e+14	9	5.5600e+13	F(9, 3899)	=	0.0002
Residual	341.578022	3,899	8.7609e+09	R-squared	=	0.0000
Total	346.582022	3,908	8.8687e+09	Delta MSE	=	3.14e
VARIABLE	COEFF.	STD. ERR.	t	Pr >  t	[95% CONF. INTERVAL]	[CONTRAST]
CONSTANT	-.0000000	-.0000000	-0.00	0.999	-.0000000	.0000000
COMPSH2	-.0000000	.0000000	0.00	0.999	-.0000000	.0000000
REC	-.0000000	.0000000	0.00	0.999	-.0000000	.0000000
REV	-.0000000	.0000000	0.00	0.999	-.0000000	.0000000
DEVELOP	-.0000000	.0000000	0.00	0.999	-.0000000	.0000000
MARSH	-.0000000	.0000000	0.00	0.999	-.0000000	.0000000
LRI1	-.0000000	.0000000	0.00	0.999	-.0000000	.0000000
COMPSH1	-.0000000	.0000000	0.00	0.999	-.0000000	.0000000
_cons	-.0000000	.0000000	0.00	0.999	-.0000000	.0000000

Appendix 5: Additional T-Test Analysis—Earnings Quality

Variable	Obs	Mean	Std. Err.	Std. Dev.	[95% Conf. Interval]	
AQ2019	2,789	20422.34	1872.756	98902.08	16750.21	24094.47
AQ2020	1,852	79245.37	8133.153	350009.2	63294.25	95196.49
combined	4,641	43895.78	3460.552	235749.7	37111.46	50680.11
diff		-58823.03	7014.421		-72574.63	-45071.43

diff = mean(AQ2019) - mean(AQ2020) t = -8.3860  
 Ho: diff = 0 degrees of freedom = 4639

Ha: diff < 0 Ha: diff != 0 Ha: diff > 0  
 Pr(T < t) = 0.0000 Pr(|T| > |t|) = 0.0000 Pr(T > t) = 1.0000

Appendix 6: Additional T-Test Analysis—Value Relevance

Variable	Obs	Mean	Std. Err.	Std. Dev.	[95% Conf. Interval]	
VR2019	2,669	-.0008567	.001119	.057811	-.003051	.0013375
VR2020	2,256	-.011249	.0094351	.4481442	-.0297515	.0072534
combined	4,925	-.0056171	.0043644	.3062866	-.0141733	.002939
diff		.0103923	.0087593		-.0067798	.0275644

diff = mean(VR2019) - mean(VR2020) t = 1.1864  
 Ho: diff = 0 degrees of freedom = 4923

Ha: diff < 0 Ha: diff != 0 Ha: diff > 0  
 Pr(T < t) = 0.8822 Pr(|T| > |t|) = 0.2355 Pr(T > t) = 0.1178

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## Affect, Multitasking, and Auditor Judgment

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### ABSTRACT

This study investigates the role of incidental affect (non-task-related affect) on auditor judgment. Working on multiples tasks/clients simultaneously (multitasking) is common practice among auditors. This research also investigates the interaction effect between multitasking and affect on judgment. We conduct a web-based experiment on accounting students as surrogates for senior auditors. Each subject was required to complete two unrelated audit tasks. Results of our experiment suggest that subjects in negative affect conditions have more conservative judgment than subjects in positive affect conditions. We find no significant difference in judgment between subjects who accomplish two tasks sequentially and subjects who work back and forth between two tasks (multitask condition). However, we find support for the interaction effect between affect and multitasking on auditor judgment. Subjects in negative affect conditions and multitasks (work back and forth between tasks) have the most conservative judgment compare to subject in other experimental conditions. These results suggest that individuals in a negative affect condition tend to have superior performance under complex tasks than an individual in a positive affect condition.

**Keywords:** Affective Reaction, Audit Judgment, Complexity, Conservatism, Multitasking

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### 1. INTRODUCTION

Since the last several decades, the role of affective states (mood and emotion) on human behavior and decision has received increased attention in psychological and organizational literature ( for a review, see George & Dane, 2016). However, there is only limited research on the role of affect in behavioral accounting literature. The first objective of this paper is to investigate the impact of incidental (non-tasks related) affect on auditor judgment.

Auditing operates in an interactive and competitive environment. Handling multiple tasks/clients simultaneously is prevalent among auditors. In line with existing psychological literature (see Puranik et al., 2020 for review), little recent accounting literature documents negative associations between multitasking and performance (Basoglu et al., 2009; Kim et al., 2017; Long & Basoglu, 2016; Mullis & Hatfield, 2018). Mullis & Hatfield (2018) find that auditors who multitasked identify fewer conceptual errors than auditors who finish tasks sequentially. Kim et al. (2017) document that multitasked auditors show lower memory performance and identify the fewer seeded error. In addition to performance, prior research also suggests that multitasking poses several psychological and emotional consequences (Mark et al., 2008; Zijlstra et al., 1999). This study investigated the role of affect when auditors multitasked between complex (cognitively demanding) tasks to extend prior literature on the influence of multitasking on auditor judgment.

By using a 2x2 between-subject experimental design, our results support the superiority of negative affect in information processing. As predicted, we find that subjects in the negative affect condition show more conservative judgment than subjects in positive affect conditions. In contrast, our study fails to find the impact of multitasking on judgment. Our results partially support our hypothesis on the

interaction effect between affect and multitasking. Our results find that subjects in a negative affect condition and multitasked show the most conservative judgment compare to subjects in other treatment conditions.

## 2. LITERATURE REVIEW AND HYPOTHESES DEVELOPMENT

Judgment consists of both cognitive and affective input. However, most studies on judgment and decision making (JDM) in accounting focus on the cognitive aspect. To date, there is limited study on the impact of affect in accounting literature (Bagley, 2010; Blay et al., 2012; Cianci & Bierstaker, 2009; Curtis, 2006; Kida et al., 2001; Moreno et al., 2002). Blay et al. (2012) investigate the impact of affect on information search in a risky situation. They find that auditors with negative affect use a more efficient information search under a high-risk condition than those with positive affect. On the other hand, auditors with positive affect show a more efficient information search under a low-risk situation than those with negative affect. Using the inventory valuation case, Chung et al. (2008) and Cianci & Bierstaker (2009) document that auditors with a negative mood condition have more conservative judgment than those with positive mood. The impact of affect is also found in ethical decision-making cases. Curtis (2006) finds that auditors with negative affect are less likely to report unethical conduct than those with positive affect. However, compared to individuals with positive affect, individuals with negative affect are less likely to engage in pro-social behavior.

The different impacts of positive/negative affect on performance and decision can be explained using the level of focus hypothesis (Clore et al., 2001). According to the “level of focus” principle, affective cues influence the global versus local focus of information processing (local versus global processing). Positive affect induces global and top-down information processing. Positive affect relies on easily accessible information such as knowledge, beliefs, expectations, *stereotypes*). Negative affect, on the other hand, induce a local focus of information processing. Individuals with negative affect use bottom-up, systematic, and data-driven information processing (Clore et al., 2001). Auditors frequently make judgments under highly complex and uncertain conditions. Complex tasks require bottom-up, systematic, and data-driven information processing (Andrews & Thomson, 2009). Applying the level of focus perspective, we propose the following hypothesis:

Hypothesis 1: Auditors in a negative affect condition show more conservative judgment than those in a positive affect condition.

Next, we examine the role of affect in a setting where auditors require to multitask. Most studies on the relationship between affect and judgment focus on single task-setting. However, findings on single-tasking cannot necessarily be generalized into multitasking settings (Morgan & D’Mello, 2016). Compared to single-tasking, multitasking is more difficult to perform. Although the quantity and tasks demand remains the same, multitasking incurs more cognitive cost than single-tasking (Monsell, 2003). Multitasking requires one to switch between incomplete tasks. Leroy (2009) suggests that switching between incomplete tasks incur additional cognitive burden as cognition of previous incomplete task carried over and remain active as one work for another task.

The major component of multitasking is interruption (Oswald et al., 2007). Within the context of judgment and decision making, the focal aspect of interruption is the decision suspension (Kupor et al., 2015). Decision-makers tend to change their information processing style of the interrupted task after interruption. The impact of the changes in information processing on the quality of suspended decisions is documented in few recent studies (Kupor et al., 2015; Liu, 2008; Long & Basoglu, 2016; Xia & Sudharshan, 2002). Recent marketing literature documents that interrupted customers make poor decisions due to the use of short cut and reduced information search after interruption (Kupor et al., 2015; Xia & Sudharshan, 2002). Further, Liu (2008) finds that interruption shifts customer preference from feasibility to desirability feature of a product. The shift in preference is due to information processing changes from effortful and bottom-up to a more top-down and goal-directed information processing. Evidence on the impact of interruption on professional judgment in accounting literature is



documented in Long & Basoglu (2016). Long & Basoglu (2016) find that interruption exacerbates tax consultants' bias toward supporting aggressive client preference.

In addition to cognitive mechanisms, the impact of multitasking on a decision can also be explained through affective mechanisms (Kupor et al., 2018; Puranik et al., 2020). Using math tasks (cognitively demanding tasks), Morgan & D'Mello (2016) document that multitasked and positive affect subjects outperformed subjects who multitasked under negative affect conditions. Kupor et al. (2018) document an association between interruption and risk-taking behavior. Kupor et al. (2018) argue that interruption increases the willingness to make risky financial decisions. This discussion leads to the following hypothesis:

Hypothesis 2: Multitasking moderates the relationship between affect and conservatism of auditors' judgment. Subject with negative affect and work sequentially show the most conservative judgment compared to subjects in other experimental conditions.

### **3. RESEARCH METHODOLOGY**

In this present study, we conduct a web-based experiment. We use accounting students as surrogates for senior auditors. Prior studies suggest that accounting students are an appropriate surrogate for professional accountants (Ashton & Kramer, 1980; Houghton & Hronsky, 1993). Houghton & Hronsky (1993) argue that inexperienced but educated accounting students and professional accountants have similar cognitive structures concerning accounting concepts.

During the experiment, we ask subjects to complete two unrelated audit tasks. We adopt the experimental material from Chung et al (2008) and Knechel & Messier (1990). We test our hypotheses using a 2x2 between-subject factorial experimental design. Our dependent variable is auditor judgment (measured by auditor assessment on the percentage of past-due account receivable that can be recovered). We investigate two independent variables (affects and multitasking). We manipulate affect (positive/negative affect) by asking subjects to write down a short paragraph telling their most enjoyable/annoying experience during online learnings. We manipulate multitasking at two-level (multitasking/sequential). Subjects in sequential conditions are asked to complete the tasks sequentially, and subjects in multitasking conditions are asked to work back and forth between tasks. We randomly assign subjects to each experimental condition.

Fifty-three undergraduate accounting students completed our experiment. To determine if subjects understand the experimental material and its instruction, we do the following procedures. First, we asked subjects to identify the name of the account of the audit task. Second, we verify the short paragraph written by subjects. We remove 12 of our 49 subjects (24 percent) who incorrectly answer one or both manipulation checks. We process 37 subject's responses in our Analysis. The age of our subjects is from 20 to 25 years. All subjects are at least in the third year of their studies, and more than one-third of our subjects are female

### **4. RESULTS AND DISCUSSION**

Table 4.1 presents the descriptive statistics for the dependent variable (judgment). The table shows the mean, standard deviation, and minimum and maximum value of judgment across four experimental conditions. For sequential and multitasking groups, minimum and maximum judgments are 30 to 90 and 20-90, respectively. Subjects with the highest means of judgment are those in the multitasking-positive group (72.50). Subjects with the lowest means of judgment are those in the multitasking-negative group.

**Table 4. 1. Descriptive Statistics**

	N	Mean	Std. Deviation	Minimum	Maximum
Sequential, Positive	9	65.56	18.105	30	90
Sequential, Negative	9	61.11	16.915	40	80
Multitasking, Positive	8	72.50	21.213	30	100
Multitasking, Negative	11	46.36	20.136	20	90
Total	37	60.27	20.881	20	100

Our first hypothesis predicts that subjects in negative affect conditions have more conservative judgment than those in positive affect conditions. As predicted, table 4.1 shows that the means for judgment (the estimated portion of the past-due account that can be collected) are lower for subjects in negative affect groups (61 for negative-sequential and 46.36 for negative-multitasking groups) than those in positive affect groups (65.56 for positive-sequential and 72.50 for positive-multitasking groups). The Analysis of variance presented in table 4.2 shows that the difference is statistically significant ( $p$ -value = 0.02). Thus, H1 is supported. These results are in line with the level of focus hypothesis suggesting that effortful, systematic, and data-driven information processing promoted by the negative affect leads to more conservative judgment.

**Table 4. 2. Tests of Between-Subjects Effects**

Dependent Variable: Judgment

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	3581.641 <sup>a</sup>	3	1193.880	3.252	.034
Intercept	137596.031	1	137596.031	374.777	.000
Affect	2134.488	1	2134.488	5.814	.022
Multitasking	138.970	1	138.970	.379	.543
Affect * Multitasking	1073.969	1	1073.969	2.925	.097
Error	12115.657	33	367.141		
Total	150100.000	37			
Corrected Total	15697.297	36			

a. R Squared = .228 (Adjusted R Squared = .158)

Our second hypothesis 2 predicts that multitasking moderates the relationship between affect and conservatism of auditors' judgment. Subject with negative affect and work sequentially show the most conservative judgment compared to subjects in other conditions. The interaction effect of multitasking and affect presented in table 4.2 is marginally significant at 0.097 ( $p$ -value <10%). However, the descriptive statistic for groups judgment presented in table 4.1 shows that subjects in negative-multitasking groups have the lowest judgment. The result is contrary to our prediction stating that subjects with negative affect and work sequentially have the most conservative judgment compared to subjects in other experimental conditions. Thus, these results provide partial support for our hypothesis 2. This finding suggests that affect on judgment is stronger when individuals multitasked than when individuals single tasked.

## 5. CONCLUSION

Even though both cognitive and affective aspects of an individual may exert significant influence on professional judgment, the role of affect is poorly investigated in behavioral accounting literature. From the perspective of the level of focus hypothesis, this research warns of potential adverse effects of positive affect in complex tasks. Our results suggest that even a mild induction of positive affect induced by incidental events is enough to inadvertently shift one's information processing to a more top-down global focus and less systematic information processing. For complex tasks, such kind of information processing often leads to poor decisions. Further, as multitasking is prevalent among auditors, this research sheds light on the role of incidental affect on auditor judgment within the multitask audit environment.

We use accounting students as surrogates for professional auditors. The strength of an experimental approach is in its ability to test causal relationships (Shadish et al., 2001). Students, as opposed to professionals, are more homogenous groups, and therefore, social characteristics (i.e., age, experience, experience, age, organization) are less likely to influence the results. Therefore, for the theory development purpose, students are an appropriate surrogate for professionals. Professional auditors are desirable subjects for future research whose main objective is the applicability of findings in a real-world setting.

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## CEO Narcissism and Its Impact on Financial Statements: A Literature Review

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### ABSTRACT

This article provides a comprehensive summary of narcissistic personality issues and their impact on financial reporting by using Publish or Perish bibliometric software. Narcissism is a personality that reflects an excessive love for oneself, thus causing various consequences in being to yourself and the organization. This personality is experiencing an upward trend from generation to generation. With social media, the proliferation of narcissistic personalities becomes inevitable. In the context of accounting, narcissism and its impact on financial reports were first written in 2007 to date are still growing and interesting to review. Unfortunately, this personality is widely identified with negative consequences on the quality of financial reporting. This study discusses the findings of narcissism impact on financial statements along with the logic and methods used. We provides input on weaknesses that may be contained in existing research. In general, this personality is proven to have a negative impact on financial reporting. However, those findings are depends on the methods and measures of narcissism itself. Since narcissistic personality is also related to innovation and creativity that is good for companies, conclusion about this personality have to be written carefully.

**Keywords:** narcissism; fraud; financial statements; CEO personality; reporting quality

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### 1. INTRODUCTION

Narcissism is a personality that reflects an excessive love for oneself, thus causing various consequences in behaving for yourself and others (Park & Colvin, 2015).. Because this trait encourages a strong desire to build a positive self-image, it is signaled to have an adverse impact on the organization (Young, Du, Dworkis, & Olsen, 2016). In narcissistic individuals, excessive self-confidence tends to be sedentary and stable (Aktas, Bodt, Bollaert, & Roll, 2016; Young et al., 2016). Excessive confidence causes individuals to overestimate abilities/performance over certain conditions. If company's leader is having high narcissistic score, the impact will be dangerous.

With easy access to technology and social media that allows humans to show self-existence, narcissism levels are increasing and important to learn (Young et al.; 2016). In general, Raskin & Terry (1988) conceptualized several narcissistic constructs, namely (1) exploitative, (2) felt entitlement, (3) felt able to do everything themselves (self-sufficiency), (4) felt authority, (5) showed off (exhibitionism), (6) felt superiority, and enjoyed praise and pride (vanity). The negative construct makes narcissism trigger exploitative attitudes both towards yourself and around (Buss & Chiodo, 1991). In organizations, this trait triggers overconfident decisions (Buyl, Boone, & Wade, 2017; Chatterjee & Hambrick, 2007, 2011). Cooper & Pullig (2013) found that this trait has good predictive power over unethical behavior. Thus, when a company is lead by a narcissistic leader, what are the risks and consequences towards its financial reporting?

Narcissistic research and financial reporting are much inspired by upper-echelons theory. It stated that leaders influence corporate strategy choices, including financial strategies. With this theory, narcissism is widely associated with the variables of financial statements (Buyl *et al.*, 2017; Chatterjee & Hambrick, 2007; Ham & Wang, 2018; Rijnsenbilt & Commandeur, 2013). This theory explains that

a leader's personal preferences and characteristics can be reflected in the implementation of the company's strategy and financial statements.

Until now, studies on narcissism and its impact on financial reporting are still not many in number and leave some room for question. The lack of research on this topic creates an urgency to summarize and map the development of narcissistic research and its impact on financial statements, making future research opportunities easier to identify. The purpose of this study is to report financial reporting research from the point of view of narcissistic unique personalities. It is expected to contribute adequate literature to future research ideas, as well as inspire the managerial practices of the organization. Companies that recruit narcissistic CEOs should know the positive and negative side of this personality in order to determine the right management control system.

## **2. METHODOLOGY**

This study used bibliometric analysis with Publish of Perih software with scopus as the database. We implemented five steps which are defining keywords, obtaining initial search, refining the results, compling the articles, and analyse the contents. A total of 44 articles were found and used as main references due to its specific theme of narcissism in accounting and management topics. Following and modifying the steps done by Indarti *et al.* (2020), we summarized findings based on the growing discussion on narcissistic leadership and its impacts on the company financial reporting. We also suggest several proposed future research ideas in this topic.

## **3. DISCUSSION**

### **Real Case on Narcissistic CEO**

A real example of a business entity bankruptcy case resulting from a CEO's narcissist occurred at Lehman Brothers, a major investment firm in the world. One of the strong causes of Lehman's bankruptcy was the error of Fuld's strategy that was too sure to save the company from crisis in its own way (Stein, 2013). The publication of Fuld's speech when the crisis hit Lehman clearly illustrates the high-narcissism, which is to feel able to change things with their abilities, thus ignoring the advice of others. Lehman ended up in bankruptcy. Although only individual personalities, the narcissism of a leader has a huge impact on teams and companies (Blair, Helland, Walton, & Group, 2017).

In addition to these cases, the world may not have forgotten the Qwest bankruptcy scandal in 2003 which was marked by a 98% drop in the share price in July 2002 (*US Security Exchange Comission*, 2008). That giant's bankruptcy in the US was done by leveraging the complexity of business transactions to create fictitious revenues. The company, which was audited by Arthur Andersen, not only recorded fictitious transactions, but also conducted insider trading techniques and exploited all the moments that could be used as loopholes to overstate assets (Markham, 2006). Joseph Nacchio, CEO of Qwest, is the lead actor in the cheating, which is popular with high performance targets, so numbers should be directed towards meeting targets (Stanwick & Stanwick, 2011).

Who is Nacchio? Nacchio is known as an ambitious, unrealistic, aggressive, and resistant CEO to criticism (Stanwick and Stanwick, 2011). While Qwest has clearly been entangled in litigation, Nacchio still argues that Qwest's future is still good, as it is just a trap from the Federal Government that does not accept Qwest's rejection of the National Security Agency program. Nacchio's behavior highlighted the attention of research so that some studies state that the extreme cause of Nacchio's attitude is excessive narcissistic personality (Craig & Amernic, 2011; Rijsenbilt & Commandeur, 2013; Stanwick & Stanwick, 2011). From these real examples, the impact of narcissistic CEO towards company's financial statements were interested to be studied.

### **Narcissism and Fraudulent Reporting**

Fraudulent financial reporting is dangerous due to its potential losses to the company. Johnson et al., (2013) found that auditors had been able to accommodate client narcissism as a consideration for determining risk audits. The more narcissistic the client, the more vulnerable his financial reporting contains to cheating. Rijsenbilt dan Commandeur, (2013) proves that companies affected by financial reporting fraud cases have narcissistic CEOs. With the data archived the study proves that narcissism increases the risk of cheating occurring.

Narcissism influenced CEO through over-optimism and behavior channelling so that the organization is viewed as a tool to realize his/her narcissistic supply (Chatterjee & Hambrick, 2007).

Consequently, financial statement is a facilitator to legitimize CEO positive self-images (Amernic & Craig, 2010). Several performance indicators reflected in the financial statements must be in line with CEO narcissistic supply without paying attention whether the process is free from unethical issues. For example, the CEO of Qwest forced their subordinates to manipulate financial statements by creating a fake scenario that his request was because of saving the employees' and companies' welfare (Stanwick & Stanwick, 2011). He framed his fraud by deception and got the compensation in term of higher bonuses and extra-ordinary positive impression gained from the fraudulent reporting.

Based on a study that used financial reporting data among CEO of S&P 500 from 1992 until 2008, CEO narcissism has a positive relationship towards companies fraudulent reporting (Rijsenbilt & Commandeur, 2013). However, this archival research contained limitation merely on the indirect measures of narcissism which might be inaccurately proxied (Cragun, Olsen, & Wright, 2019). Ham *et al.* (2017; 2018) enriched CEO narcissism and financial reporting research by providing a new measurement of narcissism. They used signature sized and also did their research both by experiment and by archival data. Those indirect measures of CEO narcissism were being replicated by Van Scotter (2020) and surprisingly resulted in low-reliability score. We need future research that employs direct measures of narcissistic personality to fill this measurement gap.

### **Future Researches Opportunity**

One of the missing gaps in CEO narcissism research is how to capture the process by which narcissistic traits influence corporation decisions. Previous research explains limited logical explanation that contains general prejudice to built arguments regarding narcissism and fraud. For example, because narcissistic CEO is overconfident and feeling superior in nature, he/or she tends to promote fraud in the reporting process. Another example, narcissistic CEO is having a high tendency to be exploitative. Therefore, they have a high propensity to induce fraudulent reporting. Those explanations did not answer comprehensively about the logic behind narcissistic personality to real negative actions. Conceptual research done by Chatterjee & Pollock (2017) proposed an interesting diagram that explains how narcissistic CEO construct their professional words and influence the organizations.

Other than measurement issues, future researchers are challenged to explain more details on how this trait will influence the organization. CEO is not the only member of top-level management. An unanswered question is how can a certain personality of a person influence crucial organizational decisions such as reporting. Future research could employ another explaining variable such as mediation, moderation, and intervening between narcissism trait to organization outcomes. For example, Chatterjee & Pollock (2017) proposed that firm-level outcomes can be influenced by the narcissistic individual in several different ways that depend on TMT characteristics, the likelihood of being a celebrity, and personal conflicting needs. The mechanisms on how narcissistic personality influences financial reporting are needed.

It is important also to understand how narcissism affects several components of expenses such as lobbying expenses, entertainment expenses, product failure, etc. Other topics that can be studied are how is the capital structure of a company lead by a narcissistic leader? Does it bring impacts on risk management control? How does narcissism influences financial strategies and potential error/fraud? Research on CEO narcissism is still open for future research. Focusing on it, researchers can also identify several conditions or strategies that effectively mitigate the negative impact of narcissism while still attaining better benefits for the company.

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