Editorial Team

Editor in Chief
Dr (cand) Mohamad Saparudin, SS, MM. (Kusuma Negara Business School)

Team Editor
Dr. Arfendo Propheto, SS, MM. (Kusuma Negara Business School)
Dr (cand) Shultonnyck Adha, S.Ikom, MM. (Kusuma Negara Business School)
Dr (cand) Mochammad Fahlevi, MM, MA, M.Ud, AWP. (Bina Nusantara University)
Dr (cand) Agus Purwanto, ST, MT. (Pelita Harapan University)

Reviewer
Prof. Dr. Mts. Arief, MM, MBA, CPM. Sinta id:5997805 Scopus id: (Kusuma Negara Business School)
Dr. Sabar Sutia, SE, MM. Sinta id:5997885 Scopus id:57211891562 (Kusuma Negara Business School)
Dr. Nendi Juhandi, SE, MM. Sinta id:5997852 (Kusuma Negara Business School)
Dr. Kusbartorso, SE, MM. Sinta id:6683283 (Kusuma Negara Business School)
Victor Pattiasina, SE, MSA. Sinta id:225617, Scopus id:57207245058 (Yapis Papua University)
Dr. Febrianty, S.E., M.Si. Sinta id:5974622, Scopus id:56725694000 (Palcomtech Polytechnic)
Edy Anas Ahmadi, SE, MM. Sinta id:6679458, Scopus id:57203269368 (Lamongan Islamic University)
Dr. Winda Widyantry SE, MM. Sinta id:6195324 (Mercu Buana University)
A A Gde Satia Utama,SE.,M.Ak.,Ak.,CA. Sinta id:5986152, Scopus id:57190400910 (Airlangga University)
Linda Handayuni, M.Si. Sinta id:6039016, Scopus id:57209467465 (Dharma Landbouw Padang)
Dr. (cand) Muhamad Ekhsan, S.kom, MM, Sinta id:6682407, Scopus id:57211890216 (Pelita Bangsa University)
Acai Sudirman, SE, MM. Sinta id:6712910, Scopus id:57210888599 (Sultan Agung Business School)
Dr. Eliada Herwiyanti, M.Si., Ak. (General Soedirman University)
Dr. Darmawan, Sinta id:6187259 (Kalijaga Yogyakarta Islamic University)
Rahmat Hidayat, SE, M.Si. Sinta id:6706031, Scopus id:57191265401 (Sukma Management School)
Tomy Fitrio, MBA. Sinta id:6114290, Scopus id:57212468117 (Indragiri Rengat Business School)
Dr. Abdul Razak Munir, SE, M.Si. Sinta id:257530, Scopus id:57193749825 (Hasanuddin University)
Galih Wicaksono, S.E., M.Si., Akt., CA., BKP., ACPA. Sinta id:6116309 (Jember National University)

Dr. Rahmad Hakim, SH.I, M.MA. Sinta id:5995636, Scopus id:57210747985 (Muhammadiah Malang University)

Dr. Esther Kembauw, Sinta id:5973914, Scopus id:572009927651 (Pattimura University)

Didi Mulyadi, SS, MM, Sinta id:6000384, Scopus id:57209455959 (Pertiwi Business School)
Table of Contents

Determining Factors in Purchasing Decisions
Iskandar Ahmaddien
702-709

Employee Performance: The Effect of Work Motivation, Work Discipline, and Job Satisfaction at one of music companies in Indonesia
Damar Aji Irawan, Hanita Marsherina, Jessica Evasari, Marceline
710-719

Consumer Decision Making Online shopping In Mataram
Oka Mahardika
720-730

Rupiah’s Overshooting Phenomenon
Doni Brilliant
731-741

Profitability, Liquidity, Firm Size, Asset Structure and Capital Structure in Food and Beverage Companies Listed in Indonesia Stock Exchange
Fifita Trajuning Arjansi, Siti Nurlaela, Riana Rachmawati Dewi
742-752

Sempurna Bangun
753-765

Analysis of Entrepreneurial Knowledge, Achievement Motives and Business Independence towards Entrepreneurial Behavior in Joint Business Groups
Elistia
766-774

Effect of Competence, Communication and Job Stress Towards Service Quality PT. Sukses Motor Globalindo
Rahmat Alamsyah Harahap, Friska Priscilla, Meiliani Wijaya, Shellin
775-783

Lutfiah Khairunnisa, Maidani
784-798
Competences of MSME Actors in Utilizing ICT in West Java Province
Vera Agustina Yanti, Danny Ong
799-809

Empowerment of Coastal Communities in the Growth, Management and Development of Tourism Objects in the Digital Era at Bintan District
Nurhasanah, Abdul Jalal
810-820

The Effect of Islamic Social Reporting on Firm Value (Case Study on Islamic Banks In Indonesia)
Rahmawati Khoiriyah
821-830

A comparative Analysis Altman (Z-Score) Revision and Springate (S-Score) Model in Predicting Financial Distress in the Manufacturing Company - Indonesia Stock Exchange
Emmelia Tan, Tri Aji Wibisana
831-841

The Effect of Investment Motivation, Financial Literation, and Financial Behavior on Investment Decisions (Studies on Management Students at Pelita Bangsa University)
Nataliana Bebasari, Anis Istikomah
842-851

The Effect of Company Profitability, Leverage, and Firm Size on Bond Ranking of Banking Companies Registered on The Indonesian Stock Exchange (IDX) for The Period 2015 - 2019
Parulian, Nurul Suprihatin
852-862

Effect of Competence, Stress and Job Satisfaction on Employee Performance in PT. Dhamma Niaga Plastindo
Harta Wijaya, Melkyory Andronicus
863-873

The Influence of Work Discipline, Job Satisfaction, and Performance Supervision of Work Employees at PT Makmur Abadi Raya
Melkyory Andronicus, Johansen, Michael Lim Vinci, Andrea Sadeli
874-881

The Effect of Financial Compensation, Supervision and Job Stress on Employee Performance at PT Fajar Abadi Jaya Perkasa Medan
Melkyory Andronicus, Elly, Ricky Gunawan, Kalvin Kusumo
882-894

Nurwita, Maria Ningsih
895-907
The Effect of Liquidity, Working Capital and Operational Costs on Profitability of Trading Companies Registered in Indonesia Stock Exchange 2013-2015

Thomas Firdaus Hutahaean

908-916
Determining Factors in Purchasing Decisions

Iskandar Ahmaddien

Universitas Sangga Buana
e-mail: iskandar.ahmaddien@usbypkp.ac.id

Abstract

The research aims to find out how much quality products, prices, and locations affect consumer buying decisions in the Insurgent Store. The type of research used is to use the SPSS 26 system with a model of multiple linear regression. For data retrieval in this research using qualitative method through the questionnaire and the population taken is as many as 100 respondents who are the consumers who have visited the Insurgent Store. The results show that the price is the determinant in consumers making purchases. This finding is a novelty that price determines consumers in making purchases at insurgent stores. Meanwhile, product and location are not determinants in purchasing decisions.

Keywords: product quality, price, location, decision buying

1. Introduction

Necessity is the aspect that drives the creature alive in activities and becomes the basis or reason for every individual to strive. While the desire is all needs of goods or services that want to be fulfilled every human. The rapidly changing business world marked by the number of companies that sprung in the field of trade in the form of shops, Minimarket, department stores (convenience stores), supermarkets and distributions (distribution store) and so forth, (Wicaksena & Utama, 2018). Based on a good opportunity and opportunity company engaged in the field of fashion and accessories in particular distro occurs very strict business competition and increasingly open competition that impacts the market share Insurgent distribution Store.

So this resulted in a decline in sales on the Insurgent Store. As for the sales data of Insurgent Store products for the last 3 months can be seen in the following table data:

Table 1. Insurgent Store Product Sales Data (PCS)

<table>
<thead>
<tr>
<th>Months</th>
<th>Amount SOLD ITEMS</th>
</tr>
</thead>
<tbody>
<tr>
<td>January 2020</td>
<td>1180</td>
</tr>
<tr>
<td>February 2020</td>
<td>998</td>
</tr>
<tr>
<td>March 2020</td>
<td>906</td>
</tr>
</tbody>
</table>

Source: Company Data, April 2020

According to the table above, it can be seen that sales data in Insurgent Store decreased from month to month. From January 2020 the number of items sold was 1180 and in February 2020 decreased 182 PCs. In March 2020 decreased by 92 PCs when compared to February 2020. Therefore, © Authors. Terms and conditions of this work is licensed under a Creative Commons Attribution-NonCommercial-NoDerivatives 4.0 International License apply. Correspondence: Iskandar Ahmaddien Universitas Sangga Buana. Email: iskandar.ahmaddien@usbypkp.ac.id
companies engaged in the business of trading in particular distro must have knowledge of what can be the consideration of consumers in making purchasing decisions. Consumers always see some of the existing factors such as the quality of a product, the selling price, and the location where the product is sold, so that companies engaged in the trade business can make policies and a more effective strategy by combining the marketing mix that best suits the needs and desires of consumers (Jaafar, 2018).

Product quality is one of the tools used by marketers to determine the positioning of its products in the market. Therefore, every company must choose the level of quality of the product that it produces will help or support the effort to improve or maintain the positioning of the product in its target market. Quality is the ability of the product to carry out its functions, its capabilities include durability, reliability, thoroughness produced, ease of operation and serviceability and other valuable attributes on the product as a whole (Hoe & Mansori, 2018). Product quality is the ability of a company to give identity or feature to each product owned so that consumers can recognize the products owned by the company (Farhana, 2012).

2. Literature Review

Pricing is one of the elements of revenue-generating marketing; other elements produce costs (Ashraf, 2018). There is the principle of selling price should be able to cover the full cost plus a reasonable profit Price is a certain amount of money and services or goods that are available exchanged by the buyer to obtain a variety of product options and services provided by the seller (Sashi, 2012). There are several main elements of price activities including price lists, discounts, discounts, and payment periods There are four indicators that characterize the price of a product/service that is: affordability price, price suitability with product quality, price competitiveness, price compatibility with Benefits (Fahmi & Hands, 2039; Sashi, 2012; Surip et al., 2017)

Location is a store or retailer where in the area is a strategic area so it can maximize the profit (Fox et al., 2007; Nikola Knego, Kristina Petljak, 2014). Choosing a business location is a very important decision for the company to fulfill its needs. In addition, choosing the location has a strategic function in determining the achievement of the purpose of the business. One of the keys to success is location (Fuskova et al., 2018; Indarti, 2004). Determining a good location is an important decision because a place is a long-term resource commitment that can reduce the flexibility of future efforts, and the location will also affect future growth. The selected Area must be able to grow in terms of the economy so that the company can sustain its business survival. Selecting the location of the business effectively means avoiding negative risks to a minimum or in other words obtaining a location that has the maximum positive risk. Location selection will also impact on the costs that arise later on the results of the chosen one area/location as a business place. Consideration of selection of business locations will differ when the type of business that will be run also different. Industrial companies typically use cost minimizing strategy. On the other hand, the service business usually uses revenue maximizing strategy. As for the selection of warehouse location, usually determined by combining the cost factor and delivery speed. From a variety of site selection strategies, aims to maximize the company's profits (Kalinowski, 2016).

The Purchasing decision is the behavior that consumers are shown to seek, give, use, evaluate and spend a product and service that is expected to satisfy its needs (Kalinowski, 2016; Prasad & Jha, 2014, 2014). While the buying decision is a process by which consumers know the problem, look for information about a particular product or brand and evaluate how well each of these alternatives can solve the problem, which then leads to a purchase decision (Yap & Yazdanifard, 2014).
3. Methodology

The data collection techniques in this study used qualitative research methods using the questionnaire taken from the population of 100 respondents who were Insurgent stores consumers who had visited the Insurgent Store. For the questionnaire is transmitted via Google Form online. In this study also used research techniques of linear regression model using SPSS 26. The research was conducted from April to June to the respondents. This research is adopted from research (Foster et al., 2019; Imaningsih, 2018; Taiwo et al., 2017).

4. Result and Discussion

Description of respondents

The samples in this study amounted to 100 respondents, where questionnaires were disseminated to consumers through Google forms with the following results:

Table 2. Respondent's Gender

<table>
<thead>
<tr>
<th>No</th>
<th>Gender</th>
<th>Amount</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Male</td>
<td>66</td>
<td>66%</td>
</tr>
<tr>
<td>2</td>
<td>Women</td>
<td>34</td>
<td>34%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>100</td>
<td>100%</td>
</tr>
</tbody>
</table>

Source: Primary Data (Questionnaire), processed 2020

Depending on the gender table of the respondent can be noted that for the gender of the respondent is the most male is 66 people (66%) followed by a female respondent of 34 people (34%). This indicates the gender group of males is a potential consumer fixed in the purchase of Insurgent Store products.

Respondents Age

The data about the age of consumer Insurgent Store taken as the respondent is as follows:

Table 3. Respondents Age

<table>
<thead>
<tr>
<th>No</th>
<th>Age</th>
<th>Amount</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>17 S/d 25 years</td>
<td>90</td>
<td>90%</td>
</tr>
<tr>
<td>2</td>
<td>26 S/d 41 years</td>
<td>10</td>
<td>10%</td>
</tr>
<tr>
<td></td>
<td>Amount</td>
<td>100</td>
<td>100%</td>
</tr>
</tbody>
</table>

Source: Primary Data (Questionnaire), processed 2020

According to the information on the age table of respondents can be noted that for the most important age of respondents is 17 S/d 25 years, which is 90 people (90%) Followed by respondents aged 26 to 41 years, i.e. as many as 10 people (10%). This indicates that respondents who have age 17 S/d 25 years are potential consumers in the purchase of Insurgent Store products.

Respondents Work

The data on the work of consumer Insurgent Store taken as a respondent is as follows:
Based on the information in the worktable the respondent can be known that for the work of respondents the most are private employees as much as 65 people (65%) Followed by a student respondent of 28 people (28%). Subsequently respondents as an entrepreneurial of 3 people (3%) and students as many as 3 people (3%) And the last as 1-person laborer (1%). This indicates that respondents who work as private employees are potential customers in the purchase of Insurgent Store products.

Validity test

Here is the result of the validity testing of research data on Insurgent Store distributions:

Table 5. Validity Test Results

<table>
<thead>
<tr>
<th>Variable</th>
<th>Indicators</th>
<th>Correlation</th>
<th>Sig. (2-tailed)</th>
<th>N</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Product quality X₁</strong></td>
<td>Types of insurgent product ingredients</td>
<td>.858</td>
<td>.000</td>
<td>100</td>
<td>Valid</td>
</tr>
<tr>
<td></td>
<td>Quality Stitching Insurgent Products</td>
<td>.808</td>
<td>.000</td>
<td>100</td>
<td>Valid</td>
</tr>
<tr>
<td></td>
<td>Durability of Insurgent products</td>
<td>.878</td>
<td>.000</td>
<td>100</td>
<td>Valid</td>
</tr>
<tr>
<td></td>
<td>Types and models of insurgent products</td>
<td>.886</td>
<td>.000</td>
<td>100</td>
<td>Valid</td>
</tr>
<tr>
<td></td>
<td>The appeal of insurgent products</td>
<td>.885</td>
<td>.000</td>
<td>100</td>
<td>Valid</td>
</tr>
<tr>
<td><strong>Price X₂</strong></td>
<td>Price compatibility and product quality</td>
<td>.764</td>
<td>.000</td>
<td>100</td>
<td>Valid</td>
</tr>
<tr>
<td></td>
<td>Price suitability with consumer purchasing power</td>
<td>.788</td>
<td>.000</td>
<td>100</td>
<td>Valid</td>
</tr>
<tr>
<td></td>
<td>Affordability of product prices</td>
<td>.864</td>
<td>.000</td>
<td>100</td>
<td>Valid</td>
</tr>
<tr>
<td></td>
<td>Price compatibility with the benefits that are felt</td>
<td>.895</td>
<td>.000</td>
<td>100</td>
<td>Valid</td>
</tr>
<tr>
<td></td>
<td>Varied prices</td>
<td>.825</td>
<td>.000</td>
<td>100</td>
<td>Valid</td>
</tr>
<tr>
<td><strong>Location X₃</strong></td>
<td>Location is easy to reach</td>
<td>.844</td>
<td>.000</td>
<td>100</td>
<td>Valid</td>
</tr>
<tr>
<td></td>
<td>Wide place so that consumers freely</td>
<td>.786</td>
<td>.000</td>
<td>100</td>
<td>Valid</td>
</tr>
<tr>
<td></td>
<td>Have adequate Parker place</td>
<td>.799</td>
<td>.000</td>
<td>100</td>
<td>Valid</td>
</tr>
<tr>
<td></td>
<td>Location is in the center of the crowd</td>
<td>.863</td>
<td>.000</td>
<td>100</td>
<td>Valid</td>
</tr>
<tr>
<td></td>
<td>Location easy to reach public transportation</td>
<td>.864</td>
<td>.000</td>
<td>100</td>
<td>Valid</td>
</tr>
<tr>
<td><strong>Purchase decision Y</strong></td>
<td>Purchase decision due to need</td>
<td>.786</td>
<td>.000</td>
<td>100</td>
<td>Valid</td>
</tr>
<tr>
<td></td>
<td>Responden looking for information before deciding on a purchase</td>
<td>.769</td>
<td>.000</td>
<td>100</td>
<td>Valid</td>
</tr>
<tr>
<td></td>
<td>Compare prices with other products before deciding on a purchase</td>
<td>.786</td>
<td>.000</td>
<td>100</td>
<td>Valid</td>
</tr>
<tr>
<td></td>
<td>Purchase decision because it has good quality and suitable price</td>
<td>.878</td>
<td>.000</td>
<td>100</td>
<td>Valid</td>
</tr>
<tr>
<td></td>
<td>Continuous product Purchases</td>
<td>.816</td>
<td>.000</td>
<td>100</td>
<td>Valid</td>
</tr>
</tbody>
</table>

Source: Data processing using SPSS Statistic 26
The results of the validity testing table of research instruments are known that all indicators of each variable are declared valid because it is seen from its significance value, if the value of significance < 0.05 then declared valid and if otherwise the value of significance > 0.05, then it is declared invalid. Thus, indicators of the statement on product quality, price, location and purchase decision are valid or capable of measuring the variables, so that they can be used as a data collection tool in this study.

Reliability Test

The basis of decision making in reusability test is if the value of Cronbach's alpha > 0.60 then the questionnaire or poll expressed reliable or consistent and conversely if Cronbach's alpha > 0.60 then questionnaires or polls expressed unreliable or inconsistent.

<table>
<thead>
<tr>
<th>Variable</th>
<th>Cronbach Alpha</th>
<th>Alpha coefficient</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>X1 product quality</td>
<td>.908</td>
<td>.60</td>
<td>Reliable</td>
</tr>
<tr>
<td>X2 Price</td>
<td>.881</td>
<td>.60</td>
<td>Reliable</td>
</tr>
<tr>
<td>X3 Locations</td>
<td>.888</td>
<td>.60</td>
<td>Reliable</td>
</tr>
<tr>
<td>Y Purchasing Decisions</td>
<td>.863</td>
<td>.60</td>
<td>Reliable</td>
</tr>
</tbody>
</table>

Source: Data processing using SPSS Statistic 26

From the reliability test results in the table above, it can be seen that the statement has reliable results. These results have the meaning that all of Cronbach's Alpha is greater than the value of 0.60 so it can be concluded that the items of the questionnaire are reliable.

Classic Assumption Test

Test normality is useful for determining data that has been collected with normal distribution or not. Based on the test results normality with One-Sample method Kolmogorov-Smirnov with a look at the value of Monte Carlo Sig. (2-tailed) shows error with Monte Carlo Sign. 0.058 > 0.05 which means that the error is a normal distribution. The next step is to do a multicollinearity test can be seen from the multicollinearity test results above shows that the value of tolerance > 0.10, meaning that there is no multicollinearity and the value of VIF < 10.00 means that there is no multicollinearity. It can be concluded that the influence of product quality, price and location there is no multicollinearity between variables freely in the regression model. The final step is test heteroskedasticity. Based on the test results from the table above using the correlation Spearmen We can know that the significance of each variable > 0.05 then, the hypothesis was received because the data did not exist heteroskedasticity. After carrying out the classical assumption test, the next step is to do the hypothetical test with the F test and the t test in accordance with the hypothesis that we mentioned earlier.

Table 7. Multiple Linear Regression Test Results

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>Std. Error</td>
</tr>
<tr>
<td>1</td>
<td>Constant</td>
<td>.766</td>
</tr>
<tr>
<td></td>
<td>Product quality</td>
<td>-.133</td>
</tr>
<tr>
<td></td>
<td>Price</td>
<td>1.045</td>
</tr>
<tr>
<td></td>
<td>Location</td>
<td>.041</td>
</tr>
</tbody>
</table>

Volume 2, Issue 4 available at http://e-journal.stie-kusumanegara.ac.id
From the table results above the regression equation has the following meanings:

Constant value of Unstandardized Coefficients. 766 This constant value states that if there is a product quality (x1), the price (x2), the location (x3) Then the consistency value of the purchase decision (Y) is. 766. Product quality (x1) has a regression coefficient of-0133 with negative value, then product quality (x1) negative effect on the purchase decision (Y). Price (x2) has a coefficient of 1,045 with a positive value, then the price (x2) positively influence the decision of the purchase (Y). Location (x3) has a coefficient of 0.041 with a positive value, then the location (x3) positive effect on the purchase decision (Y).

From the test results, it is known that the price variable has a significant influence on purchasing decisions at the Insurgent Store. Consumers consider that the price is cheap and affordable that consumers expect to decide on the purchase price. This study is in accordance with the research conducted by (Adam, 2017; Albari & Safitri, 2018), which shows that price has a significant effect on purchasing decisions. From the description of the data and analysis of the results of research on the price variables described in the previous chapter, it can be stated that prices are able to influence consumers in making purchasing decisions that are most considered by consumers when buying. states that prices are a number of goods that can be offered to the market. to get attention, buy and use or consume and which can satisfy consumer wants or needs For respondents, when they want to make a purchase, price becomes their consideration before making a purchase, and they think that at an affordable price they can get what they expect, (Popovic et al., 2019). While other considerations of consumers regarding price estimates. The results of this study are in accordance with the theory of (Kapferer, 2008; Kumar & Srivastava, 2013) that price is used to position the brand of a product as a quality brand or vice versa, and the price is the basis of comparison between other competing brands. From this it can be seen that the insurgent store is able to prove that by playing a price that is affordable for all groups and from that affordable price consumers get what they expect and are able to compete with others of the same type. This research is very interesting because the quality of the product and the location are not influencing the purchasing decision process. From the descriptions of respondents, it can be seen that the people who buy this insurgent store product are millennials, almost 90 percent of those who make purchases are millennials so that quality and location are not something that makes the purchasing decisions of respondents. Quality and location are not important because price is the most determining factor in making a purchase. From the results of interviews with several respondents, insurgent stores already have a good brand among buyers. Because it already has a good brand, consumers see the price that determines the number of similar companies in Bandung.

5. Conclusion

The conclusion of this study is that there are several factors that are considered in the purchase decision. (1). Production Cost Factor: This factor calculates how much it costs to spend on a product. From the results of this accumulated cost, the insurgent store can set the price by: Production cost + desired profit in (%) = pricing / selling price. (2). Competitor / Competitor Factors: This factor becomes the pricing strategy carried out by the insurgent store by means of competitors' prices as a reference or as a comparison for the prices that will be set by the insurgent store. The strategy used by the insurgent store is to set product prices cheaper than competitors' prices in order to attract customers, gain customers and market share. (3). Demand Factor: This factor refers to the number of requests, the quality of the fabric material requested, the design, the quality of the screen printing and the processing time. The author proposes several suggestions to be taken into consideration in carrying out pricing strategies and is expected to be useful for insurgent stores both for the present and the future. The first must be consistent with product pricing decisions. Then the insurgent store must not ignore the competition factor, even though the insurgent store is sure of the superiority of the product. Insurgent
stores need continuous monitoring of product prices set by competitors and make price adjustments. Thus, it is hoped that the prices of insurgent store products can be more competitive.

Acknowledgment

Thank you to the students of Sangga Buana University who have helped in distributing questionnaires and drafting this research draft, especially for students of practicing business statistics and business statistics.

Reference


Jaafar, S. N. (2018). Consumers' Perception s, Attitudes and Purchase Intention towards Private Label Food Products in Malaysia. 2(8).

Kalinowski, N. L. (2016). How can organizations determine the ideal warehouse location strategy to optimize business results?


Employee Performance: The Effect of Work Motivation, Work Discipline, and Job Satisfaction at one of music companies in Indonesia

Damar Aji Irawan1*, Hanita Marsherina2, Jessica Evasari3, Marceline4

1*International Business Management Program, Management Department, Binus Business School Undergraduate Program, Bina Nusantara University, Jakarta, Indonesia, 11480
2Management Department, Binus Business School Undergraduate Program, Bina Nusantara University, Jakarta, Indonesia, 11480
3Management Department, Binus Business School Undergraduate Program, Bina Nusantara University, Jakarta, Indonesia, 11480
4Management Department, Binus Business School Undergraduate Program, Bina Nusantara University, Jakarta, Indonesia, 11480
e-mail: damar.irawan@binus.ac.id

Abstract

This research aims to investigate the variables that influence employee performance in PT XYZ Indonesia. This study is an associative quantitative research. The data were collected using questionnaires. The population of this research was 33 employees of PT XYZ in Jakarta, Indonesia. To select the sample size, census methodology was used. The respondents are active employee of PT XYZ. The data was analyzed using multiple linear regression analysis using SPSS software. The result showed that work motivation, work discipline, and job satisfaction simultaneously have significant effects on employee performance. While partially work motivation and job satisfaction do not have significant effects on employee performance and work discipline partially has significant effect on employee performance.

Keywords: Work Motivation, Work Discipline, Job Satisfaction, Employee Performance.

1. Introduction

Indonesian music industry once had triumphed in the 1990s, that is the time when the sales of music albums reached 77.5 million copies. Since entering 2000, the music industry continued to decline until now. Many recordings manufacturers began to collapse because of the consumer’s behavior shift as an effect of technological sophistication. Nowadays young and adult consumers begin to leave the physical tape. One of music label companies in Indonesia, PT. XYZ also felt the dimness of conventional music industry. It affects the productivity and the profit of PT.XYZ but PT. XYZ feels the need to survive in the Indonesian music industry just like other music label companies. PT. XYZ is used in this research because the company did not give the author’s permission to publish its name. The company provides music production and distribution services in Indonesia and has approximately 33 employees in general divided into several sections. PT. XYZ has a lot of recording labels since 1974. In 2016, an American multinational entertainment and record label conglomerate

© Authors. Terms and conditions of this work is licensed under a Creative Commons Attribution-NonCommercial-NoDerivatives 4.0 International License apply. Correspondence: Damar Aji Irawan, Bina Nusantara University. Email: damar.irawan@binus.ac.id
bought the catalogue of artists that already signed under the label of PT. XYZ. Besides doing the strategic business decision, a good employee performance is needed to survive in Indonesian music industry. In order for an employee to perform well so the companies would achieve good results, a good work discipline is needed. According to Priyono et. al (2016) discipline has a strong impact on an organization or company to achieve success in the pursuit of planned goals. Discipline also has a positive and significant impact on employee performance based on the research conducted by Mangkunegara and Waris (2015). Another research also stated that partially discipline affects employee performance (Parashakti and Ekhsan, 2020). The problems that PT. XYZ has towards discipline issue are lacking awareness in complying with company regulations and coming late to the workplace becomes a continuous habit because there is no serious punishment or disciplinary action.

Motivation has also an important role because employees who work with high motivation will be more enthusiastic and more effective in working (Mangkunegara and Octorend, 2015). The research conducted by Ali et. al (2016) also showed that motivation has a positive and significant impact on employee performance. It means that if employees are motivated, they will perform better than those who are not. Another research also stated that motivation could be a valuable tool to measure the job performance (Said et. al, 2015). Motivation could not occur from within employees unless there are external triggers (Singh and Tiwari, 2011). Previous research also mentioned that motivation affects employee performance partially (Parashakti and Ekhsan, 2020). Suardhita et. al (2020) also stated that work discipline affects employee performance. Motivating employees in the form of incentive, bonus, and else are one of the most significant factors. In the case of PT. XYZ, the company raised a question whether the salary can affect their employee performance. However, in reality, they cannot give good salary and bonuses hence it is possible that their employee needs are not satisfied.

Job satisfaction could be explained as positive feeling or attitudes that the employees have toward their work (Chahal et. al, 2013). Satisfaction of employees toward their work will make themselves more motivated in performing their duties (Mangkunegara and Octorend, 2015). Employee satisfaction affects the level of work attendance and a desire to change jobs or to leave the company, as well as the willingness to work. Job satisfaction is considered very important because if employees have high job satisfaction, they will be willing to work hard and enthusiastically to achieve optimal and higher productivity (Sinambela, 2012). According to Awan and Asghar (2014), job satisfaction has a positive and significant effect on employee performance, so if they feel satisfied about their job, then their performance will increase as well.

Based on the explanations above therefore this study aims to find out the effect of work motivation, work discipline, and job satisfaction towards employee performance at one of music companies in Indonesia.

2. Literature Review

Work Motivation

According to Robbins and Coulter (2012:458), Motivation is a process by which a person’s efforts are energized, directed, and sustained toward achieving company’s goals. This definition has three keys of elements: energy, direction, and persistence. Motivation drives an individual who are inspired, impassioned, and feels more courage to do activities with sincerity and happiness so that he/she will get a good result employee performance (Afandi, 2016:12). It can be concluded motivation is what drives an individual to do something without forces to reach his goals. Priyono and Marnis (2008:283-284) stated that there are intrinsic and extrinsic factors that will affect work motivation. Intrinsic motivation is workers awareness towards the importance of work implementation to meet their needs or to achieve a certain goal and provide hope in the future.
Extrinsic motivation is encouragement from outside the workers in the form of condition that required them to do their jobs to the fullest such as working for higher wage/salary, position, power, praise, punishment, and others. According to Mangkunegara and Octorend (2015) there are five indicators of Work Motivation: psychological, safety, social, esteem, and self-actualization needs.

**Work Discipline**

According to Bohlander and Snell (2013:549) discipline is training that corrects, molds, or perfects knowledge, attitudes, behavior, or conduct to help employees perform better so they conform to acceptable standards. Soesatyo (2016) stated that the discipline at work is the attitude of a person’s readiness and willingness to adhere and to comply with regulatory norms in force in the vicinity. According to Mangkunegara and Octorend (2015) there are four indicators of work discipline: frequency of attendance, obedience at work, obedience in company’s regulation, and work ethics.

**Job Satisfaction**

According to Sinambela (2012:301) stated that Employee’s job satisfaction is something that is very important that every organization has to pay a close attention and it is related to employee’s working performance. When employees feel satisfied with their job, they will have better performance and the quality of work that they do will also be better than when they’re not satisfied. Therefore, it is important for a company to learn ways of increasing employee’s satisfaction so that employees can have better performance at work and the company can achieve its goals. Greenberg and Baron (2003) stated that job satisfaction is a positive or negative attitude that workers have toward their job. This attitude will determine the result of their work. When employees have a positive attitude towards their job, they will have better performance and better result. But when employees have negative attitude towards their job, they will have lower performance and the work that they do will not be maximized. In conclusion, someone who is satisfied with his work will have more motivation, a sense of commitment with the organization he’s engaging in and be more participated in everything he does so that he can keep improving his abilities to do challenges at work. Mangkunegara and Octorend (2015) said that there are four indicators of job satisfaction: satisfaction of wages, jobs, promotion, and supervisors.

**Employee Performance**

In Serdamayanti’s (2011:260) point of view, performance is the outcome that is done by an employee which affects a management process of a company as a whole. The result of the work can be proven by giving concrete evidences and can be gauged by the company standard. According to Mangkuprawira and Hubeis (2007:153), employee performance is the result of a certain work process which has been planned before by the company and done by the designated employee. Robbins (2006:260) said that there are five indicators to gauge employee performance: quality of work, quantity of work, timeliness, effectiveness, and independent.
Research Framework

![Figure 1. Research Framework](image)

Hypothesis:
H1: Work Motivation has a partial and significant effect on Employee’s Performance at PT. XYZ.
H2: Work Discipline has a partial and significant effect on Employee’s Performance at PT. XYZ.
H3: Job Satisfaction has a partial and significant effect on Employee’s Performance at PT. XYZ.
H4: Work Motivation, Discipline, Job Satisfaction simultaneously have a significant effect on Employee’s Performance at PT. XYZ.

3. Methodology

In this study, associative quantitative research is used, which aims to determine the relationship between two or more variables. The primary data is taken from 33 employees of PT. XYZ. This research used census or total sampling meaning the sample equals to population. Writers used a 5-point Likert scale questionnaire related to Work Motivation, Work Discipline, Work Satisfaction and Employee’s Performance. Moreover, in terms of the time horizon, the study was cross-sectional meaning that the data was conducted once by the writers in this research. To manage and analyze the data, the authors used SPSS software. Writers checked the result using Validity, Reliability, and Classical Assumption Test (Normality Test, Multicollinearity Test, and Heteroscedasticity Test). The results of the data should be valid, reliable, normal, and did not show any multicollinearity and heteroscedasticity problem so the writers can continue to process the data. Writers used Pearson Correlation Test to know the relationship between independent variable and dependent variable. Then, writers analyzed the data using Multiple Regression Analysis. For the Hypothesis Test, writers used T-Test and F-Test.
4. Result and Discussion

Respondent Profile

The number of respondents in this research is 33 employees. Characteristics of respondents in this study are divided into 4 sections: the characteristics of respondents by gender, age, last education and length of work.

<table>
<thead>
<tr>
<th>Gender</th>
<th>Number of Respondents</th>
<th>Age</th>
<th>Number of Respondents</th>
<th>Highest Level of Education</th>
<th>Number of Respondents</th>
<th>Length of Work</th>
<th>Number of Respondents</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>21</td>
<td>24-33</td>
<td>7</td>
<td>High School Diploma (D3)</td>
<td>7</td>
<td>&lt; 1 Year</td>
<td>2</td>
</tr>
<tr>
<td>Female</td>
<td>12</td>
<td>34-43</td>
<td>12</td>
<td>Bachelor (S1)</td>
<td>9</td>
<td>1-5 Years</td>
<td>7</td>
</tr>
<tr>
<td>Total</td>
<td>33</td>
<td>44-53</td>
<td>6</td>
<td>Master (S2)</td>
<td>16</td>
<td>6-10 Years</td>
<td>11</td>
</tr>
<tr>
<td></td>
<td></td>
<td>&gt;54</td>
<td>8</td>
<td>Total</td>
<td>1</td>
<td>&gt; 10 Years</td>
<td>13</td>
</tr>
</tbody>
</table>

Total 33

Validity Test

In this research, validity test is done to test the accuracy of questionnaire that has been given to 33 employees. This test used 95% level of confidence where the degree of freedom is 31 (n - 2). The data is valid if validity coefficient is greater than r table. The r table is calculated using SPSS and the value is 0.344. Table 2 showed the result of validity test.

<table>
<thead>
<tr>
<th>Variable</th>
<th>Items</th>
<th>Validity Coefficient</th>
<th>Decision</th>
</tr>
</thead>
<tbody>
<tr>
<td>Work Motivation</td>
<td>WM1</td>
<td>0.793</td>
<td>Valid</td>
</tr>
<tr>
<td></td>
<td>WM2</td>
<td>0.556</td>
<td>Valid</td>
</tr>
<tr>
<td></td>
<td>WM3</td>
<td>0.582</td>
<td>Valid</td>
</tr>
<tr>
<td></td>
<td>WM4</td>
<td>0.775</td>
<td>Valid</td>
</tr>
<tr>
<td></td>
<td>WM5</td>
<td>0.387</td>
<td>Valid</td>
</tr>
<tr>
<td>Work Discipline</td>
<td>WD1</td>
<td>0.401</td>
<td>Valid</td>
</tr>
<tr>
<td></td>
<td>WD2</td>
<td>0.692</td>
<td>Valid</td>
</tr>
<tr>
<td></td>
<td>WD3</td>
<td>0.525</td>
<td>Valid</td>
</tr>
<tr>
<td></td>
<td>WD4</td>
<td>0.576</td>
<td>Valid</td>
</tr>
<tr>
<td>Job Satisfaction</td>
<td>JS1</td>
<td>0.657</td>
<td>Valid</td>
</tr>
<tr>
<td></td>
<td>JS2</td>
<td>0.738</td>
<td>Valid</td>
</tr>
<tr>
<td></td>
<td>JS3</td>
<td>0.749</td>
<td>Valid</td>
</tr>
<tr>
<td></td>
<td>JS4</td>
<td>0.621</td>
<td>Valid</td>
</tr>
<tr>
<td>Employee Performance</td>
<td>EP1</td>
<td>0.645</td>
<td>Valid</td>
</tr>
<tr>
<td></td>
<td>EP2</td>
<td>0.555</td>
<td>Valid</td>
</tr>
<tr>
<td></td>
<td>EP3</td>
<td>0.653</td>
<td>Valid</td>
</tr>
<tr>
<td></td>
<td>EP4</td>
<td>0.462</td>
<td>Valid</td>
</tr>
<tr>
<td></td>
<td>EP5</td>
<td>0.665</td>
<td>Valid</td>
</tr>
</tbody>
</table>
Reliability Test

The variable is considered reliable if the Cronbach alpha value is greater than 0.6. The result of reliability test could be seen in table 3.

<table>
<thead>
<tr>
<th>Variable</th>
<th>Cronbach Alpha Value</th>
<th>Decision</th>
</tr>
</thead>
<tbody>
<tr>
<td>Work Motivation</td>
<td>0.815</td>
<td>Reliable</td>
</tr>
<tr>
<td>Work Discipline</td>
<td>0.749</td>
<td>Reliable</td>
</tr>
<tr>
<td>Job Satisfaction</td>
<td>0.847</td>
<td>Reliable</td>
</tr>
<tr>
<td>Employee Performance</td>
<td>0.798</td>
<td>Reliable</td>
</tr>
</tbody>
</table>

Normality Tests

This research uses Shapiro Wilk test to check the normality. The value of sig. must be above 0.05 in order for the data to be considered normal. Table 4 showed the normality test result.

<table>
<thead>
<tr>
<th>Variable</th>
<th>Shapiro Wilk sig.</th>
<th>Decision</th>
</tr>
</thead>
<tbody>
<tr>
<td>Work Motivation</td>
<td>0.354</td>
<td>Normal Distribution</td>
</tr>
<tr>
<td>Work Discipline</td>
<td>0.383</td>
<td>Normal Distribution</td>
</tr>
<tr>
<td>Job Satisfaction</td>
<td>0.076</td>
<td>Normal Distribution</td>
</tr>
<tr>
<td>Employee Performance</td>
<td>0.526</td>
<td>Normal Distribution</td>
</tr>
</tbody>
</table>

Multicollinearity Tests

To test multicollinearity, the tolerance value and variance inflation factor (VIF) is used. The tolerance value above 0.1 and the VIF value below 10 mean that there is no multicollinearity. The result is shown in table 5.

<table>
<thead>
<tr>
<th>Variable</th>
<th>Collinearity Statistic</th>
<th>Decision</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Tolerance Value</td>
<td>VIF</td>
</tr>
<tr>
<td>Work Motivation</td>
<td>0.262</td>
<td>3.818</td>
</tr>
<tr>
<td>Work Discipline</td>
<td>0.789</td>
<td>1.268</td>
</tr>
<tr>
<td>Job Satisfaction</td>
<td>0.296</td>
<td>3.378</td>
</tr>
</tbody>
</table>

Heteroscedasticity Test

The sig. value must be above 0.05 in order for heteroscedasticity does not occur. Table 6 showed the result of heteroscedasticity test.
Table 6. Heteroscedasticity Test Result

<table>
<thead>
<tr>
<th>Variable</th>
<th>Sig.</th>
<th>Decision</th>
</tr>
</thead>
<tbody>
<tr>
<td>Work Motivation</td>
<td>0.293</td>
<td>No Heteroscedasticity</td>
</tr>
<tr>
<td>Work Discipline</td>
<td>0.920</td>
<td>No Heteroscedasticity</td>
</tr>
<tr>
<td>Job Satisfaction</td>
<td>0.823</td>
<td>No Heteroscedasticity</td>
</tr>
</tbody>
</table>

**Multiple Linier Regression Test**

Sarjono and Julianita (2011: 91) stated that multiple regression analysis test is to see whether there is any influence of independent variables on dependent variable.

Table 7. Model Summary

<table>
<thead>
<tr>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Std. error of estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td>.616a</td>
<td>.380</td>
<td>.316</td>
<td>.48298</td>
</tr>
</tbody>
</table>

Based on the adjusted r square value on the table 7 above, 31.6% of employee’s performance variable is influenced by work motivation, work discipline, job satisfaction and 68.4% influenced by other variables that not investigated in this research.

**Hypothesis Test**

T-test and F-test are used to test the research hypothesis.

Table 8. T-Test

<table>
<thead>
<tr>
<th>Variables</th>
<th>T test</th>
<th>Sig.</th>
<th>Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>Work Motivation → Employee</td>
<td>1.287</td>
<td>.208</td>
<td>Not Significant</td>
</tr>
<tr>
<td>Work Discipline → Employee</td>
<td>2.411</td>
<td>.022</td>
<td>Significant</td>
</tr>
<tr>
<td>Job Satisfaction → Employee</td>
<td>-.196</td>
<td>.846</td>
<td>Not Significant</td>
</tr>
</tbody>
</table>

Based on the table 8 above, work discipline partially has significant effect on employee performance. The result is similar to Pawirosumarto et. al. (2017), which stated that discipline has the most powerful influence on employee’s performance. Therefore, it needs special attention. According to the questionnaire given, the highest indicator lays in number 2 with a statement “I always obey the procedures that are given at work” employees at this time have been following procedures and rules that are given by the company very well. But PT. XYZ needs to increase the working discipline from looking through the questionnaire result writers found that the statement number 1 that states “I always arrived on time” have the lowest score which means that the majority of employees in PT. XYZ don’t really agree with that statement.

Work motivation partially does not have significant effect on employee performance. The result of this research is different from the previous research conducted by Parashakti and Ekhsan (2020) but similar with the research conducted by Febiningtyas and Ekaningtias (2014). There are many ways to motivate employees. According to Nohria et. al (2008), the company could create reward and performance management system, build good company culture, and also design jobs that are meaningful and have important roles in an organization. Based on the result of the questionnaire, the highest indicator is placed in number 3 with a statement “I am motivated because the communication in the workplace, between me and my peers, goes well” employees need to feel their relationship with
their working peers to go well so that they can feel motivated by their surroundings. Based on the profile of the respondents the people who works are mostly have worked for more than 5 to 10 years. The youngest employees are in the age of 24-33 and the oldest as > 54. Employees who work at PT. XYZ already feel comfortable to work at PT. XYZ because they already liked their working environment and working peers. Looking through the average results on all off the employees’ motivation variable, can be found that statement number 1 that says “I am motivated because the salary that I get can satisfy my needs and my lifestyle” have the lowest average of value which means that the majority of employees don’t really agree with that statement. Most of the employees feel the salary that they get from PT. XYZ is not enough to satisfy their needs and lifestyle. According to the result of the research, even though the Work Motivation is low, it does not affect employee’s performance. Employees understands that the condition of the company hasn’t been doing so well and makes it impossible to give them a raise in salary and to give out bonuses that can satisfies their lifestyle. The result of the characteristics of Respondents by Age indicated that most people who work at PT. XYZ are already near their retirement age. They don’t feel the urge to find another job because they are already settled down with their career and life. Despites PT. XYZ condition, employees still work as best as they can so that the condition of the company will get better.

The T test in table 3 also showed that job satisfaction partially does not have significant effect on employee performance. The result is different with the previous research (Awan and Asghar, 2014; Khan et. al, 2012) but similar with Subakti (2013) research. According to the questionnaire, it can be found that the highest indicator lays on number 3 with a statement that says, “I feel satisfied because I have a good relationship with other employees at work” employees feel that the communications in their working environment are good enough between each individual. Based on the profile of the respondents the people who works are mostly have worked for more than 5 to 10 years. The youngest employees are in the age of 24-33 and the oldest as > 54. Employees who work at PT. XYZ already feel comfortable to work at PT. XYZ because they already liked their working peers, having a good relation between peers at work that makes people feel comfortable and stay to work at PT. XYZ for many years. But it is important to increase employee’s job satisfaction from looking at the questionnaire results writers found that statement number 1 “I feel satisfied because the salary that I get equals with the work that I do” is the lowest average, it means that the majority of employees in PT. XYZ don’t really agree with that statement. Employees feel the salary that they earn does not equal with the work given by the company. According to the result of this research, even though the job satisfaction is low, it does not have an effect on employee’s performance. Employee understands that the condition of the company makes it impossible for them to have a promotion and a raise in salary. Despites of the condition of the company, employees are still willing to take an extra job at work so that the company can run its activities as best as it can even though the number of their employees low.

<table>
<thead>
<tr>
<th>Table 9. F Test</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
</tr>
<tr>
<td>Adj. R Square</td>
</tr>
<tr>
<td>Independent Variable: Job Satisfaction, Work Discipline, Work Motivation</td>
</tr>
<tr>
<td>Dependent Variable: Employee Performance</td>
</tr>
</tbody>
</table>
Sig. value on table 9 is 0.003, it is less than 0.05, and hence there is a simultaneous effect between work motivation, work discipline, job satisfaction and employee’s performance. The result is consistent with the previous research (Mangkunegara and Octorend, 2015) indicating that there is significant effect of work motivation, work discipline, and job satisfaction toward employee performance.

5. Conclusion

To conclude, this study shows that there is a significant effect between work motivation, work discipline, job satisfaction and employee’s performance. 31.6% of employee’s performance is influenced by work motivation, work discipline, and job satisfaction while 68.4% is influenced by other variables that are not investigated in this research. Due to the fact that work discipline has the most powerful influence followed by work motivation and PT. XYZ has not applied disciplinary action toward the employees that come late and does not comply with company rules writers suggest PT. XYZ to take one. The findings also answered PT XYZ’ questions on whether the salary can affect their employee performance. Work motivation is the second most powerful variable. Therefore, the company should create reward and performance management system to enhance their employee’s performance.

References


Consumer Decision Making Online Shopping In Mataram

I Made Ngurah Oka Mahardika

STAHN Gde Pudja Mataram
e-mail: mahardikaind@gmail.com

Abstract

The aim of this study is to conduct statistical analysis which is influence consumer behaviour making shopping online in Mataram. The data analysis used was statistical analysis in the form of multiple linear regression tests. Sample size is 97 respondent with accidental sampling technique. The data were processed using SPSS 23.0. The results of this study showed that culture factor has insignificant effect on consumer decision making online shopping in Mataram, social factor has insignificant effect on consumer decision making online shopping in Mataram. personal factor has significant effect on consumer decision making online shopping in Mataram, and psychological has significant effect on consumer decision making online shopping in Mataram. Simultaneously test show that the four faktor of consumer behaviour such as culture, social, personal and psychological factor has significant effect on consumer decision making online shopping in Mataram.

Keywords: Decision making, Consumer behaviour.

1. Introduction

The economic conditions during pandemic Covid-19 were very worrying. This condition affects local and international trade activities. The dare that occurs is the number of factories that have stopped their operations due to unfavorable conditions. However, on the other hand, the costumer must meet their needs to survive. This has resulted in shifting the conventional market to an online market.

The rapid development of electronics, especially in the field of information and communication technology, has resulted in changes in various sectors of life. Changes in the economic, social, political and cultural fields have an impact on changes in people's lifestyles, including consumption patterns and community trading patterns (Tempo, 2019). During a pandemic like this, people mostly use information and communication technology as a means to buy and / or sell goods and / or services via the internet. This phenomenon of electronic commerce is known as e-commerce, where people no longer need to come to the store to shop.

Data from Badan Pusat Statistik, which conducted an e-commerce survey in 2018, showed that 15.08% were e-commerce businesses. This shows that the business carried out through online media is still relatively low, and the business world in Indonesia is still dominated by conventional businesses. However, seen from the number of transactions throughout 2018, there were 24,821,916 transactions with a value reaching 17.21 trillion rupiah.

According to Nofri and Hafifah (2018) states that the advantage of online shopping is the ease of shopping. Online shopping can be accessed anywhere and easily as long as the cellphone / pc has internet access. Apart from the convenience of shopping, consumers also have a large selection of

© Authors. Terms and conditions of this work is licensed under a Creative Commons Attribution-NonCommercial-NoDerivatives 4.0 International License apply. Correspondence: I Made Ngurah Oka Mahardika, STAHN Gde Pudja Mataram. Email: mahardikaind@gmail.com
products from various vendors, can compare prices, choose payment methods, the number of promos offered and are open 24 hours. So that consumers have many references before deciding to shop.

Factors that influence consumer behavior are strongly influenced by where the person is born and the environment that raises them (Mahardika, 2020). In purchasing decisions, consumer behavior is influenced by cultural factors, social factors, personal factors and psychological factors (Destian, 2017). Cultural factors are the composition of values, perceptions, desires and behavior of community members. Social factors show a person's social class. Social class is not only seen from a person's income but also from work, education and residence. Personal factors are influenced by a person's personal characteristics such as age, occupation, conditions of economic, lifestyle, and personality and self-concept (Kotler, 1997).

Many studies have been conducted to examine the factors that influence consumer behavior in online shopping. According to Darmawati, Subekti, Sumarsono, and Sri, Murni (2018), cultural factors and social factors do not significantly influence the decision to purchase shar'e products. Meanwhile, personal factors and psychological factors have a significant effect on purchasing decisions of shar'e products. Furthermore, (Harahap, 2018) found the results showed that perceived benefits and psychological factors has a positive and significant effect on consumer behavior to buying online. The risk perception factor has a negative effect on online buying behavior. The design of website and hedonic motivation person were found to be influential but insignificant factor. Psychological factors are the factors with the highest influence on online buying behavior. Then, this study aims to examine people's decisions in shopping online during pandemic Covid-19 in Mataram, by looking at the relationship between cultural factors, social factors, personal factors and psychological factors on consumer decision making.

2. Literature Review

Consumer behavior

The wants and needs of consumers are very diverse and changing (Subianto, 2007). This is based on the many variable factors that influence on consumer behavior making. Consumer behavior is a process of assessing and selecting from various alternatives that a person makes in purchasing and utilizing a product (Ghoni & Bodroastuti, 2012).

Understanding consumer behavior is very difficult. This is because there is a lot of variables that affect and are related. In consumer behavior, it is important to search for information because information seeking is an integral aspect of decision making (McColl-Kennedy & Fetter, 1999).

The strongly consumer purchases are influence by cultural, social, personal and psychological characteristics. Marketer cannot control full these factors, but marketer can use the factor as considering (Kotler, 1997). The factors of consumer behavior whose can be influence decision making are:

Culture Factor

Culture has an important and fundamental role in shaping consumer behavior. Culture as a set of values, beliefs, habits held by individuals and the surrounding community (Bahari & Ashoer, 2018). In cultural factors, it is important to pay attention to marketers to understand the effects on consumers which include culture, sub-culture, and social class.
Social Factor

Is the influence of a group of people in influencing the individual. Social factors such as social groups, families, and social roles and status are external aspects that provide a stimulus to consumer decisions (Asna, 2010). A person's reference group consists of all groups that directly or indirectly influence a person's attitude and behavior.

Personal Factor

Personal factors are a way of collecting and classifying the constancy of individual reactions to situations that occur (Bahari & Ashoer, 2018). Someone in making purchasing decisions is very influence by characteristic him-self. Individuals make Purchasing decisions made by individuals are influenced by the characteristics contained in them. The characteristics individual that influence purchasing decisions consist of age, lifestyle, personality and self-concept.

Psychological Factor

Psychological needs are needs that arise from certain physiological conditions, for example the need to be recognized, self-esteem or the need to be accepted in society (Asna, 2010). Psychology is a person's thoughts and feelings that are influenced by the existence of other people in real or indirect ways as measured from the personal point of view of experiencing it.

Consumer Behavior Model

External marketing stimuli, namely products and services, prices, distribution, and communication as well as other stimuli such as economy, technology, politics and culture can influence consumer choices before making a purchase of a product through problem recognition, information seeking, alternative choices, purchasing decisions and post-purchase behavior. Therefore, marketers must understand what is needed by consumers that will influence purchasing decisions (Kotler and Keller, 2016).

Figure 1. Consumer Behavior Model
Consumer Decision Making

According to McColl-Kennedy and Fetter (1999) Consumer decision is an activity in which consumers determine or select a number of goods and services, which are selected based on information obtained about the product, and as soon as needs and wants arise, and this activity becomes information for determining decision making. Meanwhile, Manyiwa and Crawford (2002) defines consumer decision as the choice of two or more alternative choices, on the contrary, if you do not have an alternative, it means that it cannot be categorized as a decision making.

Decision Making Process

According to Kotler (1997), the decision-making process can be described in the chart below:

![Figure 2. Stages of Decision Making](image)

The decision-making process begins with a need. Need is the difference between the real condition and the actual situation which is adequate to arouse and effective the decision process. After identifying the problem, the next process is to search for information. Information sources consist of personal sources, commercial sources, general sources and experience sources.

Framework

![Figure 3. Research Framework](image)

Hypothesis:

Volume 2, Issue 4 available at [http://e-journal.stie-kusumanegara.ac.id](http://e-journal.stie-kusumanegara.ac.id)
H1: Culture factor has a positive and significant effect on consumer decision making
H2: Social factor has a positive and significant effect on consumer decision making
H3: Personal factor has a positive and significant effect on consumer decision making
H4: Psychological factor has a positive and significant effect on consumer decision making
H5: Culture factor, Social factor, Personal factor, and Psychological factor as simultan has a positive and significant effect on consumer decision making

3. Methodology

By design, this study is correlational research category where data is collected to investigate whether there is an influence and how strong is the influence of the independent variables on the dependent variable (Sugiyono, 2018). The research location in Mataram. In the formula (Wibisono, 2003) explains that this formula is used when the sampling technique is if the population is unknown. So that the data taken is 96 samples from an unknown population, which are calculated with a confidence level of 95% (Z = 1.96), a standard deviation of 0.5 and a margin of error of 10% using the following formula:

\[ N = \frac{Z^2 \sigma (1 - \sigma)}{\alpha^2} \]

Explanation:
- N: Sample
- Z: Score table Z
- \( \sigma \): Standard deviation
- \( \alpha \): Margin of error

Then:

\[ N = \frac{1.96^2 \cdot 0.5(1 - 0.5)}{0.1^2} = 96.04 \]

Thus, the number of samples taken was 96 respondents. The sampling technique uses Accidental Sampling, which is the determination of the sample by chance. Anyone who happens to meet the researcher and meets the requirements as a respondent.

4. Result and Discussion

Validity Test

Valid or not the questionnaire is testing by validity test (Ghozali, 2011). A questionnaire is valid if the questions on the questionnaire are able to reveal something that will be measure by the questionnaire. So, validity is measuring the questions in the questionnaire that can be show the real field instrument. Through this analysis, the research instrument is said to be valid if it has a correlation coefficient above 0.30 (Nunnally 1960, in Ghozali 2011).

Based on the results of data processing, here are the results of the validity test in this study.
Table 1. Validity Test

<table>
<thead>
<tr>
<th>No</th>
<th>Variable</th>
<th>Item</th>
<th>Coefficient</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Culture Factor (X₁)</td>
<td>X₁₁</td>
<td>0.505</td>
</tr>
<tr>
<td></td>
<td></td>
<td>X₁₂</td>
<td>0.464</td>
</tr>
<tr>
<td></td>
<td></td>
<td>X₁₃</td>
<td>0.622</td>
</tr>
<tr>
<td>2</td>
<td>Social Factor (X₂)</td>
<td>X₂₁</td>
<td>0.591</td>
</tr>
<tr>
<td></td>
<td></td>
<td>X₂₂</td>
<td>0.566</td>
</tr>
<tr>
<td></td>
<td></td>
<td>X₂₃</td>
<td>0.407</td>
</tr>
<tr>
<td>3</td>
<td>Personal Factor (X₃)</td>
<td>X₃₁</td>
<td>0.688</td>
</tr>
<tr>
<td></td>
<td></td>
<td>X₃₂</td>
<td>0.603</td>
</tr>
<tr>
<td></td>
<td></td>
<td>X₃₃</td>
<td>0.594</td>
</tr>
<tr>
<td>4</td>
<td>Psychological Factor (X₄)</td>
<td>X₄₁</td>
<td>0.700</td>
</tr>
<tr>
<td></td>
<td></td>
<td>X₄₂</td>
<td>0.712</td>
</tr>
<tr>
<td></td>
<td></td>
<td>X₄₃</td>
<td>0.660</td>
</tr>
<tr>
<td>5</td>
<td>Consumer Decision Making (Y)</td>
<td>Y₁</td>
<td>0.431</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Y₂</td>
<td>0.582</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Y₃</td>
<td>0.520</td>
</tr>
</tbody>
</table>

Based on the test results from table 1, that the culture factor variable is 3 item, social factor is 3 item, personal factor is 3 item, psychological factor is 3 item, and consumer decision making is 3 items. Of the five variables, all item it can be said that the correlation coefficient value is higher than 0.3, which means that all instruments are valid for research.

Reliability Test

For measuring the construct or variable is using reliability test (Ghozali, 2011). A reliable questionnaire if person answer the question consistent over time. The Reliability measurement can be performed with One Shot or just one measurement. Here the measurement is only once and then the results are compared with other questions or measure the correlation between the answers to the questions. The tool for measuring reliability is Cronbach Alpha. A variable is said to be reliable, if (Ghozali, 2011): Result $\alpha > 0.60 =$ reliable and Result $\alpha < 0.60 =$ unreliable.

Table 2. Reliability Test

<table>
<thead>
<tr>
<th>No</th>
<th>Variable</th>
<th>Alpha Cronbach</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Culture Factor (X₁)</td>
<td>0.709</td>
</tr>
<tr>
<td>2</td>
<td>Social Factor (X₂)</td>
<td>0.702</td>
</tr>
<tr>
<td>3</td>
<td>Personal Factor (X₃)</td>
<td>0.787</td>
</tr>
<tr>
<td>4</td>
<td>Psychological Factor (X₄)</td>
<td>0.830</td>
</tr>
<tr>
<td>5</td>
<td>Consumer Decision Making (Y)</td>
<td>0.708</td>
</tr>
</tbody>
</table>

Based on table 2, it can be seen that the Cronbach Alpha is greater than 0.6. This shows that all variable in this study are said to be reliable or have a good level of reliability so that they can be used in subsequent research analyzes.
Multiple Linier Regression

Multiple linear regression analysis is used in this study in order to determine whether there is an influence of the independent variable on the dependent variable. Statistical calculations in multiple linear regression analysis used in this study were to use SPSS software. The results of multiple linear regression are as follows:

Table 3. Coefficients

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>t</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>Std. Error</td>
<td>Beta</td>
<td></td>
</tr>
<tr>
<td>1 (Constant)</td>
<td>1.458</td>
<td>.338</td>
<td>4.313</td>
<td>.000</td>
</tr>
<tr>
<td>X1</td>
<td>.181</td>
<td>.110</td>
<td>.216</td>
<td>1.644</td>
</tr>
<tr>
<td>X2</td>
<td>.069</td>
<td>.112</td>
<td>.087</td>
<td>.619</td>
</tr>
<tr>
<td>X3</td>
<td>.200</td>
<td>.072</td>
<td>.271</td>
<td>2.759</td>
</tr>
<tr>
<td>X4</td>
<td>.222</td>
<td>.073</td>
<td>.294</td>
<td>3.017</td>
</tr>
</tbody>
</table>

a. Dependent Variable: Y

Based on the SPSS output above, the regression equation is obtained as follows:

\[ Y = 1.458 + 0.181x_1 + 0.069x_2 + 0.200x_3 + 0.222x_4 \]

The model shows that: Constant = 1,458. The regression coefficient X1 is 0.181, which means that if cultural factors increase by one point, consumer purchasing decisions will increase by 0.181, assuming the value of other variables is constant. The regression coefficient X2 is 0.069, it means that when social factors increase by one point, consumer purchasing decisions increase by 0.069, assuming the value of other variables is constant. Furthermore, the regression coefficient X3 is 0.200, which means that if personal factors increase by 1 point, consumer purchasing decisions increase by 0.200. Finally, the regression coefficient X4 with a value of 0.222, which means that if psychological factors increase by 1 point, consumer purchasing decisions increase by 0.222, assuming the value of other variables is constant.

Partial Test

The test is to determination effect of culture factor (X1), social factor (X2), personal factor (X3) and psychological factor (X4) as a partially on consumer decision making online shopping in Mataram. The test analyze is show as below:

Table 4. Hypothesis Test

<table>
<thead>
<tr>
<th>No.</th>
<th>Variables</th>
<th>t-value</th>
<th>Sig</th>
<th>t-table</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Culture Factor</td>
<td>4.313</td>
<td>.104</td>
<td>1.96</td>
</tr>
<tr>
<td>2</td>
<td>Social Factor</td>
<td>1.644</td>
<td>.538</td>
<td>1.96</td>
</tr>
<tr>
<td>3</td>
<td>Personal Factor</td>
<td>.619</td>
<td>.007</td>
<td>1.96</td>
</tr>
<tr>
<td>4</td>
<td>Psychological Factor</td>
<td>2.759</td>
<td>.003</td>
<td>1.96</td>
</tr>
</tbody>
</table>

The data analysis stage uses regression analysis which is described as follows, the results of the t test conducted show that cultural factors on consumer decision making have a coefficient value of
0.104 with t-statistic value of 1.644. The t-statistic value is below the critical value of 1.96, thus it can be stated that there is an influence between cultural factors on consumer decisions making online shopping in Mataram is rejected (H1 is rejected). The test on social factors has a coefficient value of 0.538 with a t-statistic value of 0.619. The t-statistic value is far below the critical value, thus the hypothesis which states that there is an influence between social factors on consumer decisions making online shopping in Mataram is rejected (H2 is rejected). The results of the t-test conducted indicate that personal factors influence consumer decision making has a coefficient value of 0.007 with a t-statistic value of 2.759. The t-statistic value is above the critical value of 1.96, thus the hypothesis which states that there is an influence between psychological factors on consumer decisions making online shopping in Mataram is accepted (H3 accepted).

The test on social factors has a coefficient value of 0.538 with a t-statistic value of 0.619. The t-statistic value is far below the critical value, thus the hypothesis which states that there is an influence between social factors on consumer decisions making online shopping in Mataram is rejected (H2 is rejected). The results of the t-test conducted show that psychological factors have an influence on consumer decision making which has a coefficient value of 0.003 with a t-statistic value of 3.017. The t-statistic value is above the critical value of 1.96, thus the hypothesis which states that there is an influence between psychological factors on consumer decisions making online shopping in Mataram is accepted (H4 accepted).

**Goodness of Fit**

Ghozali (2011) F test is used to test the effect of independent variables together on the dependent variable. The level of significance uses 0.05 df1 = k-1 = 4 and to determine F table, namely df2 = n-k-1 or 86-5-1 = 80. Obtained F table is 2.49. The results of the data obtained are as follows:

### Table 5. ANOVA

<table>
<thead>
<tr>
<th>Model</th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regression</td>
<td>21.275</td>
<td>4</td>
<td>5.319</td>
<td>12.081</td>
<td>.000b</td>
</tr>
<tr>
<td>Residual</td>
<td>40.065</td>
<td>91</td>
<td>.440</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>61.340</td>
<td>95</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

a. Dependent Variable: Y  
b. Predictors: (Constant), X4, X3, X1, X2

It can be seen that F-value > F-table or 12.081 > 2.49. This concludes that Culture factor, social factor, personal factor and psychological factor together have an effect on consumer decision making online shopping in Mataram (H5 accepted).

**Coefficient of Determination (R2)**

According to Ghozali (2013), the coefficient of determination (R2) used for measure how far the model's ability to explain variable variations independent. This coefficient of determination is used because it can explain the goodness of the regression model in predicting the dependent variable. Score the coefficient of determination is between zero and one. The coefficient of determination can be seen in the following table:

### Table 6. Model Summary

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Std. Error of the Estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>.589a</td>
<td>.347</td>
<td>.318</td>
<td>.66353</td>
</tr>
</tbody>
</table>

a. Predictors: (Constant), X4, X3, X1, X2
The coefficient of determination R square (R2) shows a number of 0.347, which means that the influence of cultural factors, social factors, personal factors and psychological factors on consumer decisions making is 34.7% and the rest is influenced by other factors not examined. F count shows a value of 12.081 with a significance level of 0.000, this means that there is a positive and significant influence between cultural factors, social factors, personal factors and psychological factors together on consumer decisions making online shopping in Mataram.

Discussion

The Effect of Culture Factor on Consumer Decision Making Online Shopping in Mataram

Hypothesis testing (H1) shows that the hypothesis is rejected. The test results show that cultural factors are not able to influence consumer decisions making, this is because Mataram people in online shopping are not influenced by shifts in culture, geographic area and listening culture. Shifts in culture and geographic areas are common causes and have a broad influence on consumer purchasing decisions, however, these factors are not sufficient to have a significant influence on consumer decisions making online shopping. In addition, the influence of listening habits has little impact on consumer decisions making. Although the direction of the relationship between cultural factors and consumer decisions making shows a positive direction, however, it has not had a significant effect.

The Effect of Social Factor on Consumer Decision Making Online Shopping in Mataram

Hypothesis testing (H2) shows that the hypothesis is rejected, Consumer decisions making online shopping in Mataram are not influenced by social factors, this is because when consumers make decisions to shop online, they do not follow directions from friends, family or their environment. In addition, it is possible that friends, family or the environment where the consumer lives is not doing online shopping but is still shopping conventionally.

The Effect of Personal Factor on Consumer Decision Making Online Shopping in Mataram

Hypothesis testing (H3) shows that the hypothesis is accepted. Personal factors are the consistency of consumer reactions to the current situation. In online shopping, a person's behavior is influenced by the personality factors of the consumer concerned. The personal factor is a combination of psychological order and environmental influences, including consumer character. In Mataram, consumers tend to shop online because they think that online shopping is a lifestyle demand and increasing people's purchasing power. In other words, it can be said that the higher the age, lifestyle and purchasing power of the community, the consumer decisions making online shopping in Mataram will be increase.

The Effect of Psychological Factor on Consumer Decision Making Online Shopping in Mataram

Consumer decisions making online shopping in Mataram are influenced by psychological factors. This is because consumers have motivated needs, understanding and knowledge, and confidence in the online market. So that consumers decide to use and stay loyal to shop online. In addition, consumers are quite confident in using vendors that offer online shopping sites.

The Effect of Culture Factor, Social Factor, Personal Factor, and Psychological Factor Together on Consumer Decision Making Online Shopping in Mataram

Volume 2, Issue 4 available at http://e-journal.stie-kusumanegara.ac.id
It is known that consumer decisions making begin with stimuli which are then influenced by cultural, social, personal and psychological factors and influence consumers in choosing products with certain brands. Consumers may also form the intention to buy the product they most like. This means that, although partially cultural and social factors do not have a significant but positive effect on consumer decisions making online buying in Mataram, however, simultaneously test result show that the cultural, social, personal and psychological factors have a significant influence on consumer decisions making online shopping in Mataram.

5. Conclusion

Refer to the results of the research and discussion above, it can be concluded that partially culture factor and social factor do not have a significant influence on consumer decisions making to shop online in Mataram. Meanwhile, personal factor and psychological factor have a positive and significant on consumer decisions making to shop online in Mataram. Simultaneously, culture, social, personal and psychological as together have a significant influence on consumer decisions making to shop online in Mataram.

Future, the researcher can be reply and modify this model. And using a longitudinal approach model (over time), and maybe using in other institutions. In addition, researchers can use any variable for completely the factor that influence consumer decision making.

References


Volume 2, Issue 4 available at http://e-journal.stie-kusumanegara.ac.id


https://bisnis.tempo.co/read/1331198/riset-belanja-online-meningkat-pesat-di-tengah-pandemi-covid-19


This research examines whether Rupiah to US Dollar exchange rate experienced overshooting or not. In addition, this research examines the short-run partial effect between GDP (Gross Domestic Product), Inflation and Interest Rates on the Rupiah exchange rate. The data used in this research were quarterly secondary data on Rupiah/USD spot exchange rates, Constant GDP, Consumer Price Index (CPI), and Bank Indonesia Interest Rates in the 2007-2018 period. The analytical method used in this research is Autoregressive Distributed Lag (ARDL). The results showed that the Rupiah experienced overshooting, in addition to partial testing shows that in the short run, GDP negatively affects the Rupiah exchange rate, Inflation positively affects the Rupiah exchange rate, and Interest rates does not affect the Rupiah exchange rate.

Keywords: Overshooting, Rupiah, GDP, Inflation, Interest Rate

1. Introduction

An important indicator for countries that embrace an open economy is the exchange rate. The exchange rate system reflects the stance of the country in carrying out economic activities especially economic activities related to international trade. One of the crucial phases of the Indonesian monetary and exchange rate system occurred in August 1997 when Bank Indonesia gave up intervention and changed the exchange rate system from managed floating to free floating because the Rupiah had external pressures and the depletion of foreign reserves. However, the policy had a negative impact towards the value of the Rupiah which caused investors to lose their confidence in the Rupiah and made the Rupiah increasingly depressed at that time (Anindhita, 2017).

In an integrated global economy, Rupiah faces unpredicted external pressures. The 2008 financial crisis as a result of the failure of the subprime mortgage mechanism in America had a global impact, including Indonesia. Throughout 2008, the Rupiah had considerable pressures. Noted, from Rp 9,393/$ in the end of January to Rp 12,100/$ in the end of November 2008 (Afif, 2017).

Although the United States economy began to resume, the effects of monetary policy normalization on the crisis which struck in 2008 were still felt by Indonesia. In 2018, there was an improvement in the global economy marked by rising prices of global securities in general. The growth of the American economy also had a significant effect in improving the global economy. On the other hand, to anticipate an overheating economy, the Fed as the US monetary authority was predicted to increase the benchmark interest rate in the future (Suidarma et al., 2018).

In 2018, there were some pressures towards Rupiah in June due to strength of the Dollar globally. The position of the rupiah in mid-June 2018 was Rp 13,853/$. However, due to aggressive changes in monetary policy taken by the Fed in the face of changes in economic policy by China and Europe and anticipating global uncertainty, it triggered the weakening of global currencies including...
the Rupiah. At the end of June 2018, the Rupiah was at Rp 14,390 which was deposited quite sharply, at 3.44% from the end of May 2018. Compared to December, the value of the Rupiah at the end of June 2018 had depreciated by 5.72%. This depreciation was much lighter than the currency depreciation occurred in other countries such as the Philippines, India, Brazil and Turkey (Bank Indonesia, 2018)

According to Warjiyo (2013), as a small country with an open economy, the market value of Rupiah rarely reflects its real value. In the face of external and internal pressures, the Rupiah has fluctuated and experienced overshooting. The concept of Exchange Rate Overshooting theory was first introduced by Rudi Dornbusch in 1976. Dornbusch (1976) put forward a hypothesis about high exchange rates that showed exchange rate fluctuations trigger shocks in money supplies in an economy and a sticky price model that explains exchange rate fluctuations. Overshooting is a condition in which changes in monetary expansion in the short run will result in currency depreciation exceeding the long-run balance. There are several reasons which are believed to trigger overshooting. For example when there is speculation and asymmetric financial markets will spur the exchange rate to increase. In addition, the occurrence of a trade balance deficit toward partner countries is believed to cause overshooting of the currencies of countries experiencing deficits (Amin et al., 2018). In general, the concept of exchange rate overshooting explains the mechanism by which the short-run exchange rate response to exogenous shocks, exceeds the long-run response (Chiliba et al., 2019)

According to Frankel (1979), there are a number of macroeconomic variables which cause exchange rates to fluctuate in the short run. These variables are changes in the short-run money supply, Gross Domestic Product (GDP), interest rates and domestic inflation rates. Therefore, this research will try to analyze whether overshooting occurs due to changes in the money supply, GDP output, interest rates, and domestic inflation in Indonesia

2. Literature Review

Overshooting Theory of Dornbush

Dornbusch (1976) proposed a theory about exchange rate overshooting which states that Overshooting process would occur if the exchange rate moves to its fundamental value faster than the price of goods and services. Furthermore, Dornbusch described the price level as a variable which is rigid and slow in adjusting to its equilibrium value. This theory explains that adjustments to exchange rates and price levels do not occur at the same speed. If there is monetary expansion by the central bank in the short run, increases of money in circulation will definitely trigger increases in interest rates, where the exchange rate will adjust to the equilibrium value. In 1980, Dornbusch developed the concept of dynamic exchange rates which explained the process of adjusting the exchange rates toward monetary variables. The monetary injection by the central bank will make the exchange rates depreciated in the short run, which will cause interest rates to increase. During exchange rates’ adjustment period, it’s possible for good and service’s prices to increase in line with the newly-adjusting prices of goods and services due to an increase in interest rates. Besides, the inflation rates can skyrocket if the prices of good and service are unstable as the result of the intermittently adjusting value of the exchange rates. In Dornbusch’s theory, it is explained that the inflation is a critical channel of monetary policy transmission to influence domestic aggregate output (Dornbusch, 1980)

Exchange Rate

Mankiw (2007) defines the exchange rate as the currency’s value toward unit or value of other countries’ in conducting trade. There are two types of currencies. First, the nominal exchange rate is
a measure of comparison of currencies among countries, in which this comparison is relative. This exchange rate is often related to the nominal price of a country’s currency in the financial market. Second, the real exchange rate is a relative comparison of goods and prices’ value between two countries when carrying out a trade. The real exchange rate is valued with the nominal exchange rates and comparing price levels of both two countries.

The Money Supply

Total of money supply is an money available in an economy in a country (Sukirno, 2004). The money supply is divided into two runs; Firstly, the money supply in the narrow meaning (M1) consists of the total of money in circulation added with demand deposits owned by the community. Secondly, the money supply in the broad meaning (M2) consists of M1 added with savings, time deposits, and foreign exchange accounts owned by the domestic and private sector.

Inflation

According to Rahardja (2008) the inflation is a circumstance where the prices of goods increase continuously. Besides, Boediono (1998) classifies inflation into two groups. First, inflation is classified from its origin, namely domestic inflation that happens as increases of goods’ prices in the country. Then, imported inflation happens as increases of goods’ prices abroad. Second, inflation is classified as the factor. The causes of inflation can be divided into three. First, core inflation is inflation which occurs due to general economic development such as inflation expectations, the exchange rate, and the balance between demand and supply aggregate. Second, volatile food inflation is inflation which occurs due to food material turmoil due to certain factors such as weather and harvest season. Third, administered inflation is inflation that the development is regulated by the government such as changes in fuel prices.

Interest Rate

Husnan (2006) explains the interest rate as the ratio of return on a number of investments in return given to investors. Sjahrial (2007) explains that the effect of interest rates on a financial asset depends on the level of asset price sensitivity and the maturity of the asset. The longer the maturity of a financial asset is, the greater the influence of the interest rate is where the high interest rate will make the risk of the financial asset higher.

Gross Domestic product

Total value of goods and services produced in an economy in a certain period is defined as Gross Domestic Product. The GDP’s calculation is conducted without considering the owner of the factors of production. Therefore, GDP takes into account the value of goods and services produced both from these citizens and foreign nationals (Sukirno, 2004).

Previous Research

Suidarma et al., (2018) conducted Overshooting Theory of Dornbusch in Indonesia in period of 2010-2017 using VECM. The results showed the variable money supply both in the short and long does not affect the exchange rate. This proves that the Rupiah did not experience overshooting in this period.
Furthermore, research about Rupiah’s overshooting was also conducted by Afif (2017) using the ARDL method. The results showed that the monetary injection will not cause Rupiah’s depreciation based on period from 2005 to 2016. Thus, the Dornbusch’s theory is not proven in that period. In addition, the research also examined other macroeconomics variables’ effects towards exchange rates, where GDP both in short and in long run effects the exchange rates. Furthermore, Interest rates both in the short and long run positively effect on the volatility of Rupiah. In addition, inflation does not affect the short run but, in the long run, negatively affects the Rupiah’s volatility.

The same findings about the ineffective monetary policy and short-run macroeconomic variables in influencing the Rupiah’s value are also shown by the research of Amin et al., (2018). In his research, he used the variables of broad money, domestic inflation, interest rates and the exchange rate of Bangladesh from 1980 to 2015. The results showed that all variables the independent had no short-run effects on the exchange rate which proved overshooting does not occur toward the Bangladesh’s exchange rate. However, the research had flaws as data used were very short only with annual data.

A different result is shown by Pratikto (2012). His research shows that Rupiah experienced overshooting in the period 1997 to 2004. His research reveals that monetary injections to the market liquidity, will trigger the Rupiah to depreciate beyond its long-run equilibrium level. In addition, the results of his research revealed that exchange rate control policies through the impossible trinity was not possible, and in his research, the capital flow variable is the variable that has to be sacrificed to achieve a stable exchange rate.

Falian ty (2003) in her thesis examines Rupiah exchange rate volatility of a free floating regime using ECM. The findings show that Rupiah will be depreciated if the central bank injects the monetary liquidity. In addition, the effect of money supply in a free floating system has a significant effect toward Rupiah’s volatility.

Besides, Wati (2014) researches the Rupiah’s volatility using OLS using interest rates and inflation as the independent variables. Results of the research indicate that increases in interest rates will increase Rupiah, and decreases in the inflation rate will depreciate Rupiah.

Hypothesis:
H1: Rupiah exchange rate experienced an overshooting condition in which money supply affects positively toward Rupiah’s exchange rate in the short run.
H2: GDP negatively affects the Rupiah’s exchange rate in the short run.
H3: Inflation positively affects the Rupiah’s exchange rate in the short run.
H4: Interest rates negatively affect the Rupiah’s exchange rate in the short run.

3. Methodology

Data analysis techniques are used in answering research problems in the form of: Augmented Dickey-Fuller Test, Johansen Test of Cointegration and Autoregressive Distributed Lag (ARDL). Sample is a collection of objects which is researched (Algifari, 2016). The sample used in this research is quarterly data on the Money Supply (M2), Real GDP, Inflation, Bank Indonesia Domestic Interest Rates and Rupiah Spot Exchange Rates for the period 2007 to 2018. All data used in this study are obtained from the United States Central Bank of The Fed St. Louis through its website (https://fred.stlouisfed.org).

Research Model

This research model is developed from research model of Amin et al., (2018). The dependent variable in this research is the Rupiah/USD Spot Exchange Rate symbolized by ER, while the
independent variables used in this study are: M2 as a proxy for money supply circulating in Indonesia in Rupiah units, GDP shows Real Gross Domestic Product in Rupiah units and used to show Indonesia's economic growth, INF as a symbol of domestic inflation in Indonesia is measured using a percentage, and IR is an Interest Rate that shows the cost of holding assets in Indonesia. The following is basic model in this study:

$$LNER_t = \beta_0 + \beta_1(LM2) - \beta_2(LGDP) + \beta_3(INF) + \beta_4(IR)$$

In which:
- LNER: Exchange Rate Logarithm
- LM2: M2 Logarithm
- LGDP: Real GDP Logarithm
- INF: Inflation
- IR: Interest Rate
- t: Year of research observation

Stationarity Test

In ARDL test, the first step is to ensure that the data have been stationary. In time series regression, it is often found the result of spurious regression or not real results. Therefore, to ensure that no spurious regression occurs, the unit root test must be carried out. In time series data, non-stationary data that is often found at the level level, the data must be transformed into different forms of data (Gujarati, 2009). In this research, the stationary level experiment used the Augmented Dickey-Fuller Test (ADF). If the result of ADF value is higher than the Mac Kinnon statistical test value, the conclusion shows that the data are stationary.

The following below are hypotheses in ADF test:

- H0: \( \delta = 0 \) so, data are not stationary or there is unit root
- H0: \( \delta \neq 0 \) so, data are stationary or there is no unit root

Cointegration Test

Engle and Granger (1987) reveal concept about the concept of cointegration in which in the presence of non-stationary and cointegrated data, there will be a long-run balance. Furthermore, Pesaran and Shin (1999) introduced the Bound Test Cointegration method to produce balance in the long run, this cointegration test occurs if it follows the following equation:

$$Y_t = \beta_0 + \beta_1x_1 + et$$

Then, operationalization of the variant of the equation can be written as follows:

$$Et = yt - \beta_0 - \beta_1x_1$$

The decision making from Bound Test Cointegrations by comparing the value of F test obtained in cointegration test with the value of upper bound. If the F value is higher than that of upper bound, the conclusion is that there is cointegration. Conversely, if the F value is lower than that of upper bound, then no cointegration exists.

Derunination of Optimal Lag

The derunination of optimal lag length needs to conduct in doing test in the ARDL model. If a lag that is too short included in the econometric model, the model is not able to capture the dynamics of the overall model. However, if the lag entered is too long, then the model becomes inefficient because the value of the degree of freedom is reduced (Basuki & Prawoto, 2017).

The derunination of optimum lag length is based on the smallest value of lag which is proposed information criteria above. The processing length of the lag in E-views can produce
different results from each criterion. However, in this research, the best lag will be selected from the lag generated by the Akaike Information Criterion (AIC) criteria.

**Autoregressive Distributed Lag (ARDL) and Error Correction Model (ECM)**

This method is one of Econometrics tool to examine the long-run as well as short-run relation of independent variables toward the dependent variable. This model can be used when data is not at a different level of stationarity. The ARDL estimation results will produce a consistent long-run coefficient. The most important in ECM regression in the ARDL model is that the cointEq coefficient must be negative and significant to alpha. It shows that the ECM model is valid and can be used.

**Significance Test (Partial Test)**

Significance test is used to find out the partial effect of independent variables to the dependent variables. Alpha used is 5%. It means that the risk of error in decision making is 5%. If the prob. value is beyond the alpha, then the hypothesis proposed is rejected. Conversely, if the prob. value is lower the alpha, then the hypothesis proposed is accepted.

4. **Result and Discussion**

**Statistic Test**

The stationarity test is done using the ADF method by comparing the probability of output produced with a significance of 10%.

<table>
<thead>
<tr>
<th>Variable</th>
<th>Probability</th>
<th>Level Information</th>
<th>Probability</th>
<th>1st Difference Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>LNER</td>
<td>0.8734</td>
<td>Not stationary</td>
<td>0.0000</td>
<td>Stationary</td>
</tr>
<tr>
<td>LM2</td>
<td>0.0052</td>
<td>Stationary</td>
<td>0.0100</td>
<td>Stationary</td>
</tr>
<tr>
<td>LGDP</td>
<td>0.2174</td>
<td>Not stationary</td>
<td>0.00785</td>
<td>Stationary</td>
</tr>
<tr>
<td>INF</td>
<td>0.0000</td>
<td>Stationary</td>
<td>0.0000</td>
<td>Stationary</td>
</tr>
<tr>
<td>IR</td>
<td>0.2947</td>
<td>Not stationary</td>
<td>0.0002</td>
<td>Stationary</td>
</tr>
</tbody>
</table>

Source; processed Eviews 9.0

Based on the summary in Table 1 above, it is seen that two stationary variables are stationary in level and three variables are not. The stationary variables at the level are LM2 and INF. While the variables which are not stationary at the level level are LNER, LGDP, and IR. To make those variables stationary at the same level, thus the data will be differentiated to first level differentiation. Also seen from Table 1 above, all variable is stationary at the first level of differentiation at alpha 10%. Then the test can proceed to the Cointegration Test.
Table 2. ARDL Bound Test

<table>
<thead>
<tr>
<th>Test Statistic</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fstatistic</td>
<td>5.967730*</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Significance</th>
<th>Bound</th>
</tr>
</thead>
<tbody>
<tr>
<td>10%</td>
<td>3.52</td>
</tr>
<tr>
<td>5%</td>
<td>4.01</td>
</tr>
<tr>
<td>2.5%</td>
<td>4.49</td>
</tr>
<tr>
<td>1%</td>
<td>5.06*</td>
</tr>
</tbody>
</table>

Source: Eviews 9.0 (Processed)

Table 2 shows that data used are already cointegrated in the long run. the F-statistic shows a higher value than that of upper bound. Thus, testing the data in this study is cointegrated in the long run.

Then, to determine optimal lag, it is based on lag criteria generated by the Akaike Information Criteria (AIC) criteria;

Table 3. The Derunination of Optimum Lag

Source: Eviews 9.0 (Processed)

Table 3 points out the result from optimum lag derunination which shows optimal criteria for ARDL model is 1,1,2,3,1.

Hypothesis Test

After obtaining the best lag used in this study, the process is continued to Hypothesis test. The Table 4 shows the result of ECM ARDL processed with Eviews 9.0;
### Table 4. ECM ARDL Regression

<table>
<thead>
<tr>
<th>Variable</th>
<th>Coefficient</th>
<th>Probability</th>
<th>Decision</th>
</tr>
</thead>
<tbody>
<tr>
<td>D(LM2)</td>
<td>0.888720</td>
<td>0.0175</td>
<td>H1 is accepted</td>
</tr>
<tr>
<td>D(LGDP)</td>
<td>-7.958761</td>
<td>0.0003</td>
<td>H2 is accepted</td>
</tr>
<tr>
<td>D(IR)</td>
<td>-0.017828</td>
<td>0.1178</td>
<td>H3 is rejected</td>
</tr>
<tr>
<td>D(INF)</td>
<td>0.020502</td>
<td>0.0005</td>
<td>H4 is accepted</td>
</tr>
<tr>
<td>CointEq(-1)</td>
<td>-0.171059</td>
<td>0.0466</td>
<td></td>
</tr>
</tbody>
</table>

*Source: Eviews 9.0 (processed)*

LM2 variable shows a short-run positive coefficient of 0.888720 and the significance value of 0.0175, in which the significance value is smaller than alpha 5%. This means that Hypothesis 1 which states the overshooting occurs toward the Rupiah is accepted. LGDP variable shows a short-run negative coefficient of 7.958761 and the significance value of 0.0003, in which the significance value is lower than alpha 5%. This means that hypothesis 2 which states that the short-run, GDP negatively affects the Rupiah’s exchange rate is accepted. IR variable has a negative coefficient of 0.0178 and a significance value of 0.1178, in which the significance value is greater than alpha 5%. This means that Hypothesis 3 which states that interest rate negatively affects the Rupiah’s exchange rate is rejected. The INF variable shows a positive coefficient of 0.021 and a significance value of 0.0005, in which the significance value is smaller than alpha 5%. This means that hypothesis 4 which states that Inflation positively affects the Rupiah's exchange rate is accepted. CointEq value shows a negative coefficient of 0.171 and a significance value of 0.0466 in which the significance value is lower than 5%. It means that the ECM regression results are valid and can be used.

### Overshooting Rupiah

The finding shows that monetary injection either through the forex market or securities in the short run will only depreciate the Rupiah value away from the its long-run value. Bank Indonesia's efforts to maintain the stability of the rupiah through monetary operations in this research period is ineffective. Therefore, in a controlled floating regime system, Bank Indonesia will only intervene through a systematic range of bands to keep Rupiah volatility from being too high or too low.

In this research period, Bank Indonesia used a range of upper and lower bands that were tenuous in its interventions on the money market because the range of tenuous bands allowed the rupiah to fluctuate depending on real sector conditions, and if the rupiah had exceeded the specified band's range, Bank Indonesia would intervene.

The role of real sector highly affects fluctuations in the value of the rupiah. The trade balance deficit will make the rupiah weaker, therefore, a strict coordination is needed from related parties, especially the ministries of finance, trade and Bank Indonesia to improve the condition of the trade balance deficit. Intervention policies which are accommodative toward economic growth must continue to be carried out by Indonesian banks. The Ministry of Trade seems to have to consider the condition of overshooting the rupiah as a gap to encourage exports to tighten the trade balance deficits. This finding is in line with the research done by Pratikto (2012).

### The effect of GDP toward Rupiah’s Exchange Rate

Test result shows that in short run, the growth of GDP will strenghthen the Rupiah’s value. This proves that the improvement on the real sector will boost the Rupiah’s value toward USD. Economic growth which is supported by still-resilient purchasing power and increasing levels of public...
consumption must be maintained by the government and Bank Indonesia in the midst of increasingly uncertain global economic conditions. These findings are in line with the research done by Afif (2017).

The effect of Inflation toward Rupiah’s Exchange Rate

The finding shows that inflation affects positively toward Rupiah’s exchange rate in the short run, where an increase in inflation will depreciate the Rupiah’s value further away from the balanced value. The role of the TPID (Regional Inflation Control Team) seems to be effective, since it was formed in 2008, the TPID has been tasked with controlling regional inflation through market operations to maintain the stability of the prices of goods and services in the community.

Therefore, synergy between the government and Bank Indonesia is needed to stabilize the price, that is shown by the stable and subdued inflation. A low inflation will maintain purchasing power of society which will ultimately drive economic growth. Also, this finding is in line with result obtained by Wati (2014).

The Effect of Interest Rate toward Rupiah Exchange Rate

Test result shows that in short run, the interest does not negatively affect the rupiah’s exchange rate. The central bank’s intervention through the sale and purchase of securities is not able to affect the Rupiah’s exchange rate in this period. Bank Indonesia intervention through interest rates is solely carried out to maintain domestic purchasing power and maintain cash flows which enter and exit from Indonesia. Although no effect exists to the exchange rate, the interest rate instrument is expected to provide a picture of the central bank's policy stance in monetary operations for the real sector. High interest rates will slow the performance of the real sector, which is influenced by rising investment costs due to high interest rates. Therefore, competitive interest rates are expected to excite the real sector, which in turn will strengthen the position of Rupiah against USD. This finding is in line with the result obtained by Wati (2014)

5. Conclusion

From the results and discussion of the research, it can be drawn some conclusions as follow; Rupiah was experiencing overshooting. GDP negatively affects the Rupiah’s exchange rate. Inflation positively affects the Rupiah’s exchange rate. Interest rates does not effect on the Rupiah exchange rate. Rupiah which was overshooting will make monetary policy is ineffective, therefore it is necessary to synergize the policy mix of the government and the central bank to encourage the performance of the real sector especially exports in order to keep Rupiah stable. A positive effect of GDP to the Rupiah shows that the role of the government in maintaining political and economic stability needs to be carried out, bearing in mind that global trends indicate that Indonesia's trading partner countries are entering a phase of economic recession.

The finding shows that the low inflation rate needs to be maintained continuously by Bank Indonesia and TPID in order to maintain people's purchasing power. Even though interest rate doesn’t affect toward Rupiah exchange rate, interest rate instruments can be used as a benchmark for banks to benchmark lending rates and stance over the central bank's monetary policy, in which loan interest rates will affect people's interest and investment interest. Therefore, Bank Indonesia is expected to continue to provide competitive interest rates to maintain the level of public consumption and maintain the volatility of capital inflows into and out from Indonesia.
References

Hypothesis in Bangladesh: A Cointegration and Causality Analysis. World Journal of Social
Sciences, 8(3), 69–83. Retrieved from https://zantworldpress.com/wp-
content/uploads/2018/10/6.-Maayesha.pdf
Anindhita, A. Y. (2017). Exchange Rate and International Trade: Case From Indonesian
Manufacturing Sector. Signifikan: Jurnal Ilmu Ekonomi, 6(2), 247–266.
https://doi.org/10.15408/sjie.v6i2.5210
Bank Indonesia. (2018). The BI Board of Governors Agreed on 28-29th June 2018 to Raise the BI 7-
day Reverse Repo.
Rajawali Pers.
https://doi.org/10.25159/1998-8125/6060
84(6), 1161–1176.
Economic Activity, 1980(1), 143–205.

Volume 2, Issue 4 available at http://e-journal.stie-kusumanegara.ac.id


Profitability, Liquidity, Firm Size, Asset Structure and Capital Structure in Food and Beverage Companies Listed in Indonesia Stock Exchange

Fifita Trajuning Arjansi*, Siti Nurlaela, Riana Rachmawati Dewi

Universitas Islam Batik Surakarta
*e-mail: fifita.arjansi@gmail.com

Abstract

This study aims to examine and analyze the effect of profitability, liquidity, firm size and asset structure on capital structure. The population in this study were all Food and Beverage companies listed on the Indonesia Stock Exchange. This type of research is quantitative research. The sampling method used was purposive sampling method, so that there were 13 food and beverage companies listed on the Indonesia Stock Exchange in 2013–2018. The data used in this research is secondary data. The results of this study using multiple linear regression analysis techniques. Based on the results of the t test research shows that the variable profitability and asset structure affect the capital structure. Meanwhile, the variables of liquidity and firm size have no effect on the capital structure. This study has the benefit of knowing the influence of profitability, liquidity, firm size and asset structure on capital structure so that it can be used as one of the factors the company is worthy of or not suitable as a place to invest.

Keywords: Profitability, Liquidity, Size, Assets, Capital Structure.

1. Introduction

The current economic condition in Indonesia is developing very rapidly, resulting in increasingly fierce business competition. Companies compete to get the maximum possible profit with the least possible cost, so that companies are required to maximize their financial performance and increase company value in order to compete with other competitors. Capital structure is a description of the company's financial proportion, namely the capital owned by long-term debt and equity as a source of financing for a company. The need for funds to strengthen the capital structure in a company comes from the provision that the sources of funds needed come from places that are considered safe and if used have a driving value in strengthening the company's financial capital structure (Fahmi, 2014).

Many factors can give rise to a capital structure including profitability, namely the company's ability to earn a profit. Profitability is used to measure the effectiveness of management as a whole which is indicated by the size of the level of profits obtained in relation to sales and investment. The higher the profitability ratio, the better it will describe the company's high profitability. Research conducted by Sigh (2016) and Batubara, et al (2017) found that profitability has an effect on capital structure. In contrast to the research of Akgul and Sigali (2018), it states that profitability has no effect on capital structure.

© Authors. Terms and conditions of this work is licensed under a Creative Commons Attribution-NonCommercial-NoDerivatives 4.0 International License apply. Correspondence: Fifita Trajuning Arjansi, Universitas Islam Batik Surakarta. Email: fifita.arjansi@gmail.com
Liquidity is the ratio used to measure a company's ability to pay short-term obligations. Liquidity affects the level of trust in a company. The higher the liquidity of the company, the more debt the company can use so that the company's funding sources increase. But managers must be able to plan and control current assets and current liabilities in order to minimize the risk of the company's inability to meet its debts. Research conducted in Turkey by Cevheroglu-Acar (2018) and in Malaysia Goh, et al (2018) stated that liquidity affects the capital structure. In contrast to research conducted in the country of Bangladesh by Mahmud & Mallik (2016), they found that liquidity had no effect on capital structure.

Firm size is the size or size of assets owned by a company. The size of the company is very important in the capital structure because the size of the company determines how much capital is invested in the company. This is because the bigger the company, the greater the investment and other external sources of funds. A research in Nigeria by Sanyaolu, et al (2018) using 186 samples of companies listed on the Nigerian Stock Exchange for the period 2007-2016 found that firm size has an effect on capital structure. In contrast to research in the country of Tanzania by Chalu, et al (2019) and in Indonesia by Aryanti, et al (2020), firm size has no effect on capital structure.

Asset structure is one of the important factors in capital structure, if the company is faced with financial difficulties in paying its debts, the company's fixed assets can act as collateral in providing guarantees to outsiders who provide loans (Sartono, 2010). Research conducted in Vietnam by Kasim and Aydin (2018), using a sample of 15 airline companies for the period 2004-2015 stated that asset structure has an effect on capital structure. In contrast to research in Vietnam by Nhung, et al (2017) and Indonesia, Wahdati & Santos (2017) states that asset structure has no effect on capital structure.

This study uses a food and beverage sector company which is one of the many types of companies listed in the Indonesian Stock Exchange (BEI). The food and beverage company itself sells general or basic human needs to support human life itself, food and beverage is one of the important industries in Indonesia or even the world. The consumptive nature of humans strengthens the reasons for companies that provide daily human needs to continue to innovate and provide products with good quality and have competitive selling prices with other food and beverage companies. The formulation of the problems in this study are: (1). Does profitability affect the capital structure? (2). Does liquidity affect the capital structure? The purpose of this study is to examine and analyze profitability, liquidity, firm size and asset structure on the capital structure of Food and Beverage companies listed on the Indonesia Stock Exchange.

2. Literature Review

Signaling Theory

This theory explains that an action that a company takes to provide guidance to investors about how management views the company's prospects. This signal is in the form of information about what management is doing to realize the owner's wishes. Signal theory shows how good quality companies can deliberately give signals to investors, so that investors are able to distinguish between good quality and bad quality companies (Hartono, 2005).

Pecking Order Theory

Pecking order theory is a theory that views that managers can actually change the value of the company through their funding decisions. This theory states that there is no capital structure obtained from balancing debt and equity. Profitable companies generally borrow in small amounts. This is because the company is able to generate sufficient internal cash for its investment decisions, so there is no need to use debt anymore.
Capital Structure

Capital structure is a financial measure between long-term debt and equity, in carrying out company activities. Capital structure can be an important problem for a company, because good or bad capital structure will directly affect the company's financial position. According to Maulana, et al (2019), Capital Structure is a combination or balance between debt and own capital that companies use to obtain capital, this definition implies that companies must make the most optimal capital decisions so that debt and equity are truly a combination that can generate profits or returns for the company that ultimately maximizes firm value.

Profitability

Profitability is a measure of the rate of return on investment that a company has made by using all its assets. According to Dewi, et al (2019) the greater the profitability, the better, because it shows the ability to generate profits from assets owned by the company.

Liquidity

Liquidity is how much the company's ability to meet its short-term obligations. One of the measures of liquidity is the debt ratio. This ratio shows the company's ability to pay its short-term obligations using current assets (Himmy, 2019).

Firm Size

According to Hery (2017), firm size describes the size of a company which can be expressed by total assets or total net sales. The greater the total assets and sales, the greater the size of a company. The bigger the asset, the greater the capital invested, meanwhile the more sales, the more money turnover in the company.

Asset Structure

According to Najmudin (2011), asset structure or asset structure, namely companies whose assets can be used as collateral for debt have a greater tendency to use debt capital. Asset structure can be used to determine how much long-term debt that can be taken, and this will affect the determination of the capital structure. Capital structure theory reveals a positive correlation between levels of debt and asset structure. Companies that have multiple asset structures have adequate collateral for their loans.

Previous Research

Research conducted in Vietnam by Nhung, Lien & Hang (2017) examines the analysis of the determinants of capital structure for Vietnamese companies listed in real estate using a sample of 34 real estate companies listed on the Ho Chi Minh Vietnam Stock Exchange in the 2010-2015. This study shows that profitability has no effect on capital structure, liquidity has no effect on capital structure, asset structure has no effect on capital structure, and firm size has no effect on capital structure.
Hypothesis Formulation

Companies with high returns on investment use relatively small debt. So based on the pecking order theory, profitability will affect the level of corporate debt, where the higher the profitability, the less debt use will be so that the capital structure will decline (Brigham & Houston, 2006). Mahmud & Mallik (2016) in their research stated that profitability has an effect on capital structure.
H1: Profitability affects the capital structure.

A company that has the ability to pay its short-term obligations at maturity, the company is said to be a liquid company. Conversely, if the company does not have the ability to pay off short-term obligations at maturity, the company is said to be an illiquid company (Hery, 2015). Singh's research results (2016) state that liquidity has an effect on capital structure.
H2: Liquidity affects the capital structure.

Larger companies tend to have a more diversified source of capital so that they are less likely to go bankrupt and are better able to pay off their obligations, so that large companies tend to have larger debt than small companies (Irdiana, 2016). Research conducted by Kirachi and Aydin (2018) states that firm size has an effect on capital structure.
H3: Firm size has an effect on capital structure.

According to Brigham and Houston (2006), companies whose assets are suitable as collateral for loans tend to use more debt. This is because fixed assets can be used as collateral if the company experiences financial difficulties so that the company will seek outside loans. Research conducted by Nhung, et al (2017) suggests that asset structure affects capital structure.
H4: Asset structure affects the capital structure.

3. Methodology

This type of research is quantitative research. The independent variables in this study are Profitability, Liquidity, Firm size and Asset Structure. While the dependent variable in this study is the capital structure. The data used in this research is secondary data. The population in this study
were food and beverage companies listed on the Indonesia Stock Exchange for the period 2013-2018. Sampling was carried out by using purposive sampling method. The data analysis technique used the classical assumption test (normality, autocorrelation, multicollinearity and heteroscedasticity); multiple linear regression test (regression test, model accuracy test, t test and determination coefficient test).

4. Result and Discussion

The sample selection used is the food and beverage company listed on the Indonesia Stock Exchange for the period 2013-2018, totaling 27 companies. There are 8 companies that do not have complete data. Meanwhile, the companies that experienced losses during the 2012-2018 period were 6 companies and 13 companies were the samples. The study conducted observations for 6 consecutive years and this study contained 31 outlier data, so the number of data observed in this study was 47.

Normality Test

<table>
<thead>
<tr>
<th>Table 1. Normality Test Results</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
</tr>
<tr>
<td>Asymp.Sig. (2-tailed)</td>
</tr>
</tbody>
</table>

Based on the results of the normality test using the Kolmogorov-Smirnov test, table 4.4 above shows that the Asymp data. Sig. (2-tailed) 0.070 meets the standard value of more than 0.5, then the data in the regression model meets the normality assumption.

Multicollinearity Test

A good regression model should not have multicollinearity to the data being tested. The multicollinearity test results are as follows:

<table>
<thead>
<tr>
<th>Table 2. Multicollinearity Test Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>Variabel</td>
</tr>
<tr>
<td>Profitability</td>
</tr>
<tr>
<td>Liquidity</td>
</tr>
<tr>
<td>Firm size</td>
</tr>
<tr>
<td>Asset Structure</td>
</tr>
</tbody>
</table>

Autocorrelation Test

A good regression model should not have autocorrelation. The results of the autocorrelation test using Durbing Watson (DW) are as follows:

<table>
<thead>
<tr>
<th>Table 3. Autocorrelation Test Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>DU&lt;</td>
</tr>
<tr>
<td>DW</td>
</tr>
<tr>
<td>&lt; 4-DU</td>
</tr>
<tr>
<td>Conclusion</td>
</tr>
<tr>
<td>1,7203</td>
</tr>
</tbody>
</table>

The results of the table above can be seen that the DW is 2.067. For dU and dL values, it can be seen from the DW table at a significance of 0.05 with n (amount of data) = 47 and k (number of independent variables) = 4, the dL value is 1.3535 and dU is 1.7203. DW values are in the dU <DW
<4-dU area, so it can be concluded that the regression model is free from autocorrelation problems and is feasible to use.

**Heteroscedasticity Test**

The heteroscedaticity test of this study uses the Spearmans' rho method, which is to tolerate independent variables with their residuals. Based on the results of table 7, it shows that the significance is > 0.05, it can be said that there is no heteroscedasticity problem.

<table>
<thead>
<tr>
<th>Variable</th>
<th>Sig.</th>
<th>Standard</th>
<th>Conclusion</th>
</tr>
</thead>
<tbody>
<tr>
<td>Profitability</td>
<td>0.349</td>
<td>&gt;0.05</td>
<td>There is no heteroscedasticity</td>
</tr>
<tr>
<td>Liquidity</td>
<td>0.583</td>
<td>&gt;0.05</td>
<td>There is no heteroscedasticity</td>
</tr>
<tr>
<td>Firm size</td>
<td>0.407</td>
<td>&gt;0.05</td>
<td>There is no heteroscedasticity</td>
</tr>
<tr>
<td>Asset Structure</td>
<td>0.704</td>
<td>&gt;0.05</td>
<td>There is no heteroscedasticity</td>
</tr>
</tbody>
</table>

**Multiple Linear Regression Analysis**

<table>
<thead>
<tr>
<th>Variable</th>
<th>Unstandardized Coefficients</th>
</tr>
</thead>
<tbody>
<tr>
<td>Constant</td>
<td>0.853</td>
</tr>
<tr>
<td>Profitability</td>
<td>-0.829</td>
</tr>
<tr>
<td>Liquidity</td>
<td>-0.059</td>
</tr>
<tr>
<td>Firm size</td>
<td>0.009</td>
</tr>
<tr>
<td>Asset Structure</td>
<td>-1.046</td>
</tr>
</tbody>
</table>

Based on table 4 above, the models that can be formed are as follows:

\[
Y = 0.853 - 0.829X1 - 1.059X2 + 0.009X3 - 1.1046X4
\]

From the model above, it is known that the value of constant (\(\alpha\)) is 0.853, which means that if all independent variables have a value of 0, then the Capital Structure is 0.853. fixed, it will be followed by a decrease in the capital structure of -0.829. The regression coefficient for the liquidity variable is negative at -0.059, which means that if the liquidity variable increases by 1% with the assumption that the other independent variables are constant, a decrease in capital structure will be followed by -0.059. The regression coefficient for the firm size variable is positive at 0.009, meaning that if the variable firm size increases by 1% with the assumption that the other independent variables are constant, an increase in capital structure will be followed by 0.009. The regression coefficient for the asset structure variable is negative at -1.049, which means that if the asset structure variable increases by 1% with the assumption that the other independent variables are constant, a decrease in the capital structure will be followed by -1.049.
Model Feasibility Test (F Test)

Table 6. Model Feasibility Test Results

<table>
<thead>
<tr>
<th>Fvalue</th>
<th>Ftable</th>
<th>Sig</th>
<th>Standard</th>
<th>Conclusion</th>
</tr>
</thead>
<tbody>
<tr>
<td>15,547</td>
<td>2,600</td>
<td>0,000</td>
<td>&lt;0,05</td>
<td>Decent Model</td>
</tr>
</tbody>
</table>

Based on the results of the feasibility of the model (F test) in table 4.9 above, it can be seen at a significance level of 0.05 with df 1 (number of variables-1) = 5-1 = 4, and df 2 (nk-1) = (47-5- 1) = 41 where n is the amount of data in the study and k is the number of independent variables, the result is 2,600. So that F count> F table (15.547> 2,600) and significance <0.05 (0.00 <0.05), it can be concluded that the regression model is feasible to use.

Hypothesis Test (T Test)

In testing the hypothesis of this research using the t test. Based on table 10, if the value of t count> t table and sig <0.05 then the variable partially affects the independent variable.

Table 7. Hypothesis Test Results (t test)

<table>
<thead>
<tr>
<th>Variable</th>
<th>tvalue</th>
<th>Ttable</th>
<th>Sig</th>
<th>Std</th>
<th>Conclusion</th>
</tr>
</thead>
<tbody>
<tr>
<td>Profitability</td>
<td>-4,918</td>
<td>-2,020</td>
<td>0,000</td>
<td>&lt;0,05</td>
<td>H₁ accepted</td>
</tr>
<tr>
<td>Liquidity</td>
<td>-0,767</td>
<td>-2,020</td>
<td>0,447</td>
<td>&lt;0,05</td>
<td>H₂ is rejected</td>
</tr>
<tr>
<td>Firm size</td>
<td>0,643</td>
<td>2,020</td>
<td>0,524</td>
<td>&lt;0,05</td>
<td>H₃ is rejected</td>
</tr>
<tr>
<td>Asset Structure</td>
<td>-5,626</td>
<td>-2,020</td>
<td>0,000</td>
<td>&lt;0,05</td>
<td>H₄ accepted</td>
</tr>
</tbody>
</table>

Determination Coefficient Test (R2)

Table 8. Result of Determination Coefficient Test (R2)

<table>
<thead>
<tr>
<th>Adjushted R Square</th>
<th>Conclusion</th>
</tr>
</thead>
<tbody>
<tr>
<td>0,558</td>
<td>The variables of profitability, liquidity, asset structure and firm size simultaneously affect the capital structure by 55.8%.</td>
</tr>
</tbody>
</table>

Based on the test results of the coefficient of determination (R2) in table 4.11, it shows that the Adjusted R Square value is 0.558. This means that 55.8% of the dependent variable in this study can be explained by the independent variables, namely profitability, liquidity, firm size, and asset structure. While the remaining 44.2%, the dependent variable of capital structure is influenced by other variables which are not included in this study.

Effect of Profitability on Capital Structure

Based on the results of hypothesis testing, it shows that the profitability variable affects the capital structure, so H₁ is accepted. The higher the profitability in a company, the easier it will be to get long-term debt, because internal funds are abundant, they are able to pay interest and debt better and the capital structure increases. In generating the profit desired by the company, it must also be supported by the financial capability of the company to finance the company's operational activities, so that it can be concluded that if the profitability of a large company will be followed by a larger company capital structure. The results of this study are in accordance with previous research conducted by Singh (2016) and Ruslan, et al (2019) which states that profitability has an effect on capital structure. However, this research is not in accordance with the research conducted by Akgul.
& Sigali (2018) and Andika & Sendana (2019) which show that profitability has no effect on capital structure.

**Effect of Liquidity on Capital Structure**

Based on the results of hypothesis testing, it can be concluded that the liquidity variable has no effect on the capital structure, so H2 is rejected. This shows that the higher the liquidity of the food and beverage company, the lower the capital structure. This is because the current assets obtained by the company are also high, thus the company prefers to use internal funds, whereas if the company's liquidity is low, the company tends to use external funds (debt). In addition, liquidity only measures the company's ability to pay its current obligations, while the capital structure is more determined on long-term debt. The results of this study are in line with the research conducted by Goh, et al (2018) and Liang & Natsir (2019) which states that liquidity affects the capital structure. While the results of this study are not in line with research conducted by (Mahmud & Mallik, 2016) and (Ramadhani & Fitra, 2019) which explains that liquidity has no effect on capital structure.

**The Effect of Firm size on Capital Structure**

Based on the results of hypothesis testing, it can be concluded that the firm size variable has no effect on the capital structure, so H3 is rejected. This happens because the size of the company does not affect the funding of the capital structure, because in the use of sources of funds that come from own capital or debt, of course, there are different capital costs with different levels of risk. Each company certainly prefers to use internal funding according to the pecking order theory. The results of this study are in accordance with previous research conducted by Nhung, et al (2017) and Aryanti, et al (2020) which states that firm size has an effect on capital structure. This study is not in accordance with the research conducted by Chalu, et al (2019) and Malau, et al (2019) which explained that firm size has no effect on capital structure.

**Effect of Asset Structure on Capital Structure**

Based on the results of hypothesis testing, it shows that the asset structure variable has an effect on the capital structure, so H4 is accepted. This means that the higher the asset structure of the company, then the level of debt (leverage) of the company will tend to increase, as a result, the value of the capital structure will increase. This is because a company that has a good asset structure will find it easier to get the trust of investors and then get a long-term loan, because the amount of assets can be used as collateral. The results of this study are in line with previous research conducted by Kiraci & Aydin (2018) and Maulana, et al (2019) which explains that asset structure affects capital structure. However, it is different from research conducted by Wahdati & Santoso (2017) and Ariawan (2018) which state that asset structure affects capital structure.

5. **Conclusion**

The purpose of this study is to: (1) examine and analyze the effect of profitability on capital structure. (2) to test and analyze the effect of liquidity on capital structure. (3) to examine and analyze the effect of firm size on capital structure. (4) to examine and analyze the effect of asset structure on capital structure. The population in this study were food and beverage companies listed on the Indonesia Stock Exchange (BEI) in 2013-2018 with a sample of 13 companies using purposive sampling method. Using multiple regression analysis data analysis techniques with the results of the study indicate that: profitability and asset structure affect the capital structure. Meanwhile, liquidity
and firm size have no effect on capital structure. In this study, there are several limitations in the form of: (1) This study only uses a sample of food and beverage companies so that the results of this study cannot be generalized to other studies. (2) The independent variable component used in this study was only able to have an influence on the capital structure of 55.8%. While the remaining 44.2% is influenced by other variables not included in the study. It is hoped that further research can: (1) The population in the study can be expanded not only to food and beverage companies, but also to other companies listed on the Indonesia Stock Exchange (IDX) such as property and real estate, banking, automotive and components., mining and so on. (2) For further researchers, it is expected that they can add other variables such as company growth, business risk, and so on.

References


Volume 2, Issue 4 available at http://e-journal.stie-kusumanegara.ac.id


Sempurna Bangun

Universitas Tama Jagakarsa

e-mail: sempurnabangun67@gmail.com

Abstract

The construction service community implements and emphasizes Work Safety for the good of workers and it is actually not as difficult as imagined, Things that are considered difficult can become not difficult if your work area complies with good and precise safety rules, besides leading with full discipline and by cultivating strong trust among the work team. Efforts to reduce the number of work accidents as small as possible are used in the prevention and handling of work accidents, namely the Behavior Based Safety (BBS) safety program and the Patrol program implemented by the General of Affair and Environmental Health System Operational (GA & EHS). so that it was successful, the aim of this study was to analyze the effectiveness of the BBS program in changing the attitudes of employees related to the use of personal protective equipment in the workplace. The results show that most workers do not understand personal protective equipment and do not care about the punishment agreed upon by the company. Thus, the solution of this study is expected to solve problems and strengthen positive behavior and work safety in the workplace. Occupational Health and Safety Management System (SMK3) is a security protection system for work stress and safety, safety and security loss and safety humans and the surrounding environment which in turn can improve effective and efficient performance. Education on the implementation of SMK3 in Indonesia is regulated in the Minister of Manpower No.01 / MEN / 1980 (K3 building construction), Permenaker No.5 / 1996 (SMK3), Inst. Menaker No.01 / 1992 (K3 Organizational Unit Inspection), Decree of the Director General of PPK No. 20DJPPK / VI / 2004 (K3 Expert).

Keywords: obedience behavior, APD, BBS program.

1. Introduction

Safety and health in a healthy work environment is an asset of high value for individuals in a country and a country that requires a higher quality of life. This can be influenced by the health of a job (Ogden, 1996).

The use of PPE in the work environment is calculated with the potential hazards of accidents that can be experienced. The types of APD have an effect on a work accident. There are several incidents that state that industrial workers who have APD have experienced a work accident of 2.20 times compared to those who do not use APD (Riyadina, 2007).

It is hoped that the regulations that have been approved by the company can be obeyed by workers to minimize the risk of work accidents. Workers who are stubborn and don't want to use PPE can experience accidents at work or work-related diseases such as chaos, damage, complaints, disabilities and death (Arifin, et al. 2013).

© Authors. Terms and conditions of this work is licensed under a Creative Commons Attribution-NonCommercial-NoDerivatives 4.0 International License apply. Correspondence: Sempurna Bangun, Universitas Tama Jagakarsa. Email: sempurnabangun67@gmail.com
Suizer Theory (1999) states that work accidents can be overcome by paying attention to workers' attitudes. This is also confirmed by Cooper (2009). According to Cooper (2001) states that 80-95% of all work accidents are caused by unsafe behavior so that it is difficult to control properly.

According to the opinion of Cooper (2009) in relation to the results of a National Safety Council study in 2011, it was stated that 88% of work accidents were caused by unsafe behavior. Then, 10% of work accidents are caused by unsafe conditions and 2% have no known cause. In addition, DuPont Company (2005) argues that most workers' accidents occur due to unsafe behavior, which is 96%. In addition, 4% of accidents among workers are caused by unsafe conditions.

Reported by the International Labor Organization (ILO) news source in 2013, 1,200,000 fatalities were caused by accidents and illnesses while working. Data on work accidents at BPJS for employment to health promotion, namely efforts to be independent, empower, and enable people to reach a good level of health, for themselves and for environmental health (Ottawa Charter, 1986). The process of community empowerment does not only provide information such as extension services, communication and education, but also involves various matters and support in the community.

According to Lawrence Green (1984), health promotion is an amalgamation of the health sector and the involvement of health in the political, economic and organizational spheres. This aims to create a comfortable and healthy environment. Law number 1 of 1970 regarding work safety, states that the work location is all spaces and work angles can cause potential work hazards. This can be found in article 2 which states that all locations in the workplace are said to be workplaces. To increase worker productivity these efforts are made. However, in practice, one of the behavioral factors becomes a problem of compliance with the policies of the institution or workplace. The existence of health promotion in the workplace can be useful for making workers comply with policies that have been made by agencies. According to WHO in Notoatmodjo (2005), promkes in the workplace is a design related to policies in the workplace to make it easier for employees and companies to improve and improve health. by involving management, work participation and other stakeholders.

Behavior based safety is a function software in work. Focus on unsafe attitudes towards workers, pay attention to workers' attitudes, then carry out programs obtained from the results of research to be able to improve attitudes at work to become more disciplined and better understand their work. Workplaces that carry out the BBS program must look at the attitudes of the workers first. This aims to make the program fit the existing problems. In implementing this program, it requires various requirements such as having to have clear targets in order to change worker behavior. It is hoped that this can improve the behavior of workers who do not meet the criteria and are compatible with the results of everything in the field and so that they can match the existing problems so that the program can run effectively.

2. Literature Review

Strategic Studies

An accident is an event that may be unexpected or expected. It can be assumed that it was unexpected because behind the incident there was no sense of doing this on purpose and did not hope that the accident would occur because it could cause material loss or suffering from the mildest to the most severe (Suma’mur, 1995). A work accident is an unexpected event or a sudden accident that results in bodily injury and property damage. According to Sulaksmono in Santoso (2004) that a work accident is an event that was unthinkable or unexpected from the beginning that disrupts the process.
The occupational safety and health system are one of the labor norms whose application aims to prevent the possibility of occupational diseases and accidents on the project. Occupational safety and health are a problem that is closely related to various aspects, including economic, legal and social (Syahril Effendy Pasaribu, 2005). The implementation of construction work must meet the standard provisions concerning engineering, occupational safety and health, security, protection of staff and also the arrangement of the surrounding environment in order to guarantee the realization of orderly implementation of construction work. Awareness of the law in the implementation of construction work really needs to be improved, including the compliance of parties in carrying out their obligations and compliance with regulations related to several aspects such as aspects of security, safety and health and the environment (Law No.18 of 1999 on Construction Services).

Occupational Health and Safety (K3)

The aspects faced and expected to result in the risk of construction work accidents in the project environment are as follows, actors from non-technical workers, foremen, artisan staff, managers and managers who are directly involved in construction work. During storage, transfer and use of construction materials. Work both heavy equipment and light construction equipment which are closely related to one another. Construction methods and equipment that will be used. Planning and implementation of construction. The possible causes of accidents in construction work seen from the observation of work accidents above are as follows, including, the workers lack discipline. Lack of socialization in the internal work environment of the need for personal protective equipment to avoid negligence by job leaders. Lack of compliance with SOP / standard operational procedures for the use of construction work support tools. K3 management is not consistently applied nor is the system. Not maximal in the application of K3 experts in the construction sector / K3 experts in construction implementation or less involved. Matters relating to Occupational Safety and Health (K3) have not been complied with.

In principle, every worker must be responsible for the safety and health (K3) of each individual. Is responsible for his own safety and health. Every worker is obliged to contribute in every occupational safety and health activity. The implementation of the K3 management system can guarantee the safety and health of workers and other people in the workplace (Eugenia Liliawati Muljono, 1997). To support occupational safety and health systems in companies, the government has made laws and regulations related to occupational safety and health, including: Law No. 1 of 1970 concerning safety at work. Regulation of the Minister of Manpower of the Republic of Indonesia PER07 / MEN / 1964 concerning occupational health. Regulation of the Minister of Manpower of the Republic of Indonesia No. PER04 / MEN / 1995 regarding occupational safety and health services. Instruction of the Minister of Manpower of the Republic of Indonesia No. INST05 / M / RW / 96 dated 28-10-1996 concerning the supervision and guidance of work safety in construction activities. Regulation of the Minister of Manpower No. 04 / MEN / 1987 concerning the procedures for establishing P2K3 and appointing K3 experts. Regulation of the Minister of Manpower No. PER05 / MEN / 1996 concerning the occupational safety and health management system. Regulation of the Minister of Manpower No. Kep19 / M / BW / 97 dated 26-2-1997 concerning the implementation of an audit of the occupational safety and health management system. Instruction of the Director General of Labor Relations and Labor Protection No. INS.8 / PP / 1980 dated 16-4-1981 regarding the guidelines for implementing company regulations, which also stipulate that death benefits due to
work accidents, work accident benefits, work safety and work protection must be included in company regulations. (Syahril Effendi Pasaribu, 2005).

**Occupational Safety and Health Management of Construction Projects**

The main objective of risk management is actually to reduce risk, which, among others, is done by revising costs, project schedules, funds and quality, so that uncertainties can be reduced without causing a significant impact on project objectives. Accident prevention and its relation to occupational safety and health issues must lead to and be based on the concept of cause and effect of accidents, namely controlling the causes and reducing the effects of accidents. Based on the principle of accident prevention. So, the basic function of occupational safety and health management is to play an important role in accident control efforts in accordance with a predetermined program. Accidents due to work can be prevented by, the provisions and regulations oblige the conditions of work, design, maintenance and testing and operation of industrial equipment, duties of employers and laborers, training, medical supervision and medical examinations. Official stipulation standard, regarding construction that meets general safety requirements. Supervision of compliance with the provisions and laws that require the use of PPE. Technical research, consisting of the properties and characteristics of items that need attention because of danger, testing of personal protective equipment, research on the prevention of dust and dust, or research on the most appropriate materials and designs for lifting belts and other lifting equipment. Medical research, including research on the physiological and pathological effects of environmental and technological factors as well as physical conditions that can lead to accidents. Analyze the things that cause accidents, namely regarding psychological research. Education related to safety education in technical curricula, trade schools or carpentry courses. Training and practice for workers, especially new workers to understand the dangers of work. Excitement is the use of various extension methods or other approaches to create a safe impact. Insurance is a financial incentive to improve accident prevention, for example in the form of reducing the premium paid by the company for safety measures.

**Planning to Prevent Work Accidents**

Work accidents can be avoided by paying attention to factors, including the following, Environmental Aspects. A work environment that fulfills the criteria for preventing work accidents, namely, safety requirements, general hygiene, sanitation, air ventilation, lighting and lighting, adjusting the temperature in the workspace, conditions of buildings and workplaces that ensure safety, arrangement of storage of goods, arrangement and installation of machines, use of space and space.

Aspects of machinery and work equipment, machinery and work equipment must be in a good plan with due observance of applicable provisions and according to the position of machines or tools and tools in worker safety. Aspects of work equipment, personal protective equipment, for example, such as work clothes, goggles, gloves, which must be of the right size to create a comfortable use. Human Aspects, preventing accidents, enforcing work discipline, avoiding actions that have the potential to lead to accidents and eliminating physical and mental mismatches in working conditions, taking into account workers' potential limits and skills, eliminating several things that reduce work concentration. Work accidents can also be reduced, avoided or avoided by applying a program known as tri-E or Triple E, namely Engineering, is the first action is to equip all tools and machines with safety guards, for example, buttons to stop the work of tools / machines (cut of switches) and other tools, so that they can be protected by technical means. Education means that it is necessary to provide training to workers who educate employees about the steps in working that are suitable, such as safe
conditions as much as possible. Enforcement (Application), means the act of implementation, which provides assurance that accident control provisions are worked out.

Prevention

Preventing accidents is both a science and an art, because it involves personal attitudes, technical elements, and also the environment. Effort is the main thing in any workplace that can reduce losses to workers and industry. The events / triggers for work accidents in question are a domino aspect, one of which is, weakness in management oversight or lack of control management. This supervision can be concluded as a function of leadership or executive coordination as well as management supervision and management activeness to ensure the success of the K3 scheme. An executor or leader not only understands operational tasks, but must be able to understand accident prevention programs, understand work standards and achieve a standard, fostering, controlling, and evaluating their subordinates.

Basic Cause, the basis for allowing accidents in the world of work can take place, management policies and regulations. The human aspect; lack of knowledge, skills or experience, lack of motivation, physical and mental problems. Factors that include environment / work such as; lack of working standards, lack of maintenance, and use of tools or materials that are too excessive. Because what is called a symptom or symptom. This matter is closely related to the existence of safe actions and unsafe conditions.

This communication can use several communication media and information, for example, such as telephones, banners, newsletters, or even a safety letter. One form of work safety communication, which is direct human-to-human communication, one of which is by using a Safety Talk and reducing the possibility of work accidents that occur. Safety Talk is important because it can have an impact on security at work and is in accordance with applicable procedures, so that the procedures conveyed will always be remembered by workers when doing work. Safety Talk is carried out by gathering workers before starting work in a place, usually in the field or other open space, by conveying important points that need to be considered by workers when working for work safety. This will be conveyed by supervisors or field supervisors. Safety Talk material for supervisors must be communicative so that it is easily understood and understood by all employees, that workers really understand and understand about work safety. The material that was delivered during the safety talk included using proper and correct Personal Protective Equipment (PPE), how to do First Aid in Accidents (P3K), proper use of light fire extinguishers (APAR), clean work environment, correct work procedures etc.

Tips for the Safety Talk to run more effectively are with supervisors to make the best possible preparation by looking for references and understanding the material to be delivered, brief important points and choosing to focus on one topic of discussion so that workers don't get bored listening to material that is too long, build communication two-way interactive way, can also occasionally be interspersed with humor so that the atmosphere becomes more fluid and provides creative safety talk material - not only limited to verbal delivery, for example maybe using props in the form of pictures, videos, or other supporting tools.

How to Overcome and Cultivate Salvation:

Design a Safe Work Area, layout arrangement is very important to meet work effectiveness, reduce the potential for errors, and minimize dangerous events that can result in accidents. Always Maintain Cleanliness of the Work Area. In a clean work area where hazards are removed, besides
that, a clean work area can increase greater productivity. Involve Employees. Employees are the first to understand the conditions in the workplace the most. They will also be well motivated for safety by involving employees then establishing a safety planning process. Provide Structured Work Instructions. Instructions are given in writing and make sure employees read, study and understand and make sure employees recognize it as a safety work program. Focus on the things that are feasible or sensible to do. It is important to focus on the big problem, not the violation resulting in injury or accident. Be open to listening to input. Criticism from subordinates of the workplace, leaders must be ready to receive input to encourage employees to report shortcomings, issues, insights into safety issues. Making observations. Studying every employee in his job. Pay attention and make corrections to them and give rewards to those who do tasks well and they are made as role models for other staff. Hazard, Danger. Avoid hazards, carry out routine checks at workplaces are the need for understanding, proficiency to carry out Hazard Identification properly and correctly. Conduct a Review. An annual review by conducting a workplace inspection or evaluation of a review of safety work guidelines in the workplace and a comprehensive review of the safety system, program or any changes in the workplace must be carried out.

**Human Resources Management**

Human resource management is a way of maintaining human resources in order to be able to provide the best possible for the achievement of organizational goals. (Syafaruddin Alwi, 2001 in Taufiqur Rachman, 2014). The use of human resource maintenance is to increase the contribution or contribution of productivity to the company. The contributions include: Improve work commitment. Investigate a high productivity workforce. Improve competence, namely morale, self-confidence, education, and workforce skills. Creating a work climate that is safe and secure. The meaning of work climate is the conditions, situations, and conditions of the work environment which are factors supporting or driving employees. with motivation and competence are determinants of individual workforce performance. daily behavior and actions in carrying out tasks as expected by the company. A conducive work climate is characterized by the creation of high enthusiasm and passion for work from the workforce.

There are several principles in managing HR in a company related to OHS management, namely: Labor is managed for the company's main assets or assets. Workforce is the integrity and desire to serve the company and the community in its environment. The workforce is managed to increase knowledge and commitment to work and to the company. Manpower is regulated with an orientation towards achieving accountable results. Manpower is managed with a focus on making the work team achieve common interests and increase cooperation. Manpower is managed for the creation and enhancement of networks (networking).

**Hypothesis**

![Figure 1. Models and various Personal Protective Equipment / PPE](image-url)
Basic personal protective equipment (PPE) equipment that must be in place to ensure worker safety. Wear protective clothing

Known as the 'Dangri' or the 'Boiler Suit' is Coberall's protective clothing to protect the body from harmful substances such as hot oil, water, welding sparks.

Helmet

The best head protection is a hard-plastic helmet. A chin strap that keeps the helmet in place when traveling or falling. The head is one of the most important parts of the human body.

Safety Shoes

Made of elastic skin so that the feet are not injured or scuffed and hard metal on the head of the shoes. The benefits of safety shoes are to ensure that no injuries occur to the feet of the workers or crew.

Gloves

Gloves are used in operations where it is imperative to protect the hands, Gloves provided are heat-resistant gloves, for working on hot surfaces, cotton gloves, for normal work operations, welding gloves, chemical gloves, etc.

Goggles

Welding goggles are used protective in welding activities that protect the eyes from high intensity splashes. Eyes are the most sensitive part of the human body and in daily operations have a high probability of eye injury, glasses are used for eye protection.

Plug

Earmuffs or ear stickers are used by workers to balance the sound heard by humans so that the ears stay safe. For example, the buzzing sound of 110-120 db is a very high sound frequency for the human ear, even within a few minutes it can cause headaches, irritation and hearing loss.

Safety Harness

Repair and painting of high surfaces requires crew members to reach areas that are not easy to access. The safety harness is used by the operator at one end and tied at a strong point at the end of the rope.

Face mask

Carbon that includes particles harmful to human body if inhaled directly, to avoid. Face masks are used as a shield from harmful particles.
Chemical Suit

Chemical suits are used to avoid situations and conditions such as hazardous chemicals when in direct contact with human skin.

Welding Shields

Welding shields or masks that are useful as eye protection from direct contact with ultraviolet rays from welding sparks. Welding is a common activity for structural repairs etc.

Literature and referring to previous research, the following hypothesis can be drawn:

1. SMK3 → Technical Aspects
The rules and procedures that have been established can be obeyed by the workers so that by themselves the work safety in the project will increase and function to minimize accidents that occur due to Unsafe Condition because it can provide structural limitations to the implementation of work safety programs in the workplace.
Rules and procedures in work safety should not be too complicated so that it is difficult to understand. Easy to implement properly, has strict sanctions if the rules and safety procedures are violated.

2. SMK3 → SDM
Work safety culture is also related to personal attitudes, thoughts and behavior. Poor behavior in occupational safety and health is heavily influenced by culture in developing countries and increases the risk of workplace accidents. Occupational health belongs to the group of the entire culture of an organization.

3. SMK3 → Work environment
The main triggers for Unsafe act and unsafe condition are organizational factors which in turn affect work environment factors.

4. Technical Aspects → HR
If the rules and procedures have been established and carried out properly / properly by the workers, then the work safety in the project will increase by itself. Regulations are useful for minimizing accidents that will occur.

5. Technical Aspects → Work Accidents
Unsafe behavior is a type of trait that leads to accidents such as working without regard for safety, working without approval, not using safety equipment, operating at dangerous speeds, using non-standard equipment, acting violently, lack of education, bodily disorders or disturbed emotional states. Behavioral Safety practitioners argue that safety practitioners have forgotten the main aspect in preventing work accidents is the behavioral aspect of workers. Cooper's opinion in Atjo Wahyu (2014) states that although it is quite difficult to control properly, 80-95 percent of all work accidents that occur are caused by unsafe behavior.

6. HR → Work Accidents
Worker competence can be established through occupational safety training programs or by guidance on hazards that may arise in connection with work.
Worker competence can be assessed based on the knowledge, abilities and experience of workers which are closely related to occupational safety training.

7. Work Environment → Work Accident
Negligence that may occur in the workplace can result in losses to humans, equipment, materials and the environment due to the presence of materials or substances in the workplace which can cause accidents due to lack of strict controls.

3. Methodology

Data Analysis Method
From several literatures, some data needed to support the making of this research can be collected so that the desired research objectives can be accomplished.

Population and Sample
The population is a generalization group consisting of objects or subjects that have certain qualities and characteristics that are determined by research so that they can be understood, and conclusions can be drawn (Sugiyono, 2005). The study population is all workers who work on building construction projects that meet the following criteria:
1. Have at least 1 year of work experience
2. Currently carrying out a construction project.
3. Willing to be a respondent during the research process

The sample is part of the total characteristics of the population (Sugiyono, 2005). The sample in this experiment is Makassar building project workers who represent the population. The sampling technique uses simple random sampling method with the hope that each individual in the population has the same opportunity to be taken as a sample.

Research Procedure
Collecting data about K3 from the field and literature, namely books and journals, these data are then used as guidelines for preparing instrument forms. The data obtained from fields and literature are then used as guidelines for making instrument forms. In primary data collection, what is done first is observation of the project which will be used as an object and then designing the instrument. Then spread the instruments on the sidewalk development construction project in Kemang, Jakarta which became the object of research. The processed data is then validated. If yes, the analysis continues, but if the processed data is found to be invalid, then the data is collected again. The data that has been analyzed are then discussed in the discussion chapter.

4. Result and Discussion
Work accidents occur due to members' careless or careless behavior or they can also be caused by unsafe conditions, whether they are physical, or environmental impacts. Based on available data, 85% of the things that trigger work accidents are caused by a risky event (unsafe act) and 15% are caused by an unsafe condition. The information that triggered the work accident is as follows: Unsafe conditions, namely several physical environmental factors that can result in accidents such as
machines without safety, unsafe lighting, inefficient personal protective equipment (PPE), greasy floors. Action that is risky (unsafe act), namely behavior or mistakes that can lead to accidents such as carelessly, not using personal protective equipment, etc. This matter is caused by health problems, visual disturbances, illness, and lack of knowledge in the work process, work steps.

According to Ridley (2008), things that trigger work accidents are as follows:

Working Conditions
- Poor management control.
- Work standards are still minimal.
- Does not meet standards.
- Inadequate equipment or unsatisfied workplaces.

b. The Mistake of People
- Minimal skills and education.
- Physical and mental problems.
- Insufficient motivation or mismanagement.
- Inattentive sense.

c. Unsafe Action
- Not following the approved work method.
- Take short walks.
- Remove or not use safety equipment.

d. Accident
- Unforeseen events.
- There is contact with machinery or electricity at risk.
- Fall.
- Ordered falling machines or materials, etc.

Types of Work Accidents

There are three types of work accidents, namely:
- Accident is an unexpected event that can cause harm to both humans and property.
- Incident is an unexpected event that has not caused a loss.
- Near miss is an incident that has almost a bad result, in other words this incident almost results in an incident or accident.

Based on the place and time, work accidents are divided into four types, namely:
1. Work accidents due to work immediately.
2. Accidents while at work.
3. Accident on the way (from the place of residence to the workplace and vice versa and through a reasonable road), illness due to work.

Based on the level of the resulting effects, work accidents can be divided into three types, namely:
- Minor work accidents namely work accidents that must be recovered on that day as well as being able to carry out their responsibilities again or rest < 2 days. Example: slipped, rubbed, hit by broken glass, fell and sprained.
- Moderate work accidents namely work accidents that require healing and need to rest for > 2 days. Example: pinched, torn, burns.
- Serious work accidents namely work accidents where there is amputation and malfunction of the body. Example: fracture.
Work Accident Triggers

Based on statistical results, 85% of the triggers for work accidents are due to unsafe acts and 15% due to unsafe conditions.

The information that triggers the work accident is as follows:

- An unsafe condition, namely a number of physical environmental factors that can cause accidents such as machines without safety, unsafe lighting, personal protective equipment (PPE), oily floors, etc.
- This is caused by health problems, visual disturbances, illness, worry and lack of knowledge in work processes, work steps. Unsafe acts, namely behavior or mistakes that can lead to accidents such as carelessly, not using tools personal protection, etc.

Meanwhile, according to Ridley (2008), the things that trigger work accidents are as follows:

a. Working conditions / climate
   - Management is lacking in control.
   - Work standards are minimal and do not meet standards.
   - Equipment and workplaces that do not meet requirements.

b. The Mistake of People
   - Minimal knowledge and skills.
   - Physical or mental illness.
   - misplaced and minimal motivation
   - Little or no attention

c. Unsafe Action
   - Not complying with the work method that has been agreed upon.
   - Want to quickly find a short path.
   - PPE is not used as work safety equipment.

d. Accident
   - Unexpected things.
   - Use of machinery or electricity at risk.
   - Dropped, hit by machine or fallen material etc.

5. Conclusion

Work accidents from the research results, it can be concluded that work accidents can be caused by factors such as the following: Physical aspects, which include lighting, air temperature, humidity, velocity of air, sound / tone echoes, mechanical vibration, radiation, air pressure, and so on. Chemical aspects, such as gases, vapors, dust, fog, clouds, liquids, and some solid objects. Biological aspects, either from groups of animals or from groups of plants. Physiological aspects, such as machine construction, behavior, and work steps. Mental-psychological aspects, such as job formation, relations between workers or perhaps with entrepreneurs, job maintenance, and others. Based on the research results, the compilers provide the following suggestions: For maximum results, further research should be carried out by adding variables that may affect the level of work accidents. Before conducting the research, it is better to conduct a simulation test (pre-test) first to prevent the risk of invalid indicators. The relationship between variables should refer to previous research so that the possibility of insignificant data can be minimized. For further research, consultants should also be
used as respondents because this research is only limited to contractors. The need for input from experts and to be more open to receiving complaints from the public.

References

Arifin B.A, dkk. 2013. *Faktor Yang Berhubungan dengan Kesediaan Pekerja dalam Penggunaan Alat Pelindung Diri (APD)*


Analysis of Entrepreneurial Knowledge, Achievement Motives and Business Independence towards Entrepreneurial Behavior in Joint Business Groups

Elistia

Universitas Esa Unggul
e-mail: elistia@esaunggul.ac.id

Abstract

The success of a business is influenced by several factors in carrying out its business activities so that it can develop and succeed. If an entrepreneur has high entrepreneurial behavior, the goal of achieving business success will also be achieved. The Joint Business Group Program (Kelompok Usaha Bersama/KUBE) is an association of families belonging to the poor who are formed, grown, and developed based on their initiative, interacting with one another in certain regional units to increase the productivity of their members to become a forum for joint business development. KUBE is under the guidance of the DKI Jakarta Social Service. This study is to determine entrepreneurial knowledge, achievement motives, and business independence on entrepreneurial behavior at KUBE in West Jakarta, totaling 30 startup entrepreneurs. The research method used inferential statistics through correlation and multiple regression analysis. The research period was conducted from February to July 2020. The results showed that there was a significant influence between the variables of entrepreneurial knowledge, achievement motives, and business independence on entrepreneurial behavior, namely the coefficient of determination of 57.1% with a significance level of α = 0.000 (α < 0.05). So, it can be concluded that with good entrepreneurial behavior, achievement motives, and business independence of KUBE activities are expected to increase the ability of its members in entrepreneurship and social interaction with fellow members of the community, thereby increasing social and economic welfare, and being able to participate in national development.

Keywords: Joint Business Groups, Entrepreneurship, Entrepreneurial Behavior, Entrepreneurial Knowledge, Poverty Alleviation.

1. Introduction

National development is carried out to realize social justice and welfare for all Indonesian people in all regions of the country, both in urban, rural areas, borders between countries, small and underdeveloped islands. To achieve this goal, the government has organized various development programs in various sectors of community life. To overcome the problem of poverty, the government has adopted a policy of handling the poor. Given the multi-dimensional and multi-sector characteristics of poverty, the government also seeks to involve various parties in the implementation of poverty management activities. The Provincial Government (Pemprov) of DKI Jakarta is committed to developing micro, small and medium enterprises (MSMEs) in the midst of the capital's community. The Integrated Entrepreneurship Program was initiated more than two years ago and continues to be developed in accordance with the dynamics of the MSME industry and market needs, including listening to the aspirations of entrepreneurs. Coming with a new brand, namely Jakpreneur, © Authors. Terms and conditions of this work is licensed under a Creative Commons Attribution-NonCommercial-NoDerivatives 4.0 International License apply. Correspondence: Elistia, Universitas Esa Unggul. Email: elistia@esaunggul.ac.id
this program is expected to become a platform for the creation, facilitation and collaboration of the development of MSMEs through an entrepreneurial ecosystem, such as start-ups, educational institutions, and financial institutions. Jakpreneur was formed based on the fact that DKI Jakarta is home to 1.1 million MSMEs that contribute to the economy and provide for the needs of the people of Jakarta. MSMEs also have a big share in absorbing labor. Based on data from BPS DKI Jakarta, the number of MSMEs in DKI Jakarta has reached 98.78 percent of the total number of businesses. The DKI Jakarta Provincial Government consistently takes an active role in encouraging and stimulating the development of MSMEs with the Jakpreneur program.

Some of the above programs such as the Productive Economic Business Program (UEP), the Entrepreneurial Family Hope Program (PKH), and the Joint Business Group (KUBE) are programs used in efforts to eradicate poverty in Indonesia carried out by the Ministry of Social Affairs in collaboration with local governments, both government provincial and municipal governments. With this program, it is hoped that the people of DKI Jakarta can earn income independently in order to accelerate the reduction in poverty. The independent poor who are registered in the productive economy business program are categorized into individual and group poor people. Individual independent poor people are the poor who participate in the individual productive economic business program, while the poor groups are the poor who have formed a productive economic business group such as the Joint Business Group (KUBE). Independent and group poverty programs are business assistance programs facilitated by the DKI Jakarta Provincial Social Service.

The growth and development of the economy in a country cannot be separated from the role of large, medium and small private entrepreneurs. Entrepreneurship is believed to be the driving force of economic growth, and entrepreneurship is also considered an innovator in economic development. The high percentage of entrepreneurs in a country means that the country's economy will grow well (Casson et al, 2006). The basis for this research is how entrepreneurial behavior of business actors is influenced by entrepreneurial knowledge, achievement motives and business independence of the entrepreneurs in KUBE.

2. Literature Review

Entrepreneurship defined as a creative and innovative ability which is used as tips, basis, resources, and processes and struggles to create added value for goods and services carried out with taking a risk. Thus, entrepreneurial knowledge is what is known about all forms of information that are processed and processed in the cognitive realm in the form of memory and understanding of how to do business so as to give rise to the courage to take risks rationally and logically (Suryana 2003: 13).

Entrepreneurial Knowledge

Knowledge is managing all elements of the system in the form of complete documents, databases, policies and procedures, along with information about the experiences, expertise and skills of individual and collective human resources. Knowledge consists of direct knowledge, namely knowledge that has been owned by an entrepreneur before he becomes an entrepreneur as well as indirect knowledge that he gets from various parties before or when he has become an entrepreneur (Widayana, 2005: 9). According to Shane & Venkataraman, 2000, the entrepreneurial Opportunity Recognition (OR) and Opportunity Exploitation (OE) has gained substantial attention in entrepreneurship literature in recent decades. Entrepreneurial opportunities are generally understood as “situations in which new goods, services, raw materials, and organizing methods can be
introduced and sold at greater than their cost of production. Moreover, form the research of George et al. (2016), based on a systematic literature review of entrepreneurial opportunity, suggest that the field of OR is fragmented and empirically underdeveloped. They also contend that previous studies have viewed prior knowledge of the entrepreneur as a cognitive resource and thus, connecting prior knowledge with other factors needs further empirical examination.

Form the research of Yasir & Majid, 2017, they find the environmental turbulence positively affects the alertness to business ideas and entrepreneurial opportunities which, in turn, affect intention toward entrepreneurship. The results also suggested that entrepreneurial knowledge significantly moderates the relationship between intention toward entrepreneurship and start-up behavior.

Achievement Motives

Entrepreneurial achievement motive is self-encouragement to be more advanced than before and is the personal ability to maintain a business so that it runs well. Achievement motives as a drive related to achievement, namely controlling, regulating the social or physical environment, overcoming obstacles, and maintaining high quality work, competing over past achievements and influencing others. Someone who has high achievement motives will like tasks that are challenging, responsible, and open to feedback that improves innovative-creative achievement (Asri et.al 2005: 43). According to David C. McClelland (1961) argues that entrepreneurship (entrepreneurship) is determined by: achievement motive, optimism, value attitudes, and entrepreneurial status. Based on the research of Woodside et. Al (2020), they find to confirm the usefulness of applying complexity theory to learn how culture and motivation configurations support versus have negative consequences on nations’ entrepreneurship, innovation and human well-being. Nurturing of entrepreneur activities supports the nurturing of enterprise innovation activity and their joint occurrence indicates nations achieving high quality-of-life.

Business Independence

Business independence is an attitude and behavior in doing business, because it is able to solve problems that occur in the business by their self. As stated by Thomas and Mueller (2000) in their research that Entrepreneurs are required to always come up with a good strategy in developing their business. On top of that, this enables people with the poor educational background to manage their business despite the lack of competence and theoretical knowledge of entrepreneurship. This is because they can be independent through their creativity and innovation.

The value of a business activity contains an element of consideration that expands a person's ideas, so that it is a form of behavior in running a company towards business independence. The basis for understanding the attitudes and motivations of entrepreneurial values is able to influence behavior in running a business, so that value is a very important behavior in managing company independence (Robbins 2007). Entrepreneurial value has a positive and significant effect on business independence; therefore, a high increase in value for small business actors can increase the growth of business independence (Djodjobo and Tawas, 2016).

Entrepreneurial Behavior

Entrepreneurial behavior is believed to be one of the determinants in the success of a business. According to the research of Amarakoon et.al (2019) suggests that entrepreneurial behavior at the
HRM functional level is characterized by innovativeness, pro-activeness, risk-taking and consensus-building behavior. The scale shed new light on the roles of HR professionals.

Furthermore, self-determined human action is based on a specific set of values which the individual uses to make decisions about how to behave in situations that are meaningful to them. Engaging in entrepreneurship is one form of self-determined behavior that enables the individual to express and satisfy a variety of different fundamental needs. Four specific values are believed to be critical to the motivation of entrepreneurial behavior, namely, independence, creativity, ambition and risk taker. The meaning attributed to each of these values is consistent with that attributed to self-determinism, self-efficacy and the identity of participants associated with entrepreneurship (Kirkley, 2016).

3. Methodology

The research method used inferential statistics, descriptive and quantitative methods. The research period was carried out from February to June 2020 with 30 respondents. As a data processing and analysis tool, researchers use the SPPS application to interpret the results. In this study, the analysis method used the correlation coefficient of determination (R square) and multiple regressions (Coefficient Anova), as well as partial (t test) and simultaneous (F test) hypothesis testing. The degree of confidence and significance test used in the study is α = 0.05.

Research Framework

![Figure 1. Research Framework](image)

**Hypothesis**

H1: Entrepreneurial Knowledge has a positive and significant effect on Entrepreneurial Behavior
H2: Achievement Motives has a positive and significant effect on Entrepreneurial Behavior
H3: Business Independence has a positive and significant effect on Entrepreneurial Behavior

H4: Entrepreneurial Knowledge, Achievement Motives, and Business Independence have simultaneous positive and significant effect on Entrepreneurial Behavior

Hypothesis criteria for H1, H2, H3 accepted if Significance level value is < 0.05, Hypothesis criteria for H4 accepted if Significance of F value > F table, with significance level < 0.05.

4. Result and Discussion

Data processing is using SPSS application with the output coefficient of determination, multiple regression, and significance test. Based on the research data processing, it can be explained in the analysis of the interpretation of the results as follows:

Coefficient Determination Correlation

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Std. Error of the Estimate</th>
<th>Change Statistics</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>.756</td>
<td>.571</td>
<td>.522</td>
<td>1.52703</td>
<td></td>
</tr>
</tbody>
</table>

The result of the calculation of the correlation coefficient of determination is 0.571, it means that the variables of Entrepreneurial Knowledge, Achievement Motives, and Business Independence have a correlation with Entrepreneurial Knowledge and can be explained by 57.1%, while the remaining 42.9% can be explained by other factors.

Partial Significance Test

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>t</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>Std. Error</td>
<td>Beta</td>
<td></td>
</tr>
<tr>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(Constant)</td>
<td>-1.365</td>
<td>5.433</td>
<td>-.251</td>
<td>.804</td>
</tr>
<tr>
<td>EntrepreneurialKnowledgeX1</td>
<td>.966</td>
<td>.236</td>
<td>.587</td>
<td>.000</td>
</tr>
<tr>
<td>AchievementMotivesX2</td>
<td>.669</td>
<td>.273</td>
<td>.461</td>
<td>.021</td>
</tr>
<tr>
<td>BusinessIndepenenceX3</td>
<td>-.694</td>
<td>.305</td>
<td>-.399</td>
<td>.032</td>
</tr>
</tbody>
</table>

a. Dependent Variable: EntrepreneurialBehaviorY
Entrepreneurial Knowledge on Entrepreneurial Behavior

Hypothesis testing (H1) shows that the hypothesis is accepted, based on the statistical test, it shows the t value of 4.094 with a significance level 0.000 which is < 0.005. It means that the Entrepreneurial Knowledge (X1) has a positive and significant effect on Entrepreneurial Behavior (Y).

Achievement Motives on Entrepreneurial Behavior

Hypothesis testing (H2) shows that the hypothesis is accepted, based on the statistical test, it shows the t value is 2.450 with a significance level 0.021 which is < 0.005. It means that the Achievement Motives (X2) has a positive and significant effect on Entrepreneurial Behavior (Y).

Business Independence on Entrepreneurial Behavior

Hypothesis testing (H3) shows that the hypothesis is accepted, based on the statistical test, it shows the t value is -2.272 with a significance level 0.032 which is < 0.005. It means that the Business Independence (X3) has a negative and significant effect on Entrepreneurial Behavior (Y). It can be explained that the reduction of Business Independence, the effect on Entrepreneurial Behavior.

Simultaneous Significance Test

Table 3. Regression and Simultaneous Significance

<table>
<thead>
<tr>
<th>Model</th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regression</td>
<td>80.740</td>
<td>3</td>
<td>26.913</td>
<td>11.542</td>
<td>.000b</td>
</tr>
<tr>
<td>Residual</td>
<td>60.627</td>
<td>26</td>
<td>2.332</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>141.367</td>
<td>29</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

a. Dependent Variable: Entrepreneurial Behavior Y
b. Predictors: (Constant), Business Independence X3, Entrepreneurial Knowledge X1,
Achievement Motives X2

Hypothesis testing (H4) shows that the hypothesis is accepted, based on the statistical test, it shows the F value is 11.542 > F table 2.92 with a significance level is 0.000, it means that the Entrepreneurial Knowledge, Achievement Motives, and Business Independence have simultaneous positive and significant effect towards Entrepreneurial Behavior.

Discussion

From the results of research, it shows that there are good facts about Entrepreneurial Behavior by 30 beginner KUBE players in the West Jakarta area. This is quite good, because it is fundamental for entrepreneurs, by having entrepreneurial knowledge, achievement motives, and business independence which are the initial benchmarks for starting a business so that it is hoped that it can develop and improve business and community welfare. The success of KUBE in becoming a group economic business can be realized. KUBE can be a group-based economic potential that promotes
the spirit of togetherness based on social solidarity so that it can improve the quality of life and social and economic welfare.

5. Conclusion

Based on various literature review and from the research results, so we can conclude that the variables partially and simultaneously together that there is a significant influence between Entrepreneurial Knowledge, Achievement Motives, Business Independence towards Entrepreneurial Behavior. If we list the variables that have the most significant effect on Entrepreneurial Behavior are as follows: Entrepreneurial Knowledge significance level value is 0.000 < 0.05. Achievement Motives significance level value is 0.021 < 0.05. Business Independence significance level value is 0.032 < 0.05. The sequence of values shows that the variables that have the most influence on Entrepreneurial Knowledge are Entrepreneurial Knowledge, followed by Achievement Motives, and finally Business Independence. The Business Independence factor really demands independence in doing business and has a strong commitment and fighting power to maintain business continuity. Fundamentally, we can see that the results of this study are an indication that KUBE actors have Entrepreneurial Behavior as one of the strengths in doing their business. This shows the internal strength of entrepreneurship and is supported by the efforts of local governments in poverty alleviation programs that can run sustainably in line with the Sustainable Development Goals (SDGs).

KUBE is an empowerment forum for poverty alleviation in DKI Jakarta through business capital assistance from the government facilitated by the DKI Jakarta Social Service which aims to improve the welfare of the community. The regional government of the DKI Jakarta Social Service has made various efforts to improve the standard of living of the poor through stimulus assistance for KUBE actors. These efforts aim to: First, improve the welfare level of poor families. Second, realizing the economic independence of poor families. Third, increasing the accessibility of poor families to basic social services, public service facilities and social security systems. Fourth, increasing the awareness and social responsibility of the community and the business world in poverty reduction. Fifth, increasing social resilience in preventing poverty. Sixth, improving the quality of management of social welfare services for poor families. Efforts to achieve those condition can be carried out by empowering the poor in the sense of enabling the poor in both individual and group contexts, through the provision of social guidance and productive economic technical skills, management of productive economic business management, business marketing management and business network development, entrepreneurship. self-sufficiency, personal development in business, the role of the family in social welfare (UKS) as well as skills for social solidarity contributions (IKS), assessment of needs, family and environmental problems.

References


Effect of Competence, Communication and Job Stress Towards Service Quality PT. Sukses Motor Globalindo

Rahmat Alamsyah Harahap*, Friska Priscilla, Meilani Wijaya, Shellin

Universitas Prima Indonesia
*e-mail: rahmatalamsyah@yahoo.com

Abstract

PT. Sukses Motor Globalindo is an official dealer of Honda H1, H2, H3. The problems in the company were the quality of employee services were less spry, certainty in getting services was lacking, the ease of choosing the desired unit has not been fulfilled. The problems of employee’s competence were lack of support for solving the problems and solutions, lack of initiative on every job. The problem of communication was the information conveyed by the leader was not precisely addressed to whom, did not understand the flow of conversation and organizational culture. The problem of job stress were the employees got pressure into stress causing the employees to become uncomfortable and affect the quality of employee services to internal and external parties. The research method used was the quantitative descriptive, the nature of research was the explanatory research. Population of 50 respondents, using saturated sampling 30 respondents tested the validity and reliability of PT. Buana Jaya Lestari. The result of determination coefficient test obtained Adjusted R Square of 0.464, this means that competence, communication and job stress affect to the quality of service with a level of 46.4%, while the remaining 53.6% were other factors such as infrastructure, reliability and responsiveness.

Keywords: Competence, Communication, Job stress, and Services Quality

1. Introduction

A rapid development company due to the support and encouragement of its human resources. In human resource management, service quality is a matter of giving satisfaction to customers, service with good quality can provide good satisfaction for customers, so that customers can feel more cared about their existence by the company. Poor service quality will have an uncomfortable effect on consumers, and if the company has bad service, the quantity of the company will also decrease in the eyes of customers. Competence is an ability possessed by an individual who has a selling value and it is applied from the results of creativity and innovation produced. Without a qualified workforce or employees, it is impossible for organizational goals to be achieved properly.

Communication is a process whose role is very important because the communication that occurs within an organization will also affect organizational activities such as work efficiency, employee satisfaction and others. Job stress is the inability to overcome the threats faced by mental, physical, emotional and spiritual humans which at one time can affect human physical health.

© Authors. Terms and conditions of this work is licensed under a Creative Commons Attribution-NonCommercial-NoDerivatives 4.0 International License apply. Correspondence: Rahmat Alamsyah Harahap, Universitas Prima Indonesia. Email: rahmatalamsyah@yahoo.com
2. Literature Review

The problem of employee service quality is that the quality of service provided to consumers is not appropriate, employees are not yet reliable in providing services, employees are not responsive and fast in processing, certainty to get service is not as expected. Employee competency problems where the ability of employees to work knowledge is still lacking, technical skills are lacking, the ability to solve problems that arise and solutions, lack of initiative and are less friendly in responding to customer complaints. Employee communication problems are unclear information, information received / obtained is often not accurate to who needs it, communication is difficult for the interlocutor to understand, lack of understanding of the flow of conversation, and lack of employee culture. Job stress problems due to the narrow shape of the office building make employees uncomfortable working, reports on time and data must be in line with superiors' expectations, the workload is too much.

3. Methodology

This research was conducted at PT. Sukses Motor Globalindo (Honda Showroom), Jl. Ngumban Surbakti No. 1-3, Ex. Sempakata, Kec. Medan Selayang, Medan City. Timing and research were conducted from November 2019 and is expected to be completed until June 2020. This research using saturated sampling. The sampling technique is when all members of the population are used as samples. For the validation test obtained from 30 respondents drawn from similar companies, namely PT. Buana Jaya Lestari (Honda Showroom) Jl. Medan - Binjai No.11 RW.2 Kel. Paya Geli Kec. Medan Sunggal Kab. Deliserdang. In this research the collection technique the data used are as follows, interview, questionnaire, and documentation study

4. Result and Discussion

Classic Assumption Test

The image shows that the bell shape line does not deviate to the left or right, so it can be said that the test data is normally distributed.
Figure 2. The test results of the Probability Plot Graph

You can see the data is scattered around the line diagonally, most of the spread of data is close to the diagonal line, thus the data is said to be normally distributed.

Multicollinearity Test

<table>
<thead>
<tr>
<th>Model</th>
<th>Collinearity Statistics</th>
<th>Tolerance</th>
<th>VIF</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1 Competence</td>
<td></td>
<td>,356</td>
<td>2,810</td>
</tr>
<tr>
<td>1 Communication</td>
<td></td>
<td>,995</td>
<td>1,005</td>
</tr>
<tr>
<td>1 Stress</td>
<td></td>
<td>,356</td>
<td>2,809</td>
</tr>
</tbody>
</table>

The tolerance value for the competency variable is 0.356, communication is 0.995 and job stress is 0.356, which is above 0.10. The VIF value of the competency variable = 2.810, communication = 1.005 and job stress = 2.809 were below 10. So that the multicollinearity test results showed that there was no correlation between the independent variables.

Heteroscedasticity Test

The Scatterplot graph shows that the points of irregular distribution of the pattern can be above or below the zero (0) on the Y axis, the pattern is not collected in one place, so that the Scatterplot graph can be concluded that heteroscedasticity does not occur.
Research model (Multiple Linear Regression Test)

Table 2. Multiple Linear Regression Test

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>Std. Error</td>
</tr>
<tr>
<td>(Constant)</td>
<td>4,925</td>
<td>4,221</td>
</tr>
<tr>
<td>Competence</td>
<td>.264</td>
<td>.127</td>
</tr>
<tr>
<td>Communication</td>
<td>.799</td>
<td>.128</td>
</tr>
<tr>
<td>Job stress</td>
<td>-.133</td>
<td>.106</td>
</tr>
</tbody>
</table>

Quality of service = 4,925 + 0.264 Competence + 0.799 Communication - 0.133 Job stress + 5%

1. A constant of 4,925 states that if competence, communication and job stress are absent, the service quality is 4,925 units.
2. Competency regression coefficient of 0.264 and has a positive value, this means that every 1 unit increase in competence will improve service quality by 0.264 units with the assumption that other variables are constant.
3. The communication regression coefficient of 0.799 and has a positive value, this means that every 1 unit increase in communication will increase the quality of service by 0.799 units assuming the other variables are constant.
4. The regression coefficient for job stress is -0.133 and has a negative value, this means that every 1-unit reduction in job stress will reduce the quality of service by -0.133 units with the assumption that the other variables are constant.

Coefficient of Determination (R2)

Table 3. Coefficient of Determination

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Std. Error of the Estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>.705</td>
<td>.497</td>
<td>.464</td>
<td>2.396</td>
</tr>
</tbody>
</table>

a. Predictors: (Constant), Stress, Communication, Competence
b. Dependent Variable: Quality of Service

The coefficient of determination test results Adjusted R square value of 0.464, this means that 46.4% is obtained from variations in the dependent variable of service quality which can be explained by variations in the independent variables of competence, communication and job stress while the rest is 53.6% (100% - 46, 4%) can be explained by other variables such as infrastructure, reliability, and responsiveness.
Testing the F Test (Simultaneous Test)

Table 4. Simultaneous Test

<table>
<thead>
<tr>
<th>Model</th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regression</td>
<td>260,734</td>
<td>3</td>
<td>86,911</td>
<td>15,135</td>
<td>.000b</td>
</tr>
<tr>
<td>Residual</td>
<td>264,146</td>
<td>46</td>
<td>5,742</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>524,880</td>
<td>49</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

F test (simultaneous test) obtained the value of F value 15.135 > F-table 3.20 with a significance level of probability of 0.000 < 0.05. So, Ha is accepted, and Ho is rejected, meaning that competence, communication and job stress simultaneously have a positive and significant effect on service quality.

Testing T Test (Partial Test)

Table 5. Partial Test

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>t</th>
<th>Sig</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Constant)</td>
<td>4,925</td>
<td>4.221</td>
<td>1.167</td>
<td>.249</td>
</tr>
<tr>
<td>Competence</td>
<td>,264</td>
<td>,127</td>
<td>,365</td>
<td>2.081</td>
</tr>
<tr>
<td>Communication</td>
<td>,799</td>
<td>,128</td>
<td>,656</td>
<td>6.261</td>
</tr>
<tr>
<td>Job stress</td>
<td>-133</td>
<td>,106</td>
<td>-220</td>
<td>-1.257</td>
</tr>
</tbody>
</table>

1. Based on the partial t test, the competency value of t value 2.081 > t-table is obtained 1.67793 and a significant value of 0.043 less than 0.05. Then H1 is accepted and H0 is rejected, meaning that competency partially has a positive and significant effect on the service quality of PT. Sukses Motor Globalindo, thus the H1 hypothesis is accepted.

2. Based on the partial t test obtained communication value t value 6.261 > t-table 1.67793 and a significant value of 0.000 less than 0.05. then H2 is accepted and rejects H0. it means that communication partially has a positive and significant effect on the service quality of PT. Sukses Motor Globalindo, thus the H2 hypothesis is accepted.

3. Based on the partial t test obtained the value of job stress t value -1.257 < t-table 1.67793 and a significant value of 0.215 greater than 0.05. Then H0 is accepted and H3 is rejected, which means job stress partially negative and significant to the quality of service PT. Sukses Motor Globalindo, thus the H3 hypothesis is rejected.

The influence of competence on service quality

Based on the partial t test, the competency value of t count 2.081 > t table 1.67793 and a significant value of more than 0.043 smaller than 0.05. Then H1 is accepted and H0 is rejected, it means that partially competence has a positive and significant effect on the quality of service of PT.
Sukses Motor Globalindo, thus the H1 hypothesis is accepted. This is in accordance with the research hypothesis at the beginning of the study.

From the results of this study are in accordance with the results of research by Rachmat Sobari (2018), entitled "The Influence of Competence and Work Motivation on Service Quality of Population and Civil Registry Services in Bogor City", that the simultaneous test results have a positive and significant influence on competence and motivation together. Same for service quality.

According to Sianipar in Sundarso (2014: 43), "To become a professional in providing services to the needs of others, employees must have the ability and knowledge of their respective areas of duty". From the results of the answers to the 6 questions given to the respondents, on average, the majority of respondents answered competency score of 4 (36%) meaning that competence is very capable of influencing service quality. With the competencies possessed by each employee of the company can provide good service to customers.

Effect of communication on service quality

Based on the partial t test obtained communication value \( t = 6.261 > t\text{-table} 1.67793 \) and a significant value of more than 0.000 smaller than 0.05. Then H2 is accepted and rejects H0. Means communication partial positive and significant effect on service quality PT. Sukses Motor Globalindo, thus the H2 hypothesis is accepted. This is in accordance with the research hypothesis at the beginning of the study.

The results of this study are also supported by the results of Sunarto's (2008) research, entitled "The Influence of Communication and Work Motivation of the Apparatus on the Quality of Land Certificate Services", that the results of this study indicate that the communication variable significantly affects the quality of land certificate services. The higher / better the communication is, the higher / better the quality of service provided and vice versa.

According to Soetopo (2010: 189), "Communication will provide and receive information to influence others, help others (eg customers), solve problems, make decisions and evaluate behavior effectively". From the results of the answers to 10 questions given to respondents, the average majority of respondents answered communication value 3 (76.4%) means that communication has an effect on service quality. For this reason, companies must be able to establish communication relationships between employees and customers in improving the quality of service to fellow employees and customers. With well-established communication will make employees and customers feel satisfied with the quality of service provided so that they will become loyal.

The effect of job stress on service quality

Based on the partial t test obtained the value of job stress \( t = -1.257 < t\text{-table} 1.67793 \) and a significant value of more than 0.215 greater than 0.05. Then H0 is accepted and H3 is rejected, it means that job stress partially has a negative and significant effect on the quality of service of PT. Sukses Motor Globalindo, thus hypothesis H3 is rejected. This is not in accordance with the researcher's hypothesis at the beginning of the study.

The results of this study are also supported by the results of Suharyoko's (2017) research, entitled "The Role of Organizational Commitment in Mediating the Effects of Job Stress, LMX and Perceptions of Organizational Support on Service Quality", that the results of the study indicate that job stress variables have a negative and significant effect on service quality. This means that job
stress experienced by employees can affect their desire for togetherness between the goals and values of the individual and the organization.

According to Yuniarsih and Suwatno (2009: 108), "Too much stress affects an individual's ability to deal with the environment, so that various kinds of stress symptoms develop that can interfere with work performance". From the results of the answers to the 6 questions given to the respondents, the majority of respondents answered job stress score of 4 (45.3%), that is, job stress is very capable of affecting the quality of service both internally (all employees) and externally (customers). For this reason, the company must be able to make employees who work comfortable at work. Employees are comfortable working if the workload is done according to their expertise, communication runs smoothly, there is a career path for employees and wages are in accordance with the duties and responsibilities assigned to them.

5. Conclusion

Partial testing (t test) obtained competency value t value 2.081 > t-table 1.67793 and a significant value of 0.043 less than 0.05. Then H1 is accepted and H0 is rejected, meaning that competency partially has a positive and significant effect on service quality PT. Sukses Motor Globalindo, thus the H1 hypothesis is accepted. This is in accordance with the research hypothesis at the beginning of the study.

Partial testing (t test) obtained communication value t value 6.261 > t-table 1.67793 and a significant value of 0.000 less than 0.05. then H2 is accepted and rejects H0. it means that communication partially has a positive and significant effect on the service quality of PT. Sukses Motor Globalindo, thus the H2 hypothesis is accepted. This is in accordance with the research hypothesis at the beginning of the study.

Partial testing (t test) obtained the value of job stress t value -1.257 < t-table 1.67793 and a significant value of 0.215 greater than 0.05. Then H0 is accepted and H3 is rejected, it means that partially job stress has a negative and significant effect on the service quality of PT. Sukses Motor Globalindo, thus the H3 hypothesis is rejected. This is not in accordance with the research hypothesis at the beginning of the study.

Simultaneous testing (F test) of competence, communication and job stress obtained the value of F value 15.135 > F-table 3.20 with a significance probability level of 0.000 < 0.05. So, Ha is accepted, and Ho is rejected, meaning that competence, communication and job stress simultaneously have a positive and significant effect on service quality. The coefficient of determination test results Adjusted R square value of 0.464, this means that 46.4% is obtained from variations in the dependent variable of service quality which can be explained by variations in the independent variables of competence, communication and job stress while the remaining is 53.6% (100% - 46, 4%) can be explained by other variables such as infrastructure, reliability, and responsiveness.

From this research it is found that the variable that most influences the quality of service (Y) is communication variable (X2) can be seen from t value = 6.261 then followed by the competency variable (X1) t-value = 2.081 and variable job stress (X3) t value = -1,257.

PT. Sukses Motor Globalindo inside carry out its operational activities to pay more attention to good communication indicators in the order that must be improved, namely: accuracy, culture, context, clarity and flow.
References


Volume 2, Issue 4 available at http://e-journal.stie-kusumanegara.ac.id


Lutfiah Khairunnisa* & Maidani
Universitas Bhayangkara
*e-mail: lutfiahkhairunnisa2@gmail.com

Abstract

This study aims to determine the role of internal auditors at PT. Orson Indonesia is in order to improve the quality of management systems that are integrated with ISO 9001: 2015 and 22716: 2007. With a qualitative method that is descriptive analysis based on direct observation to the field and with documents that support to be traced. The techniques used are interviews, observation, document analysis, literature study and questionnaires. The results showed that PT. Orson Indonesia has successfully implemented this ISO Quality Management System with the existence of internal audit activities assisted by auditors and adequate data or documents.

Keywords: Role of Internal Auditors, ISO 9001: 2015 and 22716: 2007.

1. Introduction

The rapid development of the business world, it has caused problems to be faced, so that some companies have failed because they were unable to compete. One of the causes of this failure is the lack of good management applied by the company concerned in managing its company. The solution, which is the implementation or implementation of internal control in business management which is not separated from the function of name management, requires good coordination in large companies because of the large number of employees. In this internal audit activity, the audit criteria to be examined are policies, procedures or requirements that are used as references. The company carries out this Internal Audit activity with the aim of implementing a Quality Management System with ISO 9001: 2015 & 22716: 2007 standards and improving management within the company.

The focus of the company is a market that can be filled with good quality goods so that the company continues to maintain consistency in the quality of its goods. Competition between companies to provide the best quality is tested by encouraging its share of the market. ISO standards, it can be seen from three dimensions, namely ISO certification planning, organizational or company commitment to quality and implementation of standard procedures. One of the quality management system standards that has developed in developed countries and even developing countries is ISO 9001: 2015. (Maimunah, 2013). ISO is a standard in terms of quality that is achieved by management to build strong correspondence on quality in improving its overall performance. ISO 9001: 2015 is a standard that has been internationally recognized.
ISO 9001: 2015 Internal Audit is part of the Check in the PDCA (Plan-Do-Check-Act) cycle, which means we start building and planning a Quality Management System (ISO 9001: 2015). Cosmetics industry companies, in order to achieve this in providing safe cosmetic products for consumers, there are many cosmetic industry companies that consider supply chain management ("ISO 22716 Good Manufacturing Practices for Cosmetic Products," 2017). ISO 22716 is a standard tailor-made for the cosmetic industry. Based on the ISO Technical Committee (TC) 217 Working Group (WG) 6 in 2002 and 2006. Based on the negotiations, it combines a quality management system with the application of Good Manufacturing Practice (GMP) for these specific requirements. Furthermore, for the application of the latest and last reviewed version in 2017, namely ISO 22716 which also includes the GMP system. In this case, specific requirements are required based on the requirements of Good Manufacturing Practices in the local country, and the ISO 9001 Quality Management System and Risk Assessment of the safety of cosmetic products. ISO 22716: 2007 provides guidance for the production, control, storage and delivery of cosmetic products.

PT. Orson Indonesia is a company in manufacturing. This company produces soap and soapnoodle (raw material for soap). The product produced is a product that will be used by consumers. And the materials used are quite a lot. PT. Orson Indonesia has many employees, therefore PT. Orson Indonesia wants the management in its company to be well organized. Because many national and international companies have implemented this ISO standard. Because by using this ISO standard, the company benefits from an internal side such as: keeping data neatly, easy to trace if there are problems, as a system for continuous improvement and improvisation to adapt to company conditions and a more connected, effective and efficient work relationship between department. PT. Orson Indonesia does not only want the management of the company to be well organized, but PT. Orson Indonesia also wants the products we sell to have international standard value because many customers want the products, they buy to have international standards.

From the above explanation, the application of ISO 9001: 2015 and 22716: 2007 is very important for companies as a step to maintain and advance a company. Therefore, the compilers are interested in learning more about the implementation of the ISO 9001: 2015 and 22716: 2007 Quality Management Standards and the implementation of Internal Audit so that in this study the researcher took the title "The Role of PT. Orson Indonesia in Improving Integrated Quality Management System ISO 9001: 2015 and 22716: 2007."

2. Literature Review

According to (Zamzami et al., 2013) International Standards for the Professional Practice of Internal Auditing (IPPF) (2012) 'The Role of Internal Auditors in Internal Control' which can be interpreted as follows: 2130 - Control, The internal audit activity must assist the organization in maintaining effective controls by evaluating their effectiveness and efficiency and by encouraging continuous improvement." 2130.C1 - Internal auditors must incorporate knowledge of controls gained from consulting engagements into the evaluation of the organization's control processes." Under the IPPF, the role of the auditor is to assist management in maintaining an adequate control system in the following ways. Assess the high-risk areas which are the main objective of control. Define and implement a program to review risk prevention systems. Reviewing each system by conducting evaluation tests of the internal control system to consider the achievement of the five main control objectives. Provide input to management whether the control is running properly and effectively or not, whether its implementation encourages the achievement of control system objectives.
Recommend suggestions needed to improve the control system. Conduct follow-up audits to determine whether management has implemented the agreed audit recommendations.

Audit is a process carried out to obtain audit evidence and objective evaluation in order to achieve adequate audit criteria. Furthermore, an audit can be defined as an action that compares the actual facts (conditions) with the conditions that should exist (criteria). The purpose of the audit is to ensure that the implementation of the company's activities is in accordance with the expected and established. Alvin A. Arens and James K. Loebbeck in Susanto can be interpreted as follows: "Audit is the accumulation and evaluation of evidence about the information and the criteria set. Auditing must be carried out by competent independent people." (Susanto, 2007). "The quotation above can be interpreted that auditing is a process of activities in evaluating the activities or conditions of the analysis with criteria. In addition, the audit must be carried out by an independent and competent auditor."

**Internal Audit**

Due to the limitations of management in controlling its activities, the company requires an internal audit which will assist management in determining whether the operating plans, finance, policies and procedures are carried out in accordance with the stipulated regulations. Internal audit functions to verify procedures, identify risks, and manage risks, and monitoring activities of company activities in accordance with the effort to supervise the activities of the company. The concept of auditing explains that internal auditing is needed for a company because a function can provide recommendations for problems and improve the performance of the company, whether it is a division, function, division, unit, work unit, or project. Thus, if internal audit provides good action, then it can encourage better improvements for the company. Internal audit is an independent and objective assurance and consultation activity designed to add value and improve the organization's operation.

Meanwhile, according to Mulyadi (2014: 28) defines that internal audit is interpreted as follows: "Internal Audit is an audit that is carried out in a company (private or BUMN) where its main task is to implement procedures that must be followed, maintaining company assets increases the effectiveness and efficiency of procedures, as well as information required for each entity unit". In its development, internal audit is a management control and the main support for the achievement of internal control objectives. While carrying out its activities, internal audit must be objective and its position in the company must be independent. The function of internal audit is to assist management by laying the groundwork for further management actions. Mulyadi and Puradiredja (1998: 203) state the internal audit function as follows. Audit and assessment of the effectiveness of the internal control structure and encourage the use of an effective internal control structure at minimum cost. Determine the extent of implementation of top management policies.

According to Akmal (2014 h 7) states that the objective of internal control is to help organizations achieve their goals by means of a systematic, disciplined approach to evaluate and make improvements to the effectiveness of risk management, control and honest, clean and good processes. According to Hiro Tugiman (2013 p. 15) states that it aims to help members of organizational entities so that they can carry out their responsibilities effectively. Internal Audit will analyze, propose some suggestions and assessments. Audits also include effective controls at a reasonable cost. From the two definitions above, it can be concluded that the objective of internal audit is to assist the members of the organization in carrying out their responsibilities effectively. To that end, the internal auditor will carry out analysis, assessment and make suggestions. In ISO audit has the following objectives:
Reviewing the effectiveness of the system that has been determined. Reviewing applications with the company's internal Quality Management System and Quality Management System Standards, for example ISO 9001 etc. As input for the improvement process. Meet customer requirements & certification process.

**ISO 22716: 2007**

The definition of Good Manufacturing Practice (GMP) is part of Quality Assurance which ensures that products are produced and controlled consistently with quality standards in accordance with their intended use and as required by international product specifications (Boer, 2014).

**Framework**

The framework of thought has many terms besides the word, such as theoretical framework, frame of mind, basis of thinking, conceptual basis, conceptual framework and conceptual model. (Husnul Qodim, MA, Ilim Abdul Halim, MA, Busro, M.Ag "Guidelines for Thesis Writing of the Faculty of Ushuluddin: 2018). In a company that wants to make its products registered to international standards, such as ISO, the company makes improvements to its management. Because one of the requirements for implementing the International Standardization is to conduct an Internal Audit. Internal Audit is carried out every 6 months during the planning period for ISO certification, to ensure that the Company's Operating Standards comply with the applicable provisions of the ISO. In this internal audit, the role of the Internal Auditor is representatives of various departments. Such as the Purchasing, Accounting, HRD, Engineering, Production, QC & Lab, Document Control and Warehouse departments. The role of the internal auditor is not only to be a consultant but to help the company solve problems that can achieve the company's goals according to the work order from the president director.

![Figure 1. Research Framework](image)

3. **Methodology**

The research location in this thesis is PT. Orson Indonesia which is engaged in manufacturing which is located in the Bonded Zone of Marunda Jl. Madiun Blok C2 No. 21-22 Cilincing, North Jakarta. In this study, the authors used case study research, namely by describing the actual characteristics and circumstances of the research object so that it was only a disclosure of facts. In preparing this thesis, the authors conducted research on one company. In this study, a case study is used. The method that the writer wants is a descriptive method of analysis, which is a method that
aims to describe the state of the object to be studied based on the available facts. By collecting, processing, presenting and analyzing various data found and comparing with existing theories. Then analyzed its application in practice so that a conclusion can be drawn. Based on the selected thesis title, there are 2 elements in this research, namely:

**Internal audit as a management tool:**
- a. Internal Audit Objectives and Scope
- b. Internal Audit Responsibilities
- c. Internal Audit Qualifications
- d. Internal Audit work program
- e. Implementation of Internal Audit
- f. Internal Audit reports and follow-up

**ISO 9001: 2015 & 22716: 2007**
- b. Analyzing the company's management system in improving the quality of its products

The data collection technique will be carried out by the author, namely by using the sources obtained and carried out in several ways as follows: Field Study (Field Research), Interview, in this interview technique the writer conducts questions and answers with parties related to the problem under study. To get this data and information needed by the author in this study, the author contacted several parts of the PT. Orson Indonesia, namely, representatives from various departments. Represented Management Section. Observation, in this observation technique by conducting direct research in the field of company activities related to the object of research. The results of this study are used as the basis for research to collect relevant data. Library Research, in this literature study by reading and studying books that are related to the problem being studied. In accumulating and analyzing the data, the writer takes the theory based on the theories obtained by the author while in college along with other literatures to be compared with the object to be studied.

**4. Result and Discussion**

**Brief History of PT. Orson Indonesia**

In 2016 PT. Orson Indonesia established a Saponification Plant to support market growth and customer demand. By using the sophistication of avoiding Mazzonia each month the Saponification Plant produces 3600 Mts (Matrix Tons). Saponification Plant has a strategic location close to the Toilet Soap Plant and supports all existing facilities. PT. Orson Indonesia has two plants, namely the Toilet Soap Plant and the Soapnoodle Plant (Saponification Plant). This Toilet Soap Plant is the first plant established by PT. Orson Indonesia, which produces various kinds of bath soap with various variants and shapes. Then for the Soapnoodle Plant, which was established in 2016 for the commissioning or first production processing, this Soapnoodle Plant is a plant that produces bath soaps or as raw material for toilet soap. Therefore PT. Orson Indonesia makes it easy for customers to request their orders according to what they want. In this Toilet Soap Plant, the products will be marketed to Asian and African countries such as India, Singapore and others. Saponification Plant is also the same as the Toilet Soap Plant, which markets its products to Asian and African countries.
And sold locally too. PT. Orson Indonesia has a vision and mission that is based on the establishment and direction of future company development (PT. Orson Indonesia., 2018). Vision, to become an international standard soap company in quality, management and service. Mission produce "International Quality" products. Providing services and solutions to keep customers' business running smoothly through systems and processes that are specific to the needs of each customer. Always prioritize customer satisfaction by continuously exploring customer needs and providing innovative services as the right solution

Types of Soap Produced at PT. Orson Indonesia

PT. Orson Indonesia is a manufacturing company that produces soap. Soap produced a type of bath soap. With the consideration that these products are more in demand by customers from Asian and African countries. Therefore, these products are mostly exported to Asian and African countries. These soap products have various kinds of variants such as blossom, jolie, baby days, gold leather, admire, soft pearl, mediclean and fruitone. The various kinds of soap contain different ingredients. Such as color content (color), perfume (fragrance) etc.

Organizational Structure

The organizational structure of PT. Orson Indonesia is led by a President Director who is in carrying out his duties. The President Director is in charge of 1 Director, the Director is in charge of 1 General Manager. The General Manager is in charge of 3 Divisions, namely the Purchasing Manager, the Plant Division and the Finance Division (Accounting Manager). The Plant Division oversees 8 Departments, namely the Warehouse & PPIC Department, Production Department, QC / R & D Department, Electrical & Utility Department, Engineering Department, IT Department, Exim Department and HR&GA Department.

Table 1. Matrix 7 (Seven) Principles of ISO 9001: 2015

<table>
<thead>
<tr>
<th>No.</th>
<th>ISO principles</th>
<th>Standard</th>
<th>Implementation</th>
<th>Appropriate / Not Appropriate</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>Leadership Procedure of Training, Competence and Awareness</td>
<td>1. Code of Conduct and Company Regulations</td>
<td>Appropriate</td>
<td>Appropriate</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2. Working hours, calculation of overtime, payment method and vacation days</td>
<td>Appropriate</td>
<td>Appropriate</td>
</tr>
<tr>
<td></td>
<td></td>
<td>3. Communication Level</td>
<td>Appropriate</td>
<td>Appropriate</td>
</tr>
<tr>
<td></td>
<td></td>
<td>4. Precautions related to emergency conditions</td>
<td>Appropriate</td>
<td>Appropriate</td>
</tr>
<tr>
<td></td>
<td></td>
<td>5. Quality Policy / QMS</td>
<td>Appropriate</td>
<td>Appropriate</td>
</tr>
<tr>
<td>3</td>
<td>People Involvement Communication Enhancement Procedure</td>
<td>Training and Training Program</td>
<td>Appropriate</td>
<td>Appropriate</td>
</tr>
<tr>
<td>4</td>
<td>Process Approach Customer Order Procedure</td>
<td>Acceptance of Orders Directly to Top Management</td>
<td>Not Appropriate</td>
<td>Not Appropriate</td>
</tr>
<tr>
<td></td>
<td>Process Procedure</td>
<td>1. PPIC makes a Work Order</td>
<td>Appropriate</td>
<td>Appropriate</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2. Production prepares the necessary materials</td>
<td>Appropriate</td>
<td>Appropriate</td>
</tr>
<tr>
<td></td>
<td></td>
<td>3. Warehouse Stores Inventory</td>
<td>Appropriate</td>
<td>Appropriate</td>
</tr>
<tr>
<td></td>
<td>Process Support Procedure</td>
<td>1. HRD regulates everything related to employee profile and status</td>
<td>Appropriate</td>
<td>Not Appropriate</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2. Purchasing prepares all user needs and makes purchase orders</td>
<td>Appropriate</td>
<td>Appropriate</td>
</tr>
<tr>
<td></td>
<td></td>
<td>3. Accounting prepares all payments</td>
<td>Appropriate</td>
<td>Appropriate</td>
</tr>
</tbody>
</table>
### Analysis of Company Management Systems in Improving Product Quality

In the policies in PT. Orson Indonesia, the implementation of the ISO 9001: 2015 Quality Management System is expected to help companies to be more structured and produce high quality products that can satisfy consumer needs. But there are still some products that do not meet product quality standards, therefore PT. Orson Indonesia implements GMP 22716: 2007 training which will improve the quality of the products it makes. Operators or employees in the field are given GMP training which aims to:
- Reduces high operating costs
- Prevents low product quality
- Maintain the welfare of fellow employees
- Maintenance of the work environment
- Do good packaging
- Avoid being exposed to substances that will damage the product
- Perform calibration of raw materials and finished goods

In the interview results I got from the informant that:

<p>| | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>4. Exim arranges export sales and import purchases documents</td>
<td>Appropriate</td>
<td>Appropriate</td>
</tr>
<tr>
<td>5</td>
<td>Enhancement</td>
<td>Procedure of using machine</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>Evidence-Based Decision Making</td>
<td>Procedure of Follow-up Findings</td>
</tr>
<tr>
<td>7</td>
<td>Relationship Management</td>
<td>Communication Procedure</td>
</tr>
</tbody>
</table>
"For new products, I take a sample during processing before packaging, for me to re-analyze and the raw materials that have not been used I will do the analysis first. Because it avoids product contamination.” The interview was a representative of the Quality Control staff.


Internal audit is an important function in a corporate organization to provide advice and recommendations to management regarding the weaknesses in PT. Orson Indonesia. In carrying out this Internal Audit activity, it must have requirements to carry it out, one of which is the Auditor. Auditor is someone who carries out audit activities. Who became an Auditor in PT. Orson Indonesia, namely representatives of each Division at PT. Orson Indonesia. Each division representative is selected by 2 people to be the Auditor. Internal Audit is one of the mandatory requirements of the implementation of this ISO Quality Management System, therefore PT. Orson Indonesia is required to carry out this Internal Audit. Based on the explanation above, the role of the Internal Audit of PT. Orson Indonesia can improve the Quality Management Quality System ISO 9001: 2015 and 22716: 2007, without the cooperation of the parties related to this Internal Audit activity will not run smoothly. After the auditors carry out their duties, the audit results will be collected back to the Representative Management which will be analyzed and reviewed again the audit results. Then, after being analyzed and examined by Represented Management, the results will be announced at the closing meeting. And if there is still something incomplete for the documentation, you will be asked to complete it again. From the results that have been checked, it will be concluded that the findings obtained from the audit results will be collected as a report on the results of the examination. Where the results of this inspection are a tool for management to assess the performance of the management they have made. From the results of the report, the Management will make decisions to take the necessary follow-ups for improvement.

Table 2. Internal Audit Matrix

<table>
<thead>
<tr>
<th>No.</th>
<th>Division</th>
<th>Standard</th>
<th>Implementation</th>
<th>Appropriate / Not Appropriate</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>HRD &amp; GA</td>
<td>New Employee Recruitment Procedure</td>
<td>1. Accept candidates for employees who comply with the standards and qualifications required</td>
<td>Appropriate</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>2. Provide contracts to new employees</td>
<td>Appropriate</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Procedure of Old Employee Documents and Profiles</td>
<td>1. Storing old employee profile data</td>
<td>Not Appropriate</td>
</tr>
<tr>
<td>2</td>
<td>Purchasing</td>
<td>New Supplier Procedure</td>
<td>1. Create new supplier forms to send to new suppliers</td>
<td>Not Appropriate</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>2. Request input or documents required for input into the system</td>
<td>Not Appropriate</td>
</tr>
<tr>
<td>3</td>
<td>Accounting</td>
<td>Payment procedures</td>
<td>1. Prepare payment documents and attachments thereof</td>
<td>Appropriate</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>---</td>
<td>---</td>
<td>---</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Advance payment documents or DP</td>
<td>Not Appropriate</td>
<td>Appropriate</td>
<td>Not Appropriate</td>
<td></td>
</tr>
<tr>
<td>3. Submission of Payment</td>
<td>Not Appropriate</td>
<td>Appropriate</td>
<td>Not Appropriate</td>
<td></td>
</tr>
<tr>
<td>4. When the payment is due</td>
<td>Not Appropriate</td>
<td>Appropriate</td>
<td>Not Appropriate</td>
<td></td>
</tr>
<tr>
<td>Banking procedures</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. Check account via internet banking</td>
<td>Appropriate</td>
<td>Appropriate</td>
<td>Appropriate</td>
<td></td>
</tr>
<tr>
<td>2. Prepare a payment transfer slip</td>
<td>Appropriate</td>
<td>Appropriate</td>
<td>Appropriate</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Exim</td>
<td>Export Procedure</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. Prepare documents related to shipping</td>
<td>Appropriate</td>
<td>Appropriate</td>
<td>Appropriate</td>
<td></td>
</tr>
<tr>
<td>2. Prepare documents for external</td>
<td>Appropriate</td>
<td>Appropriate</td>
<td>Appropriate</td>
<td></td>
</tr>
<tr>
<td>3. Prepare Proforma Invoice, Commercial Invoice and Packing List</td>
<td>Appropriate</td>
<td>Appropriate</td>
<td>Appropriate</td>
<td></td>
</tr>
<tr>
<td>Procedure for Import</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. Prepare documents related to shipping</td>
<td>Appropriate</td>
<td>Appropriate</td>
<td>Appropriate</td>
<td></td>
</tr>
<tr>
<td>2. Prepare documents related to Customs</td>
<td>Appropriate</td>
<td>Appropriate</td>
<td>Appropriate</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>PPIC</td>
<td>Production Planning Procedure</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. Create a Work Order</td>
<td>Appropriate</td>
<td>Appropriate</td>
<td>Appropriate</td>
<td></td>
</tr>
<tr>
<td>2. Save Stock</td>
<td>Appropriate</td>
<td>Appropriate</td>
<td>Appropriate</td>
<td></td>
</tr>
</tbody>
</table>
5. Conclusion

Based on the results of research conducted by the author at PT. Orson Indonesia to find out the Role of the Internal Auditor of PT. Orson Indonesia in Improving Integrated Quality Management System ISO 9001: 2015 compared to the established procedures and theories, the conclusions obtained are as follows, in this Internal Audit activity which plays an important role, namely an Auditor, Internal Auditor at PT. Orson Indonesia, namely each representative of all divisions in PT. Orson Indonesia. Internal Audit Activities at PT. Orson Indonesia trusts the Internal Auditor to conduct direct examination of the divisions in PT. Orson Indonesia which must comply with the procedures set out in ISO. Therefore, the role of an Internal Auditor at PT. Orson Indonesia is important for improving the Quality Management System of ISO 9001: 2015 and 22716: 2007.
In the implementation of this Internal Audit, an auditor checks each division by asking all procedures and document control whether the registered procedures have been implemented correctly and the documents that the auditor keeps, whether the division keeps them properly. Based on the above conclusions, the authors can have implications for the management of PT. Orson Indonesia which might be useful in implementing the next Quality Management System for company organizations that are in PT. Orson Indonesia. As follows, in implementing Internal Audit at PT. Orson Indonesia has been implemented well, but there are a number of things that need to be tightened in their implementation. Because there are several implementations that still look normal. The standards that have been set at PT. Orson Indonesia for ISO 9001: 2015 and 22716: 2007 has been properly implemented, but when the Internal Audit process was already running and nothing else was followed up. There are several employees of PT. Orson Indonesia who is still violating or doing something that is not in accordance with the procedure. Therefore, those who organize or administer this ISO certification ask to be tightened over the problems that occur.

In implementing the 7 ISO Principles at PT. Orson Indonesia has been implemented correctly. However, there are some principles which have not been applied completely. Therefore, please observe again for the implementation that is still incomplete for follow-up. In this Internal Audit activity, an Auditor should prepare questions in accordance with the audit check list that has been written or prepared by the Representee Management section. And do not ask outside of the audit check list questions. Please give ISO training again because there are still some employees who do not understand the ISO.

References
Dividend Policy to the Value of the Firm (Study in Manufacturing Sector Companies Listed on Indonesia Stock Exchange). In 2019 International Conference on Organizational Innovation (ICOI 19). Atlantis Press.


Volume 2, Issue 4 available at http://e-journal.stie-kusumanegara.ac.id
Kasus Pada Pt. Otto Pharmaceutics Ltd).


Competences of MSME Actors in Utilizing ICT in West Java Province

Vera Agustina Yanti* & Danny Ong

Universitas Bina Sarana Informatika
*e-mail: vera.vay@bsi.ac.id

Abstract

The purpose of this study is to analyze the level of competence of business actors in utilizing the means of Information and Communication Technology. This study was conducted in the district of Bandung, Bogor district Bogor city and the city of Bandung from November 2019 to February 2020. Sampling respondents amounted to 358. Based on the results of the overall selection of population 3479. Data analysis using SPSS version 21. The research results showed based on the test results individually or partially that the competence of business actors in utilizing ICT tools that competence is directly influenced by the profile of business actors, the perceptions of business actors, and the utilization of ICT facilities and 1 variable has little influence on the competence of the perpetrators business. Based on the test results simultaneously that the profile of business actors, support the external environment, the perceptions of business actors and the utilization of ICT facilities. Based on the regression equation model shows that the higher the competence of business actor profile of business actor, the higher the perception of business actors the higher the utilization of ICT facilities will affect the higher competence of UMKM business actors.

Keywords: Utilities ICT, competency, Actor business.

1. Introduction

Micro, Small and Medium Enterprises (MSMEs) are the largest group of economic actors in the Indonesian economy. The Ministry of Cooperatives and Small and Medium Enterprises in 2012-2013 shows that data on the development of SMEs reached 56,539,560 with a growth of 9.5 percent. In line with its development, the UMKM sector is facing increasingly competitive competition, the swift flow of goods entering the land due to the implementation of an open economic system, requiring business actors to be able to face global challenges and adapt. The results of APEC's research (2006) (Tambunan, 2010) show that in the global environment, MSMEs in the country still have low competitiveness, the MSME performance score index in Indonesia based on data from the APEC MSME Innovation Center is below four. According to data from the Ministry of Trade (2013), the contribution of the Indonesian SME sector to export activities is still low, from 670 thousand units only 5,000 UMKM units export their products abroad, so that UMKM products are unable to penetrate the free market. Products made by business groups at the domestic market level have not been able to compete with imported goods. This is because the quality of goods is not yet competitive, and technological limitations.
The disadvantage of micro, small, and medium enterprises in terms of the potential benefits of information technology for business development is the limited use of information technology. MSMEs in the country still use technology in manual form in each of their business activities. To support competitive advantage, it is necessary to apply information technology in business development. Based on the data above, MSMEs in the country have low competitiveness values, only business actors have the ability to utilize technology information, able to face global challenges exist today. This is in line with Tambunan's (2013) research that companies that apply information technology in their business development will increase high competitiveness. Along with this, technological development is increasingly rapid and the growth of ICT facilities continues, various software, hardware and internet programs, growing. Based on international data from Nielsen (2015), it is stated that the number of Android-based smartphone users reaches 52.6 percent, 2.8 percent for Microsoft, 0.7 percent for Blackberry Messenger (BBM), and 1.2 percent for users of other brands.

The description above shows that global technology development is getting more agile, but the ability of business actors to use ICT is still low. Data from BPS (2006) shows that SMEs with low education are less proficient in information technology. Lack of understanding of information technology has resulted in limitations in its use (Indarti 2007). The use of ICTs among business actors is limited because the ability to control ICT for business actors in the country is still low. Based on the results of a daily survey by Tribun News (2012) of seventeen million SMEs in Indonesia, only 75,000 have a web. This requires awareness of the benefits of technology mastery for small and medium enterprises in order to increase sustainable competitiveness. Increasing awareness and arousing the interest of the UMKM business community towards mastery of ICT with the aim of achieving optimal ICT competence in its utilization, efforts are made to foster changes as desired, need to be carried out gradually and continuously.

In order to mobilize the community of MSME business actors to be able to achieve optimal ICT competence in its utilization, the importance of fostering changes as desired, needs to be carried out gradually and continuously. Research Mata et al. (1995) found that in order to have competitive abilities and competencies, the most important factor is increasing the use of information technology by business actors through education and training. Mastery of information technology for business actors needs to be applied in every activity of business activities. This has a positive impact on increasing efficiency, speed, service quality in the business transformation process and expanding product access. The role of information technology is expected to support the readiness of business actors to face free market situations and as a tool capable of supporting the creation of optimal productivity performance and maximum profitability (Ristek 2005). For the group of business actors engaged in the agricultural and non-agricultural sectors, to have competence in the field of information technology in the management of their business activities, one of which is through extension activities as an empowerment effort. According to the results of Aang's research (2001), empowerment programs through the use of ICTs by assisting Small and Medium Enterprises (MSMEs) are a step to increase the ability or competence of ICT for business actors so that they have an impact on the quality of production, marketing and business profits as well as improving welfare for the community actors. education and counseling as an alternative in increasing competence. Referring to the results of research by Hubeis (2011) it is also stated that competence and performance can be achieved influenced by education / training factors. High competence will have an impact on the high frequency of management and utilization of ICT facilities among MSME business actors.

Based on the competence of MSME business actors in utilizing Information and Communication Technology facilities, it must continue to be developed, along with the increasing rapid development of technology, the continued growth of ICT and the development of internet networks which have an impact on the emergence of an information revolution in the digital era. This study aims (1) to analyze the level of competence of MSME business actors in utilizing ICT facilities.
and (2) to analyze factors affecting the competence of MSME entrepreneurs in utilizing ICT facilities.”

2. Literature Review

A Capacity is the ability that exists at present whilst capability refers to the higher level of ability that could be demonstrated under the right conditions. According to Pary, competency is a set of knowledge and skills and attitudes relate to one another the effect on individual jobs that correlate with the performance can be improved through training. Technical competence according to Government Regulation No. 19/2005, personal competence is competence according to personality and behavior attitude capable of developing potential, according to SANKRI technical competence is the individual ability in a particular technical field for each task.

Competence is required not only in business and management ability in basic, as the development of information and communication technologies, ICT revolution has marked the time when the information becomes a commodity or the power to control it, that the ability of technological competence is essential for improving the quality of products as well as taking opportunities and chances. The role of ICT gives significant benefits to all areas of social, economic and business. On the other hand, the role of ICT supports the implementation of knowledge-sharing processes by sharing knowledge through ICT facilities that use virtual meetings such as email, mailing list, web conference. According to Gaynor, the application of the technology in the business on distribution, administrative aspects, the rise of products and manufacturing. Therefore, the mastery of skills in utilization of ICT facilities is required.

The technical competence of the utilization of ICT facilities that must be controlled by businessmen currently is as follows (1) a basic level of competency in operating a computer both hardware and software, (2) competency in digital marketing, (3) the competency in using browser to access pricing information, access to information on raw materials and finding business partners, (4) competency in running the application of e-commerce/e-business, and (5) competency in understanding the seven elements of the media literacy. This is becoming important due to the development of internet networks that affect the onset of the revolution of information in the digital age and have to adapt to the conditions of the digital economy

3. Methodology

The research used a quantitative approach, carried out from December 2016 to May 2017. The survey was conducted in 4 research locations, Bandung Regency, Bogor Regency, Bandung City and Bogor City. The study population was 3479 with a research sample of 358 MSME business actors. Respondent requirements from a predetermined population. Respondents were determined by using proportioned random sampling technique. The sample size was determined using the Slovin method using a precision of 5%. Data collection techniques for MSME business actors were collected using interview techniques, questionnaires, observations and FGDs on MSME business actors, Head of Business Communities, local government staff of the local UMKM Service carried out during the research. Interviews with resource persons related to MSME business actors on the UMKM Service Staff at the Regional Government of Bandung Regency, Bogor Regency, Bogor City and Bandung City were carried out during the study. The qualitative data were analysed using descriptive statistics and inferential statistical tests, namely SEM analysis. The data collected are: Profiles of MSME business actors (X1); External environmental support (X2); Perceptions of MSME business actors (X3); Utilization of ICT facilities (X4); Y1 (Competency of MSME entrepreneurs); Y2 (Business sustainability). Processing and data analysis using descriptive and inferential statistics.
4. Result and Discussion

Level of Utilization of Information and Communication Technology Facilities for MSME entrepreneurs

Today’s technological advances have penetrated into various fields in all aspects of human life. One of them is the internet network, this network is able to make interconnection between humans very fast and appear in a fraction of nano seconds. Easy access to information and low cost make technology facilities play an important role in every activity. The current information age is also called the digital era. Each individual UMKM business actor has different characteristics in using and utilizing ICT facilities. The characteristics of business actors in utilizing ICT facilities are a description of business actors in operating ICT facilities in each of their daily business activities. The description of the characteristics of MSME business actors at the level of utilizing ICT facilities, hardware and software is presented in Figure 1.

UMKM business actors in utilizing ICT facilities

Based on the composition, in Bandung Regency the highest was 74 percent of MSME business actors in the productive adult age category (20-46) followed by Bogor Regency with 66.7 percent. The average level of formal education of MSME entrepreneurs in utilizing ICT facilities is high school graduates because most of the respondents have long graduated from 12 years (SMP-SMA). Based on the results of the study, it shows that the level of education is sufficient to support business actors to be able to use ICT facilities, even though it is conventional to seek, receive and send information. The high category average in urban areas is Bandung City 90 percent and Bogor City is 80 percent. In Bandung Regency 60 percent and the frequency of MSME business actors attending non-formal education classified as rare is 1-5 times a year, due to the low intensity of counseling or assistance from the Government regarding the use of ICT facility applications in business activities. The number of ownerships of ICT facilities, in average, MSME business actors are still in the low category, less than 5 units of ICT facilities owned by MSME business actors in ownership of ICT facilities. For the Cosmopolitan Level, the average category is high for MSME business actors in the City of Bandung and Bogor City and in the low category in MSMEs in Bogor Regency and Bandung Regency, the level of motivation of MSME entrepreneurs is in the high category on average for MSME
External environmental support, Perceptions of MSME business actors, Utilization of ICT facilities External environmental support at the quality level of mentoring support and empowerment program support for business actors in utilizing ICT is classified as being in the medium category. and its application in the business world is classified as low in one year <5 times the frequency of extension, this is based on information, material and extension methods related to the use of ICT, the material that has been submitted is online marketing through the internet and the use of basic computerized financial applications, and extension methods simulation, practice, and in class, while the support for empowerment programs in the form of facilitating learning and procurement of ICT facilities for ICT utilization activities in business activities is classified as low. Only business actors who have a group or are affiliated with a business community group receive priority support or assistance from the government. The agencies currently providing support are from higher education institutions and local UMKM agencies. Support for empowerment programs is the most dominant sub indicator in the environmental and external support variable, with the highest loading factor value of 9.37 compared to other sub indicators, it is better if counseling or assistance regarding the use of ICT facilities is carried out in a sustainable manner so that the competence of MSME entrepreneurs can be improved.

For information access and availability of adequate infrastructure networks in the four research areas, Bandung Regency, Bogor Regency, Bogor City and Bandung City. Signal access, ICT facilities as a means of access to information in urban and rural areas in the district are quite adequate, this is indicated by the percentage score of the level of access to information and infrastructure on average> 80 percent. The infrastructure network in the four research areas is also quite available, including physical buildings, transmission towers, roads, and other physical facilities. The level of perception of UMKM business actors on the characteristics of ICT innovation is on average high in the perception.
of business actors towards conformity to the needs of both urban and rural business actors, namely in the Bandung and Bogor areas. Based on the results of community research, the MSME business community as respondents currently have an assessment that the use of ICT facilities is in accordance with the needs of business actors in each of their business activities, including business actors assessing that other ICT facilities have been utilized by business actors. is suitable and suitable for all business activities including marketing communications and accelerating customer service. The level of business actors' perceptions of the characteristics of ICT innovations, namely ease of use, relative advantage and ease of viewing results and to try out, is on average high in the perceptions of business actors in urban areas. This can be shown in the percentage score > 60 percent. Because in terms of education level of MSME business actors is higher than business actors in the district, so that the level of awareness, assessment of the use and benefits of ICT is higher.

The level of utilization of ICT facilities includes the level of intensity of use and level of information management of ICT. The level of intensity of utilization of ICT facilities for business actors in urban and regency areas is classified as moderate. The observations of researchers in the field that most MSME business actors do not routinely use computer facilities for every business activity, but overall use ICT facilities in the form of cellphones with frequency levels of use > 10 (times) in one week, both conventional and Android-based cellphones or smartphones with various applications controlled by business actors. The level of management of information on average is high. MSME business actors in urban areas, in terms of population demographics, include consumers / customers who have a fairly high level of mobility towards the use of ICT and the average urban community tends to be cosmopolitan, so that it affects most MSME consumers who are in urban areas. There tends to be a very high level of information management on ICT facilities, thus encouraging business actors to actively use a variety of applications both through cellular and PC computers, both selecting information, managing and disseminating information. The results of the study are in line with Suaid (2013) which states that the ability to process data and utilize the resulting information is a vital requirement for organizations. Basic processing into information can be done more efficiently and effectively using computer assistance with a computer-based information system (Computer Based Information System). Information generated by using technology (computer). Based on field observations on cellular facilities, the Whats up and Blackberry applications are mostly used on Android-based cellular facilities, while sms applications are mostly used on conventional cellphones. The social media application is used by a small proportion of respondents in the district to interact with customers.

Personal Competence and Technical competence of MSME business actors

Competency in the use of ICT is very important in the era of digitization because currently there is a shift in the economy from offline to digital or online. It requires optimal mastery among business actors in its utilization. ICT use skills and assistance are needed for MSMEs in the learning process of ICT facilities (Mata, 1993; Aang, 2011). Starting with mastery of the personal competence of the business actor. The average level of personal competence is in the high category of business actors in urban areas and in districts with a percentage score of > 70 percent. The personal abilities of business actors who have persistent fighting power and high enthusiasm and responsibility in their business activities are classified as good. Meanwhile, the level of technical competence of business actors in the 4 research areas is in the medium category with a percentage score above > 75 percent. This is because business actors in Bogor Regency, Bogor City, Regency and Bandung City, because the average business actor has technical skills in the use of ICT facilities, they do not optimally master various software applications available on computers and cellphones. On average, business people generally master the use of cellular means to communicate and manage information, namely
downloading images, copying images via cellphone media with certain applications, from the observation that only WA and blackberry applications are capable of managing information, while computers are very rarely used besides reasons business actors are too big and not easy to carry anywhere.

Factors Affecting the Competence of MSME entrepreneurs in utilizing ICT facilities in the Bandung and Bogor areas

In the initial hypothesis, the business continuity of MSME business actors in Bandung Regency and Bogor Regency, Bandung City and Bogor City is thought to be influenced by the profile of MSME business actors (X1), external environmental support (X2) perceptions of MSME entrepreneurs (X3) and utilization of ICT facilities (X4 ) and (Y1) Competencies of MSME entrepreneurs in utilizing ICT facilities. Not all of the factors described affect the competence in utilizing ICT facilities. The significance of the profile of business actors, the perception of the characteristics of ICT innovation and the use of ICT facilities on the competence of business actors means that the higher the factors that contribute to the competence of business actors in utilizing ICT facilities, especially from the intensity level of utilization of the level of ICT information management, and the level of perception of the characteristics of innovation. ICT, and the level of motivation, cosmopolitan of business actors will increase the competence of business actors in utilizing ICT facilities. From the results of in-depth interviews, observations in the field show that the importance of technically using ICT facilities for every business activity is an aspect that must be considered, its application is implemented to increase competitiveness and business sustainability, this occurs because some respondents do not realize the importance of the benefits of optimal use of facilities. ICT for business activities, especially in the current digitalization era. Based on the facts in the field, the business world has now switched to digital media.

According to Hartarto (2017) research results from Deloitte Access Communications suggest that Indonesia will become a middle-income country by 2025, if the level of economic growth is good, it will encourage the involvement of SMEs in the use of digital technology through technology, business actors will gain significant profits of up to 80 percent to be 17 times more innovative, and Indonesia is predicted to play a significant role controlling around 52 percent of the e-commerce market in Southeast Asia. Meanwhile, Setiono (2017) explains that business actors who are active online and social media applications with a good package of content will attract potential buyers outside country, government support has a vision of making Indonesia to position Indonesia as the country with the largest digital economy capacity in Southeast Asia in 2020. This is a promising opportunity for the MSME sector. However, referring to the results of research by The Asia Foundation in 2002, the number of MSMEs utilizing e-commerce in MSMEs in the Bandung and Bogor areas was only 18 percent. Based on interviews in the field, the West Java Business Daily explained that the use of ICT among MSMEs in the Bandung area was still sporadic due to the low ability of mastery of ICT in MSME business actors. The results of Nurul's research (2007) showed that the impact of a less strategic understanding of national technology led to limitations in the use of ICT facilities.

Based on interviews in the field, extension activities and empowerment programs related to outreach regarding the importance of ICT facilities for business activities and the use of ICT facilities, both software and hardware applications, have not reached widely evenly and are not sustainable for business actors. Efforts that must be made are intensive education and counseling as an alternative in increasing competence. Referring to the results of research by Hubeis (2011) it is also stated that competence and performance can be achieved are influeneced by education / training factors. High competence will have an impact on the high frequency of management and utilization of ICT facilities among MSME business actors.

Volume 2, Issue 4 available at http://e-journal.stie-kusumanegara.ac.id
Results of Data Analysis

The data analysis technique in this study uses multiple linear regression analysis, or the SPSS version 21 test. To perform multiple linear regression analysis must meet the requirements, namely passing the classical assumption test consisting of normality test, multicollinearity test, heteroscedasticity test and data in the form of interval data is said normal if the Sig (2-tailed) value is greater than the level of significance used (5%). The results of the data validity and reliability test in this study indicate the value of r with a total score> 0.30 and the reliability test> 0.60.

Classical assumption test results.

<table>
<thead>
<tr>
<th>Variables</th>
<th>Normality</th>
<th>Multicollinearity</th>
<th>Heteroscedasticity</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Sign 2-tailed</td>
<td>Tolerance</td>
<td>VIF</td>
</tr>
<tr>
<td>Business actor profile external (X1)</td>
<td>0.087</td>
<td>0.486</td>
<td>2.057</td>
</tr>
<tr>
<td>environmental support (X2)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Perceptions of business actors (X3)</td>
<td></td>
<td>0.862</td>
<td>1.160</td>
</tr>
<tr>
<td>Utilization of ICT facilities (X4)</td>
<td></td>
<td>0.380</td>
<td>2.634</td>
</tr>
<tr>
<td>constant</td>
<td></td>
<td>0.459</td>
<td>2.177</td>
</tr>
</tbody>
</table>

The results of multiple regression analysis are presented in Table 2.

Table 2. Multiple Regression Analysis Test

<table>
<thead>
<tr>
<th>Variabel</th>
<th>Unstandard coefficient</th>
<th>Standardized coefficient</th>
<th>t</th>
<th>Sign</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>Stand Error</td>
<td>Beta</td>
<td></td>
</tr>
<tr>
<td>constant</td>
<td>46.362</td>
<td>5.246</td>
<td></td>
<td>8.838 0.000</td>
</tr>
<tr>
<td>Business actor profile external (X1)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>environmental support (X2)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Perceptions of business actor (X3)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Utilization of ICT facilities (X4)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Adjusted R^2</td>
<td></td>
<td></td>
<td></td>
<td>0.605</td>
</tr>
</tbody>
</table>

Volume 2, Issue 4 available at http://e-journal.stie-kusumanegara.ac.id
Based on the description of the results of the data processing above, the regression model equation is obtained as follows:

\[ Y = 46.362 + 0.306X_1 - 0.024X_2 + 0.197X_3 + 0.754X_4 \]

For the Bandung and Bogor areas, the results of multiple linear regression analysis show that competence is significantly influenced by the profile of MSME business actors (\( \beta = 0.306; p = 0.000 \)), external environmental support (\( \beta = -0.024; p = 0.405 \)), Perceptions of MSME entrepreneurs (\( \beta = 0.197; P = 0.000 \)), utilization of ICT facilities (\( \beta = 0.753; p = 0.000 \)), meaning that the competence of MSME business actors will be higher with the higher the intensity of ICT utilization, the higher the profile of the business actor, the higher the perception of the business actor, and the lower the support of the external environment. Overall the variables studied had a significant effect on the competence of MSME business actors in utilizing ICT facilities. With the coefficient of determination \( R^2 = 0.609 \) it means that the variables studied were profiles of business actors, external environmental support, perception and utilization. ICT facilities affect the competence of MSME business actors by 60 percent, while the remaining 40 percent is influenced by other variables.

Based on the table above, individual testing shows that not all exogenous variables have a real influence on the competence of business actors, but there are three variables that have an individual / partial effect on the competence of business actors in utilizing ICT facilities. Each variable has an individual effect on the competence of MSME business actors, while the other independent variable supports the external environment does not have an individual influence on variable Y, namely the competence of MSME entrepreneurs in utilizing ICT facilities. Simultaneous testing shows that by using the F test in the SPSS program the value of F count = 137.9 while the value of F table > 2.39 because the value of F count < F table, it can be said that all independent variables have a simultaneous influence on the Y variable of the competence of MSME business actors.

5. Conclusion

From the results of the descriptive analysis, it can be explained that the level of competence of MSME business actors in utilizing ICT facilities includes personal competence and technical competence in the areas of Bandung Regency, Bogor Regency, Bogor City, and Bandung City on average in the medium and high categories. Medium category competence is technical competence, because the average percentage score is > 50 percent, it requires support from the government related to increased counseling for MSME business actors to increase awareness about the importance of using ICT facilities for business activities, as well as strengthening perceptions and providing motivation for business actors to increase the intensity of using ICT facilities. Meanwhile, the average personal competence in the high category, the personal ability of business actors is classified as good, with an average score of > 80 percent. Based on the results of the multiple regression analysis test, it is described that from the four independent variables, there are 3 variables that must be prioritized, namely perception, utilization of ICT facilities and the profile of business actors because these factors affect the competence of MSME business actors.

All independent variables have a simultaneous influence on the competence of MSME business actors, this can be seen from F count > F table, based on individual testing there are three independent variables that have a significant effect, and one independent variable does not have a significant effect on the competence of MSME business actors. namely profile, perception and utilization, the entire...
independent variables X1-X5 affect competence by 60 percent, the remaining 40 percent is influenced by other variables that have not been included in the model.

References
Tribunnews, 2015. Number of Indonesian Internet Users.
The Effect of Islamic Social Reporting on Firm Value (Case Study on Islamic Banks In Indonesia)

Rahmawati Khoiriyah*

Universitas IAIN Surakarta
*e-mail: crodhorrock@gmail.com

Abstract

This study aims to determine the effect of islamic social reporting against firm value. The development of ISR includes five themes, they are social, labor, enviroment, corporate governance and service/product. This study identified 43 disclosure index items of ISR main theme. Data analysis using multiple linier regression. The data used is secondary data obtained form annual reports of islamic banks registered on Bank Umum Syariah by taking a sample of 12 islamis banks. The result indicate that islamic social reporting simultaneously influences firm value. Partially only 3 indicators that have effect on firm value, they are social influence of 0,07977; labor influence of 0,11304; and environment influence of 0,15579.

Keywords: islamic social reporting, social, labor, environment, corporate governance, service and product, and firm value.

1. Introduction

The Islamic Banking sector has been accused of being indirectly involved in facilitating the transfer of funds to terrorist organizations (de Goede, 2003; Pollard and Samers, 2007). To counter these perceptions the Islamic banking sector is required to portray itself as an ethical and socially responsible financing option, and has sought to strengthen reporting practices to demonstrate transparency in its operations (Khan, 2010). Sharia banks are required to comply with the rules and regulations set out for the conventional banking sector that meet the requirements of the sharia known as ISR. ISR is an extension of social reporting that helps companies make decisions to fulfill their obligations to others and to creators and includes not only the expectations of the wider community regarding the company's role in the economy but also on a spiritual and religious perspective. In particular, the ISR index emphasizes social justice regarding the rights of minorities, employees and the environment (Haniffa, 2002).

Branco and Rodrigues (2008: 683) explain that managers should disclose CSR information that meets the needs of various stakeholders. Failure to do so can result in withdrawal of support and adversely affect the company's reputation / value socially. So that it can reduce the economic benefits for the organization. Failure to meet the demands of various stakeholders can lead to withdrawal of support as well as bad perceptions that arise on the organization's reputation and economic sustainability. This implies that the perceptions of many stakeholders contribute to the creation of a company's reputation, which in turn can generate economic benefits. The reputation and value of the company will show a positive trend when the company is involved in CSR activities and is disclosed.
in the annual report. These companies are considered to have good value corporate values and intangible assets which can be translated positively in many ways such as stimulating customers, fostering investment interest, attracting the best talent, motivating employees, generating job satisfaction, generating more positive and accepting media coverage, increased value of financial analysts (Brammers and Pavelin, 2004: 705).

In line with this, the ACCA (2007) web-based survey of 244 respondents consisting of representatives from companies, academia, government and international agencies reported that thirty percent of respondents stated that CSR reporting is very important while 50 percent stated that it is somewhat important in building a company's reputation. Only a small proportion of respondents (20 percent) stated that the reporting had no impact on their view of the company's reputation. Previous empirical studies highlighted that CSR reporting has become an increasingly important part of how stakeholders assess a company's reputation. In line with this, Bebbington et al (2008: 373) argue that failure to manage CSR wisely will affect the company's reputation. This suggests that CSR disclosure is a tool by which management can influence the perceptions of various stakeholders. With respect to organizations governed by the principles of Islamic moral law (sharia), it is hoped that the stakeholders have certain expectations of the behavioral practices of these organizations.

There are two things that must be considered in disclosing ISR from an Islamic perspective, namely: accountability, social justice and ownership. Western concepts of accountability are usually limited to organizational stakeholders. Accountability refers to the processes that an organization goes through, thus making a commitment to balance the needs of stakeholders in its decision making. This concept is limited to the human world when imagined from a Western perspective. However, from an Islamic point of view this concept is broader. In Islam, accountability is first and foremost to Allah SWT. Briefly capturing the concept of accountability in Islam. Allah has provided mankind with resources and blessings, too many to count. Humans are expected to use this blessing to serve Allah, and on the Day of Judgment, each person must give an account of how he uses it. This awareness should encourage the actions of every Muslim in all aspects of life, be it personal or business, thus it can be said that accountability to Allah implies accountability to society (Othman, Thani and Ghani, 2009).

Social Justice Theory is very important for moral development and learning justice in society. Allah commands to give back trust to those who are trustworthy. Some examples of Islam's emphasis on social justice are: prohibition of usury to prevent exploitation of people, imposition of Zakat to help reduce poverty in society, and recommendations for helping others through charity. In Islamic business, justice includes all transactions with employees, customers, and all members of the communities in which the business operates. Allah is the ultimate owner of everything and man has been entrusted with his resources as trust to be used according to Allah's commandments. This concept is closely related to the concept of accountability because for this entrusted resource each person must be held accountable on the Day of Resurrection. The implication of this concept for Islamic business is that the resources used must be in accordance with Allah's commandments and for the benefit of society. Thus it can be concluded that the three concepts of accountability, social justice and ownership are interrelated and interdependent. In this discussion, of course, it does not only cover ISR disclosures, but examines more deeply from a different point of view, whether the disclosure in the ISR index has an influence on firm value, so that the company can be more enthusiastic in increasing the value of a company.
2. Literature Review

Islamic Social Reporting (ISR)

ISR was first studied by Ross Haniffa in 2002. Then Rohana Othman further developed a more extensive study in 2009 in Malaysia, and until now research is still developing with a similar theme by other researchers. Haniffa (2002) reveals that there are many limitations in conventional social reporting systems, so he proposes a conceptual framework for ISR based on sharia-compliant provisions. ISR is an extension of social reporting that helps companies make decisions to fulfill their obligations to others and to creators and includes not only the expectations of the wider community regarding the company's role in the economy but also on a spiritual and religious perspective (Haniffa, 2002). At ISR, the emphasis on social justice goes beyond reporting on environmental, minority interests and employees. This deals with issues related to the welfare of society related to interests and unfair trade practices (Sulaiman, 2005) such as income distribution (known as zakat). Such concerns are in line with stakeholder theory which explains that management provides information to users to maintain company success. The sustainability and success of the company is tied to the full support of its stakeholders (Ullman, 1985). Therefore, it is important for management to evaluate, identify, and report completely social and environmental information in accordance with stakeholder requests (Mohamed Zain, 2004).

Stakeholder Theory

According to Stakeholder theory, corporate sustainability requires support from stakeholders. The stronger the stakeholders, the more companies will have to adjust. Stakeholders can influence (directly or indirectly) and become the control of assets needed by the company, so that the dominance of stakeholders is determined by the level of control they have over the assets. Therefore, when stakeholders have control over significant resources of the organization, the company is likely to react in a way that satisfies them. The government is one of the important stakeholders for the company, therefore the company will conduct and try to make disclosures based on the rules set by the government. So it is very possible that there will be differences in the disclosure of social responsibility in Islamic Banks due to differences in the existing rules in each country. While the latest research shows that the Islamic social reporting index in Indonesia is the highest in Southeast Asia (Othman, Thani and Ghani, 2009).

Islamic Bank

Islamic banking refers to a system of banking activities that is in accordance with Islamic law (Sharia) in all aspects. Among other things, Shari'ah prohibits dealing with interest and making transactions with an unknown fate (gharar), while it requires transactions to be halal (halal), and also requires Muslims to pay a religious retribution in the form of Zakat. Eliminating interest from their transactions is a basic principle on which Islamic banking is based. Based on this definition, it can be stated that for conventional banks, the main objective is profit maximization, which is in line with the Capitalist world view in which these banks are founded. This situation is not the case for Islamic banks because they are founded on the basis of the Islamic religion. Although, banks are seen as separate and legitimate entities in their own right, in reality they are run by humans. Islamic banks are thus run by Muslims, and the ultimate goal of a true Muslim is to succeed in this world and the hereafter by pleasing Almighty Allah in all his affairs. For this reason, Islamic banks have their end goal. This is not to imply that profit is not the main objective of Islamic banks;
conversely, Islamic bank managers are expected to strive earnestly to make reasonable profits for both savers and their shareholders, but meanwhile apply Islamic principles in all their transactions (Haniffa, 2002). So unlike conventional banks, profit maximization is not the main goal of Islamic banks, as they have to incorporate profit and morality into their goals.

3. Methodology

Research Design

This research uses descriptive quantitative method by proposing several hypotheses. The descriptive method begins with analyzing the annual report data which is then tabulated to determine the effect of the independent variable on the dependent variable. The data used is secondary data by looking at the reports published by 12 Syari'ah Banks registered in the BUS.

Measurement Data

Dependent Variable

The dependent variable in this study is firm value. To project firm value, it can be seen from Tobin's Q value, which is the ratio to compare the market value of a corporate stock with total assets. Here is the mathematical formulation of Tobin's Q formula:

\[
\text{Tobin's Q} = \frac{\text{MVE}}{\text{DEBT}} + 1
\]

Information:

Q: firm value
MVE (Market Capitalization): closing price x number of shares outstanding
DEBT (Liabilities): total company debt
TA: total assets / assets

If a ratio value is greater than 1, it means that the company's assets can be purchased at a lower price than the company itself, meaning that the market gives a higher valuation to the company (overvaluation), whereas if the Q ratio is lower than 1, it indicates that the market provides lower rating.

Independent Variable

Islamic Social Reporting (ISR), is an extension of social reporting that helps companies make decisions to fulfill their obligations to others and to creators and includes not only the expectations of the wider community regarding the company's role in the economy but also on a spiritual and religious perspective. There are 43 index / disclosure items from 5 ISR reporting indicators. Each disclosure subject has a value of 1 or 0. A score of 1 will be given if the principal of the ISR disclosure is contained in company data and a value of 0 will be given otherwise. The following is an index of the data used in the ISR disclosure.
Hypothesis testing in this study uses multiple linear regression analysis. Tests are carried out to determine the presence or absence and how much influence between the independent variable and the dependent variable. The steps in testing the hypothesis as a whole are preceded by the Classical Assumption Test which consists of: Normality Test; Multicolonierity and Heteroscedasticity. After fulfilling the Classical Assumption Test, Multiple Linear Regression Analysis is carried out with the following results:
4. Result and Discussion

Data analysis in this study was conducted to determine the effect of independent variables on firm value. With the test results shown in the table below:

<table>
<thead>
<tr>
<th>Variables</th>
<th>Coefficient</th>
<th>t value</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Constant</td>
<td>55,004</td>
<td>3.265</td>
<td>0.015</td>
</tr>
<tr>
<td>Products and Services</td>
<td>-57,732</td>
<td>-1.542</td>
<td>0.730</td>
</tr>
<tr>
<td>Labor</td>
<td>11,304</td>
<td>2.111</td>
<td>0.029</td>
</tr>
<tr>
<td>Social</td>
<td>7,977</td>
<td>1.938</td>
<td>0.037</td>
</tr>
<tr>
<td>Environment</td>
<td>15,579</td>
<td>1.090</td>
<td>0.049</td>
</tr>
<tr>
<td>Organizational Governance</td>
<td>-25,889</td>
<td>-0.115</td>
<td>0.833</td>
</tr>
<tr>
<td>R-Squared</td>
<td>0.679</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Adj. R-Square</td>
<td>0.575</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Then from the table a multiple linear regression equation is compiled with the following composition:

\[
NP = 55,004 - 57,732X_1 + 11,304X_2 + 7,977X_3 + 15,579X_4 - 25,889X_5 + e
\]

Information:
NP = Firm Value
X1 = Products and Services
X2 = Labor
X3 = Social
X4 = Environment
X5 = Organizational Governance

From the linear multiple regression equation above, it can be described as follows:

a. The firm value is constant at 55.004 with a positive value. This shows that if there is a situation where the variables of products and services, labor, social environment and organizational governance are equal to zero, then the firm value is 55.004.

b. The coefficient (β2) is 11,304; shows that every time there is an increase in the labor coefficient of 1%, it will have an effect on the increase in firm value of 0.11304 provided that other variables are fixed.

c. The coefficient (β3) is 7,977; shows that every time there is a social increase of 1%, there will be an effect on the increase in firm value of 0.07977 on condition that other variables remain.

d. The coefficient (β4) is 15.579; shows that every time there is an increase in the environment by 1%, then it affects the increase in firm value by 0.15579 provided that other variables are fixed.

After determining the above equation, it is necessary to carry out the following tests:

1) Partial Test (t test)

Based on the summary table of the Linear Regression Test results above, it can be seen that the independent variables consisting of labor, environment and social have a significant influence.
on the dependent variable, while organizational governance; There is no indication that products and services have an effect on the dependent variable, which in this study is firm value.

2) Simultaneous Testing (Test F)

This test is conducted to analyze the magnitude of influence simultaneously between the independent variables (X) on the dependent variable (Y), and to determine whether the regression model as formulated above is fit / exist or not. The f test results can be seen in the following table:

<table>
<thead>
<tr>
<th>Variable</th>
<th>Sig.</th>
<th>Conclusion</th>
</tr>
</thead>
<tbody>
<tr>
<td>Products and Services</td>
<td>0.005</td>
<td>Fit Model / Exist</td>
</tr>
<tr>
<td>Labor</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Social</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Environment</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Organizational Governance</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

From the table above, it is known that the significance value is $0.005 < 0.05$, so it can be concluded that the regression model is fit, so simultaneously the independent variables affect firm value. Because overall this social responsibility reporting variable shows the financial performance of Islamic bank institutions, the better the reporting level, the better the financial performance of the Islamic bank. Meanwhile, the financial performance will be used by investors to find out the company's value. So that it can be concluded that the better the level of Islamic social reporting of Islamic banks will affect the increase in the value of these Islamic banks.

3) Coefficient of Determination (R$^2$)

The coefficient of determination is intended to measure how big the equation model in this study explains the variation in the dependent variable. The results of the coefficient of determination (R$^2$) can be seen in the summary table of the regression results listed above.

Based on the table above, it is obtained that the R-Square value is 0.575, thus indicating that 57.5% of the firm's value can be explained by the arrangement of independent variables consisting of products and services, social, labor, organizational governance and the environment. Meanwhile, 42.5% will be explained by variables outside this research model.

This study examines the effect of ISR disclosure on the company's value reputation. The results reveal a significant positive relationship between ISR disclosure on firm value. In addition, these results also highlight management proactively implementing and disclosing ISR activities that meet the needs of various stakeholders. These results contribute to the corporate value disclosure literature by providing new evidence that CSR activities and disclosure from an Islamic perspective are equally important business strategies in creating sustained superior performance for organizations. This is in line with the view that organizations need to develop a stakeholder orientation especially in an environment with increasing pressure from jurisdictions dominated by Islamic stakeholders on organizations and engaging in Islamic products to increase their social responsibility from an Islamic perspective. The stakeholder orientation recognizes the importance of addressing the demands of various stakeholder groups. The disclosure of corporate ISR initiatives in annual reports is increasingly being used in communicating CSR initiatives to relevant stakeholders. This in turn strengthens stakeholder relationships and support for the organization which consequently increases firm value.
However, when examined partially, there are only 3 variables that have an influence on firm value. Meanwhile, there are two indicators that do not have a significant effect on firm value. The existence of an indicator of the ISR that has no effect on firm value is also found in research by Ali (2015) which shows that the CSR variable has no effect on firm value. This is because the large number of Islamic banks allocating funds for social responsibility is relatively low, especially in products and services as well as organizational management, whereas when compared to the company's profitability it is classified as large, so that profitability cannot prove its influence in the relationship between ISR and the value of Islamic bank companies.

Besides that, there are three variables from Islamic social reporting which are proven to have an effect on firm value because they have carried out social responsibility well. So that there are many benefits that can be provided to stakeholders, therefore it will lead to satisfaction and appreciation which has a positive impact on increasing firm value. An important dimension of corporate reporting for decision makers is social reporting. The main purpose of social reporting is to determine the impact of corporate actions on the quality of people's lives (Daykin, 2006). In this dimension, ISR reporting plays a particularly important role for Muslim decision makers.

Given the importance of ISR, it is hoped that Sharia organizations/companies can be selective in choosing management and board members in terms of specific qualifications and religious beliefs in formulating strategies and implementing ISR initiatives and disclosures. With respect to Muslim managers and board members, Islamic principles are expected to influence the behavior and decisions of stakeholders.

5. Conclusion

From the results of the calculation, several conclusions can be drawn including:
1. Islamic social reporting which consists of products and services, labor, social, environmental, and organizational governance simultaneously influences firm value.
2. Proportionally only three variables have a significant positive effect, namely labor, social and environmental variables.
3. There are two variables that do not have a significant effect on firm value if partially calculated, namely product and service variables and organizational governance.

Suggestions that can be given in this research include the following:
1. For further research, it is necessary to identify Islamic social reporting as a whole by including investment variables, press releases and the stock market.
2. Further research is suggested to enlarge the research sample, not only covering 12 Islamic banks by digging deeper into reports or annual reports published by Islamic banking companies.
3. Further research is expected to increase the variation of independent variables that can affect firm value such as, capital structure, financial performance and investment decisions.

References


A comparative Analysis Altman (Z-Score) Revision and Springate (S-Score) Model in Predicting Financial Distress in the Manufacturing Company - Indonesia Stock Exchange

Emmelia Tan* & Tri Aji Wibisana
Universitas Pelita Bangsa
*e-mail: Emmelia.tan@pelitabangsa.ac.id

Abstract

This study aims to examine the effect of the Altman (Z-Score) Revision model and the Springate (S-Score) model and determine the better and more precision model in predicting financial distress in the manufacturing company on the Indonesia Stock Exchange. The data analysis technique used is logistic regression to prove the study hypothesis. Based on the results testing, can be concluded: 1) Altman Model (Z-Score) Revision: Working Capital to Total Asset, Retained Earning to Total Asset, and EBIT to Total Asset no effect on the Z-Score, while Book Value of Equity to Book Value of Debt and Sales to Total Asset affect the Z-Score. Overall variable factors model at Altman model revision simultaneously affect the Z-Score. 2) Springate Model (S-Score): Working Capital to Total Asset and EBIT to Total Asset affect S-Score, while Earning Before Tax to Current Liabilities and Sales to Total Asset have no effect on the S-Score. All variables factors at Springate model simultaneously affect the S-Score. The conclusion, the better and more precision model in predicting financial distress based on the Nagelkerke R Square testing, is the Revised Altman (Z-Score) model with a value of 82.5%.

Keywords: Financial Distress, Altman Model (Z-Score) Revision, Springate Model (S-Score)

1. Introduction

The economy of a country can be seen in the Gross Domestic Product which can be produced and be counted during certain period of time (Konchitchki 2014). Indonesia's economic growth according to business sectors is still dominated by three main business industrial origin. The largest contributor to the Indonesian economy was still contributed by the manufacturing industry amounting to Rp 2,947.3 trillion of total employment GDP of Rp 14,837.4 trillion or a ratio of 19.86% in 2018. GDP according to industrial origin contributed by the manufacturing industry has increased from 2014 to 2018. Recorded GDP in 2018 was Rp 2,947.3 trillion, the highest compared to the previous year.

<table>
<thead>
<tr>
<th>Year</th>
<th>GDP Manufacturing</th>
<th>Total GDP (Industrial origin)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2014</td>
<td>2.227,6 trillion</td>
<td>10.569,7 trillion</td>
</tr>
<tr>
<td>2015</td>
<td>2.418,4 trillion</td>
<td>11.531,7 trillion</td>
</tr>
<tr>
<td>2016</td>
<td>2.545,2 trillion</td>
<td>12.401,7 trillion</td>
</tr>
<tr>
<td>2017</td>
<td>2.739,7 trillion</td>
<td>13.587,2 trillion</td>
</tr>
<tr>
<td>2018</td>
<td>2.947,3 trillion</td>
<td>14.837,4 trillion</td>
</tr>
</tbody>
</table>

© Authors. Terms and conditions of this work is licensed under a Creative Commons Attribution-NonCommercial-NoDerivatives 4.0 International License apply. Correspondence: Emmelia Tan, Pelita Bangsa University. Email: Emmelia.tan@pelitabangsa.ac.id
The contribution of the manufacturing industry on the GDP based on industrial origin turned out to decrease trend year on year from 2014 to 2018 as shown in below figure. The lowest decline occurred in 2018 of 19.86% of the GDP industrial origin at Rp14,837.4, smaller than the previous year accounted for 20.16% of the GDP industrial origin at Rp13,587.2 trillion. The decline occurred due to increasingly fierce competition with businesses in the Asian region, lack of innovation through technology utilization and lack of efficiency in the production process.

Figure 1. The contribution of the manufacturing industry on the GDP based on industrial

The challenges which lead to the weakening contribution by the manufacturing industry towards GDP. The weakening is in line with the declining in earnings of several listed industrial manufacturing companies on the Indonesia Stock Exchange from 2014 to 2018. Low or negative profitability ratio illustrates lack of efficient in the way companies run their operations (Setyawan, 2018). Low profitability ratio and continue happen consecutively is a signal (early warning system) which can trigger financial distress or financial difficulty that might be experienced by companies (Edy and May Tania, 2018). Shalih & Kusumawati (2019) stated financial distress occurs before liquidation can indicate bankruptcy. The company's financial condition can be seen and identified earlier in the financial statements by using some model. The model of financial ratios can be analyzed to determine the financial condition of the company whether experiencing a healthy financial condition or bad condition (financial distress). This study uses two favourite models that developed by the Altman model (Z-Score) and the Springate model (S-Score) to analyze financial distress. This study aims to predict financial distress using the model ratios using the Altman model (Z-Score) and the Springate model (S-Score) and determine the most accurate model in predicting financial distress in the manufacturing industry listed on the Indonesia Stock Exchange in 2014-2018.

2. Literature Review

Financial Distress

Financial distress is a condition which financial weakening or decreasing of liquidity of cashflow. The inability to fulfill or cover short-term liabilities is an early symptom of financial distress and to can be more serious to being solvable which is a person or entity not capable to pay obligations on time or the condition show amount of liabilities are higher than assets (Edi and May Tania, 2018). According to Primasari (2017), financial distress is a condition in which a company's inability to meet its current liabilities that are due, such as business debt, tax debt, short-term bank debt, etc. But, as long as the company has cash flow that is greater than its debt obligations, the company will have enough funds to pay its creditors. Financial distress is a condition where the company's finances are in a bad or not healthy condition. These conditions interfere with the
company’s operations so it must be on the alert by management to avoid worsening situation or bankruptcy.

Research conducted by Susandra (2015) uses the Zmijewski model, the Ohlson model, the Altman model and the Springate model in manufacturing companies with the lowest accuracy is the Altman model by 15% and the highest is the Springate by 25.2%. This study will make a comparative analysis between two model Altman Model (Z-Score) Revision and Springate Model (S-Score).

**Altman Model (Z-Score) Revision**

A number of studies have been conducted to determine the usefulness of financial ratio analysis in predicting corporate financial failures. One model used is the Alman Z-Score using Multiple Discriminant Analysis (MDA) by Edward I. Altman in his research. This model uses several financial ratios (Sondakh, 2014) which include Working Capital to Total Assets, Retained Earning to Total Assets, Earning Before Interest and Tax to Total Assets, Market Value of Equity to Book Value of Debt, and Sales to Total Assets that used to analyze manufacturing companies that go public.

Altman Model (Z-Score) revised and improved the initial model by changing the ratio of Market Value of Equity to Book Value of Debt to Book Value of Equity to Book Value of Debt to be used to analyze in private companies. Private companies are not listed on the exchange so they do not have market value (Bakhtiar, 2018). Widyawati et al (2015) in research with the modified altman model with partial testing there are only two variables that influence, namely RE / TA and EBIT / TA. Simultaneously all variables affect in predicting financial distress.

**Springate Model (S-Score)**

The Springate Model is a development of the Altman model in 1968. The Springate model uses 19 financial ratios, after retesting, Springate finally chose 4 ratios used in determining the criteria for companies included the category of healthy companies or potentially bankrupt companies (Edi and May Tania, 2018).

Research conducted by Gordon L.V. Springate in 1978 to find a model that can be used in predicting the potential (indication) of bankruptcy. After going through the statistical tests of multiple discriminant analysis similar to what Altman did in 1968, which distinguishes between companies that went bankrupt and those that did not go bankrupt. Ben et al (2015) conducted a study on the springate model with partial test results that EBIT / TA, EBT / CL and SA / TA influenced financial distress and simultaneously all variables influenced financial distress.

**Framework & Hypothesis**

![Diagram](image.png)

*Figure 2. Altman (Z-Score) Revision model*
Hypothesis are as follows:

Hypothesis 1: Working Capital / Total Asset (WC/TA), Retained Earning/Total Asset (RE/TA), Earning Before Interest and Tax to Total Asset (EBIT/TA), Book Value of Equity to Book Value of Debt (BVE/BVD) and Sales to Total Asset (SA/TA), Altman Model (Z-Score) Revision, has partially and simultaneous effect on Z-Score.

Hypothesis 2: Working Capital to Total Asset (WC / TA), Earning Before Interest and Tax to Total Asset (EBIT/TA), Earning Before Tax to Current Liabilities (EBT/CL) and Sales to Total Asset (SA / TA), Springate Model (S-Score), partially and simultaneously influence the S-Score.

Hypothesis 3: Determine the better and more precision model for Predicting Financial Distress

3. Methods

This type of research is a quantitative research, the data taken from listed company manufacturing industry sector during 2014-2018. The population in this study amounted to 173 manufacturing listed companies. The sample uses purposive sampling model and meet the predetermined criteria such as companies that had issued financial statements during 2014-2018 can provided data regarding Altman and Springate model and the important criteria is the companies showed the decreased earnings for minimum consecutive 2 years. Therefore, the sample of this study are 24 companies.

This study uses SPSS version 25 statistical data processing software. The method analysis uses logistic regression methods and does not require testing the assumption of normality on the independent variables (Ghozali, 2017). Logistic regression is used because financial distress on the dependent variable is a dichotomous variable which has two criteria, namely financial distress (FD) and Non-financial distress (Non FD). The criteria in logistic regression testing consist of 0 and 1, for companies that experience financial distress are categorized as 1 and companies that do not experience financial distress are categorized as 0.

The Altman (Z-Score) Revision Logistic Regression Assumption equation model is as follows:

\[
\ln \frac{FD}{1-FD} = \beta_0 + \beta X1 + \beta X2 + \beta X3 + \beta X4 + \beta X5
\]

(1)

The variables are defined as:

\[\ln \frac{FD}{1-FD} = \text{Financial Distress}\]
\[\beta = \text{Regression Coefficients}\]
\[X1 = \text{Working Capital} / \text{Total Asset}\]
\[X2 = \text{Retained Earning} / \text{Total Asset}\]
\[X3 = \text{Earning Before Interest and Tax} / \text{Total Asset}\]
The Springate model (S-Score) logistic regression equation model is as follows:

\[ \ln \frac{FD}{1-FD} = \beta_0 + \beta X_1 + \beta X_2 + \beta X_3 + \beta X_4 \]  

(2)

The variables are defined as:

- \( L_n \frac{FD}{1-FD} \) = Financial Distress
- \( \beta \) = Regression Coefficients
- \( X_1 \) = Working Capital / Total Asset
- \( X_2 \) = Earning Before Interest and Tax / Total Asset
- \( X_3 \) = Earning Before Tax / Current Liabilities
- \( X_4 \) = Sales / Total Asset

4. Results and Discussion

Assessing the Fit Model

Using Hosmer and Lemeshow’s Goodness of fit test to know the model fit or not. To determine whether the model is feasible or not to predict the hypothesis, if the sig. statistic result show the sig greater than the coefficient 0.05, it means that the model can predict the hypothesis or observation data or the model is acceptable to use.

Based on the results of data processing, here are the results of the assessing the fit model.

**Table 2. Hosmer and Lemeshow’s Test**

<table>
<thead>
<tr>
<th>Model</th>
<th>Step</th>
<th>Chi-square</th>
<th>df</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Altman</td>
<td>1</td>
<td>5.138</td>
<td>8</td>
<td>0.743</td>
</tr>
<tr>
<td>Springate</td>
<td>1</td>
<td>7.735</td>
<td>8</td>
<td>0.460</td>
</tr>
</tbody>
</table>

The results of the model assessing the fit model in table 1 use the Hosmer and Lemeshow Test on the Altman Model (Z-Score) Revision and the Springate Model (S-Score). Based on table 2, the Chi-square value of 5.138 and sig was obtained. 0.743 For the Altman model, the value of sig. 0.743> 0.05 which means the model is suitable to be used. Springate value has a Chi-square value of 7.735 and sig. 0.460, sig. 0.460> 0.05 which means the model is suitable to be used.

**Table 3. Model Feasibility Test Results**

<table>
<thead>
<tr>
<th>Model</th>
<th>Iteration</th>
<th>-2 Log likelihood</th>
<th>Coefficients Constant</th>
</tr>
</thead>
<tbody>
<tr>
<td>Altman</td>
<td>Block 0</td>
<td>164.216</td>
<td>0.268</td>
</tr>
<tr>
<td></td>
<td>Block 1</td>
<td>49.703</td>
<td>9.222</td>
</tr>
<tr>
<td>Springate</td>
<td>Block 0</td>
<td>86.455</td>
<td>2.024</td>
</tr>
<tr>
<td></td>
<td>Block 1</td>
<td>65.723</td>
<td>4.481</td>
</tr>
</tbody>
</table>

Based on the results of the Feasibility Test Results table 2, the results were good. This is known from the decline in the value of the Altman Log-likelihood model (Z-Score) Revision 164.216 in block...
0 to 49,703 in block 1. The Springate Model (S-Score) decreased the -2 Log likelihood value by 86,455 in block 0 to 65,723 in block 1. Decrease -2 Log likelihood of the two models can be concluded that the logistic regression model is feasible to use. The Altman and Springate models can be concluded to be able to predict the value of their observations data.

Hypothesis Testing and Results

Wald test & Logistic regression

Based on Wald test results in table 3 a & 3 b produce significant values for the Revised Altman (Z-Score) model and the Springate Model (S-Score). If Sig. value lower than 0.05 means that there is an influence significantly of the independent variables to the dependent variable in the logistic regression model.

Table 4. Wald Test Results Model Altman (Z-Score)

<table>
<thead>
<tr>
<th>Variables in the Equation</th>
<th>B</th>
<th>S.E.</th>
<th>Wald</th>
<th>df</th>
<th>Sig.</th>
<th>Exp(B)</th>
<th>95% C.I.for EXP(B)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Step 1*</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>WC/TA</td>
<td>-2.543</td>
<td>3.688</td>
<td>0.476</td>
<td>1</td>
<td>0.490</td>
<td>0.079</td>
<td>0.000</td>
</tr>
<tr>
<td>RE/TA</td>
<td>2.227</td>
<td>2.099</td>
<td>1.126</td>
<td>1</td>
<td>0.289</td>
<td>9.270</td>
<td>0.152</td>
</tr>
<tr>
<td>EBIT/TA</td>
<td>-1.621</td>
<td>1.872</td>
<td>0.750</td>
<td>1</td>
<td>0.386</td>
<td>0.198</td>
<td>0.005</td>
</tr>
<tr>
<td>BVE/BVD</td>
<td>2.230</td>
<td>1.395</td>
<td>1</td>
<td>0</td>
<td>0.000</td>
<td>0.000</td>
<td>0.000</td>
</tr>
<tr>
<td>SA/TA</td>
<td>-7.117</td>
<td>1.493</td>
<td>22.738</td>
<td>1</td>
<td>0.000</td>
<td>0.001</td>
<td>0.000</td>
</tr>
<tr>
<td>Constant</td>
<td>9.222</td>
<td>1.902</td>
<td>23.513</td>
<td>1</td>
<td>0.000</td>
<td>10.14</td>
<td>114.4</td>
</tr>
</tbody>
</table>

a. Variable(s) entered on step 1: WC/TA, RE/TA, EBIT/TA, BVE/BVD, SA/TA.

The results of the Altman (Z-Score) revised model are as follows:
1) WC / TA with sig. 0.490> 0.05 which means not significant effect the Z-Score
2) RE / TA with sig. 0.289> 0.05 which means no significant effect on the Z-Score
3) EBIT / TA with sig. 0.386> 0.05 which means no significant effect on the Z-Score
4) BVE / BVD has sig. 0.000 <0.05 which means there is an sig effect on the Z-Score
5) SA / TA influences Z-Score with sig. 0.000 <0.05.

Table 5. Wald Test Results Model Springate (S-Score)

<table>
<thead>
<tr>
<th>Variables in the Equation</th>
<th>B</th>
<th>S.E.</th>
<th>Wald</th>
<th>df</th>
<th>Sig.</th>
<th>Exp(B)</th>
<th>95% C.I.for EXP(B)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Step 1*</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>WC/TA</td>
<td>-5.318</td>
<td>1.766</td>
<td>9.070</td>
<td>1</td>
<td>0.003</td>
<td>0.005</td>
<td>0.000</td>
</tr>
<tr>
<td>EBIT/TA</td>
<td>-3.310</td>
<td>1.341</td>
<td>6.097</td>
<td>1</td>
<td>0.014</td>
<td>0.036</td>
<td>0.000</td>
</tr>
<tr>
<td>EBIT/CL</td>
<td>0.265</td>
<td>0.649</td>
<td>0.166</td>
<td>1</td>
<td>0.166</td>
<td>1.303</td>
<td>0.365</td>
</tr>
<tr>
<td>SA/TA</td>
<td>-1.284</td>
<td>0.976</td>
<td>1.731</td>
<td>1</td>
<td>0.188</td>
<td>0.277</td>
<td>0.041</td>
</tr>
<tr>
<td>Constant</td>
<td>4.481</td>
<td>0.866</td>
<td>26.789</td>
<td>1</td>
<td>0.000</td>
<td>88.334</td>
<td></td>
</tr>
</tbody>
</table>

a. Variable(s) entered on step 1: WC/TA, EBIT/TA, EBIT/CL, SA/TA.
The Springate Model (S-Score) test results are as follows:
1) WC / TA with sig. 0.003 <0.05 which means significant effects the Z-Score
2) EBIT / TA with sig. 0.014 <0.05 which means significant influence on the Z-Score
3) EBT / CL with sig. 0.166> 0.05 which means no significant effect on the Z-Score
4) SA / TA has no effect on Z-Score with sig. 0.188> 0.05

Overall Model Fit Test

Table 6. Results of Omnibus Tests of Model Coefficients

<table>
<thead>
<tr>
<th>Omnibus Tests of Model Coefficients</th>
<th>Chi-square</th>
<th>df</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Step 1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Altman Step</td>
<td>114.512</td>
<td>5</td>
<td>0.000</td>
</tr>
<tr>
<td>Block</td>
<td>114.512</td>
<td>5</td>
<td>0.000</td>
</tr>
<tr>
<td>Model</td>
<td>114.512</td>
<td>5</td>
<td>0.000</td>
</tr>
<tr>
<td>Springate Step</td>
<td>20.733</td>
<td>4</td>
<td>0.000</td>
</tr>
<tr>
<td>Block</td>
<td>20.733</td>
<td>4</td>
<td>0.000</td>
</tr>
<tr>
<td>Model</td>
<td>20.733</td>
<td>4</td>
<td>0.000</td>
</tr>
</tbody>
</table>

The test results in table 4 of the overall model fit test Altman model (Z-Score) Revision shows sig values. 0.000 is smaller than 0.05, which means the variables WC / TA, RE / TA, EBIT / TA, BVE / BVD and SA / TA simultaneously affect the Z-Score. In the same way, the Springate Model (S-Score) in table 4 testing produces a value of 0.000 less than 0.05 which means that WC / TA, EBIT / TA, EBT / CL and SA / TA simultaneously influence the S-Score.

Coefficient of Determination (R2)

Table 7. Coefficient of Determination

<table>
<thead>
<tr>
<th>Model</th>
<th>Step</th>
<th>-2 Log likelihood</th>
<th>Cox &amp; Snell R Square</th>
<th>Nagelkerke R Square</th>
</tr>
</thead>
<tbody>
<tr>
<td>Altman</td>
<td>1</td>
<td>49.703*</td>
<td>0.615</td>
<td>0.825</td>
</tr>
<tr>
<td>Springate</td>
<td>1</td>
<td>65.723*</td>
<td>0.159</td>
<td>0.309</td>
</tr>
</tbody>
</table>

The results testing of the coefficient of determination of the summary model in table 5 show the Altman model (Z-score) Revision Nagelkerke R Square of 0.825 or 82.5%, which means that the variability of the dependent variable that can be explained by the dependent variable is 82.5%. In the second row The Springate Model (S-Score) produces R square of 0.309 or 30.9%, which means the variability of the dependent variable that can be explained by the independent variable is 30.9%. Therefore, the better and more precision model in predicting financial distress based on this study results of testing the coefficient of negativity determination R square in table 5 is the Altman model (Z-Score) Revision of 82.5%.
Discussion

**Altman Model (Z-Score) Revision**

The result of Hypothesis 1 indicate that there is no influence partially between working capital to total assets, retained earnings to total assets and earnings before interest and tax to total assets to the Z-Score.

Retained earnings to total asset do not have impact on the prediction of financial distress in the manufacturing industry. Retained earnings in the manufacturing industry on average experienced a negative value for 5 years, which means the company suffered the loss. Despite that, the decline in retained earnings has no impact on financial distress predictions in Altman model.

Empirical results of this study found that the Book value of equity to book value of debt (BVE/BVD) has an influence in predicting financial distress. These results are consistent with findings study by (Ardian, 2014). The ratio of equity to debt significantly contribute to financial distress in manufacturing company.

Sales of total assets affect the Z-Score which means it has an impact on predicting financial distress. Sales describe the productivity of assets or sales capacity towards investment in one particular asset (Edi and May Tania, 2018). The manufacturing industry in the last 5 years had shown the declining sales.

Based on the results of simultaneously testing of all variables of the Altman model (Z-Score) Revision together have influence on the Z-Score financial distress, so the study hypothesis 1 join testing variables is accepted.

**Springate Model (S-Score)**

The result of hypothesis 2 EBT/TA and SA/TA has no significant effect on S-Score, while WC/TA and EBIT/TA have significant effect on financial distress S-Score.

Working capital is the difference of current assets and current liabilities to finance short term operation costs. Working capital / total assets has influence on the S-Score in the manufacturing industry, still relevant factor to financial distress.

Earnings before interest and tax on the use of all of its assets. Revenue obtained based on data tends to decrease. Declining profits will affect liquidity and dividends for shareholders. the declining earnings before interest and taxes has effect in predicting financial distress S-Score model in the manufacturing industry.

The Springate model (S-Score) has formulas and criteria as the Altman model and other classical models in predicting financial distress. Based on the results of testing all factors of Springate model (S-Score) simultaneously have influences on the S-Score, therefore the hypothesis is accepted.

**Determination coefficient**

The logistic regression test results based on the summary coefficient of the Nagelkerke R Square determination coefficient showed that the Altman model (Z-Score) had the highest value compared to the Springate model (S-Score), which amounted to 82.5%. In accordance with the research hypothesis, that in predicting financial distress in manufacturing industries listed on the Indonesia Stock Exchange in 2014-2018 using the revised Altman (Z-Score) model.

5. **Conclusion**

Financial ratios model in this study are important in predicting financial distress, it is a good signal to get better prevention and to get better improvement from management if can detect early
signal of financial distress. The results of the hypothesis test and the discussion carried out in this study supported the previous research conducted by Ardian (2014) with the BVE/BVD and SA/TA variables in the Revised Altman (Z-Score) model that affects the Z-Score. Overall the WC/TA, RE/TA, EBIT/TA, BVE/BVD and SA/TA variables influence the Z-Score. These results are in line with other research conducted by Husein (2014), Fredy (2018), Primasari (2017), Nilasari (2018), Edy and May Tania (2018), Nisa (2014), Widyawati (2015), Ardian (2014) and Adi (2014) and Susandra (2015).

The Springate Model (S-Score) with WC/TA and EBIT/TA variables influences the S-Score according to the results of research by Ben et al (2015). Together the Springate Model (S-Score) variables WC/TA, EBIT/TA, EBT/CL and SA/TA affect the S-Score. These results are in accordance with research by Husein (2014), Fredy (2018), Primasari (2017), Nilasari (2018), Edy and May Tania (2018) and Susandra (2015) and Ben (2015).

The results of the study using logistic regression show that the better and more precision model is the Altman (Z-Score) revision, especially more attention to ratio of book value of equity to book value of debt (BE/BVD) and sales to total assets (SA/TA). In other word, short and long term debt needs to be managed properly. Sales performance is a priority and get used to overcome any challenges faced by company, such as innovations and better strategies by management.

The suggestion for future study to develop in specific sector during economy crisis especially now pandemic covid some sectors are more vulnerable such as tourism industry, property and construction. Future study also encourage to compare other financial distress model such Ohlson, Grover, Zmijewski and others or the latest models using Artificial Intelligence (AI) and Neural Network (NN) models.

References


The Effect of Investment Motivation, Financial Literation, and Financial Behavior on Investment Decisions (Studies on Management Students at Pelita Bangsa University)

Nataliana Bebasari* & Anis Istikomah
Universitas Pelita Bangsa
*e-mail: limas77@hotmail.com

Abstract

This study aims to examine the effect of investment motivation, financial literacy and financial behavior on investment decisions. This type of research is quantitative research using descriptive methods. Processed data is primary data obtained from the results of distributing questionnaires with simple random sampling technique to students majoring in management at Pelita Bangsa University. From 7179 students, a sample of 380 respondents was obtained. Data analysis was performed using the PLS (Partial Least Square) program. The results of this study indicate a positive and significant effect of investment motivation, financial literacy and financial behavior on investment decisions.

Keywords: Investment Decisions, Investment Motivation, Financial Literacy, Financial Behavior.

1. Introduction

The trade war between the United States and China did not have a strong effect on world economic development. The investment climate, especially in Indonesia, is still warming in the midst of cold relations between the two superpowers. The Indonesia Stock Exchange (IDX) said that the number of investors in the Indonesian capital market has grown significantly in the last 5 years. The President Director of the IDX said that currently the number of investors has reached 2.2 million, of which 60% are millennials. The number of capital market investors has increased to double digits (CNBC Indonesia, 2019).

The current digital era makes it easier for everyone to gain access to information that influences the millennial generation to take part in the world of the capital market. The decision to invest is driven by a need in the future, which causes a person to take an effort or action.

The desire to invest is also strengthened by knowledge of financial literacy. According to Syahyunan (2015: 1), investment is a form of effort or a number of resources that are stored or set aside at this time with the aim of obtaining profits in the future. It can also be stated that several factors that influence investment decisions are motivation, financial literacy and financial behavior.

With the sophistication of technology, every individual can easily get knowledge about financial literacy. Financial literacy is always a package of knowledge and skills that allow a person to make decisions with all the financial resources they have (Huston, 2010). This is because a lot of financial information is free and can be accessed easily so that each individual can acquire financial knowledge or literacy that will enable the individual to make careful investment decisions and financial management. The image below is a graph of the level of financial literacy in Indonesia in 2019 according to the OJK.

© Authors. Terms and conditions of this work is licensed under a Creative Commons Attribution-NonCommercial-NoDerivatives 4.0 International License apply. Correspondence: Nataliana Bebasari, Universitas Pelita Bangsa.limas77@hotmail.com
The Organization for Economic Cooperation and Development or OECD (2016) states that financial literacy is a science, knowledge, a concept, motivation, skills, beliefs which are then used to make effective decisions that can improve the welfare of both personally and society and play a role in improving the economy. Consumers who have financial literacy can go through difficult financial times because they have accumulated savings, buy insurance and diversify their investments. Financial literacy is also directly correlated with positive financial behavior, such as timely bill payments, loan installments, savings before they run out, using credit cards to make wise investment decisions. In order to understand the risks and benefits associated with financial products, financial literacy is a must.

Academics are the community groups that are the main target in efforts to increase investment awareness (Yoiz, 2017). Meanwhile, Widayati (2012) explains that learning in higher education has an important role in the process of forming student financial literacy. Students live in a diverse and complex economic environment so that an increased need for financial education is essential. Effective and efficient learning will help students could understand, assess, and act in their financial interests. Financial behavior also involves emotions, traits, preferences and various kinds of things that exist in humans as intellectual and social beings who will interact and underlie decisions to act.

Correct knowledge of financial literacy will have a strong influence on financial behavior. According to Gitosudarmo (2015: 109), motivation is defined as one of the factors driving a person's behavior. There is a relationship between literacy and motivation with a person's behavior in making decisions. Financial Behavior is a behavior related to the implementation of financial actions. According to Dwi (2016), financial behavior involves the nature, emotions, habits and psychology of a person who acts as a social and intelligent being which is the basis for decisions in action.

The phenomenon in this research is the lack of motivation, interest or desire of students majoring in management at Pelita Bangsa University to invest even though they have received financial literacy in investment analysis studies and risk management, investment management and portfolio management as well as the existence of the Pelita Bangsa University capital market study group. Based on preliminary observations on several students majoring in management at Pelita Bangsa University, students tend to still experience difficulties in managing finances because of their high level of consumption, such as spending money for non-essential needs. In addition, some students have to deal with many financial options, such as paying for rent, installments, meeting daily needs, paying tuition fees, saving and making budget plans. There are also many Pelita Bangsa University students who are employees, so they also have to balance their life in a work, college and social environment.

Table 1. Level of Financial Literacy in Indonesia

<table>
<thead>
<tr>
<th>Year</th>
<th>Literacy</th>
</tr>
</thead>
<tbody>
<tr>
<td>2013</td>
<td>21.84%</td>
</tr>
<tr>
<td>2016</td>
<td>29.70%</td>
</tr>
<tr>
<td>2019</td>
<td>30.03%</td>
</tr>
</tbody>
</table>

Source: https://ojk.go.id
2. Literature Review

Investment Decision

Individual investors are individual investors who carry out investment activities to take profits in the future. Investors learn how to manage financial behavior for their monetary welfare. This monetary well-being can be assessed from the sum of current income and present value with future income. According to Aminatuzzahra (2014), this investment decision is based on two things, namely portfolio and profitability. The portfolio itself is a purchase of shares with price momentum at the same time ignoring the principle of supply and demand which is actually known in financial behavior as a herd behavior. The theory of factors that influence investment decisions, according to Tandelilin (2010), states that investment is a commitment to a number of funds or other resources currently made. The goal is to obtain a number of benefits in the future. This means that investors invest funds in forms such as stocks, land, buildings with the aim of obtaining profits in the future.

Investment Motivation

Minimum investment capital is one of the factors that must be considered before deciding to invest. Minimum investment capital is taken into consideration because in it there is a calculation of estimated funds for investment, the minimum funds needed, the higher one's interest in investing (Rima, 2015). Investment capital according to Moko (2008: 298) is capital used to make purchases or procurement for the purpose of supporting the production process. The amount of capital to invest depends on the type of investment product desired. If the investment is in the form of fixed assets such as land, buildings, production machinery and so on, then the investment costs incurred will tend to be much more expensive when compared to investments in stocks or non-fixed asset products.

Financial Literacy

Financial intelligence is the ability that a person has to manage their financial resources, with financial well-being as the ultimate goal (Widayati, 2014). Knowledge and understanding of personal finance are needed for individuals to be able to make correct financial decisions. With correct knowledge and understanding, negative cash flow problems can be avoided (Mendari, 2013). Individuals must have the knowledge and skills to manage their personal financial resources effectively for their welfare. Apart from determining short-term financial decisions such as savings and loans, individuals must also think about long-term financial decisions such as retirement planning and educational planning for their children (Margaretha, 2015). Financial management capability is very important, whether it is applied to everyday life or to be used in dealing with crisis situations that can occur at any time. To meet daily needs, the need for health, the need for children's education and the need for insurance in old age, a mature and planned financial management is needed (Rapih, 2016).

Financial Behavior

Arlina et al (2013) state that financial behavior is a theory based on psychology that seeks to understand how emotions and cognitive deviations affect investor behavior. Financial Management Behavior or financial behavior is a person's ability to manage day-to-day finances including planning, budgeting, checking, managing, controlling, seeking and storing funds for the future. The emergence of financial behavior is the impact of a person's desire to meet their needs in accordance with the level of income obtained (Kholilah and Iramani, 2013). Rizkiana (2017) defines financial behavior as the study of how humans act in the decision-making process in investing as response to the information
it gets. Financial behavior is a way in which individuals manage sources of funds to be used as decisions on the use of funds, determining sources of funds, and decisions for retirement planning. According to Rizkiana (2017), there are 9 personal financial behaviors. In the list, the first 4 were categorized as planning behaviors and subsequently were categorized as implementing behaviors.

**Figure 1. Research Design**

**H1: The Effect of Investment Motivation on Investment Decisions**

An increase in investment motivation variables will have an impact on increasing investment decisions, and a decrease in investment motivation will have an impact on decreasing investment decisions (Widyastuti et al. (2004). This hypothesis is supported by the results of research by Aminatun Nisa & Luki Zulaika (2017) which explains that the understanding of investment is obtained by students when they get a course in investment management and capital markets do not affect students' interest in investing in the capital market. However, the existence of a small minimum capital and motivation from themselves and others greatly affect students to invest in the capital market. This is a discourse for students about what can influence students to invest in the capital market.

**H2: The Effect of Financial Literacy on Investment Decisions**

An increase in financial literacy variables will have an impact on increasing investment decisions, and a decrease in financial literacy variables will have an impact on decreasing investment decisions (Kim (2001) in Sabri (2011). This hypothesis is supported by the results of research by Hisashi Tarora and Ratna Juwita (2017) which explain that all independent variables significantly influence the dependent variable.

**H3: The Effect of Financial Behavior on Investment Decisions**

An increase in the financial behavior variable will have an impact on an increase in investment decisions, and a decrease in the financial behavior variable will have an impact on a decrease in investment decisions. This hypothesis is supported by research by Baq Fitranianti (2018) which explains that financial literacy does not have a significant effect on investment decisions, while financial behavior and income have a significant effect on investment decisions.
3. Methodology

Testing the data used in this study includes testing including validity, reliability, structural model testing, and hypothesis testing. The analysis requirements test used is the outer model test which consists of convergent validity test, discriminant validity test, composite reliability test, Cronbach’s Alpha test.

4. Result and Discussion

In this study, there is no variable indicator whose outer loading value or measurement model is below 0.500, so that the indicator is declared feasible or valid to be used in research. The value of the average variance extracted (AVE) already has a value above 0.500, so it can be declared valid and can be continued to the next stage. The composite reliability value for the variable investment motivation, financial literacy, financial behaviour, and investment decisions has a value of > 0.700. Thus, it can be concluded that each variable has a good value. The Cronbach’s alpha value of each study variable was > 0.7. Thus, these results indicate that each research variable has met the requirements for the Cronbach’s alpha value, so it can be concluded that all variables have a high level of reliability.

Inner Model Test

![Figure 2. Inner Model Test Results](image)

Test the R Square Value

The adjusted R square value is 0.434 in the investment decision variable. The adjusted R square value of the investment decision variable is 0.434, meaning that 43.4% of investment decisions are influenced by motivation, financial literacy and financial behaviour, while 56.6% are influenced by other variables not explained in this study. When viewed from the predetermined requirements, the R square value above is included in the moderate category because it has an R square value between 0.33-0.67.
Test Coefficients Patch

Estimated values for the path relationships in the structural model should be evaluated from the perspective of the strength and significance of the relationships. The significance of the relationship can be obtained by doing a Bootstrapping test. The value generated from the Bootstrapping test is in the form of a t-count value which will then be compared with the t-table value. If the t-count is greater than the t-table (1.96) at the alpha value of 5%, then the path estimate value can be said to be significant.

Table 3. Path Coefficients Test Results

<table>
<thead>
<tr>
<th>Variable</th>
<th>Original Sample</th>
<th>Sample Mean</th>
<th>Standart Deviation</th>
<th>t Statistic</th>
<th>P Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Motivation</td>
<td>0,200</td>
<td>0,202</td>
<td>0,047</td>
<td>4,242</td>
<td>0,000</td>
</tr>
<tr>
<td>Financial Literacy</td>
<td>0,366</td>
<td>0,370</td>
<td>0,069</td>
<td>5,322</td>
<td>0,000</td>
</tr>
<tr>
<td>Financial Behavior</td>
<td>0,302</td>
<td>0,304</td>
<td>0,079</td>
<td>3,809</td>
<td>0,000</td>
</tr>
</tbody>
</table>

The p value of the financial motivation variable has a value of 0,000, so this variable has a significant influence on investment decisions. To check for positive or negative effects, it is necessary to check the value of the original sample on these variables. The investment motivation variable has an original sample value of 0.200, which means that the path estimate of the financial literacy variable on investment decisions has a positive path with a value of 0.200. So, it can be concluded that the investment motivation variable has a significant positive effect on investment decisions in students, so the first hypothesis (H1) is accepted. The results of the path coefficients test on the financial literacy variable have a t-count value of 5.322. When compared with the t table (1.648), the t value is greater than the t table so it can be concluded that financial literacy has a significant effect on investment decisions.

The p value of the financial literacy variable has a value of 0.000, so this variable has a significant influence on investment decisions. To check for positive or negative effects, it is necessary to check the value of the original sample on these variables. The financial literacy variable has an original sample value of 0.366 which means that the path estimate of the financial literacy variable on investment decisions has a positive path with a value of 0.366. So, it can be concluded that the financial literacy variable has a significant positive effect on investment decisions in students, so the second hypothesis (H2) is accepted.

The results of the path coefficients test on the financial behaviour variable have a t-count value of 3.809. When compared with the t table (1.648), the t value is greater than the t table, so it can be concluded that financial behaviour has a significant effect on investment decisions. The p value of the financial behaviour variable has a value of 0.000, so this variable has a significant influence on investment decisions. To check for positive or negative effects, it is necessary to check the value of the original sample on these variables. The financial behaviour variable has an original value. The sample has a value of 0.302, which means that the path estimate of the financial behaviour variable on
investment decisions has a positive path with a value of 0.302. So it can be concluded that the financial behavior variable has a significant positive effect on investment decisions in students. So, the third hypothesis (H3) is accepted.

The results in this study indicate the full support of investment motivation given by Pelita Bangsa University students has a positive effect on investment decisions in students. The results of this study are in line with the results of research by Aminatun Nisa & Luki Zulaika (2017) in the study of the Effect of Investment Understanding, Minimum Investment Capital and Motivation on Student Interest in Investing in the Capital Market. The results of this study indicate that the understanding of investment that students get when they receive a course in investment management and capital markets has no effect on students’ interest in investing in the capital market. However, the existence of a small minimum capital and motivation from themselves and others greatly influence students to invest in the capital market. Motivation from within students is the basic capital to fight the fear of the stigma of risk in the capital market, plus encouragement from outside such as lecturers or investment groups can raise student morale to have the courage to decide to invest in the capital market.

The results of the study show that financial literacy support has a positive effect on investment decisions in Pelita Bangsa University students. These results are in line with research conducted by Hisashi Tarora and Ratna Juwita (2017) in a study entitled Analysis of the Effect of Financial Literacy on Investment Decisions. The results of the study simultaneously show that all independent variables have a significant effect on the dependent variable. Partially, all independent variables affect the dependent variable. In addition to strong motivation, students must also have good financial knowledge, especially related to investment, in order to realize expectations when deciding to start investing in the capital market. With good financial knowledge, students can minimize risks due to ignorance and get the desired return on investment.

The results of the study show that financial behavior has a positive effect on investment decisions in Pelita Bangsa University students, as evidenced by the results of research that support this hypothesis. This result is in line with the research conducted by Baiq Fitriarianti (2018) in a study entitled The Effect of Financial Literacy, Financial Behavior and Income on Investment Decisions. The results of this study indicate that financial literacy has no significant effect on investment decisions, while financial behavior and income have a significant effect on investment decisions. Student behavior that leads to a thinking pattern of financial solutions in the future is the key to success in investing, starting from setting aside money to save, choosing to buy basic necessities and delaying purchases for luxury items. This will help students to have the capital to start investing in the capital market.

5. Conclusion

Investment motivation affects investment decisions. Financial literacy affects investment decisions. Financial behavior affects investment decisions. For students who have the desire to invest in the capital market to increase self-motivation, deepen their understanding of investment by making good use of the Investment Gallery at Pelita Bangsa University, join a capital market discussion group, find colleagues who are experienced in the capital market and start by buying investment products with a small level of risk. Take advantage of the facilities provided by the campus, such as reading books in the library or using internet facilities that can be accessed free of charge for students. Increase financial literacy and start learning terms in the capital market, using the demo application provided by the securities application, so that it can simulate capital market conditions with real conditions with the nature of learning, so there is no risk of loss for students. Managing personal finances carefully and thoroughly, the minimum capital policy in the capital market must be utilized properly by students who are not working and do not have a steady income, for students who work and have income saving money in a bank is no longer the best choice because does not provide
maximum returns or interest, students can move their savings to the capital market with careful analysis beforehand.

**References**


Fatmasari, Ahad, Dewi. (2011). Pengaruh Persepsi Mahasiswa Terhadap Minat Berprofesi Sebagai Wakil Perantara Pedagang Efek (Wppe) Di Pasar Modal(Studi Pada Mahasiswa Fakultas


OJK (Otoritas Jasa Keuangan) UU Nomor.1/POJK.07/2016. http://www.ojk.co.id

Organisation for Economic Co-operation and Development atau OECD (2016)


The Effect of Company Profitability, Leverage, and Firm Size on Bond Ranking of Banking Companies Registered on The Indonesian Stock Exchange (IDX) for The Period 2015 - 2019

Parulian* & Nurul Suprihatin

Universitas Pelita Bangsa
*e-mail: parulian@pelitabangsa.ac.id

Abstract

This study aims to determine the effect of profitability, leverage and firm size on bond ratings in banking companies listed on the Indonesia Stock Exchange (BEI) for the 2014-2019 period. The sampling technique used was purposive sampling, in order to obtain a sample of 14 companies. This study uses logistic regression data analysis with the help of the eviews application. The results of this study indicate that profitability has no effect on bond ratings, leverage has no effect on bond ratings, firm size has no effect on bond ratings.

Keywords: Profitability, Leverage, Firm Size, Bond Rating.

1. Introduction

In the capital market, there are two types of financial investment, namely stock investment and bond investment. Investment in bonds tends to be more attractive to investors because it can add to the fixed benefits obtained from the principal and interest on bonds that are received periodically at maturity (Ikhsan et al, 2012). Bond ratings are very important for an investor who wants to buy bonds. Bond ratings can measure the risk arising from bonds being traded. Bond ratings can show how safe a bond is issued for investors. The low risk of a bond can be demonstrated by the company's ability to pay interest and repay loans. Investors are looking for information about bonds issued through rating agency services, this information is in the form of the risk level of the bonds of interest (Sunarjanto and Tulasi, 2013).

Financial ratios are an important tool in evaluating a company's financial performance. Apart from sharing important and strategic information, for example for lenders and capital providers, financial ratios can also affect bond ratings. There are several factors that affect bond ratings, namely financial ratios in the form of profitability ratios, liquidity ratios, leverage ratios, activity ratios and firm size and so on (Sari and Badjra, 2016).

Based on the factors that influence the bond rating above, the researcher uses the profitability ratio, leverage ratio, and firm size as independent variables in conducting this research. According to Malia (2015), a high profitability value means that the company has a lower level of risk of inability to pay (default) so that the rating given to the company is getting better. A high profitability ratio indicates that the company's bonds are categorized as investment grade (good). According to Rosa & Musdholifah (2016) and Karlina & Negara (2014) profitability (return on assets) affects the bond rating. Different results are shown by the research of Narandika et al. (2016) that profitability (return on assets) has no effect on bond ratings.
In addition to the profitability factor, the leverage ratio also shows the proportion in managing long-term debt to finance investment to capital owned. According to Sari and Badjra (2016) the lower the leverage value (long-term debt) of the company, the higher the bond rating given by the company. Companies that have a high leverage value indicate that the company is included in the non-investment grade category because it has a debt interest expense that causes even greater risks. According to research by Sari & Badjra (2016) and Mardiyanti, et al (2015) stated that leverage (debt to equity ratio) has a positive effect on bond ratings. Another result is shown by Hidayat’s (2018) research which states that leverage (debt to equity ratio) has a negative effect on bond ratings.

Firm size is also a factor that influences the bond rating. The size of the company is a characteristic of a company when it will pay bond interest and can pay the principal on the loan which can increase the company’s bond rating. Large companies have the potential to more easily handle internal risk (unsystematic risk) so that it can reduce the risk of corporate bonds. In research Sari & Badjra (2016) and Pinandhita & Suryantini (2016) state that firm size has a positive effect on bond ratings. Different results are shown by the research of Wijayanti and Priyadi (2014) which states that firm size has no effect on bond ratings.

The level of investor interest in bonds has been quite high in recent years. The amount of increase can be seen from the development of bonds. The number of outstanding bonds is the number of bonds outstanding and currently owned by investors. Below is data on the development of corporate bonds and government bonds in Indonesia over the last five years:

![Figure 1. Amount of Outstanding Bonds (IDR Triluin)](image)

From graph 1 shows the data on bond growth since 2015-2019 which tends to experience each year. This illustrates the increasing interest of both companies and the government in offering bonds on the capital market. Investors are more interested in outstanding government bonds than corporate bonds because government bonds guarantee more security. Several bond sectors have seen increased supply in recent years. The following in table 1 is the development of the 2015-2019 bond offerings.

<table>
<thead>
<tr>
<th>Sectoral Category</th>
<th>2015</th>
<th>2016</th>
<th>2017</th>
<th>2018</th>
<th>2019</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Number of Issuers</td>
<td>Score</td>
<td>Number of Issuers</td>
<td>Score</td>
<td>Number of Issuers</td>
</tr>
<tr>
<td>Basic Industry &amp; Chemicals</td>
<td>2</td>
<td>1000</td>
<td>2</td>
<td>2600</td>
<td>1</td>
</tr>
</tbody>
</table>
Table 1 shows the development of bond offerings from various sectors. It can be seen that the financial sector is more attractive to investors. Because the financial sector brings more profit. So that the researchers chose the financial sector, namely the banking sub-sector in conducting this research.

### 2. Literature Review

#### Bond Rating

Bond rating is a scale measuring the level of risk and security of a bond that is circulated by the government and company and provides informative announcements and provides signals about the risk of a company's debt inability to pay. Through a bond rating agency, investors or investors can get information about the security level of a bond which is shown by the company's ability to pay bond interest and pay the principal debt (Fauziah, 2014). Every bond in circulation must be rated before being offered to investors (bond buyers) (Tandelilin, 2010). The rating given is one of the references for investors when determining whether to buy a bond which can determine whether the bond has a low level of risk (Amalia, 2013). The bond rating is what investors rely on when deciding to buy a bond. Bond rating reports issued by rating agencies assist investors in choosing the right and low-risk bond securities. The bond rating will affect the rate of return of the bond, the low risk level is the small possibility that a bond will fail to pay (Hadianto and Wijaya, 2010 in Wijayanti and Wijaya, 2014).

#### Profitability

Profitability is the expertise of a company to gain profits (Prihadi, 2013). Meanwhile, according to Danang (2013: 113) Profitability is the ability of a company to earn profits from its business results. Profitability ratios are used by companies to calculate the ability to generate profits or profits. Profitability is the ratio used to calculate the company's ability to earn profits (Kasmir, 2016). Meanwhile, according to Munawir (2010) profitability is the ability of a company to make profits in a certain period by using productive assets or capital, both all capital and its own capital.

#### Leverage

Leverage ratio is a ratio that shows the company's ability to meet its financial obligations if the company is liquidated, both short-term and long-term financial liabilities (Munawir, 2014: 12). A company is said to be solvable if the company has assets or assets that are able to pay off all its debts.
Conversely, if the number of assets is not capable or is less than the amount of its liabilities, then the company is in insolvable condition. When the liquidity ratio uses its short term to predict cash flows more precisely. Whereas in the long term it is not used because it is less accurate to believe, and therefore the leverage ratio uses a long-term analysis scale (Munawir, 2014: 13). Leverage is the company’s ability to meet financial obligations if the company is liquidated, both short-term and long-term obligations (Munawir, 2014: 164). The greater the leverage ratio, showing that the greater the costs that must be incurred by the company to meet the debt it has.

**Firm Size**

Firm size is the size of a company as measured by total assets, total sales, total profit, tax expense, and others (Brigham & Houston, 2013: 4). Another definition of firm size (firm size) is the size of the company, which can be indicated by the total assets or the size of the company’s assets by using the logarithmic value of total assets (Jogi, 2014: 14). Company measurement is the amount of assets used to assess the size of the company, the size of the asset is measured using the natural logarithm of total assets (Jogi, 2014: 282). The measurement of firm size is measured by the natural logarithm (Ln) of the average total assets (total assets) of the company (Harahap, 2015: 23). The use of total assets is based on an estimate that total assets represent the size of the company and are thought to have an effect on timeliness.

![Figure 2. Research Design](image-url)

**H1: Profitability affects the bond rating**
This hypothesis is supported by research by Karlina & Negara (2014) and Mardiyanti, et al (2015) which state that profitability (return on assets) has a significant effect on bond ratings.

**H2: Leverage has a positive and significant effect on bond ratings**
This hypothesis is supported by research by Sari & Badjra (2016) and Mardiyanti (2015) which state that leverage (debt to equity ratio) has a significant and significant effect on bond ratings.

**H3: Firm size has a positive and significant effect on the bond rating**
This hypothesis is supported by research by Karlina and Negara (2014) and Pinandhita & Suryantini (2016) which state that firm size has a significant effect on bond ratings.
3. Methodology

This research uses quantitative research. In this study, the location chosen was the Indonesia Stock Exchange (BEI) through its official website, www.idx.com and PT.PEFINDO (www.pefindo.com). The object under study is a banking company listed on the Indonesia Stock Exchange that issued financial reports in 2015-2019. In this study, the population is the banking sector companies listed on the Indonesia Stock Exchange (BEI) 2017-2019, namely 44 companies. The sampling technique in this study was purposive sampling. The considerations or criteria set by the researcher in sampling were companies belonging to the group of banking sector companies listed on the Indonesia Stock Exchange (BEI) during the study period, namely 2015-2019. The company makes financial reports and has published complete financial reports for 2015-2019. Companies whose bonds are issued by PT.PEFINDO (bond rating agency). Based on these criteria, a sample of 14 banking companies listed on the Indonesia Stock Exchange (IDX) was obtained in the 2015-2019 study. The statistical analysis tool used is Eviews software with logistic regression analysis.

4. Result and Discussion

Logistic Regression Analysis

This analysis is to obtain an overview of the probability of influence between the independent variable on the dependent variable. The logistic regression equation can be seen in table 2:

<table>
<thead>
<tr>
<th>Table 2. Regression Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>Variable</td>
</tr>
<tr>
<td>C</td>
</tr>
<tr>
<td>ROA</td>
</tr>
<tr>
<td>DER</td>
</tr>
<tr>
<td>SIZE</td>
</tr>
</tbody>
</table>

- McFadden R-squared: 0.638970
- Mean dependent var: 0.914286
- S.D. dependent var: 0.281963
- S.E. of regression: 0.151792
- Akaike info criterion: 0.325494
- Sum squared resid: 1.520688
- Schwarz criterion: 0.453980
- Deviance: 14.78461
- Restr. Deviance: 40.95119
- Restr. log likelihood: -20.47559
- Avg. log likelihood: -0.105604
- Prob(LR statistic): 0.00009
- Obs with Dep=0: 6
- Total obs: 70
- Obs with Dep=1: 64

The logistic regression equation formed in the regression results is as follows:

\[
\ln \left( \frac{p}{1-p} \right) = -43.18745 - 0.520671 \times X_1 - 0.332099 \times X_2 + 2.731156 \times X_3
\]

Where:
\[
\ln \left( \frac{p}{1-p} \right) = \text{Logit}, \quad X_1 = \text{ROA}, \quad X_2 = \text{DER}, \quad X_3 = \text{Size}, \quad p = \text{Probability}.
\]

Based on this equation, the logistic regression equation is as follows. A constant value of -43.18745 means that the independent variable consisting of \(X_1\) (ROA), \(X_2\) (DER) and \(X_3\) (Size) is considered constant, so the amount of \(Y\) (Bond Rating) is -43.18745. The coefficient value of the profitability variable is -0.520671, meaning that if the profitability increases by 1 unit, the bond rating decreases by 0.520671 and if the profitability decreases by 1 unit, the bond rating will increase by 0.520671. The coefficient value of the leverage variable is obtained -0.332099, meaning that if the leverage increases by 1 unit, the bond rating decreases by 0.332099 and if the leverage decreases by 1 unit, the bond rating will increase by 0.332099. The coefficient value of the firm size variable is 2.731156, which means that if the firm size increases by 1 unit, the bond rating will increase by 2.731156 and if the firm size decreases by 1 unit, the bond rating will decrease by 2.731156.

Simultaneous Significance Test

Based on the results in Table 2, the LR Statistical probability value is 26.16658. The probability value of LR Statistics shows that 0.000009 is smaller than \(\alpha (0.000009 < 0.05)\), which means that the independent variables consisting of profitability, leverage, and firm size together have a significant effect on the bond rating.

Model Feasibility Test (goodness of fit)

<table>
<thead>
<tr>
<th>Quantile of Risk</th>
<th>Dep=0</th>
<th>Dep=1</th>
<th>Total</th>
<th>H-L</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low</td>
<td>High</td>
<td>Actual</td>
<td>Expect Actual</td>
<td>Expect</td>
</tr>
<tr>
<td>1</td>
<td>0.0736</td>
<td>0.7793</td>
<td>5</td>
<td>4.96347</td>
</tr>
<tr>
<td>2</td>
<td>0.8384</td>
<td>0.9383</td>
<td>0</td>
<td>0.66405</td>
</tr>
<tr>
<td>3</td>
<td>0.9627</td>
<td>0.9761</td>
<td>0</td>
<td>0.21150</td>
</tr>
<tr>
<td>4</td>
<td>0.9797</td>
<td>0.9933</td>
<td>1</td>
<td>0.09200</td>
</tr>
<tr>
<td>5</td>
<td>0.9944</td>
<td>0.9969</td>
<td>0</td>
<td>0.03010</td>
</tr>
<tr>
<td>6</td>
<td>0.9970</td>
<td>0.9977</td>
<td>0</td>
<td>0.01814</td>
</tr>
<tr>
<td>7</td>
<td>0.9979</td>
<td>0.9988</td>
<td>0</td>
<td>0.01108</td>
</tr>
<tr>
<td>8</td>
<td>0.9988</td>
<td>0.9992</td>
<td>0</td>
<td>0.00690</td>
</tr>
<tr>
<td>9</td>
<td>0.9992</td>
<td>1.0000</td>
<td>0</td>
<td>0.00263</td>
</tr>
<tr>
<td>1</td>
<td>1.0000</td>
<td>1.0000</td>
<td>0</td>
<td>0.00012</td>
</tr>
<tr>
<td>Total</td>
<td>6</td>
<td>6.00000</td>
<td>64</td>
<td>64.0000</td>
</tr>
</tbody>
</table>

H-L Statistic | 10.1022
Andrews Statistic | 58.8593

Based on Table 3, the H-L statistical value shows a value of 10.1022 with a significance probability of 0.2579 whose value is above 0.05, so that \(H_0\) is accepted, which indicates that the model is acceptable and hypothesis testing can be done because there is no significant difference between the models and their observation values.
Assessing the Overall Model (Overall Fit Model)

In table 3, the value of Restr.deviance is the value resulting from the Iteration History at block 0 or when the independent variable is not included in the model with N = 70 samples. Get -2 Log Likelihood value of 40.95119. Degree Of Freedom (DF) = N-1 = 70-1 = 69. Chi-Square (X2) table on DF 69 and probability 0.05 is 89.391. Value -2 Log Likelihood (40.95119) <X2 table (89.391) so that accepting H0 indicates that the model before entering the independent variable is FIT with data. The Deviance value is the Iteration History value in block 1 or when the independent variable is included in the model, which is 14.78461. With a sample size of N = 70, then DF = N- number of independent variables-1 = 70-3-1 = 66, Chi-Square (X2) table on DF 66 and probability 0.05 = 85.965. Value -2 Log Likelihood 14.78461 <X2 table (85.965) so that it accepts H0 = which indicates that the model that includes independent variables is FIT with data.

Table 4. Results of the Percentage of Prediction Insurance

<table>
<thead>
<tr>
<th></th>
<th>Estimated Equation</th>
<th>Constant Probability</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Dep=0</td>
<td>Dep=1</td>
</tr>
<tr>
<td>P(Dep=1)&lt;C</td>
<td>5</td>
<td>1</td>
</tr>
<tr>
<td>P(Dep=1)&gt;C</td>
<td>1</td>
<td>63</td>
</tr>
<tr>
<td>Total</td>
<td>6</td>
<td>64</td>
</tr>
<tr>
<td>Correct</td>
<td>5</td>
<td>63</td>
</tr>
<tr>
<td>% Correct</td>
<td>83.33</td>
<td>98.44</td>
</tr>
<tr>
<td>% Incorrect</td>
<td>16.67</td>
<td>1.56</td>
</tr>
<tr>
<td>Total Gain*</td>
<td>83.33</td>
<td>-1.56</td>
</tr>
<tr>
<td>Percent Gain**</td>
<td>83.33</td>
<td>NA</td>
</tr>
</tbody>
</table>

Based on table 4, it gives a value of the accuracy of this research model of 97.1%, so it can be said that the model is quite good.

Coefficient of Determination

Table 5. Coefficient of Determination

<table>
<thead>
<tr>
<th>Pseudo R-squareds</th>
<th>Effron</th>
<th>0.722791</th>
</tr>
</thead>
<tbody>
<tr>
<td>McFadden</td>
<td>0.638970</td>
<td></td>
</tr>
<tr>
<td>Adjusted Mcfadden</td>
<td>0.443615</td>
<td></td>
</tr>
<tr>
<td>Cox-Snell</td>
<td>0.311891</td>
<td></td>
</tr>
<tr>
<td>Nagelkerke</td>
<td>0.704196</td>
<td></td>
</tr>
</tbody>
</table>

Based on table 5, the other Pseudo R-square values are not only Mc Fadden’s values. To see the ability of the independent variable in explaining the dependent variable, the values of Cox & Snell R Square, Nagelkerke R Square, Efron, Mcfadden and adjusted McFadden are used. These values are also called the Pseudo R-Square or if the linear regression (OLS) is better known as the R-Square. If you use the McFadden R-Square value of 0.638970 which indicates that the ability of the independent
variable to explain the dependent variable is 0.638970 or 63.89% and the rest is explained by other variables not used in this study.

**Partial Significance Test (Wald Test)**

Wald test is used to determine the effect of each dependent variable (ROA, DER, and Size) on the dependent variable (PO). The results of the partial test of the independent variable on the dependent variable can be explained as follows:

<table>
<thead>
<tr>
<th>Variable</th>
<th>Coefficient</th>
<th>Std. Error</th>
<th>z-Statistic</th>
<th>Prob.</th>
</tr>
</thead>
<tbody>
<tr>
<td>C</td>
<td>-43.18745</td>
<td>16.49737</td>
<td>-2.617838</td>
<td>0.0088</td>
</tr>
<tr>
<td>ROA</td>
<td>-0.520671</td>
<td>0.872527</td>
<td>-0.596739</td>
<td>0.5507</td>
</tr>
<tr>
<td>DER</td>
<td>-0.332099</td>
<td>0.268160</td>
<td>-1.238437</td>
<td>0.2156</td>
</tr>
<tr>
<td>SIZE</td>
<td>2.731156</td>
<td>0.949104</td>
<td>2.877617</td>
<td>0.0040</td>
</tr>
</tbody>
</table>

**Testing the effect of Profitability on Bond Ratings.**

Based on Table 6, the ROA value as a proxy for the profitability variable has a coefficient of -0.520671 and a probability value of 0.5507. The probability value is greater than α (0.5507 > 0.05) so H1 is rejected because it shows that the profitability variable has no effect on the bond rating.

**Testing the effect of Leverage on Bond Rating.**

Based on Table 6, the DER value as a proxy for the leverage variable has a coefficient of -0.332099 and a probability value of 0.5507. The probability value is greater than α (0.2156 > 0.05) so H2 is rejected because it shows that the leverage variable has no effect on the bond rating.

**Testing the effect of Firm size on Bond Rating**

Based on Table 6, the Asset Value as a proxy for the firm size variable has a coefficient of 2.731156 and a probability value of 0.0040. The probability value is smaller than α (0.0040 < 0.05) so H3 is accepted because it shows that the firm size variable affects the bond rating.

**Effect of Profitability on Bond Rating**

Based on the results of research, the proxied profitability of Return on Assets has no effect on the bond rating. The results of this study are inconsistent with previous research conducted by Karlina and Negara (2014) and Mardiyanti et al (2015) which stated that profitability has an effect on bond ratings. Profitability shows the effectiveness of a company using its assets to generate net profit after tax. In this study, the ROA of banking companies fluctuates. The average company experienced a decrease in net income and followed by a decrease in assets as well, this indicates that the company was unable to use assets effectively and efficiently in earning profits.
The Effect of Leverage on Bond Rating

Based on the research results, the leverage proxied by the Debt To Equity Ratio (DER) has no effect on the bond rating. This result is not in accordance with previous research conducted by Sari and Barja (2016) and Mardiyanti et al (2015) which stated that the leverage variable has an effect on bond ratings. Leverage shows the company’s ability to fulfill its obligations. In this study, the average DER of banking companies fluctuates. The average DER that has decreased ability to fulfill its obligations. This shows that a low debt ratio has a small risk for investors, but with a low debt ratio it shows that the debt incurred by the company is small, this is related to decreasing bond purchases by investors then decreasing company profits, indicating that the company's condition is not healthy. The company will provide a guarantee of high returns but the prospect of high returns is desired by investors, but investors are reluctant to bear the risk.

The Effect of Firm size on Bond Rating

Based on the research results, firm size affects the bond rating. The results of the study are in accordance with previous research conducted by Karlina & Negara (2014) and Pinandhita & Suryantini (2016). Big companies are less risky compared to small companies because small companies have more risk.

5. Conclusion

Profitability has no effect on bond ratings. This is because most of the studies have low profits while the bond ratings are in the Investment Grade range, which means that the average banking company that issues bonds has a high bond rating, resulting in no effect on the ROA on bond ratings. Leverage has no effect on bond ratings. In these conditions the tendency of investors to invest is reduced because if investors continue to invest, the risk they face will be even higher. Firm size affects the bond rating. If the bigger the company has the potential to diversify the non-systematic risk, it will also get bigger so that the risk of the company's bonds will decrease.

References


Otoritas Jasa Keuangan


Effect of Competence, Stress and Job Satisfaction on Employee Performance in PT. Dhamma Niaga Plastindo

Harta Wijaya & Melkyory Andronicus*

Universitas Prima Indonesia
e-mail: andromelky@gmail.com

Abstract

PT. Dhamma Niaga Plastindo is a well-known manufacturer of HD/plastic bags of high density polyethylene (HDPE) as raw materials. However, the company consider the needs of human resources development, particularly in improving the employee’s competence. Human resource (HR) has a vital role in organization, for its own function in managing systems. The human resources problems in this company is related to employees stress that may affect their work-performance. Concerning the employees job satisfaction, there are many aspects of the work of employees that should be improve to achieve their expectation. Contrary, the organization expects the high work-performance of employees. The method used in this study is quantitative descriptive that featured with explanatory. The population in this study were 130 respondents. Total sample 98 were recognized by using the Slovin formula. Thirty respondents were used to testing the validity and reliability by simple random sampling. The results of the study showed that the competency, stress and job satisfaction simultaneously (Test F) has a positive effect on employee performance with Fcount 17.808 > Ftable 3.09. Partially (t-test) revealed that competency has positive and significant influence on employee performance with tcount 1.672 > ttable 1.66105; while stress has positive and less significant effect on employee performance with tcount 0.368 <ttable 1.66105. However, the job satisfaction has a positive and significant influence on employee performance with tcount 6.95> ttable 1.66105. The Adjusted R Square is 0.342 implies that the competency, stress and job satisfaction affected the employees performance with a percentage level of 34.2%, while the remaining 65.8% is affected by another factor excluded in this research.

Keywords: Competence, Stress, Job satisfaction, Employee performance.

1. Introduction

Plastics have a very vital role in various industries in the modern era, plastics are in demand because they are cheap and lightweight. The plastic industry in Indonesia will continue to grow because of the high needs of society. The Ministry of Industry noted that the number of plastic industries to date has reached 925 companies that produce various kinds of plastic products. This sector employs a workforce of 37,327 people and has a total production of 4.68 million tons. “The national demand for plastic products has reached 4.6 million tons and has increased by five percent in the last five years.

Companies expect high performance from their employees, to optimize the performance of employees must manage human resources as well as possible in order to achieve the success and goals of the company.
HR has an important role for a company organization because human resources are a key component in managing the existing system within the company, so that this system continues to run. In HR management, we must pay attention to several important things such as competence, discipline, education and training as well as the level of work comfort so that the employee concerned can be motivated to provide all the capabilities required by the organization.

Job stress creates a tense situation that causes instability between a person's physical and psychological condition which will cause the person to experience emotions, disturb the employee's thinking process. Employees who are under pressure or stress will affect employee performance within the company.

Every employee job satisfaction will produce feelings from an employee about the results of his work. This can be seen from the employee's attitude to work and everything in his work environment. If much of the work in the process is in accordance with the wishes of the company and the values that are guided by the individual, the higher the level of satisfaction obtained by the employee.

PT. Dhamma Niaga Plastindo is a company engaged in the manufacture of HD / plastic plastic bags using the main source of HDPE (High Density Polyethylene) material, for example pipettes, plastic bags, shopping bags, trash bags, plastic sheets and plastic rolls. The company obtained raw materials from Jakarta in the form of HD plastic pellets. The company has offices JL. Pelita Raya Blok 60-D KIM STAR Tanjung Morawa, Kec. Tanjung Morawa, Kab. Deli Serdang. This company was founded in March 2015 with the number of employees currently numbering 130 people.

The problems that arise in employee performance are the amount of work that is too much, the quality of the work is still not good, there are frequent delays in completing work and the ability to work together in teams is not yet going well.

The problem of employee competence is the absence of work standards for each worker, lack of skills in dealing with different tasks that arise in work, lack of ability in decision making when there are work problems and lack of adaptation to work in the field.

Employee work stress problems where employees experience a high level of work stress even at the level of employee resignation (turn over) due to the large workload conditions and must be done in a fast time, stress due to unclear roles and responsibilities given, there are disharmony relationships between employees (interpersonal factors), unclear career development.

The problem of job satisfaction of employees is that workers are not satisfied with the work given, low salaries, inadequate work teams, inattentive superiors and no promotion for employees who excel.

2. Methodology

Place and time of research

The research was carried out at PT. Dhamma Niaga Plastindo. The company Jl. Pelita Raya Blok 60-D KIM STAR Tanjung Morawa, Kec. Tanjung Morawa, Kab. Deli Serdang. When the research was conducted from September 2019 and is expected to be completed until February 2020.

Population

The population used in the study were 130 employees of PT. Dhamma Niaga Plastindo.

Sample

Researchers used a simple random sample (simple random sampling). The total population is 130 respondents, using the Slovin formula which is used as a sample of 98 respondents in this study.
and 30 respondents to test the validation of the rest of the population that are not used in the study sample.

**Data collection technique**

1. Interview
2. Questionnaire
3. Documentation study

3. Result and Discussion

**Validity and Reliability Test**

<table>
<thead>
<tr>
<th>Variable</th>
<th>Indicator</th>
<th>Correlation (r)</th>
<th>Status</th>
<th>Coefficient Cronbach’s Alpha</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>Competence (X₁)</td>
<td>X₁.1</td>
<td>0.835** .000</td>
<td>Valid</td>
<td>0.824</td>
<td>Reliable</td>
</tr>
<tr>
<td></td>
<td>X₁.2</td>
<td>0.599** .000</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>X₁.3</td>
<td>0.736** .000</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>X₁.4</td>
<td>0.435* .016</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>X₁.5</td>
<td>0.596** .001</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>X₁.6</td>
<td>0.669** .000</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>X₁.7</td>
<td>0.684** .000</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>X₁.8</td>
<td>0.507** .004</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>X₁.9</td>
<td>0.691** .000</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>X₁.10</td>
<td>0.525** .003</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Stress (X₂)</td>
<td>X₂.1</td>
<td>0.758** .000</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>X₂.2</td>
<td>0.732** .000</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>X₂.3</td>
<td>0.687** .000</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>X₂.4</td>
<td>0.769** .000</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>X₂.5</td>
<td>0.732** .000</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>X₂.6</td>
<td>0.922** .000</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>X₂.7</td>
<td>0.387* .034</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>X₂.8</td>
<td>0.821** .000</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Job satisfaction  (X₃)</td>
<td>X₃.1</td>
<td>0.855** .000</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>X₃.2</td>
<td>0.926** .000</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>X₃.3</td>
<td>0.722** .000</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>X₃.4</td>
<td>0.891** .000</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>X₃.5</td>
<td>0.914** .000</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>X₃.6</td>
<td>0.926** .000</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>X₃.7</td>
<td>0.722** .000</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>X₃.8</td>
<td>0.891** .000</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>X₃.9</td>
<td>0.722** .000</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>X₃.10</td>
<td>0.891** .000</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>X₄.1</td>
<td>0.915** .000</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Volume 2, Issue 4 available at http://e-journal.stie-kusumanegara.ac.id
The competency variable (X1), a sample of 98 respondents has a minimum value of 17 units in the respondent number 34 and a maximum value of 37 units in the respondent number 1, 8, 51 and a mean value of 29.68 and a standard deviation of 4.309.

For the stress variable (X2), a sample of 98 respondents has a minimum value of 21 units on the respondent number 26 and a maximum value of 37 units on the respondent number 49, 54 and a mean value of 29.91 and a standard deviation of 3.775.

Job satisfaction variable (X3), a sample of 98 respondents has a minimum value of 15 units in the respondent number 64 and a maximum value of 39 units in the respondent number 2 and a mean value of 28.63 and a standard deviation of 4.728.

Employee performance variable (Y), a sample of 98 respondents has a minimum value of 13 units in the respondent number 58 and a maximum value of 32 units in the respondent number 2, 42, 55, 72, 74, 77 and a mean value of 24.97 and a standard deviation of 4.359.

Classical Assumption Test Results

Normality Test

The normality test is divided into 2 types of testing, namely:

1. Test using charts
The outline of the bell does not turn left or right so it can be said that the data is normally distributed.

The data is scattered around the diagonal line, the spread is mostly close to the diagonal line so that the data can be said to be normally distributed.

2. Test using Statistical Analysis
The Kolmogorov Smirnov normality test resulted in a significant value of 0.853 > 0.05, with the results showing that the data was normally distributed.

**Multicollinearity Test**

<table>
<thead>
<tr>
<th>Model</th>
<th>Collinearity Statistics</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Tolerance</td>
</tr>
<tr>
<td>1</td>
<td>Competence</td>
</tr>
<tr>
<td></td>
<td>Stress</td>
</tr>
<tr>
<td></td>
<td>Work Satisfaction</td>
</tr>
</tbody>
</table>

The tolerance value for the competency variable = 0.990, stress = 0.996 and job satisfaction = 0.994, which is above 0.10, while the VIF value of the competency variable = 1.010, stress = 1.004 and job satisfaction = 1.006 are below 10. Therefore, in the multicollinearity test, there is no correlation between variables. independent.

**Heteroscedasticity Test**

The Heteroscedasticity Test is divided into 2 types of testing, namely:
1. Test using a Scatterplot Graph
The Scatterplot graph shows that the distribution points with an irregular pattern either above or below the zero (0) on the Y axis, are not collected in one place, so from the Scatterplot graph it can be concluded that heteroscedasticity does not occur.

2. Statistical test using the Glejser method

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>t</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>Std. Error</td>
<td>Beta</td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>(Constant)</td>
<td>2,952</td>
<td>2,639</td>
<td>1,118</td>
</tr>
<tr>
<td></td>
<td>Competence</td>
<td>-0.49</td>
<td>0.053</td>
<td>-0.920</td>
</tr>
<tr>
<td></td>
<td>Stress</td>
<td>0.037</td>
<td>0.060</td>
<td>0.064</td>
</tr>
<tr>
<td></td>
<td>Work Satisfaction</td>
<td>0.002</td>
<td>0.048</td>
<td>0.004</td>
</tr>
</tbody>
</table>

The Glejser test results obtained significant values from the competency variable 0.360 > 0.05, the stress variable 0.536 > 0.05 and the job satisfaction variable 0.973 > 0.05, the Glejser test results obtained no heteroscedasticity problem.

Determination Coefficient Test

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Std. Error of the Estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>.602&lt;sup&gt;a&lt;/sup&gt;</td>
<td>.362</td>
<td>.342</td>
<td>3.536</td>
</tr>
</tbody>
</table>

The coefficient of determination test obtained an Adjusted R square value of 0.342, this means 34.2% of the variation in the dependent variable of employee performance which can be explained by variations in the independent variables of competence, stress and job satisfaction while the remaining is 65.8% (100% - 34.2 %) explained by other variables not examined in this study.

F Test (Simultaneous Test)

<table>
<thead>
<tr>
<th>Model</th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Regression</td>
<td>667,837</td>
<td>3</td>
<td>222,612</td>
<td>17.808</td>
</tr>
<tr>
<td></td>
<td>Residual</td>
<td>1175,071</td>
<td>94</td>
<td>12,501</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>1842,908</td>
<td>97</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

F test (simultaneous test) obtained the value of Fcount 17.808 > Ftable 3.09 with a significance probability level of 0.000 <0.05. So Ha is accepted and Ho is rejected, meaning that competence, stress and job satisfaction simultaneously have a positive and significant effect on employee performance.

Volume 2, Issue 4 available at http://e-journal.stie-kusumanegara.ac.id
T test (partial test)

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>t</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>Std. Error</td>
<td>Beta</td>
<td>---</td>
</tr>
<tr>
<td>1 (Constant)</td>
<td>4,611</td>
<td>4,175</td>
<td>1,104</td>
<td>.272</td>
</tr>
<tr>
<td>Competence</td>
<td>.140</td>
<td>.064</td>
<td>.138</td>
<td>1,672</td>
</tr>
<tr>
<td>Stress</td>
<td>.035</td>
<td>.095</td>
<td>.030</td>
<td>.368</td>
</tr>
<tr>
<td>Work Satisfaction</td>
<td>.529</td>
<td>.076</td>
<td>.574</td>
<td>6,950</td>
</tr>
</tbody>
</table>

1. From the partial t-test calculation, the competency value of t\text{count} 1.672 > t\text{table} 1.66105 and a significant value of 0.098 means that Ha is accepted and Ho is rejected, meaning that competence has a positive and significant effect on the performance of employees of PT. Dhamma Niaga Plastindo.

2. From the partial t-test calculation, the stress value of t\text{count} 0.368 < t\text{table} 1.66105 and a significant value of 0.713 means that Ha is accepted and Ho is rejected, meaning that stress has a positive and less significant effect on the performance of the employees of PT. Dhamma Niaga Plastindo.

3. From the calculation of the t test partially obtained job satisfaction values t\text{count} 6.95 > t\text{table} 1.66105 and a significant value of 0.000, so Ha is accepted and Ho is rejected, meaning that job satisfaction has a positive and significant effect on employee performance at PT. Dhamma Niaga Plastindo.

Effect of competence on employee performance

From the partial t-test calculation, the competency value of t\text{count} 1.672 > t\text{table} 1.66105 and a significant value of 0.098 means that Ha is accepted and Ho is rejected, meaning that competence has a positive and significant effect on the performance of employees of PT. Dhamma Niaga Plastindo. This is in accordance with the research hypothesis at the beginning of the study.

The results of this study are also supported by the results of research by Rahmat, Musa and Dadang (2015), entitled "The Effect of Competence, Motivation and Job Satisfaction on Employee Performance at Pt Elnusa Tbk", that the simultaneous test results of the relationship between competence, motivation and job satisfaction have a positive and positive effect. significant to employee performance. The partial test results of the relationship between competence, motivation and job satisfaction have a positive and significant effect on employee performance.

According to Wibowo (2016: 272), "Competence is part of the basic characteristics of each individual which is linked to the criteria referenced to the superior or effective performance of a job or situation".

From the results of the answers to 10 questions given to respondents, the majority of respondents can answer the competency value 3 (35.3%), namely competence can affect employee performance. Hiring competent human resources greatly affects the work results of employees in every job they do, for that at the time of recruiting prospective company employees must pay attention to the competence of each prospective employee who will be accepted to work in the company.
The effect of stress on employee performance

From the calculation of the t test partially obtained the stress value of tcount 0.368 < ttable 1.66105 and a significant value of 0.713, so Ha is accepted and Ho is rejected, meaning that stress has a positive and less significant effect on the performance of the employees of PT. Dhamma Niaga Plastindo. This is not in accordance with the research hypothesis at the beginning of the study.

The results of this study are also supported by the results of Julvia's (2016) research, entitled "The Effect of Job Stress and Work Conflict on Employee Performance", that the results of the study show that the work stress variable has a significant negative effect on the performance of PT Hikari employees. Work conflict has a significant positive effect on the performance of PT Hikari employees.

According to Hasibuan (2013: 204), "Job stress in general can cause work performance and employee performance to decrease due to the burden of thoughts. For that work stress must be overcome at the beginning of its appearance.

From the results of the answers to the 8 questions given to the respondents, the average majority of respondents answered stress value 5 (33%), namely stress is very capable of affecting employee performance. For this reason, companies must be able to make employees who work comfortable at work. Employees are comfortable working if the workload is done according to their expertise, communication runs smoothly, there is a career path for employees and wages are in accordance with the duties and responsibilities assigned to them.

Effect of job satisfaction on employee performance

From the calculation of the t test partially obtained job satisfaction values tcount 6.950 > t table 1.66105 and a significant value of 0.000, so Ha is accepted and Ho is rejected, meaning that job satisfaction has a positive and significant effect on the performance of employees of PT. Dhamma Niaga Plastindo. This is in accordance with the research hypothesis at the beginning of the study.

The results of this study are also supported by the results of research by Oxy Rindiantika and Heru Susilo (2018), entitled "The Effect of Job Satisfaction on Employee Performance with Organizational Citizenship Behavior as an Intervening Variable", that job satisfaction has a positive and significant influence on employee performance.

According to Hasibuan (2011: 203), "Employee job satisfaction is the key to driving morale, discipline, and work performance (performance) of employees in supporting the realization of company goals".

From the results of the answers to the 10 questions given to the respondents, the average majority of respondents answered job satisfaction score 3 (27.8%), namely the company is able to provide job satisfaction to all employees to produce employee performance well. This relationship means that the more satisfied employees are with the company, the work performance and work results shown will be better or vice versa.

4. Conclusion

In the partial test (t test), competence has a positive and significant effect on employee performance at PT. Dhamma Niaga Plastindo. With tcount 1.672 > ttable 1.66105 and a significant value of 0.098 then Ha is accepted and Ho is rejected. In the partial test (t test), stress has a positive and less significant effect on employee performance at PT. Dhamma Niaga Plastindo. With tcount 0.368 < ttable 1.66105 and a significant value of 0.713, Ha is accepted and Ho is rejected. In the partial test (t test), job satisfaction has a positive and significant effect on employee performance at PT.
Dhamma Niaga Plastindo. With tcount 6.950 > ttable 1.66105 and a significant value of 0.000 then Ha is accepted and Ho is rejected. In simultaneous testing (F test) competence, stress and job satisfaction have a positive and significant effect on employee performance at PT. Dhamma Niaga Plastindo with Fcount 17.808 > Ftable 3.09 and a significance of 0.000 <0.05. The result of the coefficient of determination test shows 34.2% of the variation in the dependent variable of employee performance which can be explained by the independent variables of competence, stress and job satisfaction, the remaining 65.8% is varied by other factors not examined by the researcher. From the results of this study, it is found that the variable that most influences employee performance (Y) is the variable job satisfaction (X3) tcount = 6.950, the competency variable (X1) tcount = 1.672 and the stress variable (X2) tcount = 0.368. For PT. Dhamma Niaga Plastindo. Companies need to make changes and continuous improvements in terms of increasing employee job satisfaction, by doing a number of things: improving relationships with fellow colleagues, liking their own work, good relationships with superiors, appropriate salaries and promotion of career paths.

References


The Influence of Work Discipline, Job Satisfaction, and Performance Supervision of Work Employees at PT Makmur Abadi Raya

Melkyory Andronicus*, Johansen, Michael Lim Vinci, Andrea Sadeli

Universitas Prima Indonesia

Abstract

The purpose of this study is to examine and analyze the effect of Work Discipline, Job Satisfaction and Work Supervision on employee performance at PT Makmur Abadi Raya. Low employee performance can be seen from not achieving the company’s targets due to low work discipline, low job satisfaction and supervision that has not gone well. The population and sample in this study amounted to 63 employees. The research method uses multiple linear regression analysis techniques. The calculation result of hypothesis testing is partially obtained tcount> ttable or 2.875> 2.001 and significantly obtained 0.006 <0.05, meaning that partially Work Discipline has a positive and significant effect on employee performance at PT Makmur Abadi Raya. The results of calculation of hypothesis testing partially obtained tcount> ttable or 2.024> 2.001 and obtained significant 0.048 <0.05, meaning partially Job Satisfaction has a positive and significant effect on employee performance at PT Makmur Abadi Raya. The results of the calculation of the partial hypothesis testing obtained tcount> ttable or 2.006> 2.001 and the significant value obtained was 0.049 <0.05, meaning that partially Work Supervision has a positive and significant effect on employee performance at PT Makmur Abadi Raya. The test results obtained by the value of F count (11.051) > F table (2.76) and a significance probability of 0.000 <0.05, meaning that Ho is rejected and Ha is accepted, namely that simultaneously Work Discipline, Job Satisfaction and Work Supervision have a positive and significant effect on performance. employees at PT Makmur Abadi Raya. The conclusions in this study indicate that partially and simultaneously Work Discipline, Job Satisfaction and Work Supervision have a positive and significant effect on employee performance at PT Makmur Abadi Raya.

Keywords: Work Discipline, Job Satisfaction, Work Supervision, Employee Performance

1. Introduction

Companies are formed to achieve certain goals. PT Makmur Abadi Raya is a company in the field of palm fiber sales. In this company, there is a decrease in employee performance which can be seen from not achieving company targets. Not achieving company targets is caused by the large number of employees who tend to make work mistakes, not on time in carrying out their work.

Low work discipline of employees who are often late to the office and absenteeism causes work not to be completed on time. In addition, there are many employees who do not comply with applicable company rules and then sanctions that are not clear and unfair because their employers
discriminate in their behavior. This problem resulted in quite high absenteeism during 2019 which occurred in June as many as 66 employees.

Employee job satisfaction has decreased as seen from the level of employees who often complain about work that is not in accordance with the employee's position and dissatisfaction with low and uneven salary increases. This caused the number of employees opting out of the company which occurred in July as many as 6 employees.

Supervision of work within the company tends to be ineffective, as evident from the fact that supervision is not often carried out and is less objective in supervising work results that result in employee work errors. Employee work errors that mostly occurred in April were 8 times committed by employees.

2. Literature Review

Theory of the Effect of Work Discipline on Employee Performance

Sutrisno (2013: 177) Performance will be achieved if employee performance and group performance are improved by work discipline. According to Fahmi (2016: 42) that discipline is a process used to deal with performance problems, this process involves managers in identifying and communicating performance problems to employees. According to Kasmir (2016: 193), discipline in doing what is ordered to him is in accordance with the orders that must be done. Disciplined employees will affect performance.

The Theory of the Effect of Job Satisfaction on Employee Performance

According to Bangun (2012: 11), when employees judge a job to be fun to do, they say that the job provides job satisfaction. This situation can be seen from the results of their work, job satisfaction will be able to increase their performance. According to Wibowo (2014: 414), job satisfaction is the main dependent variable for two reasons, namely it shows a relationship with performance factors and is the value preference held by many organizational behavior researchers. According to Badriyah (2015: 227), in essence, job satisfaction is one of the most important factors to get optimal work results.

Theory of Effects of Supervision on Employee Performance

According to Yuniarsih and Suwatno (2016: 93), the essence of the human resource monitoring process is to measure the performance of personnel, both individually and in groups compared to the planned outcome targets and conformity to the work analysis design. According to Priansa (2016: 96), supervision in general can be defined as a way for an organization to achieve effective and efficient performance and to further support the realization of the organization's vision and mission.

Conceptual Framework

Based on the explanation above, it can be explained that work discipline, job satisfaction and job supervision affect employee performance with a conceptual framework which can be described as follows:
Research Hypothesis namely:
H1: Work Discipline has a partial effect on employee performance at PT Makmur Abadi Raya.
H2: Job Satisfaction has a partial effect on employee performance at PT Makmur Abadi Raya.
H3: Work Supervision has a partial effect on employee performance at PT Makmur Abadi Raya.
H4: Work Discipline, Job Satisfaction and Work Supervision simultaneously affect the performance of employees at PT Makmur Abadi Raya.

3. Methodology

The approach in this research is a quantitative approach. In this study, researchers used quantitative descriptive research. The nature of the research used is descriptive explanatory. The population in this study amounted to 63 employees. The sample in this study amounted to 63 employees. This research sampling method using saturated sampling. Saturated sampling is a sampling technique when all members of the population are used as samples. In this study, data collection related to the problem being investigated by the researcher was carried out by:

1. Questionnaire
   Conducted on respondents or employees.
2. Interview
   Conducted on respondents.
3. Documentation study
   In the form of journals, books, company data.

The types of data in this study are:
1. Primary Source
   Primary data is obtained by interviewing and providing a list of statements (questionnaires) to employees.
2. Secondary Sources
   Secondary data were obtained through documentation study.

Test the Validity and Reliability of Variable Instruments

According to Ghozali (2016: 52), the validity test is used to measure whether a questionnaire is valid or not. If r count > r table and the value is positive then the question item is valid and if r count < r table and the value is negative then the question item is invalid. In determining the feasibility of
an item to be used, a significance test of the correlation coefficient is usually carried out at the significance level (2-tailed) of 5% (0.05) and df = n-2, meaning that an item is considered valid if it is significantly correlated with the score. total.

Reliability test is actually a tool to measure a questionnaire which is an indicator of a variable or construct.
1. Cronbach's alpha <0.6 = poor reliability.
2. Cronbach's alpha 0.6-0.79 = acceptable reliability.
3. Cronbach's alpha 0.8 = good reliability.

4. Result and Discussion

Research Model

The regression model used is as follows:

<table>
<thead>
<tr>
<th>Model</th>
<th>B</th>
<th>Std. Error</th>
<th>Beta</th>
<th>t</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 (Constant)</td>
<td>6.811</td>
<td>3.665</td>
<td></td>
<td>1.859</td>
<td>.068</td>
</tr>
<tr>
<td>Work Discipline</td>
<td>.320</td>
<td>.111</td>
<td>.326</td>
<td>2.875</td>
<td>.006</td>
</tr>
<tr>
<td>Job Satisfaction</td>
<td>.273</td>
<td>.135</td>
<td>.233</td>
<td>2.024</td>
<td>.048</td>
</tr>
<tr>
<td>Work Supervision</td>
<td>.220</td>
<td>.110</td>
<td>.236</td>
<td>2.006</td>
<td>.049</td>
</tr>
</tbody>
</table>

A constant of 6,811 states that if the independent variables of Work Discipline, Job Satisfaction and Work Supervision do not exist or are constant, the dependent variable is PT Makmur Abadi Raya's Employee Performance at 6,811 units. The regression coefficient for the independent variable Work Discipline is 0.320 and is positive, this means that if each increase in the independent variable of Work Discipline 1 unit will increase the dependent variable of PT Makmur Abadi Raya's Employee Performance by 0.320 units assuming the other variables are constant.

The regression coefficient of the independent variable Job Satisfaction is 0.273 and is positive, this means that if each increase in the independent variable of Job Satisfaction 1 unit will increase the dependent variable of PT Makmur Abadi Raya's Employee Performance by 0.273 units assuming the other variables are constant.

The regression coefficient for the independent variable of Work Supervision is 0.220 and has a positive value, this means that if each increase in the independent variable of Work Supervision 1 unit will increase the dependent variable of PT Makmur Abadi Raya's Employee Performance by 0.220 units assuming the other variables are constant.

Hypothesis Determination Coefficient

The coefficient of determination is:
Table 2. Determination Coefficient Test
Model Summary

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Std. Error of the Estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>.600a</td>
<td>.360</td>
<td>.327</td>
<td>8.79486</td>
</tr>
</tbody>
</table>

a. Predictors: (Constant), Work Supervision, Work Discipline, Job Satisfaction
b. Dependent Variable: Employee Performance

Table 2 The results of the determination coefficient test obtained an Adjusted R Square value of 0.327, this means 32.7% of the variation in the dependent variable, namely the performance of employees of PT Makmur Abadi Raya which can be explained by the variation of the independent variables, namely free work discipline, job satisfaction and work supervision while the rest is 67.3% (100% - 67.3%) was explained by other variables not examined in this study, such as workload, job analysis and development and so on.

Simultaneous Hypothesis Testing (Test F)

The F testers are:

Table 3. Simultaneous Test (Test F) ANOVA

<table>
<thead>
<tr>
<th>Model</th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regression</td>
<td>2564.315</td>
<td>3</td>
<td>854.772</td>
<td>11.051</td>
<td>.000a</td>
</tr>
<tr>
<td>Residual</td>
<td>4563.621</td>
<td>59</td>
<td>77.350</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>7127.937</td>
<td>62</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

a. Predictors: (Constant), Work Supervision, Work Discipline, Job Satisfaction
b. Dependent Variable: Employee Performance

Table 3 The test results obtained by the value of F count (11.051) > F table (2.76) and a significance probability of 0.000 <0.05, meaning that Ho is rejected and Ha is accepted, namely that simultaneously Work Discipline, Job Satisfaction and Work Supervision have a positive and significant effect on performance employees at PT Makmur Abadi Raya.

Partial Hypothesis Testing (t test)

The t test is:

Table 4. Partial Test (T Test)

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>t</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>Std. Error</td>
<td>Beta</td>
<td></td>
</tr>
<tr>
<td>(Constant)</td>
<td>6.811</td>
<td>3.665</td>
<td>1.859</td>
<td>.068</td>
</tr>
<tr>
<td>Work Discipline</td>
<td>.320</td>
<td>.111</td>
<td>.326</td>
<td>2.875</td>
</tr>
<tr>
<td>Job Satisfaction</td>
<td>.273</td>
<td>.135</td>
<td>.233</td>
<td>2.024</td>
</tr>
<tr>
<td>Work Supervision</td>
<td>.220</td>
<td>.110</td>
<td>.236</td>
<td>2.006</td>
</tr>
</tbody>
</table>

Volume 2, Issue 4 available at http://e-journal.stie-kusumanegara.ac.id
The results of the calculation of the partial hypothesis testing obtained $t_{count}> t_{table}$ or 2.875> 2.001 and a significant value obtained was 0.006 <0.05, meaning that Ho is rejected and Ha is accepted, namely that partially Work Discipline has a positive and significant effect on employee performance at PT Makmur Abadi Raya.

The results of the calculation of hypothesis testing partially obtained $t_{count}> t_{table}$ or 2.024> 2.001 and a significant value obtained was 0.048 <0.05, meaning that Ho is rejected and Ha is accepted, namely Job Satisfaction has a positive and significant effect on employee performance at PT Makmur Abadi Raya.

The results of the calculation of the partial hypothesis testing obtained $t_{count}> t_{table}$ or 2.006> 2.001 and the significant value obtained was 0.049 <0.05, meaning that Ho was rejected and Ha was accepted, namely that partially, Job Supervision had a positive and significant effect on employee performance at PT Makmur Abadi Raya.

Effect of Work Discipline on employee performance at PT Makmur Abadi Raya

The results of the calculation of the partial hypothesis testing obtained $t_{count}> t_{table}$ or 2.875> 2.001 and significantly obtained 0.006 <0.05, meaning that partially work discipline has a positive and significant effect on employee performance at PT Makmur Abadi Raya. According to Sutrisno (2013: 177), the disciplinary problems of employees in the organization, both superiors and subordinates, will give a pattern to organizational performance. Organizational performance will be achieved if both individual and group performance are improved. Low work discipline of employees who are often late to the office and absenteeism causes work not to be completed on time. In addition, there are many employees who do not comply with applicable company rules and then sanctions that are not clear and unfair because their employers discriminate in their behavior. This problem resulted in a fairly high number of absences.

Effect of Job Satisfaction on employee performance at PT Makmur Abadi Raya

The results of the calculation of the partial hypothesis testing obtained $t_{count}> t_{table}$ or 2.024> 2.001 and a significant value obtained is 0.048 <0.05, meaning that Ho is rejected and Ha is accepted, namely Job Satisfaction has a positive and significant effect on employee performance at PT Makmur Abadi Raya. According to Bangun (2012: 11), when employees judge a job to be fun to do, they say that the job provides job satisfaction. This situation can be seen from the results of their work, job satisfaction will be able to increase their performance. Employee job satisfaction has decreased as seen from the level of employees who often complain about work that is not in accordance with the employee's position and dissatisfaction with low and uneven salary increases. This caused the number of employees opting out of the company which occurred in July as many as 6 employees.

The Effect of Work Supervision on Employee Performance of PT Jaya Mandiri Bangunan

The results of the calculation of the partial hypothesis testing obtained $t_{count}> t_{table}$ or 2.006> 2.001 and a significant value obtained was 0.049 <0.05, meaning that Ho is rejected and Ha is accepted, namely that partially, Job Supervision has a positive and significant effect on employee performance at PT Makmur Abadi Raya. According to Yuniarsih and Suwatno (2016: 93), the essence in the process of monitoring human resources is to measure the performance of personnel, both individually and in groups compared to the planned outcome targets and conformity to the work analysis design. Supervision of work within the company tends to be ineffective, as evident from the
fact that supervision is not often carried out and is less objective in supervising work results that result in employee work errors.

5. Conclusion

The value of t\(t_{\text{count}}\) > t\(t_{\text{table}}\) or 2.875 > 2.001 and the significance obtained is 0.006 <0.05, meaning that partially work discipline has a positive and significant effect on employee performance at PT Makmur Abadi Raya. The value of t\(t_{\text{count}}\) > t\(t_{\text{table}}\) or 2.024 > 2.001 and the significant value obtained is 0.048 <0.05, meaning that partially Job Satisfaction has a positive and significant effect on employee performance at PT Makmur Abadi Raya. The t\(t_{\text{count}}\) > t\(t_{\text{table}}\) or 2.006 > 2.001 and the significant value obtained is 0.049 < 0.05, it means that partially Work Supervision has a positive and significant effect on employee performance at PT Makmur Abadi Raya. The F value is calculated (11.051) > F\(F_{\text{table}}\) (2.76) and the significance probability is 0.000 <0.05, it means that Ho is rejected and Ha accepted, namely that simultaneously Work Discipline, Job Satisfaction and Job Supervision have a positive and significant effect on employee performance at PT Makmur Abadi Raya. For the Company, the increase in these three variables either partially or jointly can increase employee performance to the maximum. So it is suggested that the company can improve and improve the two variables in the company For further researchers, it is advisable to add other variables outside of the variables studied by the researcher. For Prima Indonesia University, it is suggested that the results of this research be published which later can be used as reference material for future researchers For researchers, it is hoped that the results of research can be put into practice in the company where the researcher works and obtain a Bachelor of Management degree.

References


The Effect of Financial Compensation, Supervision and Job Stress on Employee Performance at PT Fajar Abadi Jaya Perkasa Medan

Melkyory Andronicus®, Elly, Ricky Gunawan, Kalvin Kusumo

Universitas Prima Indonesia
e-mail: andromelky@gmail.com

Abstract

Researchers took the object of research from PT Fajar Abadi Jaya Perkasa. Declining performance experienced by the company at this time. Financial compensation is a payment received in the form of employee benefits. From the data it appears that receiving different basic gifts and bonuses are received by employees and not in accordance with the length of service given to different employees from one position with the same division. Supervision is the control of the leadership of the work of employees. From routine error data every month Job stress is a level of stress experienced by employees at work. From the data that can be seen in May 2018, resignation occurred as many as 4 people who considered several reasons such as conflicts with colleagues, did not require leave permission, there were duplicate jobs, incentives that were often late received. The number of participation as many as 65 people and 30 people were taken from PT Sukses Usaha Nirwana for validity test. The research method used is quantitative with quantitative descriptive research. Methods of data collection by interview, distribution of questionnaires and study of documentation. The analytical method used is multiple linear regression, coefficient of determination and simultaneous testing (F-Test) (21,772> 3,15) with values and partial (t-test) (3,691> 1,983), (2,043> 1,983) and (4,631>> 1,983). The results showed that financial comparison, supervision, simultaneous and partial work stress had a significant positive effect on employee performance with a coefficient of determination of 49.3%.

Keywords: Employee Performance, Financial Compensation, Supervision, Work Stress

1. Introduction

Human resources have a major role for the company. Employees as human resources will become a foundation for the company in carrying out their operational activities. In this case, employees play an important role in improving company performance. Human resources will play a big role in determining the success for the company. Employee performance is an element of human resources owned by the company.

Employee performance is the result of employee work in carrying out activities in the company. Employee performance must be stable in order to support company activities and to be able to achieve the targets set by the company. Human resources owned by the company will determine the success of the company in achieving predetermined performance. From sales data that the target set from the beginning of the year has never been achieved. The revenue target amount only increases in certain months such as January, February, October, November, December. The amount of decline occurred from March to September at a percentage of 81%. This shows that the company's revenue increase only occurs in busy months. This shows a decrease in employee performance in the company.
Financial compensation is a payment received in the form of money in return for employee services. Financial compensation is given to employees for their work results in a monthly basis. The size of the financial compensation will greatly affect the quality of work provided by employees. From the data, it can be seen that the provision of different basic salaries and bonuses received by employees and is not in accordance with the length of service given to employees is different from one position with the same division. This shows that the provision of financial compensation by companies does not yet have a good system. Providing uneven compensation with the same working period results in employees not displaying maximum work results for the company.

Supervision is a control process from the leadership of the employee's work. Supervision is necessary to monitor employee activities at work. With the supervision, it is hoped that the performance standards set by employees can be fully achieved by employees. Supervision is needed so that employees are able to achieve the performance that has become the work target. From the data, errors occur every month due to a lack of supervision by superiors. The maximum number of errors occurred in December with 5 errors. Inadequate supervision causes work results to be not optimal in its implementation and this affects the quality of work of employees that have been previously determined.

Job stress is the level of stress experienced by employees at work. High stress will result in employees being unable to work properly and comfortably. Job stress will trigger employees to feel uncomfortable working and eventually resign from the company. From the data, it can be seen that in May 2018 there were at most 4 resignations due to several reasons such as conflicts with colleagues, not being given leave permission, the existence of multiple jobs, incentives that were often paid late. This triggers work stress for employees and employees eventually submit their resignations. Work stress experienced can be seen from feeling tired / tired, exhausted, dizzy, disturbing the body and dissatisfaction with the work being carried out.

2. Literature Review

The Theory of the Effect of Financial Compensation on Performance

According to Wibowo (2014: 289), every organization applies a compensation system flexibly and freely according to their respective conditions. Which system is deemed appropriate to provide compensation to workers in the hope of improving performance and fostering job satisfaction. According to Bangun (2012: 255), appropriate compensation will improve performance and job satisfaction, while less attractive compensation will increase absenteeism and workforce turnover. According to Notoadmodjo (2015: 142), compensation is very important for employees themselves as individuals, because the amount of financial compensation is a reflection or a measure of the value of the employee's work itself. The size of the financial compensation can affect the performance (job performance), motivation and job satisfaction of employees. If financial compensation is given correctly and correctly, employees will get job satisfaction and are motivated to achieve organizational goals. However, if the financial compensation is inadequate or inaccurate, then the performance (work performance), motivation and job satisfaction of the employees will actually decrease.

Theory of Effects of Supervision on Employee Performance

According to Fahmi (2014: 96), supervision in general can be defined as a way for an organization to achieve effective and efficient performance, and to further support the realization of the organization's vision and mission. According to Siswandi (2011: 83), external supervision is
supervision carried out by people who are not members of the organization concerned. Supervision carried out by a neutral party whose expertise is requested to evaluate organizational performance. According to Handoko (2012: 362), excessive supervision will reduce productivity. Therefore, management must use the most appropriate monitoring system for the particular situation.

**The Theory of the Effect of Job Stress on Employee Performance**

According to Umam (2012: 217), high stress levels or prolonged mild stress will reduce employee performance. Mild stress may be of benefit to the organization, but from an individual point of view it is not desirable.

According to Sunyoto (2015: 215) stress experienced by employees due to the environment they face will affect their performance and job satisfaction. So that management needs to improve the quality of the organizational environment for employees.

According to Badeni (2014: 70), if the stress is too high, performance begins to decline, because stress intervenes in performance. An employee loses the power / ability to cope, becomes unable to make various decisions, and performance becomes zero, employees experience collapse, are too difficult to work, strike and refuse to go to work to face stress.

**Conceptual Framework**

![Conceptual Framework](image)

**Hypothesis**

According to Siregar (2014: 65), a hypothesis is a temporary statement that is still weak in truth, so it needs to be tested for its truth. Based on the conceptual framework that has been put forward, the research hypothesis is formulated as follows:

H1: Financial compensation has an effect on employee performance at PT. Fajar Abadi Jaya Perkasa Medan.
H2: Supervision affects the performance of employees at PT. Fajar Abadi Jaya Perkasa Medan.
H3: Job stress affects employee performance at PT. Fajar Abadi Jaya Perkasa Medan.
H4: Financial Compensation, Supervision and Work Stress affect the performance of employees at PT. Fajar Abadi Jaya Perkasa Medan.
3. Methodology

Types of research

This research is a quantitative research. According to Arikunto (2010: 27), "Quantitative research as the name implies, many are required to use numbers, starting from data collection, interpretation of the data, and the appearance of the results." This type of research is a type of quantitative descriptive research. The nature of this research is descriptive explanatory.

Population and Research Sample

The population in this study were permanent employees at PT. Fajar Abadi Jaya Perkasa Medan with 65 employees. The focus of this study only uses the employee population and does not include leaders in the company.

According to Sugiyono (2011: 85), "Saturated sampling is determining the sample using all parts of the population that will make the research sample". The number of samples used by the researcher was 65 permanent employees of PT. Fajar Abadi Jaya Perkasa Medan while for the valid test process 30 people were taken from PT Sukses Usaha Nirwana as a branch of the company.

Data collection technique

The data collection techniques used are:
1. Interview (Interview)
2. List of questions (Questionare).
3. Documentation study.

Research Model

According to Sugiyono (2011: 277), regression analysis will be used if it is to calculate changes in the value of a variable if one of the other variables also changes. The prediction factor will determine the value of the increase or decrease in the variable.

\[ Y = a + b1X1 + b2X2 + b3X3 + e \]

Data analysis technique

In this study, researchers used the following data analysis techniques:
1. Validity Test
2. Reliability Test

In the classical assumption test, the researcher uses the following types of classical assumptions:
1. Normality Test
2. Multicollinearity Test
3. Heteroscedasticity Test

In the data analysis model, the researcher uses the following analysis model:
1. The coefficient of determination
2. Simultaneous testing (F test)
3. Parsia test (t test)

4. Result and Discussion

Descriptive Statistics

<table>
<thead>
<tr>
<th>Variable</th>
<th>N</th>
<th>Minimum</th>
<th>Maximum</th>
<th>Mean</th>
<th>Std. Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Financial Compensation</td>
<td>65</td>
<td>12.00</td>
<td>29.00</td>
<td>19.3231</td>
<td>3.93743</td>
</tr>
<tr>
<td>Supervision</td>
<td>65</td>
<td>11.00</td>
<td>30.00</td>
<td>20.6308</td>
<td>4.29960</td>
</tr>
<tr>
<td>Job Stress</td>
<td>65</td>
<td>11.00</td>
<td>28.00</td>
<td>20.4615</td>
<td>3.96105</td>
</tr>
<tr>
<td>Performance</td>
<td>65</td>
<td>11.00</td>
<td>28.00</td>
<td>20.5231</td>
<td>3.63192</td>
</tr>
<tr>
<td>Valid N (listwise)</td>
<td>65</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 1. It can be seen that the descriptive statistics of financial compensation variables with a sample of 65 respondents had an average of 19.32 with a minimum value of 12 with the questionnaire serial number 60 and a maximum value of 29 with the serial number of the questionnaire 26 and 27 with a standard deviation of 3.93743. The descriptive statistical control variable with a sample of 65 respondents has an average of 20.63 with a minimum value of 11 with the questionnaire serial number 63 and a maximum value of 30 with the questionnaire serial number 65 with a standard deviation of 4.29960. Descriptive statistical work stress variable with a sample of 65 respondents has an average of 20.46 with a minimum value of 11 with the serial number of the questionnaire 60 and a maximum value of 28 with the serial number of the questionnaire 14 and 15 with a standard deviation of 3.96105. The descriptive statistical variable of employee performance with a sample of 65 respondents has an average of 20.52 with a minimum value of 11 with the serial number of the questionnaire 60 and a maximum value of 28 with the serial number of the questionnaire 8 with a standard deviation of 3.63192.

Normality test

There are two ways to detect whether the residuals are normally distributed or not, namely:

1. Test chart.
   One of the easiest ways to see residual normality is to look at a histogram graph that compares the observed data with a distribution that is close to the normal distribution.
The histogram graph in Figure 2 shows that the real data forms curved lines that tend to be symmetrical (U) does not deviate to the left or right, so it can be said that the data is normally distributed.

![Figure 2. Histogram](image)

Figure 3. P-P PLOT

Figure 3. Graph of P-P Normality Plot shows that the data spreads around the diagonal line, most of the distribution approaches the diagonal line. This means that the data is normally distributed.

**Test statistics**
The statistical normality test can use the Kolmogorov-Smirnov (K-S) non-parametric statistical test:

**Table 2. One Sample Kolmogorov Smirnov Normality Test**
Table 2 shows the results of the normality test using the Kolmogorov Smirnov test showing a significant value of 0.200 > 0.05. Thus, the Kolmogorov Smirnov test results show that the data is normally distributed.

Multicollinearity Test
The multicollinearity test results are:

Table 3. Multicollinearity Test

<table>
<thead>
<tr>
<th>Model</th>
<th>Collinearity Statistics</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Tolerance</td>
<td>VIF</td>
</tr>
<tr>
<td>1</td>
<td>(Constant)</td>
<td></td>
</tr>
<tr>
<td>Financial Compensation</td>
<td>.828</td>
<td>1.208</td>
</tr>
<tr>
<td>Supervision</td>
<td>.799</td>
<td>1.252</td>
</tr>
<tr>
<td>Job Stress</td>
<td>.925</td>
<td>1.081</td>
</tr>
</tbody>
</table>

a. Dependent Variable: Kinerja

Table 3 shows that the tolerance value for the independent variable of financial compensation is 0.828 > 0.1, the independent variable for supervision is 0.799 > 0.1 and the free variable for work stress is 0.925 > 0.1, while the VIF value for the independent variable of financial compensation is 1.208 < 10, the independent variable of supervision is 1.252 < 10 and the free variable of work stress is 1.081 < 10 that there is no correlation between independent variables between financial compensation, work stress and supervision.

Heteroscedasticity Test
The heteroscedasticity test aims to test the difference in residual variance from one observation period to another. There are several ways to detect the presence or absence of heteroscedasticity:

![Image](scatter_plot.png)

**Figure 4. Scatter Plot**

The scatterplot graph shows that the dots spread with an unclear pattern either above or below the zero (0) on the Y axis, do not converge in one place, so from the scatterplot graph it can be concluded that there is no heteroscedasticity in the regression model.

**Table 4. Gletjer Test Coefficients**

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>Std. Error</td>
</tr>
<tr>
<td>1</td>
<td>(Constant)</td>
<td>2.361</td>
</tr>
<tr>
<td></td>
<td>Financial Compensation</td>
<td>-.050</td>
</tr>
<tr>
<td></td>
<td>Supervision</td>
<td>.066</td>
</tr>
<tr>
<td></td>
<td>Job Stress</td>
<td>-.038</td>
</tr>
</tbody>
</table>

Table 4 shows the significant value of the independent variable of financial compensation (X1) of 0.362, the independent variable of supervision (X2) of 0.197 and the free variable of work stress (X3) of 0.455. Thus, from the results of the Gletjer test, it is found that the significant value is above 0.05 that there is no heteroscedasticity problem.

**Research Model**

The regression model used is as follows:

\[
\text{Model} = \beta_0 + \beta_1 \text{Financial Compensation} + \beta_2 \text{Supervision} + \beta_3 \text{Job Stress} + \epsilon
\]
Table 5. Multiple Linear Results Coefficients

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>t</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>Std. Error</td>
<td>Beta</td>
<td></td>
</tr>
<tr>
<td>Model 1</td>
<td>(Constant)</td>
<td>2.508</td>
<td>2.258</td>
<td>1.111</td>
</tr>
<tr>
<td></td>
<td>Financial Compensation</td>
<td>.333</td>
<td>.090</td>
<td>.361</td>
</tr>
<tr>
<td></td>
<td>Supervision</td>
<td>.172</td>
<td>.084</td>
<td>.203</td>
</tr>
<tr>
<td></td>
<td>Job Stress</td>
<td>.393</td>
<td>.085</td>
<td>.428</td>
</tr>
</tbody>
</table>

a. Dependent Variable: Kinerja

Employee Performance = 2.508 + 0.333 Competence + 0.172 Supervision + 0.393 Job Stress + e

The explanation of the multiple linear regression above is:
1. The constant 2.508 states that if the independent variables are competence, work stress and work discipline are not there or constant, the dependent variable is the employee's performance at 2.508 units.
2. The regression coefficient for the independent variable competence is 0.333 and has a positive value, this means that if each increase in the independent variable of competence 1 unit will increase the dependent variable of employee performance by 0.333 units with the assumption that other variables are constant.
3. The regression coefficient of work stress free variable is 0.172 and is positive, this means that if each increase in work stress-free variable 1 unit will increase the dependent variable of employee performance by 0.172 units assuming the other variables are constant.
4. The regression coefficient for the independent variable of work discipline is 0.393 and has a positive value, this means that if each increase in the independent variable of work discipline 1 unit will increase the dependent variable of employee performance by 0.393 units with the assumption that the other variables are constant.

Hypothesis Determination Coefficient

Following are the results of testing the coefficient of determination, namely:

Table 6. Determination Coefficient Test

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Std. Error of the Estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>.719</td>
<td>.517</td>
<td>.493</td>
<td>2.58523</td>
</tr>
</tbody>
</table>

a. Predictors: (Constant), Job Stress, Financial Compensation, Supervision
b. Dependent Variable: Performance

Table 6. The results of the test of the coefficient of determination obtained an Adjusted R Square value of 0.493, this means that 49.3% of the variation in the dependent variable, namely employee performance, can be explained by variations in the independent variables, namely free...
financial compensation, supervision and work stress while the remaining 50.7% is explained by other variables not examined in this study, such as job descriptions, work communication, punishment and so on.

**Simultaneous Hypothesis Testing (Test F)**

The results of simultaneous hypothesis testing are:

<table>
<thead>
<tr>
<th>Model</th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regression</td>
<td>436.528</td>
<td>3</td>
<td>145.509</td>
<td>21.772</td>
<td>.000b</td>
</tr>
<tr>
<td>Residual</td>
<td>407.688</td>
<td>61</td>
<td>6.683</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>844.215</td>
<td>64</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

a. Dependent Variable: Performance  
b. Predictors: (Constant), Job Stress, Financial Compensation, Supervision

Table 7 degrees of freedom 1 (df1) = k - 1 = 4-1 = 3, and degrees of freedom 3 (df2) = nk = 65-3 = 62, where n = number of samples, k = number of variables, then the value of F table at the level of confidence significance 0.05 is 3.15. The test results simultaneously obtained the value of F count (21.772) > F table (3.15) and a significance probability of 0.000 < 0.05, meaning that Ho is rejected and Ha is accepted, i.e. simultaneously financial compensation, supervision and work stress have a positive and significant effect on employee performance at PT. Fajar Abadi Jaya Perkasa Medan.

**Partial Hypothesis Testing (t test)**

The results of partial hypothesis testing are:

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>t</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>Std. Error</td>
<td>Beta</td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>(Constant)</td>
<td>2.508</td>
<td>2.258</td>
<td>1.111</td>
</tr>
<tr>
<td></td>
<td>Financial Compensation</td>
<td>.333</td>
<td>.090</td>
<td>.361</td>
</tr>
<tr>
<td></td>
<td>Supervision</td>
<td>.172</td>
<td>.084</td>
<td>.203</td>
</tr>
<tr>
<td></td>
<td>Job Stress</td>
<td>.393</td>
<td>.085</td>
<td>.428</td>
</tr>
</tbody>
</table>

a. Dependent Variable: Performance

The t-table value for the 0.05 probability in degrees of freedom (df) = 65-3 = 62 is 1.99897. Thus the results of partial hypothesis testing can be explained as follows:

1. The results of partial hypothesis testing of the financial compensation variable obtained tcount > ttable or 3.691 > 1.99897 and the significant obtained was 0.000 < 0.05, meaning that Ho was...
The Effect of Financial Compensation on Employee Performance of PT. Fajar Abadi Jaya Perkasa Medan

The results of partial hypothesis testing of competency variables obtained tcount > ttable or 3.691 > 1.99897 and a significant value obtained was 0.000 < 0.05, meaning that Ho was rejected and Ha was accepted, that is, financial compensation partially had a positive and significant effect on employee performance at PT. Fajar Abadi Jaya Perkasa Medan.

The results of this study are in accordance with Sari's (2016) research, entitled "The effect of financial and non-financial compensation on employee performance at PT Angkasa Pura", that there is a positive and significant effect of financial compensation on employee performance. This agrees with the theory of Wibowo (2014: 271), "the right compensation will increase performance and job satisfaction, while less attractive compensation will increase the level of absenteeism and labor turnover."

The Effect of Supervision on Employee Performance of PT. Fajar Abadi Jaya Perkasa Medan

The results of the partial hypothesis testing of the monitoring variable obtained tcount > ttable or 2.043 > 1.99897 and a significant value obtained was 0.045 < 0.05, meaning that Ho was rejected and Ha was accepted, that is, partial supervision had a positive and significant effect on employee performance at PT. Fajar Abadi Jaya Perkasa Medan.

The results of this study are in accordance with Rosinta (2017), entitled "The Effect of Supervision and Experience on Employee Performance at PT Mitra Karya Agung", that there is a positive and significant effect of supervision on employee performance. This agrees with Fahmi's (2014: 96) theory, that supervision in general can be defined as a way for an organization to achieve effective and efficient performance, and further support the realization of the organization's vision and mission.

The Effect of Job Stress on Employee Performance of PT. Fajar Abadi Jaya Perkasa Medan

The results of partial hypothesis testing of work stress variables obtained tcount > ttable or 4.631 > 1.99897 and a significant value obtained was 0.000 < 0.05, meaning that Ho was rejected and Ha was accepted, that is, stress partially had a positive and significant effect on employee performance at PT. Fajar Abadi Jaya Perkasa Medan.

The results of this study are consistent with Chandra (2012), entitled "The Effect of Job Stress and Job Satisfaction on Employee Performance at P.T. Lie Fung Surabaya ", that there is a positive and significant effect of job stress on employee performance.
This agrees with Umam's theory (2012: 217), a high level of stress or prolonged light stress will reduce employee performance. Mild stress may be of benefit to the organization, but from an individual point of view it is not desirable.

5. Conclusion

Based on the results and discussion, it can be concluded that the research is, the results of partial hypothesis testing of the financial compensation variable obtained tcount > ttable or 3.691 > 1.99897 and the significant obtained was 0.000 < 0.05, meaning that partially competence has a positive and significant effect. The results of the partial hypothesis testing of the control variable obtained tcount > ttable or 2.043 > 1.99897 and the significant obtained was 0.045 < 0.05, meaning that partially work stress has a positive and significant effect. The results of testing the hypothesis partially for the work stress variable obtained tcount > ttable or 4.631 > 1.99897 and significant obtained 0.000 < 0.05, it means that partially work discipline has a positive and significant effect. Simultaneous test results obtained the value of Fcount (21.772) > Ftable (3.15) and a significance probability of 0.000 < 0.05. The coefficient of determination test results showed 49.3% of the variation in the dependent variable of employee performance which could be explained by the independent variables of financial compensation, supervision and work stress, the remaining 50.7% varied by other variables not examined in this study. From this research, it is found that the variable that most influences employee performance (Y) is the stress variable (X3) which can be seen from tcount = 4.631 then followed by financial compensation variable (X1) tcount = 3.691 and monitoring variable (X3) tcount = 2.043.

Based on the problems discussed earlier, the suggestions given in order to improve the performance of company employees are, for the company PT. Fajar Abadi Jaya Perkasa Medan. Handling work stress, namely improving employee job descriptions more regularly, increasing supervision and providing appropriate compensation to employees. For the Faculty of Economics, University of Prima Indonesia. It is suggested to be able to publish the results of this research which later can be used as a reference for future researchers. For the next researchers. It is recommended to add another variable.

References


Sari. (2016). Pengaruh kompensasi finansial dan non finansial terhadap kinerja karyawan pada PT Angkasa Pura. JURNAL IPTA


The Effect of Financial Compensation, Supervision and Job Stress on Employee Performance at PT Fajar Abadi Jaya Perkasa Medan

Melkyory Andronicus*, Elly, Ricky Gunawan, Kalvin Kusumo

Universitas Prima Indonesia

*e-mail: andromelky@gmail.com

Abstract

Researchers took the object of research from PT Fajar Abadi Jaya Perkasa. Declining performance experienced by the company at this time. Financial compensation is a payment received in the form of employee benefits. From the data it appears that receiving different basic gifts and bonuses are received by employees and not in accordance with the length of service given to different employees from one position with the same division. Supervision is the control of the leadership of the work of employees. From routine error data every month Job stress is a level of stress experienced by employees at work. From the data that can be seen in May 2018, resignation occurred as many as 4 people who considered several reasons such as conflicts with colleagues, did not require leave permission, there were duplicate jobs, incentives that were often late received. The number of participation as many as 65 people and 30 people were taken from PT Sukses Usaha Nirwana for validity test. The research method used is quantitative with quantitative descriptive research. Methods of data collection by interview, distribution of questionnaires and study of documentation. The analytical method used is multiple linear regression, coefficient of determination and simultaneous testing (F-Test) (21.772 > 3.15) with values and partial (t-test) (3.691 > 1.983), (2.043 > 1.983) and (4.631 >> 1.983). The results showed that financial comparison, supervision, simultaneous and partial work stress had a significant positive effect on employee performance with a coefficient of determination of 49.3%.

Keywords: Employee Performance, Financial Compensation, Supervision, Work Stress

1. Introduction

Human resources have a major role for the company. Employees as human resources will become a foundation for the company in carrying out their operational activities. In this case, employees play an important role in improving company performance. Human resources will play a big role in determining the success for the company. Employee performance is an element of human resources owned by the company.

Employee performance is the result of employee work in carrying out activities in the company. Employee performance must be stable in order to support company activities and to be able to achieve the targets set by the company. Human resources owned by the company will determine the success of the company in achieving predetermined performance. From sales data that the target set from the beginning of the year has never been achieved. The revenue target amount only increases in certain months such as January, February, October, November, December. The amount of decline occurred from March to September at a percentage of 81%. This shows that the company's revenue increase only occurs in busy months. This shows a decrease in employee performance in the company.

© Authors. Terms and conditions of this work is licensed under a Creative Commons Attribution-NonCommercial-NoDerivatives 4.0 International License apply. Correspondence: Melkyory Andronicus, Universitas Prima Indonesia. Email: andromelky@gmail.com
Financial compensation is a payment received in the form of money in return for employee services. Financial compensation is given to employees for their work results in a monthly basis. The size of the financial compensation will greatly affect the quality of work provided by employees. From the data, it can be seen that the provision of different basic salaries and bonuses received by employees and is not in accordance with the length of service given to employees is different from one position with the same division. This shows that the provision of financial compensation by companies does not yet have a good system. Providing uneven compensation with the same working period results in employees not displaying maximum work results for the company.

Supervision is a control process from the leadership of the employee's work. Supervision is necessary to monitor employee activities at work. With the supervision, it is hoped that the performance standards set by employees can be fully achieved by employees. Supervision is needed so that employees are able to achieve the performance that has become the work target. From the data, errors occur every month due to a lack of supervision by superiors. The maximum number of errors occurred in December with 5 errors. Inadequate supervision causes work results to be not optimal in its implementation and this affects the quality of work of employees that have been previously determined.

Job stress is the level of stress experienced by employees at work. High stress will result in employees being unable to work properly and comfortably. Job stress will trigger employees to feel uncomfortable working and eventually resign from the company. From the data, it can be seen that in May 2018 there were at most 4 resignations due to several reasons such as conflicts with colleagues, not being given leave permission, the existence of multiple jobs, incentives that were often paid late. This triggers work stress for employees and employees eventually submit their resignations. Work stress experienced can be seen from feeling tired / tired, exhausted, dizzy, disturbing the body and dissatisfaction with the work being carried out.

2. Literature Review

The Theory of the Effect of Financial Compensation on Performance

According to Wibowo (2014: 289), every organization applies a compensation system flexibly and freely according to their respective conditions. Which system is deemed appropriate to provide compensation to workers in the hope of improving performance and fostering job satisfaction. According to Bangun (2012: 255), appropriate compensation will improve performance and job satisfaction, while less attractive compensation will increase absenteeism and workforce turnover. According to Notoadmodjo (2015: 142), compensation is very important for employees themselves as individuals, because the amount of financial compensation is a reflection or a measure of the value of the employee's work itself. The size of the financial compensation can affect the performance (job performance), motivation and job satisfaction of employees. If financial compensation is given correctly and correctly, employees will get job satisfaction and are motivated to achieve organizational goals. However, if the financial compensation is inadequate or inaccurate, then the performance (work performance), motivation and job satisfaction of the employees will actually decrease.

Theory of Effects of Supervision on Employee Performance

According to Fahmi (2014: 96), supervision in general can be defined as a way for an organization to achieve effective and efficient performance, and to further support the realization of the organization's vision and mission. According to Siswandi (2011: 83), external supervision is
supervision carried out by people who are not members of the organization concerned. Supervision carried out by a neutral party whose expertise is requested to evaluate organizational performance. According to Handoko (2012: 362), excessive supervision will reduce productivity. Therefore, management must use the most appropriate monitoring system for the particular situation.

**The Theory of the Effect of Job Stress on Employee Performance**

According to Umam (2012: 217), high stress levels or prolonged mild stress will reduce employee performance. Mild stress may be of benefit to the organization, but from an individual point of view it is not desirable.

According to Sunyoto (2015: 215) stress experienced by employees due to the environment they face will affect their performance and job satisfaction. So that management needs to improve the quality of the organizational environment for employees.

According to Badeni (2014: 70), if the stress is too high, performance begins to decline, because stress intervenes in performance. An employee loses the power / ability to cope, becomes unable to make various decisions, and performance becomes zero, employees experience collapse, are too difficult to work, strike and refuse to go to work to face stress.

**Conceptual Framework**

![Conceptual Framework Diagram]

Hypothesis

According to Siregar (2014: 65), a hypothesis is a temporary statement that is still weak in truth, so it needs to be tested for its truth. Based on the conceptual framework that has been put forward, the research hypothesis is formulated as follows:

H1: Financial compensation has an effect on employee performance at PT. Fajar Abadi Jaya Perkasa Medan.

H2: Supervision affects the performance of employees at PT. Fajar Abadi Jaya Perkasa Medan.

H3: Job stress affects employee performance at PT. Fajar Abadi Jaya Perkasa Medan.

H4: Financial Compensation, Supervision and Work Stress affect the performance of employees at PT. Fajar Abadi Jaya Perkasa Medan.

Volume 2, Issue 4 available at http://e-journal.stie-kusumanegara.ac.id
3. Methodology

Types of research

This research is a quantitative research. According to Arikunto (2010: 27), "Quantitative research as the name implies, many are required to use numbers, starting from data collection, interpretation of the data, and the appearance of the results." This type of research is a type of quantitative descriptive research. The nature of this research is descriptive explanatory.

Population and Research Sample

The population in this study were permanent employees at PT. Fajar Abadi Jaya Perkasa Medan with 65 employees. The focus of this study only uses the employee population and does not include leaders in the company.

According to Sugiyono (2011: 85), "Saturated sampling is determining the sample using all parts of the population that will make the research sample". The number of samples used by the researcher was 65 permanent employees of PT. Fajar Abadi Jaya Perkasa Medan while for the valid test process 30 people were taken from PT Sukses Usaha Nirwana as a branch of the company.

Data collection technique

The data collection techniques used are:
1. Interview (Interview)
2. List of questions (Questionare).
3. Documentation study.

Research Model

According to Sugiyono (2011: 277), regression analysis will be used if it is to calculate changes in the value of a variable if one of the other variables also changes. The prediction factor will determine the value of the increase or decrease in the variable.

\[ Y = a + b1X1 + b2X2 + b3X3 + e \]

Data analysis technique

In this study, researchers used the following data analysis techniques:
1. Validity Test
2. Reliability Test

In the classical assumption test, the researcher uses the following types of classical assumptions:
1. Normality Test
2. Multicollinearity Test
3. Heteroscedasticity Test

In the data analysis model, the researcher uses the following analysis model:
1. The coefficient of determination
2. Simultaneous testing (F test)
3. Parsia test (t test)

4. Result and Discussion

Descriptive Statistics

<table>
<thead>
<tr>
<th>Table 1. Descriptive Statistics</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
</tr>
<tr>
<td>Financial Compensation</td>
</tr>
<tr>
<td>N  65</td>
</tr>
<tr>
<td>Minimum 12.00</td>
</tr>
<tr>
<td>Maximum 29.00</td>
</tr>
<tr>
<td>Mean 19.3231</td>
</tr>
<tr>
<td>Std. Deviation 3.93743</td>
</tr>
<tr>
<td>Supervision</td>
</tr>
<tr>
<td>N  65</td>
</tr>
<tr>
<td>Minimum 11.00</td>
</tr>
<tr>
<td>Maximum 30.00</td>
</tr>
<tr>
<td>Mean 20.6308</td>
</tr>
<tr>
<td>Std. Deviation 4.29960</td>
</tr>
<tr>
<td>Job Stress</td>
</tr>
<tr>
<td>N  65</td>
</tr>
<tr>
<td>Minimum 11.00</td>
</tr>
<tr>
<td>Maximum 28.00</td>
</tr>
<tr>
<td>Mean 20.4615</td>
</tr>
<tr>
<td>Std. Deviation 3.96105</td>
</tr>
<tr>
<td>Performance</td>
</tr>
<tr>
<td>N  65</td>
</tr>
<tr>
<td>Minimum 11.00</td>
</tr>
<tr>
<td>Maximum 28.00</td>
</tr>
<tr>
<td>Mean 20.5231</td>
</tr>
<tr>
<td>Std. Deviation 3.63192</td>
</tr>
<tr>
<td>Valid N (listwise)</td>
</tr>
<tr>
<td>N  65</td>
</tr>
</tbody>
</table>

Table 1. It can be seen that the descriptive statistics of financial compensation variables with a sample of 65 respondents had an average of 19.32 with a minimum value of 12 with the questionnaire serial number 60 and a maximum value of 29 with the serial number of the questionnaire 26 and 27 with a standard deviation of 3.93743. The descriptive statistical control variable with a sample of 65 respondents has an average of 20.63 with a minimum value of 11 with the questionnaire serial number 63 and a maximum value of 30 with the questionnaire serial number 65 with a standard deviation of 4.29960. Descriptive statistical work stress variable with a sample of 65 respondents has an average of 20.46 with a minimum value of 11 with the serial number of the questionnaire 60 and a maximum value of 28 with the serial number of the questionnaire 14 and 15 with a standard deviation of 3.96105. The descriptive statistical variable of employee performance with a sample of 65 respondents has an average of 20.52 with a minimum value of 11 with the serial number of the questionnaire 60 and a maximum value of 28 with the serial number of the questionnaire 8 with a standard deviation of 3.63192.

Normality test

There are two ways to detect whether the residuals are normally distributed or not, namely:

1. Test chart.
   One of the easiest ways to see residual normality is to look at a histogram graph that compares the observed data with a distribution that is close to the normal distribution.
The histogram graph in Figure 2 shows that the real data forms curved lines that tend to be symmetrical (U) does not deviate to the left or right, so it can be said that the data is normally distributed.

Figure 3. P-P PLOT

Figure 3. Graph of P-P Normality Plot shows that the data spreads around the diagonal line, most of the distribution approaches the diagonal line. This means that the data is normally distributed.

Test statistics
The statistical normality test can use the Kolmogorov-Smirnov (K-S) non-parametric statistical test:
Table 2. One Sample Kolmogorov Smirnov Normality Test

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Unstandardized Residual</th>
</tr>
</thead>
<tbody>
<tr>
<td>N</td>
<td>65</td>
</tr>
<tr>
<td>Normal Parameters&lt;sup&gt;a,b&lt;/sup&gt;</td>
<td>Mean: 0.0000000</td>
</tr>
<tr>
<td></td>
<td>Std. Deviation: 2.52390965</td>
</tr>
<tr>
<td>Most Extreme Differences</td>
<td>Absolute: 0.091</td>
</tr>
<tr>
<td></td>
<td>Positive: 0.074</td>
</tr>
<tr>
<td></td>
<td>Negative: -0.091</td>
</tr>
<tr>
<td>Test Statistic</td>
<td>Asymp. Sig. (2-tailed): 0.200&lt;sup&gt;c,d&lt;/sup&gt;</td>
</tr>
</tbody>
</table>

<sup>a</sup> Test distribution is Normal.
<sup>b</sup> Calculated from data.
<sup>c</sup> Lilliefors Significance Correction.
<sup>d</sup> This is a lower bound of the true significance.

Table 2 shows the results of the normality test using the Kolmogorov Smirnov test showing a significant value of 0.200> 0.05. Thus, the Kolmogorov Smirnov test results show that the data is normally distributed.

Multicollinearity Test
The multicollinearity test results are:

Table 3. Multicolinearity Test

<table>
<thead>
<tr>
<th>Coefficients&lt;sup&gt;a&lt;/sup&gt;</th>
<th>Model</th>
<th>Collinearity Statistics</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>(Constant)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Financial Compensation</td>
<td>Tolerance: .828</td>
</tr>
<tr>
<td></td>
<td>Supervision</td>
<td>Tolerance: .799</td>
</tr>
<tr>
<td></td>
<td>Job Stress</td>
<td>Tolerance: .925</td>
</tr>
<tr>
<td></td>
<td></td>
<td>VIF: 1.208</td>
</tr>
<tr>
<td></td>
<td></td>
<td>VIF: 1.252</td>
</tr>
<tr>
<td></td>
<td></td>
<td>VIF: 1.081</td>
</tr>
</tbody>
</table>

<sup>a</sup> Dependent Variable: Kinerja

Table 3 shows that the tolerance value for the independent variable of financial compensation is 0.828> 0.1, the independent variable for supervision is 0.799> 0.1 and the free variable for work stress is 0.925> 0.1, while the VIF value for the independent variable of financial compensation is 1.208 <10 , the independent variable of supervision is 1.252 <10 and the free variable of work stress is 1.081 <10 that there is no correlation between independent variables between financial compensation, work stress and supervision.
Heteroscedasticity Test

The heteroscedasticity test aims to test the difference in residual variance from one observation period to another. There are several ways to detect the presence or absence of heteroscedasticity:

**Figure 4. Scatter Plot**

The scatterplot graph shows that the dots spread with an unclear pattern either above or below the zero (0) on the Y axis, do not converge in one place, so from the scatterplot graph it can be concluded that there is no heteroscedasticity in the regression model.

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>t</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>Error</td>
<td>Beta</td>
<td>t</td>
</tr>
<tr>
<td>1 (Constant)</td>
<td>2.361</td>
<td>1.363</td>
<td>1.732</td>
<td>.088</td>
</tr>
<tr>
<td>Financial Compensation</td>
<td>-.050</td>
<td>.054</td>
<td>-.127</td>
<td>-.918</td>
</tr>
<tr>
<td>Supervision</td>
<td>.066</td>
<td>.051</td>
<td>.184</td>
<td>1.305</td>
</tr>
<tr>
<td>Job Stress</td>
<td>-.038</td>
<td>.051</td>
<td>-.098</td>
<td>-.751</td>
</tr>
</tbody>
</table>

a. Dependent Variable: absut

Table 4 shows the significant value of the independent variable of financial compensation (X1) of 0.362, the independent variable of supervision (X2) of 0.197 and the free variable of work stress (X3) of 0.455. Thus, from the results of the Gletjer test, it is found that the significant value is above 0.05 that there is no heteroscedasticity problem.

**Research Model**

The regression model used is as follows:
Table 5. Multiple Linear Results

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>t</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>Std. Error</td>
<td>Beta</td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>(Constant)</td>
<td>2.508</td>
<td>2.258</td>
<td>1.111</td>
</tr>
<tr>
<td></td>
<td>Financial Compensation</td>
<td>.333</td>
<td>.090</td>
<td>.361</td>
</tr>
<tr>
<td></td>
<td>Supervision</td>
<td>.172</td>
<td>.084</td>
<td>.203</td>
</tr>
<tr>
<td></td>
<td>Job Stress</td>
<td>.393</td>
<td>.085</td>
<td>.428</td>
</tr>
</tbody>
</table>

a. Dependent Variable: Kinerja

Employee Performance = 2.508 + 0.333 Competence + 0.172 Supervision + 0.393 Job Stress + \( e \)

The explanation of the multiple linear regression above is:
1. The constant 2.508 states that if the independent variables are competence, work stress and work discipline are not there or constant, the dependent variable is the employee's performance at 2.508 units.
2. The regression coefficient for the independent variable competence is 0.333 and has a positive value, this means that if each increase in the independent variable of competence 1 unit will increase the dependent variable of employee performance by 0.333 units with the assumption that other variables are constant.
3. The regression coefficient of work stress free variable is 0.172 and is positive, this means that if each increase in work stress-free variable 1 unit will increase the dependent variable of employee performance by 0.172 units assuming the other variables are constant.
4. The regression coefficient for the independent variable of work discipline is 0.393 and has a positive value, this means that if each increase in the independent variable of work discipline 1 unit will increase the dependent variable of employee performance by 0.393 units with the assumption that the other variables are constant.

Hypothesis Determination Coefficient

Following are the results of testing the coefficient of determination, namely:

Table 6. Determination Coefficient Test

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Std. Error of the Estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>.719\textsuperscript{a}</td>
<td>.517</td>
<td>.493</td>
<td>2.58523</td>
</tr>
</tbody>
</table>

a. Predictors: (Constant), Job Stress, Financial Compensation, Supervision
b. Dependent Variable: Performance

Table 6. The results of the test of the coefficient of determination obtained an Adjusted R Square value of 0.493, this means that 49.3% of the variation in the dependent variable, namely employee performance, can be explained by variations in the independent variables, namely free

Volume 2, Issue 4 available at http://e-journal.stie-kusumanegara.ac.id
financial compensation, supervision and work stress while the remaining 50.7% is explained by other variables not examined in this study, such as job descriptions, work communication, punishment and so on.

Simultaneous Hypothesis Testing (Test F)

The results of simultaneous hypothesis testing are:

<table>
<thead>
<tr>
<th>Model</th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regression</td>
<td>436.528</td>
<td>3</td>
<td>145.509</td>
<td>21.772</td>
<td>.000b</td>
</tr>
<tr>
<td>Residual</td>
<td>407.688</td>
<td>61</td>
<td>6.683</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>844.215</td>
<td>64</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 7 degrees of freedom 1 (df1) = k - 1 = 4 - 1 = 3, and degrees of freedom 3 (df2) = nk = 65 - 3 = 62, where n = number of samples, k = number of variables, then the value of F table at the level of confidence significance 0.05 is 3.15. The test results simultaneously obtained the value of F count (21.772) > F table (3.15) and a significance probability of 0.000 < 0.05, meaning that Ho is rejected and Ha is accepted, i.e. simultaneously financial compensation, supervision and work stress have a positive and significant effect on employee performance at PT. Fajar Abadi Jaya Perkasa Medan.

Partial Hypothesis Testing (t test)

The results of partial hypothesis testing are:

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>t</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Financial Compensation</td>
<td>.333</td>
<td>.090</td>
<td>.361</td>
<td>3.691</td>
</tr>
<tr>
<td>Supervision</td>
<td>.172</td>
<td>.084</td>
<td>.203</td>
<td>2.043</td>
</tr>
<tr>
<td>Job Stress</td>
<td>.393</td>
<td>.085</td>
<td>.428</td>
<td>4.631</td>
</tr>
</tbody>
</table>

The t-table value for the 0.05 probability in degrees of freedom (df) = 65 - 3 = 62 is 1.99897. Thus the results of partial hypothesis testing can be explained as follows:

1. The results of partial hypothesis testing of the financial compensation variable obtained tcount > ttable or 3.691 > 1.99897 and the significant obtained was 0.000 < 0.05, meaning that Ho was
rejected and Ha was accepted, namely that partially financial compensation had a positive and significant effect on employee performance at PT. Fajar Abadi Jaya Perkasa Medan.

2. The results of the partial hypothesis testing of the monitoring variable obtained tcount> ttable or 2.043> 1.99897 and the significant obtained was 0.045 <0.05, meaning that Ho was rejected and Ha was accepted, that is, partial supervision had a positive and significant effect on employee performance at PT. Fajar Abadi Jaya Perkasa Medan.

3. The results of testing the hypothesis partially with the work stress variable obtained tcount> ttable or 4.631> 1.99897 and significant obtained 0.000 <0.05, meaning that Ho is rejected and Ha is accepted, that is partially job stress has a positive and significant effect on employee performance at PT. Fajar Abadi Jaya Perkasa Medan.

The Effect of Financial Compensation on Employee Performance of PT. Fajar Abadi Jaya Perkasa Medan

The results of partial hypothesis testing of competency variables obtained tcount> ttable or 3.691> 1.99897 and a significant value obtained was 0.000 <0.05, meaning that Ho was rejected and Ha was accepted, that is, financial compensation partially had a positive and significant effect on employee performance at PT. Fajar Abadi Jaya Perkasa Medan.

The results of this study are in accordance with Sari's (2016) research, entitled "The effect of financial and non-financial compensation on employee performance at PT Angkasa Pura", that there is a positive and significant effect of financial compensation on employee performance.

This agrees with the theory of Wibowo (2014: 271), "the right compensation will increase performance and job satisfaction, while less attractive compensation will increase the level of absenteeism and labor turnover."

Effect of Supervision on Employee Performance of PT. Fajar Abadi Jaya Perkasa Medan

The results of the partial hypothesis testing of the monitoring variable obtained tcount> ttable or 2.043> 1.99897 and a significant value obtained was 0.045 <0.05, meaning that Ho was rejected and Ha was accepted, namely that partially supervision had a positive and significant effect on employee performance at PT. Fajar Abadi Jaya Perkasa Medan.

The results of this study are in accordance with the results of research by Rosinta (2017), entitled "The Effect of Supervision and Experience on Employee Performance at PT Mitra Karya Agung", that there is a positive and significant effect of supervision on employee performance.

This agrees with Fahmi's (2014: 96) theory, that supervision in general can be defined as a way for an organization to achieve effective and efficient performance, and further support the realization of the organization's vision and mission.

The Effect of Job Stress on Employee Performance of PT. Fajar Abadi Jaya Perkasa Medan

The results of partial hypothesis testing of work stress variables obtained tcount> ttable or 4.631> 1.99897 and a significant value obtained was 0.000 <0.05, meaning that Ho was rejected and Ha was accepted, that is, job stress partially had a positive and significant effect on employee performance at PT. Fajar Abadi Jaya Perkasa Medan.

The results of this study are consistent with Chandra (2012), entitled "The Effect of Job Stress and Job Satisfaction on Employee Performance at P.T. Lie Fung Surabaya ", that there is a positive and significant effect of job stress on employee performance.
This agrees with Umam's theory (2012: 217), a high level of stress or prolonged light stress will reduce employee performance. Mild stress may be of benefit to the organization, but from an individual point of view it is not desirable.

5. Conclusion

Based on the results and discussion, it can be concluded that the research is, the results of partial hypothesis testing of the financial compensation variable obtained \( t_{count} > t_{table} \) or 3.691 > 1.99897 and the significant obtained was 0.000 < 0.05, meaning that partially competence has a positive and significant effect. The results of the partial hypothesis testing of the control variable obtained \( t_{count} > t_{table} \) or 2.043 > 1.99897 and the significant obtained was 0.045 < 0.05, meaning that partially work stress has a positive and significant effect. The results of testing the hypothesis partially for the work stress variable obtained \( t_{count} > t_{table} \) or 4.631 > 1.99897 and significant obtained 0.000 < 0.05, it means that partially work discipline has a positive and significant effect. Simultaneous test results obtained the value of \( F_{count} \) (21.772) > \( F_{table} \) (3.15) and a significance probability of 0.000 < 0.05. The coefficient of determination test results showed 49.3% of the variation in the dependent variable of employee performance which could be explained by the independent variables of financial compensation, supervision and work stress, the remaining 50.7% varied by other variables not examined in this study. From this research, it is found that the variable that most influences employee performance (Y) is the stress variable (X3) which can be seen from \( t_{count} = 4.631 \) then followed by financial compensation variable (X1) \( t_{count} = 3.691 \) and monitoring variable (X3) \( t_{count} = 2.043 \).

Based on the problems discussed earlier, the suggestions given in order to improve the performance of company employees are, for the company PT. Fajar Abadi Jaya Perkasa Medan. Handling work stress, namely improving employee job descriptions more regularly, increasing supervision and providing appropriate compensation to employees. For the Faculty of Economics, University of Prima Indonesia. It is suggested to be able to publish the results of this research which later can be used as a reference for future researchers. For the next researchers. It is recommended to add another variable.

References


Sari. (2016). Pengaruh kompensasi finansial dan non finansial terhadap kinerja karyawan pada PT Angkasa Pura. JURNAL IPTA.


Nurwita* & Maria Ningsih

Universitas Pamulang  
*e-mail: Dosen01917@unpam.ac.id

**Abstract**

This research was purposed to the financial performance of PT. Bank BRI Syariah, which is measured using liquidity ratios and profitability ratios based on reporting data from 2012 to 2019. This research uses a descriptive approach, namely methods carried out by collecting, clarifying, analyzing and comparing them with the banking industry standards set by Bank Indonesia through SEBI No. 6/10 / PBU Date 12 April 2004 and the Financial Services Authority through SPI Vol.16 No.10 September 2018 to take take. Based on the results of research and discussion, the financial performance of PT. Bank BRI Syariah, Tbk. measured using the liquidity ratio if calculated from the total average, for the Quick Ratio it shows the condition of the bank is not healthy, because the percentage value of the ratio is below Bank Indonesia standards, but for Current ratio and Cash Ratio it shows the condition of the bank is healthy, because the percentage value is in based on Bank Indonesia standards. Meanwhile, the financial performance of Bank BRI Syariah is measured by using the profitability ratio if calculated from the total average, for Return on Assets, Return on Equity, BOPO as a whole shows the condition of the bank is not healthy, because the percentage value of the ratio is below the standards of the Financial Services Authority.

**Keywords:** Liquidity Ratio, Profitability Ratio, Financial Performance

1. Introduction

Banking is one of the financial sectors that plays an important role as a driving force for the real sector in supporting the implementation of national development aimed at realizing a just and prosperous society in a material and spiritual manner. The function of the banking sector as a financial intermediary institution, particularly lending (financing), is a tool in determining monetary policy at the macroeconomic level. Meanwhile, at the microeconomic level, it is the main source of financing for entrepreneurs and individuals. However, in general, in practice, the banking intermediary function does not run and develop properly, this is because the banking sector is still inefficient and optimal in managing its resources and has a negative impact on banking performance so that liquidity and profitability conditions decline, and often many banks. who have difficulty fulfilling their short obligations to depositors. If the banking intermediary function develops well, the banking sector will be able to boost the country's economic growth through 3 (three) channels. First, developing the financial sector to increase people's savings. Second, reduce the cost of gathering information and transaction costs to increase the distribution of funds to the business sector. Third, the financial sector is able to improve resource allocation.
PT. Bank BRI Syariah, Tbk. (Bank BRI Syariah) is a company engaged in the Islamic banking industry as a subsidiary of a state-owned enterprise (BUMN) bank PT. Bank Rakyat Indonesia, Tbk. (Bank BRI) which was formed as a result of the acquisition of Bank Jasa Jakarta on December 19, 2007.

Throughout 2019, BRI Syariah Bank succeeded in optimally improving its intermediation function, as reflected in the high PYD of BRI Syariah Bank in December 2019 which reached Rp27.38 trillion or an increase of 25.30% (yoy), from Rp21.86 trillion compared to the previous year. In fact, the PYD growth of BRI Syariah Bank was higher than the average PYD growth of the Islamic banking industry (10.89% yoy) and the national banking industry (6.08% yoy). Bank BRI Syariah DPK in December 2019 grew up 18.23% (yoy) or Rp34.13 trillion, from Rp28.87 trillion compared to the previous year. The total assets of BRI Syariah Bank in December 2019 also grew up 13.74% (yoy) to reach or amounting to IDR 43.12 trillion, from IDR 37.92 trillion compared to the previous year.

The financial ratio analysis data for BRI Syariah banks specifically for liquidity ratios (quick ratio, cash ratio, current ratio) and profitability ratios (ROA, ROE, BOPO) can be seen in table 1 below.

<table>
<thead>
<tr>
<th>Tahun</th>
<th>Current Ratio (%)</th>
<th>Quick Ratio (%)</th>
<th>Cash Ratio (%)</th>
<th>ROA (%)</th>
<th>ROE (%)</th>
<th>BOPO (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2012</td>
<td>278,95</td>
<td>19,36</td>
<td>331,94</td>
<td>0,98</td>
<td>9,54</td>
<td>91,31</td>
</tr>
<tr>
<td>2013</td>
<td>265,48</td>
<td>19,20</td>
<td>405,99</td>
<td>1,06</td>
<td>7,63</td>
<td>90,42</td>
</tr>
<tr>
<td>2014</td>
<td>255,63</td>
<td>21,22</td>
<td>545,51</td>
<td>0,08</td>
<td>0,39</td>
<td>99,54</td>
</tr>
<tr>
<td>2015</td>
<td>267,04</td>
<td>24,65</td>
<td>512,02</td>
<td>0,70</td>
<td>5,24</td>
<td>93,78</td>
</tr>
<tr>
<td>2016</td>
<td>265,23</td>
<td>19,94</td>
<td>369,08</td>
<td>0,86</td>
<td>6,78</td>
<td>91,34</td>
</tr>
<tr>
<td>2017</td>
<td>277,54</td>
<td>17,48</td>
<td>246,44</td>
<td>0,48</td>
<td>3,88</td>
<td>95,30</td>
</tr>
<tr>
<td>2018</td>
<td>245,43</td>
<td>21,12</td>
<td>261,27</td>
<td>0,40</td>
<td>2,12</td>
<td>95,22</td>
</tr>
<tr>
<td>2019</td>
<td>241,18</td>
<td>15,13</td>
<td>245,17</td>
<td>0,27</td>
<td>1,45</td>
<td>96,73</td>
</tr>
</tbody>
</table>

Source: BRI Syariah Annual Report 2012-2019 (Processed)

Based on table 1 data, the current ratio growth of BRI Syariah Bank has increased in December 2019 by 15.34% to 139.37%, compared to the previous year at the level of 124.03%. Meanwhile, BRI Syariah Bank Quick ratio growth in December 2019 actually weakened by 5.99% to 15.13%, compared to the previous year at 21.12% level. The growth of BRI Syariah Bank cash ratio also decreased in December 2019 by 17.73% to 186.98%, compared to the previous year at the level of 204.71%.

The profitability ratio of BRI Syariah Bank for 8 years, from 2012 to 2019, also tends to fluctuate. In December 2019, the ROA ratio of BRI Syariah Bank increased slightly by 0.13% to 0.40%, compared to the previous year at 0.27% level. However, the ROE ratio of BRI Syariah Bank in December 2019 actually weakened in December 2019 by 0.67% to 1.45%, compared to the previous year at 2.12% level. Meanwhile, the BOPO ratio of BRI Syariah Bank actually increased in December 2019 by 1.51% to 96.73%, compared to the previous year at the level of 95.22%. Although the liquidity ratios and profitability ratios of BRI Syariah banks tend to fluctuate, if we look closely, they both tend to decline, especially for 3 consecutive years, from 2017 to 2019.

Based on the background that has been raised above, we are interested in conducting research on the financial performance of PT. Bank BRI Syariah, Tbk in terms of liquidity ratios and profitability ratios. For this reason, the authors chose the title "Analysis of Liquidity Ratio and Profitability Ratio to Measure Financial Performance of PT. Bank BRI Syariah, Tbk. 2012-2019 period ".

 volume 2, issue 4 available at http://e-journal.stie-kusumanegara.ac.id
2. Literature Review

Liquidity Ratio

According to Kasmir (2016: 221), the bank liquidity ratio is a ratio used to measure a bank's ability to meet its short-term obligations when they are collected. In other words, the bank can pay back the disbursement of funds from its depositors when it is collected, and it can meet the credit request that has been submitted. Type of Liquidity Ratio:

1. Current Ratio

According to Kasmir (2016: 134), Current Ratio is a ratio to measure a company's ability to pay short-term obligations or debts that are due immediately when they are collected as a whole.

\[
\text{Current Ratio} = \frac{\text{Current Asset}}{\text{Current Liabilities}} \times 100\%
\]

Source: Kasmir (2016:135)

<table>
<thead>
<tr>
<th>Category</th>
<th>Result Ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>Healthy</td>
<td>CR &gt; 200%</td>
</tr>
<tr>
<td>Not Healthy</td>
<td>CR &lt; 200%</td>
</tr>
</tbody>
</table>

Source: SEBI No.6/23/DPNP 2004 Year 2008

2. Quick ratio/Acid ratio

According to Kasmir (2016: 221), the Quick Ratio (Quick Ratio) is a ratio used to measure a bank's ability to fulfill its obligations to depositors (current account holders, savings and time deposits) with the most liquid assets owned by the bank.

\[
\text{Quick Ratio} = \frac{\text{Cash Assets}}{\text{Total Deposit}} \times 100\%
\]

Source: Kasmir (2016:221)

<table>
<thead>
<tr>
<th>Category</th>
<th>Result Ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>Healthy</td>
<td>CR &gt; 15% - 20%</td>
</tr>
<tr>
<td>Not Healthy</td>
<td>CR &lt; 15% - 20%</td>
</tr>
</tbody>
</table>

Source: SEBI No.6/10/PBU 2004, The Date 12 April 2004
3. Cash Ratio

According to Kasmir (2016: 224), Cash Ratio (Cash Ratio) is a ratio used to measure a bank's ability to pay off its obligations that must be paid immediately with the liquid assets owned by the bank.

\[
\text{Cash Ratio} = \frac{\text{Liquid Assets}}{\text{Short Term Borrowing}} \times 100\%
\]

Source: Kasmir (2016:225)

Table 4. Matriks Cash ratio

<table>
<thead>
<tr>
<th>Category</th>
<th>Result Ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>Healthy</td>
<td>CR &gt; 80%</td>
</tr>
<tr>
<td>Not Healthy</td>
<td>CR &lt; 80%</td>
</tr>
</tbody>
</table>

Source: SEBI No.6/10/PBU 2004, The Date 12 April 2004

Profitability Ratio

According to Kasmir (2016: 196), the profitability ratio is a ratio to assess a company's ability to seek profit. The profitability ratio is also used to measure the level of efficiency of a company because it can show a measure of the level of management effectiveness of a company through the achievement of net income resulting from sales and investment income. The types of profitability ratios include:

1. Return on assets (ROA)

According to Kasmir (2016: 201), Return on Assets is a ratio that shows the results (returns) on the total assets used in the company.

\[
\text{Return on Assets} = \frac{\text{Net Income}}{\text{Total Assets}}
\]

Source: SEBI No.23/DPNP 2004

Table 5. Matriks Return on Assets (ROA)

<table>
<thead>
<tr>
<th>Category</th>
<th>Result Ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>Healthy</td>
<td>ROA &gt; 2.50%</td>
</tr>
<tr>
<td>Not Healthy</td>
<td>ROA &lt; 2.50%</td>
</tr>
</tbody>
</table>

Source: SPI Vol.16 No.10, September 2018

2. Return on Equity (ROE)

According to Kasmir (2016: 204), Return on Equity or own capital profitability is a ratio to measure net profit after tax with own capital. This ratio shows the efficient use of own capital. The higher the ratio, the better.
Return on Equity = \frac{\text{Net Income}}{\text{Average Shareholders’ Equity}} \\

\textit{Source: SE BI No.23/DPNP 2004}

<table>
<thead>
<tr>
<th>Category</th>
<th>Result Ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>Healthy</td>
<td>ROE &gt; 14.61%</td>
</tr>
<tr>
<td>Not Healthy</td>
<td>ROE &lt; 14.61%</td>
</tr>
</tbody>
</table>

\textit{Source: SPI Vol.16 No.10, September 2018}

3. Operating Expenses Operating Income (BOPO)

Operating Expenses Operating Income or BOPO is the ratio between operating costs and operating income. This ratio is used to measure the level of efficiency and the ability of a bank to carry out its operational activities.

\[ BOPO = \frac{\text{Operational Costs}}{\text{Operating Income}} \]

\textit{Source: SE BI No.23/DPNP 2004}

<table>
<thead>
<tr>
<th>Category</th>
<th>Result Ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>Healthy</td>
<td>BOPO &gt; 79.13%</td>
</tr>
<tr>
<td>Not Healthy</td>
<td>BOPO &lt; 79.13%</td>
</tr>
</tbody>
</table>

\textit{Source: SPI Vol.16 No.10, September 2018}

\textbf{Financial Performance}

According to Irham Fahmi (2014: 2), financial performance is an analysis carried out to see the extent to which a company has implemented proper and correct financial implementation rules.
Framework

Hypothesis:
H1: Analysis of the liquidity ratio (current ratio) of BRI Syariah Bank to healthy financial performance
H2: Analysis of the liquidity ratio (quick ratio) of BRI Syariah Bank to healthy financial performance
H3: Analysis of the liquidity ratio (cash ratio) of BRI Syariah Bank to healthy financial performance
H4: Analysis of the profitability ratio (ROA) of BRI Syariah Bank on healthy financial performance
H5: Analysis of the profitability ratio (ROE) of BRI Syariah Bank on healthy financial performance
H6: Analysis of the profitability ratio (BOPO) of BRI Syariah Bank on healthy financial performance
H7: The financial performance of BRI Syariah Bank has increased based on the results of the analysis of the liquidity ratio Current Ratio, Quick Ratio, Cash Ratio and the results of the profitability ratio of the profitability of Return on Assets (ROA), Return on Equity (ROE), BOPO.

Figure 1. Research Framework
3. Methods

This type of research is a quantitative research, because the main data is quantitative data in the form of financial reports using descriptive methods because the aim is to find out the value of the independent variable (independent) without comparing or connecting with other variables. So the population used by the author in this study is the financial statements of PT. Bank BRI Syariah, Tbk. So the sample used in this study is the balance sheet and income statement at PT. Bank BRI Syariah, Tbk period 2012-2019. The data analysis technique used in this study is descriptive statistical analysis techniques. The stages of data analysis in this research are 1. BRI Syariah data collection, then record it and archive it, 2. Enter data using Microsoft Excel 3. Presentation of data in the form of tables, 4. Decision making or verification

4. Results and Discussion

To measure the financial performance or financial soundness of BRI Syariah Bank, the author will calculate the total average of each of the liquidity ratios and profitability ratios, then will compare them with the banking industry standards, as determined by the regulator. The calculation of the total average liquidity and profitability ratio can be seen in Table 8.

<table>
<thead>
<tr>
<th>Tahun</th>
<th>Likuiditas</th>
<th>Profitabilitas</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Current Ratio (%)</td>
<td>Quick Ratio (%)</td>
</tr>
<tr>
<td>2012</td>
<td>278,95</td>
<td>19,36</td>
</tr>
<tr>
<td>2013</td>
<td>265,48</td>
<td>19,20</td>
</tr>
<tr>
<td>2014</td>
<td>255,63</td>
<td>21,22</td>
</tr>
<tr>
<td>2015</td>
<td>267,04</td>
<td>24,65</td>
</tr>
<tr>
<td>2016</td>
<td>265,23</td>
<td>19,94</td>
</tr>
<tr>
<td>2017</td>
<td>277,54</td>
<td>17,48</td>
</tr>
<tr>
<td>2018</td>
<td>245,43</td>
<td>21,12</td>
</tr>
<tr>
<td>2019</td>
<td>241,18</td>
<td>15,13</td>
</tr>
<tr>
<td>Total Rata-rata</td>
<td>262,06</td>
<td>19,76</td>
</tr>
</tbody>
</table>

Kondisi | Sehat | Tidak Sehat | Sehat | Tidak Sehat | Tidak Sehat | Tidak Sehat |
Matriks Kategori | CR > 200% | QR > 15%-20% | CR > 80% | ROA > 2,50% | ROE > 14,61% | BOPO < 79,13% |
| Sumber | Bank Indonesia | Bank Indonesia | Bank Indonesia | Otoritas Jasa Keuangan | Otoritas Jasa Keuangan | Otoritas Jasa Keuangan |

Source: BRI Syariah Annual Report 2012-2019 (Processed)

Based on the data in Table 4.7 above, it can be seen as follows:
   a. The CR value in 2012 was 278.95%, meaning that BRI Syariah Bank is healthy, because the CR value is higher than the standard industrial criteria set by BI, namely CR > 200%.
   b. The CR value in 2013 was 265.48%, meaning that BRI Syariah Bank was healthy, because the CR value was higher than the standard industrial criteria set by BI, namely CR > 200%.
c. The CR value in 2014 was 255.63%, meaning that BRI Syariah Bank is healthy, because the CR value is higher than the standard industrial criteria set by BI, namely CR > 200%.

d. The CR value in 2015 was 267.04%, meaning that BRI Syariah Bank is healthy, because the CR value is higher than the standard industrial criteria set by BI, namely CR > 200%.

e. The CR value in 2016 was 265.23%, meaning that BRI Syariah Bank is healthy, because the CR value is higher than the industry standard criteria set by BI, namely CR > 200%.

f. The CR value in 2017 was 277.54%, meaning that BRI Syariah Bank is healthy, because the CR value is higher than the standard industrial criteria set by BI, namely CR > 200%.

g. The CR value in 2018 was 245.43%, meaning that BRI Syariah Bank was healthy, because the CR value was higher than the standard industrial criteria set by BI, namely CR > 200%.

h. The CR value in 2019 was 241.18%, meaning that BRI Syariah Bank is healthy, because the CR value is higher than the standard industrial criteria set by BI, namely CR > 200%.


a. The QR value in 2012 was 19.36%, meaning BRI Syariah Bank is not healthy, because the QR value is lower than the industry standard criteria (QR > 15-20%).

b. The QR value in 2013 was 19.20%, meaning that BRI Syariah Bank is not healthy, because the QR value is lower than the industry standard criteria (QR > 15-20%).

c. The QR value in 2014 was 21.22%, meaning BRI Syariah Bank is healthy, because the QR value is higher than the industry standard criteria (QR > 15-20%).

d. The QR value in 2015 was 24.65%, meaning BRI Syariah Bank is healthy, because the QR value is higher than the industry standard criteria (QR > 15-20%).

e. The QR value in 2016 was 19.94%, meaning that BRI Syariah Bank is not healthy, because the QR value is lower than the industry standard criteria (QR > 15-20%).

f. The QR value in 2017 was 17.48%, meaning that BRI Syariah Bank is not healthy, because the QR value is lower than the industry standard criteria (QR > 15-20%).

g. The QR value in 2018 is 21.12%, meaning that BRI Syariah Bank is healthy, because the QR value is higher than the industry standard criteria (QR > 15-20%).

h. The QR value in 2019 is 15.13%, meaning that BRI Syariah Bank is not healthy, because the QR value is lower than the industry standard criteria (QR > 15-20%).


a. The CR value in 2012 was 331.94%, meaning that BRI Syariah Bank is healthy, because the CR value is higher than the standard industrial criteria set by BI, namely CR > 80%.

b. The CR value in 2013 was 405.99%, meaning that BRI Syariah Bank is healthy, because the CR value is higher than the standard industrial criteria set by BI, namely CR > 80%.

c. The CR value in 2014 was 545.51%, meaning that BRI Syariah Bank is healthy, because the CR value is higher than the standard industrial criteria set by BI, namely CR > 80%.

d. The CR value in 2015 was 512.02%, meaning that BRI Syariah Bank is healthy, because the CR value is higher than the standard industrial criteria set by BI, namely CR > 80%.

e. The CR value in 2016 was 369.08%, meaning that BRI Syariah Bank is healthy, because the CR value is higher than the standard industrial criteria set by BI, namely CR > 80%.

f. The CR value in 2017 was 246.44%, meaning that BRI Syariah Bank is healthy, because the CR value is higher than the standard industrial criteria set by BI, namely CR > 80%.

g. The CR value in 2018 was 261.27%, meaning that BRI Syariah Bank is healthy, because the CR value is higher than the standard industrial criteria set by BI, namely CR > 80%.

h. The CR value in 2019 was 245.17%, meaning that BRI Syariah Bank was healthy, because the CR value was higher than the standard industrial criteria set by BI, namely CR > 80%. 
   a. The ROA value in 2012 was 0.98%, meaning that BRI Syariah Bank was not healthy, because the ROA value was lower than the industry standard criteria set by the OJK, namely ROA > 2.50%.
   b. The ROA value in 2013 was 1.06%, meaning that BRI Syariah Bank was not healthy, because the ROA value was lower than the industry standard criteria set by the OJK, namely ROA > 2.50%.
   c. The ROA value in 2014 was 0.08%, meaning that BRI Syariah Bank was not healthy, because the ROA value was lower than the industry standard criteria set by the OJK, namely ROA > 2.50%.
   d. The ROA value in 2015 was 0.70%, meaning that BRI Syariah Bank is not healthy, because the ROA value is lower than the industry standard criteria set by the OJK, namely ROA > 2.50%.
   e. The ROA value in 2016 was 0.86%, meaning that BRI Syariah Bank is not healthy, because the ROA value is lower than the industry standard criteria set by the OJK, namely ROA > 2.50%.
   f. The ROA value in 2017 was 0.48%, meaning that BRI Syariah Bank is not healthy, because the ROA value is lower than the industry standard criteria set by the OJK, namely ROA > 2.50%.
   g. The ROA value in 2018 was 0.40%, meaning that BRI Syariah Bank is not healthy, because the ROA value is lower than the industry standard criteria set by the OJK, namely ROA > 2.50%.
   h. The ROA value in 2019 is 0.27%, meaning that BRI Syariah Bank is not healthy, because the ROA value is lower than the industry standard criteria set by the OJK, namely ROA > 2.50%.

5. Analysis of the profitability of Return on Equity (ROE) on the financial performance of BRI Syariah Bank.
   a. The ROE value in 2012 was 9.54%, meaning that BRI Syariah Bank was not healthy, because the ROE value was lower than the industry standard criteria set by the OJK, namely ROE > 14.61%.
   b. The ROE value in 2013 was 7.63%, meaning that BRI Syariah Bank was not healthy, because the ROE value was lower than the industry standard criteria set by the OJK, namely ROE > 14.61%.
   c. The ROE value in 2014 was 0.39%, meaning that BRI Syariah Bank was not healthy, because the ROE value was lower than the industry standard criteria set by the OJK, namely ROE > 14.61%.
   d. The ROE value in 2015 was 5.24%, meaning that BRI Syariah Bank is not healthy, because the ROE value is lower than the industry standard criteria set by the OJK, namely ROE > 14.61%.
   e. The ROE value in 2016 was 6.78%, meaning that BRI Syariah Bank is not healthy, because the ROE value is lower than the industry standard criteria set by the OJK, namely ROE > 14.61%.
   f. The ROE value in 2017 was 3.88%, meaning that BRI Syariah Bank is not healthy, because the ROE value is lower than the industry standard criteria set by the OJK, namely ROE > 14.61%.
   g. The ROE value in 2018 was 2.12%, meaning that BRI Syariah Bank is not healthy, because the ROE value is lower than the industry standard criteria set by the OJK, namely ROE > 14.61%.
   h. The ROE value in 2019 is 1.45%, meaning that BRI Syariah Bank is not healthy, because the ROE value is lower than the industry standard criteria set by the OJK, namely ROE > 14.61%.

   a. The BOPO value in 2012 was 91.31%, meaning that BRI Syariah Bank was not healthy, because the BOPO value was higher than the industry standard criteria set by OJK, namely BOPO < 79.13%.
b. The value of BOPO in 2013 was 90.42%, meaning that BRI Syariah Bank was not healthy, because the BOPO value was higher than the industry standard criteria set by OJK, namely BOPO <79.13%.
c. The BOPO value in 2014 was 99.54%, meaning that BRI Syariah Bank is not healthy, because the BOPO value is higher than the industry standard criteria set by OJK, namely BOPO <79.13%.
d. The value of BOPO in 2015 was 93.78%, meaning that BRI Syariah Bank was not healthy, because the BOPO value was higher than the industry standard criteria set by OJK, namely BOPO <79.13%.
e. The BOPO value in 2016 was 91.34%, meaning that BRI Syariah Bank was not healthy, because the BOPO value was higher than the industry standard criteria set by OJK, namely BOPO <79.13%.
f. The BOPO value in 2017 was 95.30%, meaning that BRI Syariah Bank was not healthy, because the BOPO value was higher than the industry standard criteria set by OJK, namely BOPO <79.13%.
g. The BOPO value in 2018 was 95.22%, meaning that BRI Syariah Bank was not healthy, because the BOPO value was higher than the industry standard criteria set by OJK, namely BOPO <79.13%.
h. The BOPO value in 2019 was 96.73%, meaning that BRI Syariah Bank was not healthy, because the BOPO value was higher than the industry standard criteria set by OJK, namely BOPO <79.13%.

Analysis of Current Ratio liquidity to the financial performance of BRI Syariah Bank if calculated from the total average Current Ratio over a period of 8 years, from 2012 to 2019, then the condition of BRI Syariah Bank is classified as healthy, because the average value of CR is 262.06%, which is higher than the industry standard criteria, namely CR > 200%. Analysis of Quick Ratio liquidity to the financial performance of BRI Syariah Bank if calculated from the total average Quick Ratio over a period of 8 years, from 2012 to 2019, then the condition of BRI Syariah Bank is classified as unhealthy, because the average QR value is 19.76%, lower than the industry standard criteria, namely QR > 15-20%. Analysis of Cash Ratio liquidity to the financial performance of BRI Syariah Bank if calculated from the average total cash ratio over a period of 8 years, from 2012 to 2019, then the condition of BRI Syariah Bank is classified as healthy, because the average value of CR is 364.68%, which is higher than the industry standard criteria, namely CR > 80%.

Liquidity analysis of Return on Assets on the financial performance of BRI Syariah Bank if calculated from the average total Return on Assets over a period of 8 years, from 2012 to 2019, the condition of BRI Syariah banks is classified as unhealthy, because of the average ROA value. is 0.60%, lower than the industry standard criteria, namely ROA > 2.50%. Return on Equity liquidity analysis on the financial performance of BRI Syariah Bank if calculated from the average total Return on Equity over a period of 8 years, from 2012 to 2019, then the condition of BRI Syariah Banks is classified as unhealthy, because the average ROE value is 4.63%, lower than the industry standard criteria, namely ROE > 14.61%. Analysis of BOPO liquidity on the financial performance of BRI Syariah Bank if calculated from the average total BOPO for a period of 8 years, from 2012 to 2019, then the condition of BRI Syariah banks is classified as unhealthy, because the average value of BOPO is 94.21%, which is higher than the industry standard criteria, namely BOPO < 79.13%.

5. Conclusion

The financial performance of BRI Syariah Bank for 8 years, from 2012 to 2109, if measured from the total average Current Ratio, then the liquidity condition is healthy, because the Current Ratio percentage value reaches 262.06%, still above the standard category banking industry stipulated by
BI in SEBI No.6 / 10 / PBU 2004 dated April 12, 2004, where the percentage value of the Current Ratio for healthy banks was above 200% (CR> 200%)

The financial performance of BRI Syariah Bank for 8 years, from 2012 to 2109, if measured from the total average Quick Ratio ratio, the liquidity condition is not healthy, because the Quick Ratio percentage value only reached 19.76%, still below Banking industry category standards set by BI in SEBI No.6 / 10 / PBU 2004 dated April 12, 2004, where the percentage value of the Quick Ratio for healthy banks is above 15-20% (QR> 15-20%). Although the value of the Quick Ratio in 2014, 2015, 2018 has increased, the achievement is not up to a healthy limit.

The financial performance of BRI Syariah Bank for 8 years, from 2012 to 2109, if measured from the average total quick cash ratio, the liquidity condition is healthy, because the percentage value of cash ratio reached 364.68%, above the industry category standard banks stipulated by BI in SEBI No.6 / 10 / PBU 2004 dated April 12, 2004, where the percentage value of the Cash Ratio for healthy banks was above 80% (CR> 80%).

The financial performance of BRI Syariah Bank for 8 years, from 2012 to 2109, if measured from the average total Return on Assets ratio, the profitability condition is unhealthy, because the percentage value of Return on Assets only reaches 0.60%, still far below the standard of the banking industry category set by the OJK in SPI Vol.16 No.10 September 2018, where the percentage value of Return on Assets, for healthy banks is above 2.50% (ROE> 2.50%). Although the value of Return on Assets in 2013, 2015, 2016 has increased, the results have not reached a healthy limit.

The financial performance of BRI Syariah Bank for 8 years, from 2012 to 2109, if measured from the average total Return on Equity ratio, the profitability condition is unhealthy, because the percentage value of Return on Equity only reaches 4.63%, still far below the standard of the banking industry category set by the OJK in SPI Vol.16 No.10 September 2018, where the percentage value of Return on Equity, for healthy banks is above 14.61% (ROE> 14.61%). Even though the value of Return on Equity in 2015 and 2016 has increased, the results have not reached a healthy limit.

The financial performance of BRI Syariah Bank for 8 years, from 2012 to 2109, if measured from the total average BOPO ratio, then the profitability condition is not healthy, because the percentage value of BOPO only reaches 94.21%, far above the standard category banking industry stipulated by the OJK in SPI Vol.16 No.10 September 2018, where the percentage value of OEOI, for healthy banks is below 79.13% (BOPO<94.21%). Although the BOPO value in 2013, 2015, 2016, 2018 experienced improvements, the achievement was not up to a healthy limit. The financial performance of BRI Syariah Bank is measured using the liquidity ratio Current Ratio, Quick Ratio, Cash Ratio and profitability ratio Return on Assets, Return on Equity, BOPO is generally in an unhealthy condition.

References


http://www.amp.kontan.co.id/news/perbankan-harus-tingkatkan-efisiensi (diakses tanggal 01 Desember 2019 pkl.16.51 wib)
https://brisyariah.co.id/ (diakses tanggal 03 Desember 2019 pkl.17.25 wib)
https://www.ojk.go.id/id/Default.aspx (diakses tanggal 04 Desember 2019 pkl.17.25 wib)
https://www.bi.go.id/id/Default.aspx (diakses tanggal 07 Desember 2019 pkl.09.15 wib)
The Effect of Liquidity, Working Capital and Operational Costs on Profitability of Trading Companies Registered in Indonesia Stock Exchange 2013-2015

Thomas Firdaus Hutahaean
Universitas Prima Indonesia
*e-mail: firdausthom@yahoo.com

Abstract

This study aims to examine and analyze the effect of liquidity, working capital and operational cost on profitability of trading companies listed on the Indonesia Stock Exchange in 2013-2015 period. The study used a quantitative approach, this type of research is quantitative descriptive by causal relationship. The populations of this study are all registered trading companies in Indonesia Stock Exchange consisting of 55 companies. Samples were drawn by 29 companies, by purposive sampling technique. The analytical method used in this research is multiple linear regression and classic assumption test to get a good regression model. The results of this study indicate that simultaneously liquidity, working capital and operating costs have a significant effect on profitability in trading companies listed on the Indonesia Stock Exchange in 2013-2015 period. Partially, liquidity and working capital have a positive and significant effect on profitability in trading companies listed on the Indonesia Stock Exchange in 2013-2015 period, while operating cost does not have any effect on profitability. The conclusion of this research states that increase in liquidity and working capital will lead to an increase in profitability. The results obtained from the coefficient of determination of R2 value is 0.330, meaning that profitability variable variation can be explained by variations of variable of liquidity, working capital and operating expenses reaching up to 33% while the rest of 67% is explained by other independent variables.

Keywords: Liquidity, Working Capital, Operating Costs, Profitability

1. Introduction

The company was founded with the aim of increasing the profitability of the company so that it can provide prosperity for the owners or shareholders. One of the efforts to achieve these goals the company always maximizes its profits. Profitability is the company's ability to earn a profit in relation to sales, total assets, and own capital. The amount of profit is often compared to the financial condition or other activities, such as sales, assets, shareholder equity, and is also used to value the company.

Liquidity measures the company's ability to meet cash needs to pay short-term obligations and to finance day-to-day operations as working capital. This liquidity has a close relationship with profitability, because liquidity shows the level of available working capital needed in operational activities.

Working capital is all current assets that can be used as cash owned by the company, or funds that must be available to finance the company's daily operations, for example to pay...
employee salaries, buy raw materials / goods, pay transportation costs, pay debts and so on. Errors in managing working capital result in business activities being hampered or completely halted.

The success in managing working capital policies reflects the maximum supervision of current assets and current liabilities that can increase profitability. Investing in working capital means investing in cash, accounts receivable, and inventories. This investment will be of maximum benefit if the amount of cash, accounts receivable and inventories is optimal. Optimization of cash, accounts receivable, inventory affects the need for funds for working capital financing and is directly related to sales growth. In connection with working capital expenditures, in particular the company's current liabilities must be managed effectively and efficiently in order to obtain minimum costs and risks.

Operational costs consist of sales costs, which are costs incurred by the company to carry out product sales and marketing activities and administrative costs are costs incurred by the company to coordinate product production and sales activities. Profit is very much determined by the income earned and the costs that must be incurred to obtain that income. Given the company's operating costs continue to increase, due to the higher costs incurred for operating costs at the company. This is due to problems with operating income, the increasing demands for workers' living costs, as well as equipment and equipment in the company which is getting higher.

2. Literature Review

Liquidity

According to Anoraga and Pakarti (2008: 111), the liquidity ratio states the company's ability to meet its obligations in the short term.

According to Sudana (2011: 21), the liquidity ratio measures the company's ability to meet short-term financial obligations.

The liquidity indicator in this study is the current ratio. According to Sudana (2011: 21) the current ratio measures the company’s ability to pay current debt using current assets owned. The formula for calculating the current ratio is:

\[
\text{Current Ratio} = \frac{\text{Current Assets}}{\text{Current Liabilities}}
\]

Theory About Working Capital

According to Subramanyam and Wild (2011: 241) working capital is the difference in current assets after deducting current liabilities. According to Sunyoto (2013: 127) working capital is a company’s investment in short-term assets in the form of cash, marketable securities, inventories, and accounts receivable. The working capital indicator in this study is net working capital. According to Sunyoto (2013: 127) the formula for calculating net working capital is:

\[
\text{Net Working Capital} = \text{Current Assets} - \text{Current Liabilities}
\]

Theory About Operating Costs

According to Jusuf (2008: 33), operating costs or operating expenses are costs that are not directly related to the company's products but are related to the company's daily operational activities. According to Keown, et al (2008: 34), operating costs are costs associated with the
marketing and distribution of products or services and business administration. The formula for calculating operational costs is as follows:

\[
\text{Operating Costs} = \text{Selling Costs} + \text{General and Administrative Expenses}
\]

**Profitability Ratio**

According to Kasmir (2012: 196), the profitability ratio is a ratio used to assess a company's ability to seek profit. The profitability ratio also provides a measure of the management effectiveness of a company. This is indicated by the profit generated from sales and investment income. In essence, this ratio is used to show the efficiency of the company. The profitability indicator in this study uses the Net Profit Margin ratio. According to Sudana (2011: 23) Net Profit Margin measures the company's ability to generate net profit from sales made by the company. This ratio reflects the efficiency of all parts, namely production, personnel, marketing and finance in the company. The formula for calculating Net Profit Margin is:

\[
\text{Net Profit Margin} = \frac{\text{Earning After Taxes}}{\text{Sales}}
\]

3. **Methodology**

The research approach used in this research is quantitative research methods. According to Sugiyono (2010: 8). The nature of this research is a causal relationship. Causal relationship research is a causal relationship (Sugiyono, 2010: 37). So here there are independent variables (variables that affect) and dependent variables (influenced).

**Population and Sample**

The population in this study were all trading companies listed on the Indonesia Stock Exchange, amounting to 55 companies. Some of the criteria specified are:

2. Trading companies that use financial reports as of December 31, 2013-2015.
3. Trading companies that did not experience losses in the 2013-2015 period.

The total number of sample data used in this study is 87 samples taken from a total sample of 29 companies multiplied by 3 periods of the study.

4. **Result and Discussion**

**Descriptive Statistics**

<table>
<thead>
<tr>
<th>Table 1. Descriptive Statistics</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
</tr>
<tr>
<td>Liquidity</td>
</tr>
<tr>
<td>Working capital</td>
</tr>
<tr>
<td></td>
</tr>
</tbody>
</table>

Volume 2, Issue 4 available at http://e-journal.stie-kusumanegara.ac.id
Operating costs | 8 | 3,418,099.553 | 8,436,945,000.000 | 1.143,136,469,335.8 | 1.563,114,883,386.65 | 2 | 8
Profitability | 8 | 7 | 0.001 | 0.351 | 0.04887 | 0.054676 
Valid N (listwise) | 8

The minimum liquidity value is 0.790 which is obtained at PT. Midi Utama Indonesia, Tbk in 2015. The maximum value of liquidity is 52.379 obtained at PT. Leo Investments, Tbk in 2013. The average liquidity value of trading companies in 2013-2015 was 3.33761. The standard deviation value for liquidity is 6.777545

Kolmogorov Smirnov Normality Test After Transformation

<table>
<thead>
<tr>
<th>Table 2. One-Sample Kolmogorov-Smirnov Test</th>
</tr>
</thead>
<tbody>
<tr>
<td>N</td>
</tr>
<tr>
<td>Normal Parameters</td>
</tr>
<tr>
<td>Deviation</td>
</tr>
<tr>
<td>Most Extreme Differences</td>
</tr>
<tr>
<td>Positive</td>
</tr>
<tr>
<td>Negative</td>
</tr>
<tr>
<td>Kolmogorov-Smirnov Z</td>
</tr>
<tr>
<td>Asymp. Sig. (2-tailed)</td>
</tr>
</tbody>
</table>

a. Test distribution is Normal.
b. Calculated from data.

The Kolmogorov Smirnov normality test results show a significant value of 0.785 > 0.05. Thus, the Kolmogorov Smirnov normality test results can be concluded that the data is normally distributed.

Spearman's rho Test After Transformation

<table>
<thead>
<tr>
<th>Table 3. Correlations</th>
</tr>
</thead>
<tbody>
<tr>
<td>SQRT LIQUIDITY</td>
</tr>
<tr>
<td>Spearman's rho SQRT_ Liquidity</td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
</tr>
<tr>
<td>N</td>
</tr>
<tr>
<td>SQRT_ Working</td>
</tr>
</tbody>
</table>

Volume 2, Issue 4 available at http://e-journal.stie-kusumanegara.ac.id
The results of the Spearman's rho test after the transformation of the data in table 6 above show that the significant value of the 3 independent variables is greater than 0.05, thus the results of Spearman's rho can be concluded that there is no heteroscedasticity problem.

**Regression Equations**

**Table 4. Coefficients**

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>t</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Constant)</td>
<td>.091</td>
<td>.024</td>
<td>3.735</td>
<td>.000</td>
</tr>
<tr>
<td>SQRT_Liquidity</td>
<td>.053</td>
<td>.009</td>
<td>.553</td>
<td>5.654</td>
</tr>
<tr>
<td>SQRT_WorkingCapital</td>
<td>3.043E-008</td>
<td>.000</td>
<td>.250</td>
<td>2.133</td>
</tr>
<tr>
<td>SQRT_OpCosts</td>
<td>-1.650E-008</td>
<td>.000</td>
<td>-.097</td>
<td>-.800</td>
</tr>
</tbody>
</table>

a. Dependent Variable: SQRT_Profitability

The results of the regression equation in table 7 above can be obtained from the constant values and the regression coefficients of each variable, so that the equation for the multiple linear regression model in this study can be described as:

**SQRT Profitability = 0.091 + 0.053 SQRT Liquidity + 0.00003043 SQRT Working Capital – 0.00001650 SQRT Operating Costs**

The meaning of the multiple linear regression equation above is:
1. A constant value of 0.091 states that if liquidity, working capital and operating costs are 0, then the profitability is 0.091 units.
2. The liquidity regression coefficient value is 0.053 units and has a positive value which states that every increase of 1 liquidity unit will cause an increase in profitability of 0.053 units.
3. The regression coefficient of working capital is 0.00003043 units and is positive which states that every increase of 1 working capital unit will cause an increase in profitability of 0.00003043 units.

4. The operational cost regression coefficient is -0.00001650 units and is negative, which states that every 1 unit increase in operating costs will cause a decrease in profitability of 0.00001650 units.

**Determination Coefficient Test**

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Std. Error of the Estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>.597&lt;sup&gt;a&lt;/sup&gt;</td>
<td>.356</td>
<td>.330</td>
<td>.07936</td>
</tr>
</tbody>
</table>

<sup>a</sup> Predictors: (Constant), SQRT_Operating Costs, SQRT_Liquidity, SQRT_Working Capital

The result of the determination coefficient test in table 8 shows that the Adjusted R square value is 0.330. This means that the variation in the dependent variable on profitability which can be explained by the independent variables of liquidity, working capital and operating costs is 33%. While the remaining 67% is explained by other independent variables outside of this study.

**Simultaneous Test (Test F)**

<table>
<thead>
<tr>
<th>Model</th>
<th>Sum of Squares</th>
<th>Df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Regression</td>
<td>.258</td>
<td>3</td>
<td>.086</td>
<td>13.636,000&lt;sup&gt;a&lt;/sup&gt;</td>
</tr>
<tr>
<td></td>
<td>Residual</td>
<td>.466</td>
<td>74</td>
<td>.006</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>.724</td>
<td>77</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<sup>a</sup> Predictors: (Constant), SQRT_Operating Costs, SQRT_Liquidity, SQRT_Working Capital

b. Dependent Variable: SQRT_Profitability

The results of the simultaneous significance test in Table 9 above obtained the Fcount value of 13.636. At degrees of freedom 1 (df1) = k - 1 = 4 - 1 = 3, and degrees of freedom 2 (df2) = n – k = 78 - 4 = 74, where n = number of samples, k = number of variables, Ftable value on the level of confidence significance 0.05 is 2.73. Thus the value of Fcount = 13.636 > Ftable = 2.73 with a significance level of 0.000. Then Ha accepted means that liquidity, working capital and operational costs simultaneously have a significant effect on profitability in trading companies listed on the Indonesia Stock Exchange for the period 2013-2015.
Partial Test (t test)

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>t</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>Std. Error</td>
<td>Beta</td>
<td></td>
</tr>
<tr>
<td>(Constant)</td>
<td>.091</td>
<td>.024</td>
<td>.553</td>
<td>3.735</td>
</tr>
<tr>
<td>SQRT_Liquidity</td>
<td>.053</td>
<td>.009</td>
<td>.553</td>
<td>5.654</td>
</tr>
<tr>
<td>SQRT_Working Capital</td>
<td>3.043E-008</td>
<td>.000</td>
<td>.250</td>
<td>2.133</td>
</tr>
<tr>
<td>SQRT_Operating Costs</td>
<td>-1.650E-008</td>
<td>.000</td>
<td>-.097</td>
<td>-.800</td>
</tr>
</tbody>
</table>

a. Dependent Variable: SQRT_Profitability

The results of the partial significance test in Table 10 above, the t table value for the probability of 0.05 at degrees of freedom df = 74 is 1.99254. Thus the results of the t test can be explained as follows:
1. The results of the calculation of the t test partially obtained a liquidity t value of 5.654 with a significant value of 0.000. Value of tcount> ttable or 5.654> 1.99254, then Ha is accepted, meaning that liquidity has a positive and significant effect on profitability in trading companies listed on the Indonesia Stock Exchange for the period 2013-2015.
2. The results of the calculation of the t test partially obtained the t value of working capital of 2.133 with a significant value of 0.036. The value of tcount> ttable or 2.133> 1.99254, then Ha is accepted, meaning that working capital has a positive and significant effect on profitability in trading companies listed on the Indonesia Stock Exchange for the period 2013-2015.
3. The results of the calculation of the t test partially obtained the tcount of operational costs of -0.800 with a significant value of 0.426. Value -thitung> -ttable or -0.800> -1.99254, then H0 is accepted, meaning that operating costs have no effect on profitability in trading companies listed on the Indonesia Stock Exchange for the period 2013-2015.

5. Conclusion

This study examines how the effect of liquidity, working capital and operating costs on profitability in trading companies listed on the Indonesia Stock Exchange for the period 2013-2015. Based on the research results, the conclusions obtained from this study are:

- Partially liquidity has a positive and significant effect on profitability in trading companies listed on the Indonesia Stock Exchange for the period 2013-2015.
- Partially working capital has a positive and significant effect on profitability in trading companies listed on the Indonesia Stock Exchange for the period 2013-2015.
- Partially operating costs have no effect on profitability in trading companies listed on the Indonesia Stock Exchange for the period 2013-2015.

Simultaneously liquidity, working capital and operating costs have a significant effect on profitability in trading companies listed on the Indonesia Stock Exchange for the period 2013-2015 with the results of the Adjusted R2 coefficient of determination of 33% from the variation of the profitability variable which can be explained by the independent variable liquidity, working capital, and operating costs.
References


