PROCEEDING

6th SEMINAR & CONFERENCE
ON BUSINESS & TECHNOLOGY IN ICT INDUSTRY
5-6 October 2015, Grand Sahid Jaya Hotel, Jakarta

Managing Business for Smart Economy
PROCEEDING

The 6th Seminar & Conference on Business & Technology in ICT Industry (SCBTII)

“Managing Business for Smart Economy”


Chief Editor:
DR. Maya Ariyanti, SE, MM

Editor Team:
Dini Turipanam Alamanda
Puspita Kencana Sari

Layout & Design:
Muhammad Tyas Pawitra

Publisher:
Fakultas Ekonomi dan Bisnis Universitas Telkom

Editorial Address:
Jl. Telekomunikasi, Terusan Buah Batu Bandung 40257, Indonesia
Telp : +62 22 7503621
Website : seb.telkomuniversity.ac.id
Email : seb@telkomuniversity.ac.id

First Edition, October 2015

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PREFACE

Assalamu’alaikum Warohmatullahi Wabarakaatuh

Respected colleagues, ladies and gentlemen.

Economics and Business School, Telkom University in 2015 is held a 6th Seminar & Conference on Business & Technology in ICT Industry (SCBTII). The theme of this year is "Managing Business for Smart Economy". This event is the second year for the Conference where the speakers assembled for the dissemination of research results and their thoughts related to the field of management and the ICT industry.

On this opportunity, I would like to thank the Rector of the Telkom University, Dean of the Economics and Business School, the scientific committee and others who have participated so the 6th SCBTII this year could be held in Jakarta and Bandung successfully.

To the speakers and participants of SCBTII, I thank you for your participation in this event. Hopefully we can provide the best service and you can all enjoy the event that we held. See you next year.

Wassalamu’alaikum Warohmatullohi Wabarakaatuh

DR. Dadan Rahadian

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Composition Analysis of the Company’s Value and Cost of Capital as the Basis for Determining the Optimum Capital Structure of XYZ

Norita Chan, Yudi Wijayanto
Faculty of Economic & Business, Telkom University

Abstract

The capital structure of a company to support the growth of its business is a matter of choice in determining the composition of debt and equity. Expected capital structure is a combination of debt and equity that reached a certain balance between the tax advantages of debt and costs due to the use of debt. Prediction market growth in industrial IT (Information and Technology) is predicted to continue to grow above 70% over the next few years and XYZ as its ICT (Information, Communication and Technology) solutions in Indonesia optimistic targeting revenue growth of 30% which is dominantly supported by the service managing services through increasing the number of customers and increased service capacity.

The determination of the optimum capital structure XYZ needs to be done to support the company's strategic plans for growth in the IT industry Indonesia 2015-2017. The optimum capital structure is determined through an approach that considers the value of the highest corporate financial distress and agency cost and the lowest cost of capital approach.

The results showed that the capital structure reached the optimum conditions at the highest value of the company and the lowest capital costs considering the financial distress cost and agency cost as a risk for the increased use of debt, namely the composition of 30% debt and 70% of equity based on the highest value of the company approach, 45% of debt and 55% of equity based on the lowest cost of capital approach.

Keywords: capital structure; the value of the company; cost of capital; costs of financial distress; agency cost

1. Introduction

The capital structure is a description of the proportion of financing on the assets of the company, which is the ratio between short-term debt and long-term debt and capital according to Okthaheleon (2012). The choice of capital structure is the result or consequence of the decision of funding (financing decision) which at its core is to choose whether to use debt or equity to finance the entire costs arising from operating and investment of company. Source of funds of the company can come from internal sources, namely earnings (retained earnings) and from outside the company by using debt.

The capital structure of a company is usually expressed in the debt securities of the company, namely the Debt to Equity Ratio or Debt to Assets Ratio. According to some authors in JHVH De Wet (2006) as Lasher (2003: 426), Moyer, McGuigan and Kretlow (2003: 418) and Correia, Flynn, Uliana and Wormald (2006: 14-6) has shown how debt levels may increase earnings per share (EPS) and return on equity (ROE). However, this does not necessarily maximize wealth of shareholders and therefore the challenge is to determine a combination of debt and equity that will maximize the stock price.

Optimal capital structure is a combination of debt and equity that will maximize the value of the overall business according to JHVH De Wet (2006). According to Ehrhardt and Brigham in JHVH De Wet (2006: 2), the value of a business is the present value of all future cash flows generated from the assets less the weighted average cost of
capital (WACC) of the company. The target capital structure is a combination of sources of funds owned by the lowest WACC and value (value) of the highest overall business according Hawawini & Viallet in JHVH De Wet (2006: 2). Hsieh in JH -v- H De Wet (2006: 2) expressed similar views that the company should choose a debt equity ratio that maximizes the value (value) of the company and added also that in the determination of the optimal capital structure will involve complex decision-making process with many decision variables.

According to JHVH De Wet (2006: 6), when a company continues to increase the debt, the interest costs will be growing that would give more emphasis to the business operation of the company. Costs of financial distress resulting from the amount of debt will lower the value of the company. At the cost of financial distress according to Ross, Westerfield and Jaffe (2002: 425) were divided into 3 types, namely: direct costs, indirect costs and agency cost. Direct financial distress costs are the cost s of the bankruptcy of the company, which is composed of legal and administrative costs. As for the indirect costs of financial distress is associated with things that are harmful to the company headed toward bankruptcy where most companies are not running at maximum capacity levels.

Frost and Sullivan, SPIRE (2011) states that in 2015 and 2016, the potential market IT sector in Indonesia is still open and based on internal capabilities XYZ is a subsidiary nor a synergy group, the company is optimistic targeting revenue growth in the range of 30% through an increase in the number of subscribers and capacity building services where revenue is expected to grow in 2016 amounted to 27.82% and in 2017 amounted to 29.66%, which will be predominantly supported by data center services, system integration and managed cloud services. Meanwhile operating expenses (OPEX) is expected to rise with the increase in total revenues in the range of 11.24% for 2016 and 7.98% for 2017, which is predominantly contributed by the marketing burden.

In response to market trends and technology as well as the consequences of growth scenario of the company's business to remain aggressive in the future, it will be necessary to use an appropriate funding strategy in accordance with the conditions of the company include the determination of capital that can improve the performance of the company with the composition of the debt and equity that is expected to maximize the value of the company in whole businesses. It can be seen from the return on equity of the company. The increasing value of the company means maximizing shareholders’ wealth.

2. The Purpose of the Study

The production costs (Cost of Goods Sold) XYZ in 2014 was in the range of 85% of the value of operating revenues. This amount is a percentage of the considerable cost which would also increase in 2015, 2016 and 2017 that will come. This encourages the management of PT XYZ to determine the capital structure is to increase the tendency of debt to ensure the operational, business investment and the achievement of the projected growth in operating revenues.

In the terms of its financing, the purpose of this study is to prove the structure of debt on capital as a combination of trade-off between the factor value of the firm, cost of capital, agency cost and the cost of financial distress. It is expected that the company will get the optimum composition of capital in the scenario the company achieved revenue growth projections in 2015-2017.

Based on the explanation above, the purposes of this research are as follows:

• Determination of the composition of the company's value as a basis for determining the optimum capital structure.
• Determining the composition of capital costs as the basis for determining the optimum capital structure.

3. Research Methodology

This research is applied research. According to Indriantoro and Supomo (2014: 24), applied research is the type of research that emphasizes on solving practical problems and is further classified as research evaluation. Indriantoro and Supomo (2014:24), states that the evaluation research is research used to support the selection of some alternative action in the process of making business decisions. Based on the study of literature, then conducted a case study on
the capital structure of PT XYZ of which according to Sekaran and Bougie (2010: 109) in Irena L (2014) that the case study method can be used to understand a phenomenon and generate further understanding for empirical testing.

Related to this study, the data, that becomes the object of this study, was projected revenues, EBIT and OPEX year 2015 -2017 based on CSS (Corporate Strategic Scenario), the tax rate, the company in an unlevered beta is based on levered equity beta, the value of the company's capital structure today, risk free based BI rate and market risk premium of equity market risk premium Indonesia to get the value of the company in a state with no debt (unlevered value).

The method of data analysis is done deductively which analyzes the data starts from the theory of knowledge of a general nature concluded in a statement as the basis for decision making for the user. Analyses were performed using a quantitative approach to trade-off the model of capital structure theory and descriptive analysis that describes the data in the form of tables, graphs and percentage calculation. Figure 1 below shows the approach to the study of literature is used, the stages of data collection, processing and analysis that ultimately generate recommendations optimum capital structure.

![Research Methodology Diagram](image)

4. The Result and Discussion

The data XYZ EBIT projections based CSS 2015 – 2017 can be used to calculate the value of the company in several upcoming years. Besides, using the beta value adjustment of the company that produces the cost of equity companies in the absence of debt, can be obtained on the calculation of the value firm in a state with no debt. This value represents how much the value of the company in the future in a state with no debt (Vu). To determine the value of the firm in a state with no debt, use the following formula:

\[
Vu = \frac{EBIT \times (1 - Tc)}{Ru}
\]  

Where:
Vu = value of the company in a state with no debt  
EBIT = earnings before interest and tax firm  
Tc = corporate tax rate  
Ru = cost of equity unlevered firm

Table 1 illustrates how the value of the company 2015-2017 in a state with no debt.
Hawawini and Viallet (1999: 361) states the value of the company that owns the debt can be calculated with the following equation:

$$VL = Vu + PVITS - PVCFD$$

(2)

Taking into account the agency cost, according to Arthur J. Keown et al (2010: 161), then the formula above becomes:

$$VL = Vu + PVITS - (PVCFD - PVAC)$$

(3)

Where

- $VL$ = the market value of the company with debt
- $Vu$ = the market value of the company without debt
- $PVITS$ = the present value of the income tax shield
- $PVCFD$ = present value of financial distress costs
- $PVAC$ = present value agency cost

According to Korteweg (2007), an estimate of the cost of financial distress models net of tax benefit is the quadratic function of leverage with different parameters for each industry. Meanwhile, according to Ang et al. (2000: 7), agency cost is calculated using loads the number of operations, general and administrative (OGA). This variable measures the agency cost (agency) is based on the ratio of operating expenses, general and administrative to total sales. When a company has a debt, there will be differences of interest between shareholders and bond owners. Therefore, the shareholders usually have a strategy that will benefit them. This interest led to differences in the company's agency cost.

Calculation results of the company's value ($V$), the company that owns the debt value ($VL$), and the value of the company without debt ($Vu$) 2015-2017 which already incorporate the effects of financial distress cost and agency cost shown in the table 2 below.

Based on the calculation results in the Table 2 it can be seen that at certain intervals debt ratio, the company's value has increased due to the effect of the tax benefits of the loan (debt). But the value of the company does not always come up at the end point because of the effects of financial distress cost and agency cost.

The value of the company is at the highest point on the composition of debt 30%. At a debt ratio above 30%, the value of the company decreased when the level of debt increased, this happens because of the effect of the sum of the value of financial distress costs and agency cost that continues to rise and even the value already exceeds the tax benefits obtained by the company through the debt. The value of the company for the year 2015 reached the highest point in the composition of the debt of 30% with a value of Rp 2,660 billion. Meanwhile, the value of the company for the year 2016 is expected to reach the highest point in the composition of the debt of 30% with the company’s value of Rp 3,884 billion and the enterprise value of the company for 2017 reached the highest point on the composition of the debt of 30% with a value of Rp 5,427 billion.
Table 2. Calculation results of the company's value (V), the value of the company that owns the debt (VL), and the value of the company without debt (Vu) (a) 2015; (b) 2016; (c) Year 2017

| Year | 0%    | 5%    | 10%   | 15%   | 20%   | 25%   | 30%   | 35%   | 40%   | 45%   | 50%   | 55%   | 60%   | 65%   | 70%   | 75%   | 80%   | 85%   | 90%   | 95%   | 100%  |
|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|

The cost of capital (cost of capital) according to Pratt (2002), is the expected rate of return that cool the market to attract funds for a particular investment. In economic terms, the cost of capital for a particular investment is an opportunity cost, a cost incurred because of missed the best investment thereafter. Capital costs are borne by the company is the average cost of the components proportional funding companies that assortment (James C. Van Horne, John M. Wachowicz, Jr., 1998: 399). The cost of capital weighted average (weighted average cost of capital) can be written in the following equation (Pratt, 2002: 46):

$$\text{WACC} = WeKe + WpKp + WdKd (1 - T)$$  \hspace{2cm} (4)

Where:
- WACC = weighted average cost of capital
- We = the proportion of common equity in the capital structure
- Ke = cost of common equity
- Wp = proportion of the number of preference shares in the capital structure
- Kp = cost of preferred equity
- Wd = proportion of debt in the capital structure
- Kd = cost of debt
- T = taxes

In the Table 3 below are the results of the calculation of weighted average cost of capital (WACC) PT. XYZ for the years 2015-2017 by simulating some of the composition of debt in the capital structure of 0% to 100%.

It is clear that based on the Table 3, the cost of capital (WACC) PT.XYZ is the lowest at the composition of 45% debt and 55% equity, which amounted to 10.14%. Meanwhile, based on the calculation of the value of the company according to Table 2 is obtained maximum value of the company is in the composition of 30% debt and 70% equity. Thus, it can be concluded that the optimal capital structure for PT. XYZ is located in the composition of capital of 30% debt and 70% equity for the highest company value and 45% debt and 55% equity to the lowest WACC.
5. Conclusion

The potential market of IT sector in Indonesia in 2015-2017 are still open and the capability of PT. XYZ to run the CSS with its business revenue growth through increasing the number of customers and increase the value of the service capacity, so that the highest value of PT. XYZ is on the composition of capital of 30% debt and 70% equity. With this composition, the value of PT. XYZ reaches a maximum value is 2015 Rp. 2,660 Billion, 2016 amounted to Rp. 3,884 billion in 2017 and Rp. 5,427 Billion.

Besides, apart from the aspects of the value of the company, in the terms of cost of capital (weighted average cost of capital) of the company, the lowest WACC to the capital structure PT.XYZ is in the composition of 45% debt and 55% equity. Value is obtained on the composition of the WACC is the lowest compared with other debt-equity composition, which is 10.14%.

DER company in 2014 was at a ratio of 74%, where the capital structure for the ratio of debt to Rp 1,071 billion (42.58%) and the equity of Rp 1,445 billion (57.42%). Thus, if the company expects the capital structure with the highest company value that is a composition of 30% debt and 70% equity, the company must reduce the amount of its debt. Reduction in the amount of debt can be done by increasing the company's profit growth through the implementation of IT projects by intensifying synergies in terms of sales services group Data Center and Cloud services.

Meanwhile, if the company hopes the capital structure with WACC low of option composition of 45% debt and 55% equity, the company needs to increase the amount of debt and the funds could be used to finance projects that will have a direct impact or a huge impact on the increased sales and revenues.

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Norita Chan, Yudi Wijayanto

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The 6th Seminar & Conference on Business & Technology in ICT Industry (SCBTII 2015)

Measurement for Assessing the Influence Factors toward Internet Banking acceptance  
(A case study of ABC internet banking in Bandung, Indonesia)

Satria Rahmat, Indrawati  
Faculty of Economic & Business, Telkom University

Abstract

The aim of this study was to determine the measurement for assessing the factors which were considered to affect the consumer acceptance toward an ABC internet banking. This study used six dimensions to measure the level of customer acceptance of internet banking. The dimensions are perceived usefulness, perceived ease of use, perceived enjoyment, amount of information on online banking, security and privacy, and the quality of the internet connection. Data were collected using purposive sampling to select individuals which met certain criteria, in this case ABC Bank customers in Bandung Indonesia. The measurement model has been tested using the 30 respondents, customers of ABC Bank. The pilot test shows that the measurement model is valid and reliable to be used for further study.

Keywords: Internet Banking, Modified TAM, Behavioral Intention, Indonesia

1. Introduction

The industrial development of electronic commerce or e-commerce, particularly in Indonesia has encouraged competition in providing products and services in cyberspace. The development of online business is supported by a significant increase in Internet users. This causes many business people interested in doing business online by looking at the prospective of Internet users in Indonesia. Electronic commerce is now promising new commercial revolution by offering direct and cheaper way to exchange information and to sell or buy products and services over the internet. This revolution in the market place has made a revolution in the banking sector for the provision of payment systems that are compatible by the demands of the electronics market place. The term "electronic banking" or "e-banking" covers both computer and mobile banking. It refers to the use of information and communication technology by banks to provide services and manage customer relationship more quickly and most satisfactorily (Charity-Commission, 2003). Electronic banking according to Al-Abed (2003) is an umbrella term for the process by which a customer may perform banking transactions electronically without visiting a brick and mortar institution. Internet banking is defined as the use of internet to deliver banking activities such as funds transfer, paying bills, viewing current and savings account balance, paying mortgages and purchasing financial instruments and certificates of deposits (Singhal and Padhmanabhan, 2008). According to Henry (2000), in Thulani, Tofara and Langton (2009), internet banking refers to a system that allows bank customers to gain access to their account and general information about the bank’s products and services through the use of the bank’s website, without intervention or discomfort of sending mail, faxing original signature and phone confirmations.

Although the number of Internet users has increased significantly over the last few years, Internet banking has not become popular among bank customers in Indonesia. This can be seen by looking at a survey conducted by Nielsen in 2012, only 7% of internet users have been using the Internet for banking transactions. Based on ABC bank analyst meeting in 2013 the growth of ABC internet banking users is small compared to ABC mobile banking.
This small growth of internet banking motivated the researchers to conduct this research. This study analyzed the factors influence the acceptance of ABC internet banking in Bandung. The approach of this research was based on the extension of the original TAM (TAM) founded by Davis (1986). The extended TAM developed by Pikkarainen, Pikkarainen, Karjaluoto, and Pahnilla (2004) consisted of six factors, namely: Perceived Usefulness, Perceived Ease-of-use, Perceived Enjoyment, Information on Online Banking, Security and Privacy, and Quality of Internet Connection which would be used in this research.

2. Literature review

2.1. Modified Technology Acceptance Model (TAM)

In 1986, Davis proposed the original TAM to explain the acceptance of technology. TAM is considered as an influential extension theory of reasoned action (TRA), according to Ajzen and Fishbein (1980). Davis (1989) and Davis, Bagozzi, and Warshaw (1989) proposed TAM to explain why a user accepts or rejects information technology by adapting TRA.

According to Davis, TAM is the theory of an information system that describes how users accept and use the technology. There are two major constructs in TAM that determine the actual use of the system. Those two construct are Perceived Usefulness and Perceived Ease-of-use. Perceived Usefulness (PU) is “the degree to which an individual believes that using particular system would enhance his/her job performance” and Perceived Ease-of-use (PEOU) is “the degree to which an individual believes that using a particular system would be free of physical and mental effort” (Davis, 1986).

The conceptual model of this research is an extension of technology acceptance model (TAM) made by Pikkarainen et al. (2004). This extended TAM consists of six independent factors considered to have significant influence on acceptance of internet banking. The independent variables are;

- Perceived Usefulness (PU)
- Perceived Ease-of-use (PEU)
- Perceived Enjoyment (PE)
- Information on Online Banking (INFO)
- Security and Privacy (SEP)
- Quality of Internet Connection (QIC)

To get more suitable model with the object of the study, the researchers modified the Pikkarainen et al (2004) framework by replacing the dependent variable from online banking use to behavioral intention to use, following the targeted respondents who were the prospective users of ABC internet banking. Davis and Warshaw (1989) defined Behavioural intention as the level on which a person intended to use and adopt a new system. Some previous researches (Ajzen, 1985; Ajzen & Fishbein, 1980; Yi, Jackson, Park, & Probst, 2006) had noted that behavioral intention is the major determinant of actual usage behavior. Thus, the researcher decided to end the construct with behavioral intention as the dependent variable. Figure 1 shows the modified conceptual model.

**Perceived Usefulness:** According to Davis (1986) Perceived usefulness is “the degree to which and individual believes that using particular system would enhance his/her job performance”. Based on Davis et al. (1989) people tend to use an application if they believe it will improve their job performance. Davis also found Perceived Usefulness as a major factor of Behaviour Intention and Usage Behavior. A number of studies (Davis et al., 1989; Taylor & Todd, 1995; Moon & Kim, 2001; Luarn & Lin, 2005; Wu & Wang, 2005) supported that Perceived Usefulness affects Behavioral Intention and had a significant impact on Behavioral Intention.
Perceived Ease-of-use: Perceived ease-of-use is defined as “the degree to which an individual believes that using a particular system would be free of physical and mental effort” (Davis, 1986). According to Wang, Wang, Lin, & Tang (2003) a customer will perceive that using internet banking can be useful when it is easy to use for them. They also found that Perceived ease-of-use had significant effect on behavioral intention. Perceived ease-of-use affected the consumer’s intention to use internet banking also supported by Al-Maghrabi & Denis (2010) and Eriksson, Kerem, & Nilsson (2005). The customer would be more fascinated to use internet banking if it is easy to operate (Al-Somali, Gholami, & Clegg, 2009).

Perceived Enjoyment: Perceived Enjoyment according to Davis, Bagozzi and Warshaw (1992) refers to “the extent to which the activity of using computer is perceived to be enjoyable in its own right”. According to Suki & Suki (2011), a person tend to do or repeat a more enjoyable activity than other activity. A number of studies (Davis et al., 1992; Igbaria, Livari, & Maragahh, 1995; Teo, Lim, & Lai, 1999) had noticed that Perceived Enjoyment affect intention to use computers significantly.

Information on Online Banking: Information about online banking defined as a general knowledge of the users concerning of online banking (Pikkarainen et al. 2004). The lack of awareness about internet banking services has found to be the reason of consumers reluctance to use internet banking services (Howcroft et al. 2002). According to Sathye (1999), the use of internet banking is a fairly new experience for many people and a lack of awareness of internet banking is a major factor which prevents people from using internet banking. Sathye (1999) found that consumers were aware of the possibilities, advantages and disadvantages offered by online banking. Pikkarainen et al. (2004) had reported that the amount of information a customer has about internet banking and its benefit is an important factor on the adoption of internet banking.

Security and Privacy: Shan Lu, Lai and Cheng (2006) defines Security and Privacy as the offered security level by the internet banking service provider to each user. “Privacy can be defined as the claim of individuals, groups, or institutions to determine when, and to what extent, information about them is communicated to others” (Agranoff, 1991). The importance of security and privacy to the acceptance of online banking had been noted in many banking studies elsewhere (Sathye, 1999; Tan & Teo, 2000; Polatoglu & Ekin, 2001; Black, Lockett, Ennew, Winklhofer, & Mckchine, 2002; Howcroft et al., 2001). Security and privacy were also found to be significant obstacles to the adoption of online banking in Australia (Sathye, 1999). Cranor, Reagle, and Ackerman (1999) found that customers will not use internet banking unless it is considered safe and secure. Privacy issues have proved important barrier to the use of online services.
Quality of Internet Connection: Quality of internet connection according to Al-Shomali, Gholami, and Clegg (2008) was defined as the level of stability and reliability of an internet connection which can fully support any online activities by customers. Many people become hesitant to use the system when they are experiencing delays response, frequent disconnection, lack of access and poor security, so the quality of the internet connection is important in the context of internet banking. (Delone & Mclean, 1992; Seddon, 1997). Sathye (1999) noted that the use of online banking is not possible without proper internet connection. The quality of internet connection has a significant impact on the use of online banking (Al-Somali et al. 2009).

Behavioral intention: Behavioral intention is an important factor in predicting someone’s actual behavior in adopting technologies. According to Ajzen (1985), Behavioral Intention is the possibility of a person to conduct certain behaviors, and is the major determinant of actual usage behavior. Davis and Warshaw (1989) defined Behavioural intention as the level on which a person intended to use and adopt a new system. Ajzen (2006) stated that “Intention is an indication of a person’s readiness to perform a given behavior, and it is considered to be the immediate antecedent of behavior”. Some previous researches (Ajzen, 1985; Ajzen & Fishbein, 1980; Yi, Jackson, Park, & Probst, 2006) had noted that behavioral intention is the major determinant of actual usage behavior.

Table 1: Operationalization of variables

<table>
<thead>
<tr>
<th>Variable</th>
<th>Definition</th>
<th>Items</th>
<th>References</th>
</tr>
</thead>
<tbody>
<tr>
<td>Perceived Usefulness</td>
<td>PU is the degree to which a person believes that using a particular system would enhance his or her job performance. (Davis 1989)</td>
<td>1. Using an online banking enhances my effectiveness of utilizing banking services.</td>
<td>(Pikkarainen et al., 2004)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2. Using an online bank makes it easier for me to utilize banking services.</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>3. Using an online bank enables me to utilize banking services more quickly.</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>4. Using an online bank for my banking services increases my productivity.</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>5. Using an online bank improves my performance of utilizing banking services.</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>6. Overall, online bank is useful for me to utilize banking services.</td>
<td></td>
</tr>
<tr>
<td>Perceived Ease-of-use</td>
<td>The degree to which a person believes that using a particular system would be free of effort. (Davis 1989)</td>
<td>7. I find it easy to do what I want to do in online banking.</td>
<td>(Pikkarainen et al., 2004)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>8. Overall, I find an online bank is easy to use.</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>9. My interaction with an online bank is clear and understandable.</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>10. Learning to use online bank is easy for me.</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>11. It is easy for me to become skillful at using an online bank.</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>12. I find an online bank to be flexible to interact with.</td>
<td></td>
</tr>
<tr>
<td>Perceived Enjoyment</td>
<td>The extent to which the activity of using a computer is perceived to be enjoyable in its own right. (Davis, et al. 1992)</td>
<td>13. Using an online banking is pleasant.</td>
<td>(Pikkarainen et al., 2004)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>14. Using an online banking is positive.</td>
<td></td>
</tr>
</tbody>
</table>
Information on Online Banking

- 15. I have generally received enough information about online banks. (Pikkaraine et al., 2004)
- 16. I have received enough information about the benefits of using an online bank.

Security and Privacy

- 17. I trust in the technology an online bank is using. (Pikkarainen et al., 2004)
- 18. I trust in the ability of an online bank to protect my privacy.
- 19. I trust in an online bank as a bank.
- 20. Using an online bank is financially secure.
- 21. I am not worried about the security of an online bank.

Quality of Internet Connection

- 22. My internet connection is fast. (Pikkarainen et al., 2004)
- 23. My internet connection is reliable.

Behavioral Intention

- 24. Assuming online banking is available to me, I predict that I will use it on a regular basis in the future. (Glassberg, 2000)
- 25. For future tasks, I would use the online banking often.
- 26. In the future, I plan to use the online banking often.
- 27. I intend to increase my use of online banking in the future

Related to the object of this study which is the prospect customer of ABC internet banking, the fittest model to be used is the modified extended TAM model of Pikkarainen et al., (2004).

**Measurements model:** The best fit model must be supported with a good measurement model which fulfills the reliability and validity requirements. Questionnaire is one of measurement model. There are four steps that should be followed in developing questionnaire in order to have a good content validity, face validity, construct and convergent validity (Indrawati, 2012). First step is by carefully selecting the existing items which suggested by Churchill and Iacobucci (2005), Chew (2007) and Sekaran and Bougie (2010). It is better to carefully select items from previous related research in order to have the valid and reliable items. Arrange the items in operationalization variables table which consists of variables, definition of variables, items and references as can be seen at Table 1. Second, ask for experts’ comments and suggestions in order to have good content validity which suggested by Fink, Mitchell both cited in Hamidifar (2008). Having good comments and suggestions from experts, the items are arranged in the form of questionnaire and ready for the third step, readability test. The questionnaire will be given to people in different level of education in the population of the study in order to test the readability of the questionnaire. Once the questionnaire is considered to be readable, the next step is pilot test to prove if the questionnaire fulfills the construct validity (Indrawati, 2012).
3. Materials and methods

The proposed model of this study has six exogenous variables and one endogenous variable. The exogenous variables are Perceived Usefulness (PU), Perceived Ease-of-use (PEU), Perceived Enjoyment (PE), Information on Online Banking (INFO), Security and Privacy (SEP), and Quality of Internet Connection (QIC). The endogenous variable used in this research is Behavioral Intention (BI). Operationalization of variables in this research can be seen in Table 1.

Content validity and readability: Content validity can be achieved through careful item selection, a studious review of previously tested measures as well as through incorporation of suggestion from literature (Chew (2007): Hair et al., 2010: Indrawati, 2012). All of these suggested methods for achieving good content validity of a construct were used in preparing the operationalization for each construct in the present study. The questionnaire was also assessed by three experts based in Bandung.

The aim of this process was to validate the content of the questionnaire in terms of relevance, representativeness, suitability, accuracy and wording. Having this validation, the questionnaires are given to a people in each group of education in this study and the results show that the questionnaire is easy to read.

4. Results and discussion

A pilot study of the questionnaire was conducted to obtain a good instrument that fulfills the reliability and validity requirements, especially those of construct validity. The present study released the questionnaire to 30 respondents who possessed characteristics similar to those of the target respondents. The English questionnaire was translated into Bahasa Indonesia following the targeted respondents of the present study which speaks the Indonesian language. The questionnaires were distributed to respondents by the researchers in a google form. All of the completed questionnaires were collected and then scrutinized resulted that the entire collected questionnaire are valid for inclusion in the pilot study. The validity and reliability of the questionnaires were analyzed using the SPSS software. The results of the pilot study are presented in following.

Table 2: The CITC value for independent (X) variables and dependent (Y) variable

<table>
<thead>
<tr>
<th>Item Codes</th>
<th>CITC</th>
<th>Item Codes</th>
<th>CITC</th>
</tr>
</thead>
<tbody>
<tr>
<td>PU1</td>
<td>0.518</td>
<td>INFO1</td>
<td>0.701</td>
</tr>
<tr>
<td>PU2</td>
<td>0.574</td>
<td>INFO2</td>
<td>0.706</td>
</tr>
<tr>
<td>PU3</td>
<td>0.611</td>
<td>SEP1</td>
<td>0.731</td>
</tr>
<tr>
<td>PU4</td>
<td>0.584</td>
<td>SEP2</td>
<td>0.643</td>
</tr>
<tr>
<td>PU5</td>
<td>0.533</td>
<td>SEP3</td>
<td>0.755</td>
</tr>
<tr>
<td>PU6</td>
<td>0.563</td>
<td>SEP4</td>
<td>0.710</td>
</tr>
<tr>
<td>PEU1</td>
<td>0.746</td>
<td>SEP5</td>
<td>0.747</td>
</tr>
<tr>
<td>PEU2</td>
<td>0.758</td>
<td>QIC1</td>
<td>0.458</td>
</tr>
<tr>
<td>PEU3</td>
<td>0.844</td>
<td>QIC2</td>
<td>0.405</td>
</tr>
<tr>
<td>PEU4</td>
<td>0.498</td>
<td>BI1</td>
<td>0.719</td>
</tr>
<tr>
<td>PEU5</td>
<td>0.686</td>
<td>BI2</td>
<td>0.807</td>
</tr>
<tr>
<td>PEU6</td>
<td>0.700</td>
<td>BI3</td>
<td>0.733</td>
</tr>
<tr>
<td>PE1</td>
<td>0.544</td>
<td>BI4</td>
<td>0.803</td>
</tr>
<tr>
<td>PE2</td>
<td>0.795</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Table 3: The CA value for independent (X) variables and dependent (Y) variable

<table>
<thead>
<tr>
<th>Item Codes</th>
<th>CA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Independent (X)</td>
<td>.943</td>
</tr>
<tr>
<td>Dependent (Y)</td>
<td>.935</td>
</tr>
</tbody>
</table>

**Perceived Usefulness**: results of pilot study: Table 2 presents the pilot study results for the Corrected-Item-Total-Correlation values for all six items of the Perceived Usefulness (PU) construct. All of the items of PU construct has value of CITC above 0.349 which indicates that the items have good validity.

**Perceived Ease-of-use**: results of pilot study: The pilot study results of Perceived Ease-of-use (PEU) construct shown in Table 2. All of the items of PEU construct has value of CITC above 0.349 which indicates that the items have good validity.

**Perceived Enjoyment**: results of pilot study: The pilot study results of Perceived Enjoyment (PE) construct shown in Table 2. All of the items of PE construct has value of CITC above 0.349 which indicates that the items have good validity.

**Information on Online Banking**: results of pilot study: The pilot study results of Information on Online Banking (INFO) construct shown in Table 2. All of the items of INFO construct has value of CITC above 0.349 which indicates that the items have good validity.

**Security and Privacy**: results of pilot study: The pilot study results of Security and Privacy (SEP) construct shown in Table 2. All of the items of SEP construct has value of CITC above 0.349 which indicates that the items have good validity.

**Quality of Internet Connection**: results of pilot study: The pilot study results of Quality of Internet Connection (QIC) construct shown in Table 2. All of the items of QIC construct has value of CITC above 0.349 which indicates that the items have good validity.

**Behavioral Intention**: results of pilot study: The pilot study results of Behavioral Intention (BI) construct shown in Table 2. All of the items of BI construct has value of CITC above 0.349 which indicates that the items have good validity.

**Reliability test**: results of pilot study: Table 3 presents the pilot study results for the Cronbach’s Alpha (CA) from the study. The pilot study in this study divided into two categories. The first category is calculating CA for the overall independent (X) variables and the second category is calculating the CA from dependent (Y) variable. The 0.943 CA value for the independent (X) variables and 0.935 for the dependent (Y) variable indicates that the items being used in this study has good reliability.

5. Conclusion

The measurement model proposed in this study has been tested by using 30 respondents who live in Bandung. They are the customers of ABC bank. The pilot test reveals that the measurement model which consists of 7 constructs and 27 items proposed in this study is valid and reliable. Therefore, this proposed measurements model is ready to be used in further study.
References

Abstract

The main aim of the present study is to argue in support the model of resilience’s role in employee engagement. It reviews literature on research evidence that showing the connections between the two concepts. Resilience is seen as developable capacity as positive organizational scholarship and positive organizational behavior suggest. The study discusses and concludes that there are potential relationships at dimensional level: between perseverance, meaning making, positive emotion, and commitment to growth and absorption, dedication and vigor. The implications and further research are discussed.

Keyword: Resilience; employee engagement

1. Introduction

Today’s turbulence business environment that contains many pressures is always challenging for the organization and its employees. Employees have to adapt too many changes, improve their capabilities while still have to achieve demanding targets. These difficulties may have consequences on their engagement.

Engagement is a condition where employee experience a psychological connection with the works, committed to the high performance and aligned to the goal of the organization. Schaufeli (2002) posits that engaged employee have a strong dedication to the organization reflected in high involvement to attempts for organizational advancement. Employees who engaged see not only their role in term of responsibility (Hakanen, Schaufeli, & Ahola, 2008), but also the commitment to provide the best efforts expected.

The high level of commitment at work as a result of engagement is consistent with Bakker et al’s (2008) study. They found that engaged employee is energetic and exhibit a positive attitude, initiative, and a high level of commitment (Bakker et al., 2008; Saks, 2011). Burke & El-kot (2010) found engagement influences work motivation, productivity in many work fields. The level of employee engagement may predict their performance, and this will help managers in improving institutional performance. Although several factors like competency, leadership, work environment has been studied in predicting employee performance in Indonesia, engagement seems overlooked.

Besides affecting engagement, over workload of employee may also produce stress. This will lower employee performance and avoid them in reaching their target. Studies on burn-out reveals that overloaded employees will dysfunctional (Schaufeli & Bakker, 2004b) and this may risk their engagement level. They need a capacity that buffer the negative stress to maintain or improve their engagement level. Resilience may potentially has an important role.

Positive Organizational Behavior (POB) and Positive Organizational Scholarship (POS) have a certain perspective on resilience. POB and POS are based on positive psychology that focusing on strength capacity of individual, and resilience is one of the vital elements (Cameron, Dutton, & Quinn, 2003; Luthans, 2002a; Luthans & Youssef, 2007). Although previous studies demonstrate that resilience is important in innovation (Amir, 2014; Rothbard, 2001), in entrepreneurship (Der Foo, Uy, & Baron, 2009; Jensen, 2003; Jensen & Luthans, 2006), there is no study that specifically focusing on engagement, particularly on organizational
context. Investigate the relationship of resilience and engagement may provide new perspectives on organizational behavior and management field. This study explores how employee resilience – the capacity to persevere under adverse event at work, and bounce back after difficulties – contributes on his or her engagement. The main thesis is resilience play an important role facilitating engagement, where then in turn could improve employee and organizational performance. After first briefly summarizing the concept of employee engagement and resilience in the context of organization, the study proposes the connection at level of dimensions. It concludes with managerial implications and further research agenda.

2. Literature review

2.1. Employee engagement

Employee engagement is one of the concepts that increasingly popular discussed by managers and practitioners. Since Kahn (1990) coined the term of “employee engagement” and characterized it as the employee presence psychologically in doing their role in organization, this concept continually attracts many parties. Rothbard (2001) also emphasizes that psychological present is reflected in two main elements; attention and absorption. Attention refers to the cognition and time availability that individual spends when thinking about their works while absorption refers to the intensity of focusing of one’s work.

Some studies synonymize employee engagement with “organizational commitment”, particularly that involve the affective commitment and commitment continuity (Bakker, Albrecht, & Leiter, 2011). Engagement is also connoted as involvement, work enthusiastically and even with something that closely related to “workaholic” (Schaufeli & Bakker, 2010). Coherent with these, Maslach & Leiter (2008) suggest employee engagement involves with believe and psychological energy at work. While Schaufeli & Bakker (2004a) define it as positive thought that fulfilling and it involves vigor, dedication and absorbed in work. The latter conceptualization of engagement is used in this study. With all these properties, employees passionate about their work and dedicate their effort and time to pursue organizational achievements (Bakker et al., 2008).

Besides leading to dedication and commitment, employee engagement also influences employee loyalty. In their yearly study since 2010, Gallup Consultant found that engaged employee are more loyal employee compared to who are “not engaged” or “actively disengaged” (n.d, 2013). Furthermore, engaged employee more proud about their organization, have high intrinsic motivation and more trustful to their leader supervisor (Chalofsky & Krishna, 2009).

2.2. Resilience in general

Many studies see resilience as similar as patient, persistence and coping from difficulties (Youssef, 2004). Most of the definitions represent the individual capability to survive and adapt after experiencing difficulties and challenges (Yu & Zhang, 2007).

In its early development, many psychologists consider resilience as a personal trait (Block & Block, 1980). Further development from this concept leads to the view that resilience as developable capacity (Masten, 2001). Masten and Reed (2002, p. 75) define it as “a class of phenomena characterized by patterns of positive adaptation in the context of significant adversity and risk”. Consistent with this, Bonano (2004, p. 20) also posits that individual have paths to improve their resilience, both cognitively and emotionally. However, Luthar, et. al., (i.e Luthar, Cichetti, & Becker, 2000) suggest individual should has substantial adverse events to claim their resilience.

2.3. Resilience as part of POB and POS

Organizations are increasingly dynamics and demanding so that resilience is “a must” for managers (Youssef, 2004). Employee often faces situations full of stress, unfriendly and high requirement of the job. The discussion of
resilience in POS and POB are developing to handle these challenges. POS and POB aim to improve the effectiveness of organization, by identifying the individual strength including resilience, and nurturing individual to perform extraordinary (Nelson & Cooper, 2007, p. 3). Luthans (2002a) is also suggest that resilience is more as state-like or developable, rather than a trait-like.

2.4. Developable resilience

At the individual level, POS and POB tend to see resilience as a dynamic process, not as something “fixed”. Sutcliffe and Vogus (2003, p. 96) for instance, consider resilience as a capacity in restrain negative impact of problems and make individual well-functioning. More recently, focusing on the work context, Caza and Milton (2011, p. 896) define that resilience is a developmental trajectory that demonstrated by competence in handling difficulties at work and growth professionally.

Comparable to the developmental view, Reivich and Shatte (2003) characterize resilience as a capacity to cope with challenges while gaining a capability, experience and relationship and new meaning in life. Together with Masten and Reed (2002) and Bonano (2004), these studies suggest that resilience could be developable despite there has not been yet verified empirically.

Luthans and colleagues (Luthans, 2002b; Luthans, Youssef, & Avolio, 2007) tried to demonstrate preliminary evidences. Luthans et al. (2006) uses experimental intervention to develop resilience in students and managers. The intervention suggests resilience is found increasing significantly in experiment group, compared to the control group.

This founding is consistent with the idea that resilience is not only occurred when responding significant adverse event, but it is also could be developed in handling simple challenges in our life (e.g. Masten & Reed, 2002; Yu & Zhang, 2007). When individuals develop their internal and external resources, they improve their potential to coping from future problems (Richardson, 2002). The view that resilience is developable, both in routine and daily activities is assumed in this study. Amir’s (2014) definition, an individual’s capacity to respond to adversity and challenge in ways that strengthen and develop him or herself to become a better person is used as foundation in this study. This definition implies that there is a potential relationship between resilience and engagement. Four potential dimensions are suggested: Perseverance, Commitment to Growth, Positive Emotion, and Meaning Making.

Perseverance is defined here as willingness to face adversity by continual struggle and self-discipline. It describes the quality of not giving up when facing difficulties. It also implies self-reliance, a belief that by keeping going one’s goals will eventually be reached, and one’s self will benefit. Persevering individuals tend to endure in the face of adversity (Markman, Baron, & Balkin, 2005).

Commitment to growth is defined here as facing adversity by becoming a stronger person. Resilient individuals see difficulties as challenges or opportunities to strengthen and improve themselves (Richardson, 2002; Sutcliffe & Vogus, 2003) by growing and increasing their capabilities (Reivich & Shatte, 2003).

Positive emotion is characterized as maintaining a positive outlook when facing adversity. In adversity, positive emotions help individuals broaden the scope of their cognition and attention (Fredrickson & Branigan, 2005). Individuals become more creative, viewing problems or difficulties from a wider perspective and generating better solutions without panic or stress (Fredrickson, 2001; Fredrickson & Branigan, 2005; Luthans, Youssef, & Rawski, 2011).

Meaning making is suggested as actively reflecting on and affirming personal values when facing problems. Employees proactively seek to understand the nature and value of work in their lives through continuous sense-making. Using Huevel et al’s (2009) model, Amir and Standen (2012) suggest meaning making involves integrating challenging or ambiguous situations into a framework of personal meaning, using conscious, value-based reflection (van den Heuvel et al., 2009, p. 509).

3. Resilience as potential antecedent of engagement

Large body of research has been revealed antecedents of employee engagement. For instance, Maslach et. al., model (2008) using social exchange theory (SET), explaining the employee interactions with parties in organization, creating trust, loyalty and reciprocal commitment. As organization provides economic and
emotional resources to the employee, then employee feeling obliged to “re-pay”, including by being engaged. Employee devotes their physical, emotional and cognitive resources.

Gruman and Saks (2011) for example found that perceived organizational support as an important antecedent. Similarly, perceived supervisor support (Saks, 2006) and rewards and recognition (Maslach & Leiter, 2008), arise as antecedents of employee engagement. On the other side, resilience as a capacity has not yet been viewed as an antecedent (see figure 1).

![Fig. 1 Relationship between resilience and engagement](image)

The explanations of the relationship – from four suggested dimensions of resilience and the three dimensions of engagement are detailed below.

Positive emotion element of resilience helps individual dedicating their effort and time at work. Positive emotion easing the tension may arise psychologically and physically (Fredrickson, 2009) when individual in engaged stage for relatively long period. Recently Sweetman and Luthans (2010), using Fredrickson’s (Fredrickson, 2003) concept of broaden-and built theory suggest that positive emotion may contribute to engagement in term of self-reinforcing upward spiral of outcomes. On the other hand, the same theory may explain mechanism of “undo” in decreasing disengagement especially when individuals exposed to negative emotion producing events such as burnout or job demand.

Persevering employee have a sense of responsibility to continue and finish her task (Markman et al., 2005) and willing to provide the dedication. Likewise, meaning making or commitment to growth element may have a role when individual absorbed in their works. Commitment to growth leads employee to experience learning and developing (Blatt, 2009) so that ignoring about time and the weariness that may occurred. Their strong belief in their ability to overcome challenges directs them to exert a high level of effort and endurance in the face of setbacks and failures, and to look continually for solutions. A desire to take personal responsibility and increase control over one’s circumstances is consistent with the notion of resilience as facing adversity with the intention to grow.

Commitment to growth here is conceived holistically as a proactive attitude towards facing adversity with the intention to become a better-adapted and integrated person. Again, these characters may function as driver for individual in dedicating their efforts. Resilient individuals see difficulties as challenges or opportunities to strengthen and improve themselves (Richardson, 2002; Sutcliffe & Vogus, 2003) by growing and increasing their capabilities (Maitlis, 2011; Reivich & Shatte, 2003). Spreitzer et al. (2012) found thriving individuals intentionally face adversity to learn something new about them, and are resourceful and determined. These characteristics may maintain absorption and dedication elements of engagement.

Meaning at work involves the idea that employees find the content or practice of their work valuable to others or themselves and are consequently energized to perform well (Wrzesniewski, 2003). Employees actively create meaning in their work by attempting to improve its content or social context (Wrzesniewski, 2003). As an active and conscious process rather than the automatic processes of sense-making, it could facilitate individuals in maintaining their dedication or absorption. Changing meaning may also provide additional energy to the employee. When employee consciously reflect on ambiguous or challenging events to revise their personal meanings, values and goals, helping them face setbacks keep up the work. Instead of giving up they see difficulties as a personal
calling in which they are deeply involved and which are consequently in some sense pleasurable (Wagnild & Young, 1993; Wrzesniewski, 2003).

4. Conclusion

This study helps meet the challenges of work demand and intense pressure of today’s workplace by proposing the potential role of resilience in maintaining and improving employee engagement. It has discussed the dimensions to dimensions relationship; between positive emotion, perseverance, commitment to growth and meaning making as dimensions of resilience, and vigor, absorption and dedication as the elements of work engagement. Managers should consider practical ways in developing resilience capacity, such as individual interventions like “thriving” (Spreitzer, Porath, & Gibson, 2012), “positivity portfolio” (Fredrickson, 2009), or “happiness” (Lyubomirsky, 2007). The needed next step will be to use empirical tests of the proposed relationship and to examine fully the nature of causation between the two variables.

References


An Empirical Study On The Patronage Behaviour of Islamic Bank’s Customers in Aceh, Indonesia

M. Shabri Abd. Majid¹, Said Zulhanizar²
¹Syah Kuala University
²Bank Aceh Syariah

Abstract

This study is aimed at empirically exploring the pertinent factors, which customers and non-customer perceive as germane to their selection of Islamic bank in Aceh, Indonesia. A sample of 300 customers and non-customer of Bank Aceh Syariah were selected based on the convenience sampling technique. Using the logistic regression technique, the study documented that the customers’ selection of the banks were influenced by the factors of banks’ characteristic, services and trust, shari’ah compliance, and physical objects. Of these factors, banks’ characteristic and shari’ah compliance were found to be the most pertinent factors perceived by the customers and non-customer to their selection of Islamic bank in Aceh, Indonesia. These findings imply that to attract more customers, the Islamic bank should enhance their unique characteristics and products’ compliance.

Keywords: Customers Preferences; Islamic Banking; Logistic Regression; Shari’ah Compliance

1. Introduction

In recent years, the development of Islamic banking and financial services industry has experienced a very rapid progress worldwide. Islamic banking industry in Indonesia also records similar experiences. This progressive development of Islamic banking industry is due to the advancements in information and communication technology, prudent banking deregulation, and the public awareness on the importance of having transaction based on the Shari’ah. The policy of financial deregulation led to a new phenomenon that resulted in an aggressive competition among banks, including the competition between the conventional banks and Islamic banks. The competition among the banks affects the growth of banks, and vice versa. The banks with a higher growth rate could easily win the competition due their higher capability and good management. The growth of the banks is strongly influenced by their ability to raise funds from the public, both in small and large scales. Without having sufficient funds, the bank would not be able to provide financing to generate profits.

Statistically, a total of funds of the banks in Indonesia either from the internal sources and funds derived from accumulated profits, which are reinvested in the banks, amounted to only 8-9% of the total assets. Banks in Indonesia at larger, and banks in Aceh in particular, their average amount of owned capital and reserves have never exceeded 5% of total assets. This means that most of the banks’ capital comes from other financial institutions, loans from the Central Bank and the greatest portion of the funds from public. Therefore, it is not surprising that all banks, both conventional and Islamic banks engage in an aggressive competition to attract public funds by using various marketing strategies, such as promotion through mass media and electronic, prizes offering, lucrative profit-sharing ratios, lower interest rates campaigns.

Likewise, the Islamic banks in Indonesia, the Islamic banking fund raising activities in the province of Aceh alone has increased quite rapidly during the period of 2011. As of the end of the period 2011, the Islamic banking deposits increased by 45.89% over the previous year. Funds from the public occurred in all components, i.e., checking accounts increases by 29.42%, savings increases 46.51%, and deposits increases by 83.5%. The rapid growth in deposits coming from the public last few years provides an indication of the positive response of the Acehnese to the Islamic banking.
The development of Islamic banking industry in Indonesia at large, and in Aceh in particular, is generally quite encouraging. Islamic Bank, which operated the first time in Indonesia in 1992, has contributed positively to the development of banking industry in Indonesia. The presence of Islamic banks offers for public an alternative to choose Islamic Banks for their transactions on the basis of Shari’ah, which are usury-free (riba-free), uncertainty-free (gharar-free), and gambling-free (maysir-free). The promising growth of Islamic banking industry in Indonesia, it is certainly cannot be separated from the government’s drive to provide a prudent regulation and conducive environment for the Islamic banks to continuously grow in Indonesia.

Similar to the development of Islamic banks in Indonesia, the growth of Islamic banking industry in the province of Aceh was also very encouraging. The increasing number of full-fledged Islamic banks and commercial banks characterizes it with Shari’ah business unit (Islamic window) that operates in Aceh. The presence of Islamic banks in Aceh would provide an opportunity for people to choose and get excellent services from the banks that offers Islamic banking services. Based on the reports of Bank Indonesia as of December 2011, there have been 10 Islamic banks operating in Aceh, namely: Bank Muamalat, Bank Syariah Mandiri, Bank Aceh Syariah, Bank Danamon Syariah, Bank Permata Syariah, Bank BRI Syariah, Bank BNI Syariah, Bank BII Syariah Bank Syariah Mega Indonesia and Bank CIMB Niaga Syariah.

Bank Aceh, as a bank owned by the Government of Aceh are not left behind in providing Islamic banking services to the Acehnese by opening his first Shari’ah branch (Islamic window) in the city of Banda Aceh in 2004, exactly one month before the earthquake and tsunami hit hardly the province. By the grace of Allah, and hard working of the staff as well as strong support from the public and the local government, the growth of Bank Aceh Syariah today has been pretty encouraging. Hitherto, Bank Aceh Syariah has 25 branches in the entire Aceh, and Bank Aceh Syariah Branch Office of Sigli is one of them, which started its operation on April 22, 2009 and show a promising growth. Table 1 below show the development of Bank Syariah Aceh Branch of Sigli, as follows:

<table>
<thead>
<tr>
<th>Indicator</th>
<th>2011 Growth (%)</th>
<th>2012 Growth(%)</th>
<th>2013 Growth (%)</th>
<th>Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>Assets</td>
<td>66,371</td>
<td>74,371</td>
<td>92,916</td>
<td>68,546</td>
</tr>
<tr>
<td>Financing</td>
<td>65,277</td>
<td>73,038</td>
<td>91,413</td>
<td>67,194</td>
</tr>
<tr>
<td>Deposits</td>
<td>17,042</td>
<td>25,235</td>
<td>55,590</td>
<td>28,368</td>
</tr>
<tr>
<td>Profit</td>
<td>1,252</td>
<td>2,053</td>
<td>3,305</td>
<td>1,790</td>
</tr>
<tr>
<td>Number of Customers</td>
<td>1,113</td>
<td>933</td>
<td>4,422</td>
<td>1,933</td>
</tr>
</tbody>
</table>

Table 1 shows that the Bank Aceh Syariah, Branch Office of Sigli with the following five indicators: assets, financing, third party funds, profit and customer numbers continue to experience significant growth rates every year. During the 2010-2013 period, the bank's total assets, on the average, has increased by 134%, total financing by 135%, total deposits by 181%, and total customers by 215%. One of the factors contributing to this promising growth of the bank is due to the increasing disbelief of the Aceh’s community to the conventional banks, which are operating against the shari’ah principles.

With increasing competition in the banking industry today, the Islamic banks have to really know the right strategy to win the competition. Therefore, in order to improve operational performance, Islamic banking seeks to serve the needs of the people of Aceh. In general, a bank’s customer would select a bank that could provide higher benefits, convenient transactions, better services, and shari’ah compliant products. In selecting the banks, customers would consider certain factors of the banks such as the characteristics of banks, banks’ trust services, shari’ah compliance products, and services, and the physical object of the banks.

Previous studies on the Islamic banks' preferences have been intensively conducted in Malaysia (Haron at.al., 1994; Amin and Isa, 2008; Dusuki and Abdullah, 2007; Abdelghani and Oladokun, 2012, Haque et al., 2009), Jordan (Erol and El-Bdour, 1989, Kamal et al., 1999), Bangladesh (Hassan et al., 2007), Bahrain (Al-Ajmi et al., 2009), Thailand (Lateh et al., 2009), and UK (Walid et al., 2010). Similar studies have also been conducted in the Indonesia (Anam, 2006; Efendi, 2008; Maski, 2010). Anam (2006) investigated the influences of psychological and rational factors on the customer's decision to save their money at the Bank Syariah Mandiri, Branch Office of Pamekasan using multiple regression analysis. These factors were found to be significant factors affecting the customers’ decision. In his study on the customer’s preferences of the Bank Muamalat Malang using multiple

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regression technique, Efendi (2009) found that the level of education, family responsibilities and bank services were the dominant factors influencing the customer's decision. Using a logistic regression analysis, Maski (2010) found that bank’s characteristics, bank’s services and trust, and bank’s physical objects affecting the Islamic bank customer's decision in Malang. Finally, Misbach and Hadiwidjojo (2013) empirically explored factors affecting the Islamic bank' customers in Makassar, and found that bank’s services quality and trust had positively influenced their bank’s customers decision.

The above previous studies have investigated factors affecting the banks’ customer preferences, but none of them has incorporated in their analysis the shari'ah compliant factor of the Islamic banks in attracting the customers. The operationalisation of Islamic banks is different to the conventional banks, particularly in terms of their offering products and services that are in harmony with the shari'ah. Thus, investigating the customers’ preferences on the Islamic banks should include the shari'ah compliant components. Thus, this study tries to fill the existing gaps in the literature on Islamic banking preferences by attempting to empirically explore the effects of bank’s characteristics, services and trust, physical objects, and shari'ah compliant products and services on the customers’ preferences to select the bank, with a case of the study of the Bank Aceh Syariah, Branch of Sigli, Aceh. In addition, this study use the logistic regression analysis to the study the bank customer’s preferences, as this technique of analysis is the standardized method for this type of analysis. The findings of the study are hoped to shed some lights for the banking industry to focus on, particularly in attracting more customers, and potential bank customers in selecting banking products and services.

The rest of the paper is organized in the following sequence: in the next section, the research method and data, on which the analysis is conducted, are presented in Section 2. Section 3 discusses the results and implications of the paper. Lastly, Section 4 concludes the paper.

2. Empirical Framework

In Indonesia, Islamic banks has been defined as the bank which operates its business activities based on Shari’ah principles (Law No. 21, 2008), which are free from elements of riba, maysir, gharar, haram, and zulm. The Islamic bank activities should promote the basic purposes of shari'ah (Maqashid as-Shari'ah), i.e., to protect five essential things: religion (ad-Din); life (an-Nafs); intellectual (al-'Aql); lineage (an-Nasl); and wealth (al-Mal). Thus, the Islamic banks should offer products and services based on the Islamic principles and promote the Maqashid Shari'ah. This study empirically explores the influences of bank’s characteristics, services and trusts, physical objects, and shari’ah compliance of Bank Aceh Syariah, Branch office of Sigli on the customer’s preferences to select the bank.

Out of 4,422 customers of the Bank Aceh Syariah, Branch Office of Sigli in 2013, this study only selected 150 of them based on the simple random techniques to be analysed using the logistic regression analysis. In order to have a comprehensive picture of the customer preferences of selecting banks, the study also selected 150 non-Islamic bank customers in the research area, thus making the total of sample amounted to 300 respondents. The number of respondents selected in this study which are more than 100 respondents suggested by Hair et al. (2006: 98-99) are sufficient enough to represent the entire population.

Questionnaire consisting 16-closed question were distributed to the entire respondents. One questions was asked about customer decision either to select or do not select Islamic bank, three questions were asked pertaining to the bank’s characteristics, and four questions were respectively asked relating to the bank’s trust and services, shari’ah compliance and physical objects. Table 2 provides the operationalisation of the investigated variables.

Before the indicators are further measured and analysed, the validity and reliability tests were conducted to ensure the accuracy and consistency of the data. In addition, the classical assumptions of normality, multicollinearity, and heteroscedasticity were also tested using the standard techniques.

After these instruments and classical assumption were tested, the measured variables would be analysed using the following logistic regression:

\[ \log \left( \frac{P}{1-P} \right) = \beta_0 + \beta_1X_1 + \beta_2X_2 + \beta_3X_3 + \beta_4X_4 \]

Where p is the probability that Y is equal to 1, and X1, X2, X3, X4 are the independent variables, and β0 is the estimated regression coefficients. Logistic regression will form the predictor variable/response (log (p / (1-p))), which is a linear combination of the independent variables. Value of predictor variables is then transformed into a probability with logit function, so that the logit model in this can
be re-written as follows: \( CD = \beta_1 BC + \beta_2 ST + \beta_3 SC + \beta_4 PO + \epsilon \); where \( CP \) is the customer decision; \( BC \) is the bank characteristics, \( ST \) is the services and trust, \( SC \) is the \( shari'ah \) compliance, \( PO \) is the physical object; and \( \epsilon \) is the error term.

### Table 2. Operationalisation of the Variables

<table>
<thead>
<tr>
<th>No.</th>
<th>Variable</th>
<th>Definition</th>
<th>Indicator</th>
<th>Measurement Scale</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Customer Decision</td>
<td>Customer decision to select or do not select the Islamic bank</td>
<td>a. Select</td>
<td>0-1 (Nominal)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>b. Do not select</td>
<td></td>
</tr>
<tr>
<td>2.</td>
<td>Bank Characteristics</td>
<td>The operation of the bank and products offered is based on the profit-loss sharing principles (Ratian Akuntan Indonesia, 2004).</td>
<td>a. Observing the principles of ( shari'ah )</td>
<td>1-5 (Interval)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>b. Islamic-based products</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>c. Profit-loss sharing basis</td>
<td></td>
</tr>
<tr>
<td>3.</td>
<td>Services and Trust</td>
<td>Ability to provide the promised services accurately and reliably. Ease in establishing relationships, good communication, personal attention, and understanding of the individual needs of the customer (Tjiptono, 2005)</td>
<td>a. Latest info on products and services</td>
<td>1-5 (Interval)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>b. Trust and confidence</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>c. Quality of services</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>d. Friendly &amp; comfortable services</td>
<td></td>
</tr>
<tr>
<td>4.</td>
<td>( shari'ah ) Compliance</td>
<td>The assurance of the Islamic banks to provide products and services comply with the Islamic tenets banks (Elfas, 2004)</td>
<td>a. Promised services</td>
<td>1-5 (Interval)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>b. Use of contracts (( alqalam ))</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>c. ( shari'ah ) principle</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>d. ( shari'ah ) Operational basis</td>
<td></td>
</tr>
<tr>
<td>5.</td>
<td>Physical Object</td>
<td>Physical facilities, equipment, personnel and means of communication of the banks (Tjiptono, 2005)</td>
<td>a. Strategic location</td>
<td>1-5 (Interval)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>b. Physical attractiveness</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>c. Computer, ATM, and phone</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>d. Personnel appearances</td>
<td></td>
</tr>
</tbody>
</table>

### 3. Findings and Discussion

At the national level, Bank Muamalat Indonesia (BMI) is the first Islamic bank in Indonesia, which was established in 1991. The Bank BPD Aceh, which is now renamed Bank Aceh has established the \( shari'ah \) Unit (Islamic window) on December 28, 2001 by the Decree of Board of Directors No. 047/DIR/HR/XII/2001, while officially it was launched on November 5, 2004. Bank Aceh Syariah Branch Office of Sigli is one of 25 branch offices opened in the entire Aceh that started its operation on Tuesday April 22, 2009.

150 customers of the Bank Aceh Syariah and conventional banks in Aceh, respectively were investigated their preferences. Based on the respondents’ characteristics, most of them were male (54%), with ages 20-30 years old (32%), government employees (39%), university graduates (36%), and income level of IDR 3.5 million. Table 3 provides the respondents perception on the variables investigated.

<table>
<thead>
<tr>
<th>Variable</th>
<th>Minimum</th>
<th>Maximum</th>
<th>Mean</th>
<th>Standard Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bank’s Characteristics</td>
<td>2</td>
<td>5</td>
<td>3.86</td>
<td>0.750</td>
</tr>
<tr>
<td>Services and Trust</td>
<td>3</td>
<td>5</td>
<td>4.21</td>
<td>0.631</td>
</tr>
<tr>
<td>( shari'ah ) Compliance</td>
<td>2</td>
<td>5</td>
<td>3.96</td>
<td>0.704</td>
</tr>
<tr>
<td>Physical Object</td>
<td>2</td>
<td>5</td>
<td>4.24</td>
<td>0.533</td>
</tr>
</tbody>
</table>

Table 3 shows that the respondents perceived the physical object and services and trust of the bank were, respectively, “good enough” with the average score of 4.21 and 4.24. Meanwhile, the bank’s characteristics, and \( shari'ah \) compliance was perceived to be “fair” by the respondents with the average score of 3.86 and 3.96, respectively.

As mentioned in earlier section, the instruments testing of validity and reliability as well as the classical assumptions were conducted in the study. However, due to the limited space of the paper, the findings of these tests were not reported here. The study found that all instruments were valid and reliable and all variables fulfilled the classical assumptions of normality, non-multicollinearity, and homoscedasticity. Passing all these tests, then study continues investigating the effects of bank’s characteristics, services and trust, \( shari'ah \) compliance and
physical object on the banks’ customers’ preferences in selecting the banks. Table 4 reports the findings from the logistic regression analysis.

<table>
<thead>
<tr>
<th>Table 4. Findings of Logistic Regression Analysis</th>
</tr>
</thead>
<tbody>
<tr>
<td>Variable</td>
</tr>
<tr>
<td>Bank’s Characteristics</td>
</tr>
<tr>
<td>Services and Trust</td>
</tr>
<tr>
<td>Shari’ah Compliance</td>
</tr>
<tr>
<td>Physical Object</td>
</tr>
<tr>
<td>-2 Log Likelihood</td>
</tr>
</tbody>
</table>

As shown in Table 4, out of 4 independent variables, only bank’s characteristic and shari’ah compliance have significant effects on the Islamic banks’ customer preferences. Specifically, the results of this study indicated that the characteristics of the bank have a positive impact to the customer's decision to select the bank at 1% level of significance. This implies that the characteristics of the bank are closely related to the application of Islamic principles as the true in Islamic bank, finding similar to study by Maski (2010). In selecting the bank, a prospective customer would observe the characteristics of anything that stands out on the bank and the uniqueness of the products offered. Thus, to attract more customers, the Islamic banks should continue maintaining and even improving their unique characteristics as the Islamic bank.

Another variable that has significant effect on the banks’ customer preferences was the shari’ah compliance of the bank. The positive impact of the shari’ah compliance of the bank could partially due to the profit-sharing practices, services rendered, the contract (agreement) adopted, and bank's operations have been run in accordance with the Islamic principles. Solid and prudent banking regulations ensure the adherence of the Islamic bank to shari’ah principles and ease the customers to decide which bank to choose for their business partner. Shari’ah compliance is a manifestation of the fulfillment of all Islamic principles in an institution that has a strong characteristics, integrity and credibility. Where the compliance culture is values, behaviours and actions, which support the creation of Islamic banks compliance itself. This finding shows that Islamic banks should continue maintaining their operation to be compliance to the shari’ah principles so that Islamic banks become the preferred bank of Muslims.

Unlike the bank’s characteristics and shari’ah compliance, the services and trust, and the physical object of the bank have no significant influences on the customer’s preferences in selecting the bank. This could be, inter alia, due to the customers’ attraction to shari’ah compliances of the bank. As long as the bank is, operating based on the Islamic tenets, customers pay no attention on the services, and trust provided by the banks as well as the strategic location of the banks. Customers are more interested in the characteristics of the banks themselves that adopted the Islamic principles in their operation. Islamic banks have tremendous advantages over other financial banks, both spiritually and rationally. These advantages are the main reason for customers to choose Islamic banks, in addition to their freedom from usury, for savings deposits, time deposits, demand deposits and other products. Customer who transacts with the Islamic bank could earn blessings, without having to pay attention to the service and trust, as the main reason to select Islamic banks as the bank of choice.

Finally, Table 4 also shows the coefficient of determination, indicated by the value Nagelkerke's R Square of 0.364. This finding implies that a combination of independent variables, namely characteristics of bank, services and trust, shari’ah compliance, and physical objects of bank were found to be able to explain the variation of the dependent variable, i.e., the customer decision to select the bank by 36.4%, while the remaining 63.6% is explained by other variables which are not examined in this study, such as bank interest rate competitors, customer revenue, and customer understanding of religion.

4. Conclusion

This study empirically explored the pertinent factors, which customers and non-customers perceive as germane to their selection of Islamic bank in Aceh, Indonesia. A sample of 300 customers and non-customers of Bank Aceh Syariah, Brach Office of Sigli were selected based on the convenience sampling technique. Using the logistic regression technique, the study documented that the customers’ selection of the banks were simultaneously influenced by the factors of banks’ characteristic, services and trust, shari’ah compliance, and
physical objects. Of these factors, banks’ characteristic and shari’ah compliance were only found partially affecting the customers in their selection of Islamic bank in Aceh, Indonesia. Thus, these factors were documented to be the most pertinent factors perceived by the customers and non-customer to their selection of Islamic bank in Aceh, Indonesia. These findings imply that to attract more customers, the Islamic bank should enhance their unique characteristics and products’ compliance. Additionally, this finding also implied that both factors of bank’s characteristics and shari’ah compliance need to be a concern of bank’s manager in decision-making by setting strategic steps to increase the number of customers with regard to these factors. Finally, the bank should be able to manage well the expectations of customers, especially in adopting the Islamic principles in its operation entirely. Should the bank enable to implement it, customers could be easily attracted to make Islamic bank as the bank of choice.

References


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Factors That Influence Online Retail Brand Trust
(Case Study Lazada Indonesia)

Luthfan Fauzan, Maya Ariyanti
Manajemen Bisnis Telekomunikasi dan Informatika
School of Economic and Business, Telkom University
luthfan360@gmail.com, maya.ariyanti@gmail.com

Abstract
The number of internet user in Indonesia is increasing rapidly, it presents a massive opportunity for online retail. According to several researches however, trust issues still holding back online retail growth. This research was aimed determine the factors influencing online brand trust of lazada by lazada customers in Jabodetabek and Bandung. There are six dimensions used in this research to measure the customer trust toward the lazada brand. The dimensions are security and privacy, perceived risk, word of mouth, online experience, quality of information, and brand reputation. The data were collected using convenience sampling by presenting the respondents with the questionnaire and let them choose, to fill or not to fill at any time or condition they feel convenient. There were 400 respondents were involved in this research. The analysis methods are by means of linear regression analysis performed in SPSS ver. 21. This study found that the customers’ perception toward lazada is good and all of the six dimensions are significantly influencing trust toward the lazada brand. Based on this result, although all of the six dimensions are significantly influencing the online brand trust, good online experience is the most influential. Lazada should focus on perceived risk and make some improvements, because the customers feel that shopping in lazada poses some threatening risks.

Keyword: Online Retail, Brand Trust

1. Introduction
In Indonesia, the number of internet user is increasing rapidly over time. Affordable personal computer and sophisticated mobile device are spreading like wildfire, everyone want to join the digital era. In terms of Internet usage, Indonesia is the country with the thirteenth largest Internet users in the world. Survey result from Internet World Stats in the second quarter of 2014, Indonesia has the number of Internet user by 71.2 million people and ranks as the country with the fourth largest Internet users in Asia. Furthermore, as surveyed by Badan Pusat Statistik (BPS) and Asosiasi Penyelenggara Jasa Internet (APJII) Indonesia, the percentage of Indonesian internet users that are using the internet to buy goods and services were 45.07% or less than half the total population of Indonesian Internet Users. These numbers are going to rise, according to recent research conducted BMI or Brand and Marketing in 2014 suggested that online shop user number is predicted to rise up to 57% in 2015. Online shopping transaction in 2014 was well over 21 trillion rupiahs, averaging at Rp825 thousand per person per year. The transaction value is expected to grow to Rp50 trillion in 2015, a very bright forecast for online shopping industry. As the number of internet user in Indonesia is always rising (150 million as DEPKOMINFO predicted for 2015) make this a sweet opportunity for online market. Indonesia has seemingly holds bright future for online retail business. With all the figures and researches implying a positive growth, there is virtually no catch for online shopping in Indonesia thrive.

Some researches however said that online retail still has its problems, one of them is trust. Quoted from tech in Asia, two thirds of Indonesian consumers agree that online shopping is fun, but online shopping only account for just 0.1% of all retail expenditures in Indonesia according to recent report by UBS (Switzerland Financial Services Company). Market research firm Nielsen conduct a research that suggest 80% of Indonesian are often look at products online before purchasing them in a physical store, this is much more than the global average of 60%. While online, Indonesian shoppers also like to read reviews before deciding a purchase. Another reason consumers aren’t buying online is distrust. According to Nielsen, 60% of consumers in Indonesia do not trust online shops very much, they hesitate in giving vital data such as credit card information online. More distrust than in any other Southeast
Asian country except the Philippines. Getting more consumers to put faith in online purchasing is something e-commerce companies hope to do, since it would allow them to tap a young population that is tech savvy and increasingly affluent. Another research conducted by Menkominfo suggested that trust issues accounted for 30.5% of all factors regarding customer worries (respondents select 2 or 3 factors, 30.5% of them selected the factors that are related to trust). The factors concerning trusts in this case are: Not trusting the shop, concerns about privacy and security, and not trusting the internet as a place to shop.

The researcher is interested in trust in online retail is because according to previous research, trust is the major barrier that keeping people from trying to purchase goods online. Trust is also the foundation of relationship between buyer and seller, trust will make buyer more loyal, seller have better reputation, and the seller will be more respectable. Online retailers in Indonesia consists of several brands such as; lazada, rakuten, blibli, and bhinneka. All of those retailers are nearly the same, therefore trust factors can be generalized for all, despite some potential variations between each brand. Consumers’ perceived trust toward each brands are relatives, but there must be a trend on which factor plays the biggest role on trust. However, for a more focused and consistent research, researcher has chosen lazada as an object of study for this research. Lazada.co.id is a part of Lazada Group. Founded back in February 2012, it has become Southeast Asia’s fastest growing online department store, with operations in Indonesia, Malaysia, Singapore, Philippines, Thailand, Vietnam and Hong Kong. Lazada offers a large selection of the world's most popular brands. Lazada as the leader of Indonesian online retailer giving their customers the privilege to purchase any product related to electronic equipment, home decoration, even health and beauty products by only logging in to their website. Lazada deliver their products directly to customers’ doorstep supported by a reliable and fast courier services. Lazada receive payment via Credit Card, Inter-Bank Transfer and Cash-on-Delivery, Ensuring safe and easy payment. Lazada is the biggest Business-to-Consumer (B2C) eCommerce platform in Indonesia. Lazada traffic rank has risen from rank 31 in 2014 to rank 12 in 2015, implying a significant rise in visitor count. Not only traffic, Managing Director Magnus Ekboom said to the press that Lazada Indonesia sees more than 250,000 visitors per day to its site.

There are several factors that lead to trust, according to Alam & Yasin (2010) there are six factors contributed to trust in the online shopping context, they are; Security, Perceived Risk, Word of Mouth, Online Experience, Quality of Information, and Shop/brand Reputation.

Research Question
• How much did security, perceived risk, word of mouth, online experience, quality of information and brand reputation affect trust in online brand trust?

Research Objective
• To determine the influence of security and privacy, word of mouth, online experience, quality of information, and brand reputation, online brand trust toward online retail brand trust.

2. Theories and Frameworks

2.1 Electronic Commerce

Electronic commerce or ecommerce has been defined differently by many experts. Shim, Qureshi, & Siegel (2000) as written in Laudon and Traver (2012) defines e-commerce as a new concept that is biased described as the process of buying and selling goods or services on the World Wide Web of the Internet.

While according to Baltzan and Phillips (2009:101) e-commerce is the buying and selling of goods and services over the internet. E-commerce refers only to online transactions. Laudon and Traver (2012:49) stated that e-commerce is the use of internet and the World Wide Web (web) to transact business. More formally, digitally enabled commercial transactions between and among organizations and individual. It can be concluded that e-commerce is business transactions conducted by using the internet, in other words, business transactions are done online. In short, e-commerce involves the use of information technology to improve communications and transactions.

There are direct and indirect e-commerce, indirect ecommerce is when the consumers orders a product online, pays through an invoice or by cash on delivery and gets the product delivered in a traditional ways (physical
product). Direct ecommerce on the other hand, will have the product delivered directly through the internet (digital products).

There are also types of ecommerce that are differentiated by the type of buyer and seller. Business to Consumer (B2C) is the most common. There are also B2B, C2B, and C2C, where B, C, and 2 stands for Business, Consumers, and to respectively. Lazada, in this case is an indirect B2C electronic commerce portal.

2.3 Electronic Retailer

B2C (Business to Consumer) ecommerce varies from Portal, e-tailer, content provider, transaction broker, service provider and may more. E-tailer or electronic retailer however, is the main focus here. E-tailers come in all sizes, from giant Amazon to tiny local stores that have websites. E-tailers are similar to the typical brick and mortars storefront except that customers only have to connect to the Internet to check their inventory and place an order.

Online retail is perhaps the most high profile sector of ecommerce on the web. Although online retailing is one of the smallest segments of the retail industry, constituting about 5-6% of the total retail market today, it is growing at a faster rate than its offline counterparts, with new functionality and product lines being added every day.

2.4 Online Brand Trust

Chang and Fang, 2013 write that the definition of trust varies throughout different disciplines, including psychology, sociology, social psychology, and economics (Lewicki et al. 1998; Luo 2002; McKnight and Chervany 2001). However, all definitions of trust agree that it is important to foster successful relationships, reducing uncertainty and risk, and increasing willingness to purchase.

In the context of online shopping, consider brand trust as expectancy, it is based on the consumer's belief that the brand has specific qualities that make it consistent, competent, honest, and responsible and so on, which is in line with the research on trust (Andaleeb, 1992; Doney and Cannon, 1997; Larzelere and Huston, 1980). Their research suggests that trust is based on the dispositional attributions made to the partner about his/her intentions, behaviours and qualities. The key issue, then, is to know which specific attributions form brand trust.

Alam and Yasin in 2010 however defined brand trust as ‘the willingness of the average consumer to rely on the ability of the brand to perform its stated function (Chaudhuri & Holbrook, 2001). In this study, brand trust is simply the trust a consumer has in a specific brand, a definition based on Ha, 2004. For a consumer to establish a relationship with a particular brand, trust is crucial because without trust, development of consumer’s commitment to a brand may not be possible.

2.5 Conceptual Framework

Conceptual framework is a model of how theory relates to the various factors that have been identified as an important issue. A good framework will explain the theoretical linkage between the variables been studied. So, theoretically it is necessary to explain the relationship between the independent variables and dependent variables.

In 2010, Alam and Yasin has developed a research model which indicating the purchase intention of online shopping based on trust in online shopping. In the context of this research, lazada is the research object.

Fig. 1: Conceptual Framework
Schematic model by: Alam & Yasin (2010)
In Alam & Yasin (2010) framework, there are 6 factors that affect trust in internet shopping. These factors are level of security and privacy, perceived risk, word of mouth good online experience, quality of information and brand reputation.

According to research framework, writer would like to measure which one is the most influential between level of security, perceived risk, word of mouth, online experience, quality of information and brand reputation as independent variables toward online brand trust as a dependent variable.

**Hypothesis**

In accordance to definition of each variable, and the conceptual framework shown in Figure 1, the hypotheses of this research are as follows:

H1: Security & privacy significantly and positively influences online brand trust.
H2: Consumers’ perceived risk significantly and negatively influences online brand trust.
H3: Word-of-mouth communications significantly and positively influences online brand trust.
H4: Good online experience significantly and positively influences online brand trust.
H5: Quality of information significantly and positively influences online brand trust.
H6: Brand reputation significantly and positively influences online brand trust.

3. **Methodology**

3.1 **Research Type**

This research is a causal study using quantitative method. Causal research is a research where the researcher wants to describe the cause of a problem. (Indrawati, 2015) Quantitative method is a research method to accurately measure behaviour, knowledge, opinion or attitude. (Cooper & Schindler, 2011, in Indrawati, 2015)

3.2 **Operational Variable**

Based on Sekaran and Bougie (2010:126), operational variable is done by looking at the behavioural dimensions, facets, or properties denoted by the concept. These are then translated into observable and measurable elements so as to develop an index of measurement of the concept.

Based on the research framework, there are six research variables: Level of Security and Privacy, Perceived Risk, Word of Mouth, Good Online Experience, Quality of Information, Brand Reputation, and Brand Trust.

3.3 **Population and Sample**

Population in this research is lazada customers in Indonesia’s largest metropolis, such as Jabodetabek and Bandung. The reason is that people in big cities tends to have higher technology literacy and have more access to technology, than in rural areas. Sampling technique that is used in this research is nonprobability sampling. According to Sekaran and Bougie (2010:276) nonprobability sampling designs, the elements in the population do not have any probabilities attached to their being chosen as sample subjects. Nonprobability sampling technique that is used in this research is convenience sampling. The methods of sampling is convenience sampling, according to Sekaran and Bougie (2010:276) state that convenience sampling refers to the collection of information from members of the population who are conveniently available to provide it.

3.4 **Data Analysis Technique**

This research is using descriptive and multiple regression analysis as its data analysis method. According to Sekaran and Bougie (2010:105), descriptive study is type of study that is undertaken in order to ascertain and be able to describe the characteristic of the variables of interest in a situation. Multiple regression analysis is a general
statistical technique used to analyze the relationship between a single dependent variable and several independent variables (Hair, 2010).

4. Data Analysis and Result

The data went and passed all classical assumption test. Hence, a multiple regression analysis can be executed.

Table 2. 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>
<th>Durbin-Watson</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>.74a</td>
<td>.56</td>
<td>.55</td>
<td>.45</td>
<td>1.939</td>
</tr>
</tbody>
</table>

a. Predictors: (Constant), BR, PR, OE, WOM, SP, IQ
b. Dependent Variable: OT

It can be seen in table 2 that the adjusted R square in this research is 0.555, it means that 55.5% of online brand trust were affected by security and privacy, perceived risk, word of mouth, good online experience, quality of information, and brand reputation. While the rests 44.5% were influenced by other variables which are not mentioned in this research.

Table 3. Multiple Regression Analysis Result

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>t</th>
<th>Sig.</th>
<th>Collinearity Statistics</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Constant)</td>
<td>.096</td>
<td>.236</td>
<td>.405</td>
<td>.086</td>
<td>Tolerance</td>
</tr>
<tr>
<td>Quality of Information</td>
<td>.128</td>
<td>.048</td>
<td>.130</td>
<td>2.665</td>
<td>.001</td>
</tr>
<tr>
<td>Security and Privacy</td>
<td>.152</td>
<td>.039</td>
<td>.175</td>
<td>3.883</td>
<td>.000</td>
</tr>
<tr>
<td>Perceived Risk</td>
<td>-.099</td>
<td>.039</td>
<td>-.096</td>
<td>-2.512</td>
<td>.012</td>
</tr>
<tr>
<td>Word of Mouth</td>
<td>.322</td>
<td>.056</td>
<td>.274</td>
<td>5.704</td>
<td>.000</td>
</tr>
<tr>
<td>Online Experience</td>
<td>.221</td>
<td>.031</td>
<td>.272</td>
<td>7.099</td>
<td>.000</td>
</tr>
<tr>
<td>Brand Reputation</td>
<td>.147</td>
<td>.056</td>
<td>.112</td>
<td>2.612</td>
<td>.009</td>
</tr>
</tbody>
</table>

a. Dependent Variable: Online Brand Trust

Regression model that can be explained from the results in the form of regression equation as follows:

\[
Y = 0.096 + 0.128 X1 + 0.152 X2 - 0.098 X3 + 0.322 X4 + 0.221 X5 + 0.147 X6
\]

Those equations can explained as follows :

- The regression coefficient of Quality of Information has positive effect to Online Brand Trust.
- The regression coefficient of Security and Privacy has positive effect to Online Brand Trust.
- The regression coefficient of Perceived Risk has negative effect to Online Brand Trust.
- The regression coefficient of Word of Mouth has positive effect to Online Brand Trust.
- The regression coefficient of Online Experience has positive effect to Online Brand Trust.
- The regression coefficient of Brand Reputation has positive effect to Online Brand Trust.

5. Conclusion

Based on the multiple regression analysis results, security and privacy, word of mouth, good online experience, quality of information, and brand reputation dimensions have positive effect toward online brand trust. Perceived Risk dimension however, of has a negative effect toward online brand trust. The results met all the alternatives hypothesis. The value of R-square (R²) in the table is .555, and based on the considerations, it can be concluded the independent variable security and privacy, perceived risk, word of mouth, good online experience, quality of information, and brand reputation presents significant influence toward online brand trust. The value above illustrate that online brand trust is 55.5% security and privacy, word of mouth, good online experience, quality of information, and brand reputation, the rest 44.5% is influenced by other variables not covered by this study.
6. **Suggestions**

Perceived risk negatively influenced online brand trust, lazada needs to focus on perceived risk first. To reduce perceived risk, lazada could have a more strict and rigorous policy and tell their customer about it, lazada suppliers and other parties involved are also needed to be thoroughly checked and controlled to ensure that they will not do fraudulent acts and they deliver what the customers had paid and expected.

**References**


The Impact Of Factors Towards Online Brand Trust In Online Service Retailing 
(Case Study Applecoast Clothing)

Tjahjono Djamtimoko1, Seruni Salsabila2
Prodi S1 Manajemen Bisnis Telekomunikasi dan Informatika, Fakultas Ekonomi dan Bisnis, Universitas Telkom
1tjah08no@gmail.com, 2serunisalsabila31@gmail.com

Abstract
This study explores the impact of online brand trust and its factors in influencing the online service retailing of Applecoast clothing. The study is conducted by gathering data from four hundred customers by using questionnaires. The hypothesis that consists of security, privacy, quality of information, brand name, WOM, past experience, website design and navigation and perceived risk have significant influence on online brand trust. The hypothesis is being tested in terms of mentioned variables. The validity and reliability tests and causality analysis (multiple regression analysis) had been conducted accordingly. According to the results, security, privacy, brand name, quality of information, word of mouth, website design and navigation, past experiences, and perceived risk positively influence online brand trust. This study provides insightful understanding of consumer’s online brand trust.

Keywords: Type your keywords here, separated by semicolons ;

1. Introduction
The change and developments in science and technology always bring changes to the social order of a society. These changes also penetrate into the world of economy and business. It is reflected in changes in the meaning of ‘the market’. It was defined in the industrial world, that the term market is defined as meeting place for sellers and buyers at a certain time and place. Nowadays. Based on process transactions electronically, illustrates that in fact the buying and selling not only can be done conventionally, but can also through the medium of the Internet. Transaction by using internet may increase the effectiveness and efficiency of time and cost for both parties.

E-commerce is a business activity that is done electronically through internet network. It can be understood that e-commerce is activity of buying and selling through digital communication lines. Trading activities by making use of internet media is known as electronic commerce or e-commerce abbreviated (Ahmad M. Ramli, 2004: 1).

The user of internet in Indonesia according to the survey conducted by the Association of Indonesian Internet Service Provider (APJII), already exceeding 63 million people (2012). Indonesia is the third rank in Asia for the highest number of internet users. The companies, in order to attract consumers are no longer limited to the technical and functional product, but they have also been associated with a brand that is able to provide special image for the user.

Brand allows consumers to define and choose a product and it can be done by using the brand image. Applecoast Clothing is a brand of clothing or distro that produce and create their own brand and has its own store. The number of offline sales of Applecoast Clothing during the period September 2014 to February 2015, (as shown in figure 1.6)
is better than online sales. To determine the level of consumer trust in the Applecoast Clothing, the initial interviews conducted for ten persons based on Muhammad and Ghanbar, 2010 consumer online brand trust. The purpose of this study is to identify and examine the factors influencing online brand trust. Based on that purpose, the researcher would like to conduct research with title THE IMPACT OF FACTORS TOWARDS ONLINE BRAND TRUST IN ONLINE SERVICE RETAILING

1.1 Problem Formulation
Based on the description mentioned in the background, the problem in this research can be established as follows:
What is the impact of factors in brand trust in online service retailing?

1.2 Research objective
The research objectives can be described as follows:
Determining the factors that influencing the brand trust in online retailing

2. Theoretical Review, Theoretical Framework and Hypothesis

2.1 E-Commerce
The e-commerce can be defined according to Laudon et al (2009) as follows:
“E-commerce is the use of the internet and the web to transact business. It involves digitally enabled commercial-transactions between and among organizations and individuals. The transactions are mediated by digital technology. The commercial transactions involve the exchange of value across organizational or individual boundaries in return for products or services (Laudon and Traver, 2009:10)

2.2 Brand trust
According to Chaudhuri et al,(2010), the brand trust can be defined as The willingness of the average consumer to rely on the ability of the brand to perform its stated function’ (A. Chaudhuri, and M. B. Holbrook in Alam and Yasin, 2010).
Furtherly it can be understood as mentioned by Kracher et al (2005) that “Brand trust can play a more important role in online business as an online business is essentially intangible and consumers cannot see the physical form”. Kracher et al (2005) in: Mohammadian and Ghanbar (2014) also stated that trust, risks, expectations, and the vulnerability of certain features build the online trust definition.

2.3 Factors that influenced online brand trust
Several factors that influencing brand trust also mentioned by Salisbury et al (2001) in Mohammadian dan Ghanbar, 2014). as follows: “Factors that influenced online brand trust are: security, privacy, quality of information, brand name, WOM, past experience, website design and navigation, and perceived risk. Perceived Web security has been defined as the extent to which one believes that the World Wide Web is secure for transmitting sensitive information”

Another factors as mentioned in (Malhotra., Et al (2004) in Alavinasab dan Kamal, 2015) are as follows: “Information privacy referred to individuals, groups, or institutions to determine themselves and how about the extent of information about what was communicated to others Privacy was the ability of customers to control the presence of third parties or sharing of private information with third parties during transaction or consumption .

Based on those statements it can be understood that consumers would be more trust on website for valid, credible, and accurate information, In addition, consumers would ultimately raise their intention to purchase products from an online website after seeking the information through the internet.

According to Kotler and Keller (2014: 172), the definition of brand is as follows: “The brand is a name, term, sign, or design or a combination of all of them, intended to identify the goods or services of one seller or group of sellers and to differentiate them from competitors”.

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The WOM actually is the most effective and efficient if the information is good. However, if the information received by consumers is not good information, the company will actually get a huge problem, especially in terms of product or company image. This occurs because information coming from reference source will be more credible than advertising.

Perception of risk is a measure of perceived benefits and perceived ease of use before purchasing a product or service, based on consumer purchasing purposes. Two important reasons why customers do not buy products or services on the Internet are because of the online shopping security and privacy of personal information.

2.4 Theoretical Framework

The theoretical framework can be explained as shown in figure 1

Figure 1: Conceptual Framework
Source: Mohammadian and Ghanbar (2014)

Research Hypothesis:
The research Hypothesis can be established as follows:
H1: Security positively influences online brand trust.
H2: Privacy positively influences online brand trust.
H3: Quality of Information positively influences online brand trust.
H4: WOM positively influences online brand trust.
H5: Brand name positively influences online brand trust.
H6: Past Experience positively influences online brand trust.
H7: Web design and Navigation positively influences online brand trust.
H8: Perceived risk negatively influences online brand trust.

3. Research Methodology

3.1 Type of Research

This research is conducted by using a quantitative causal method using quantitative method and the Multiple Regression analysis models. According to Zikmund (2010) Quantitative research can be defined as “Research that addresses research objectives through empirical assessments that involve numerical measurement and analysis approaches.”

3.2 Operational Variable

According to Cooper & Schindler (2008), the variable is defined as "A characteristic, a trait, or an attribute that is measured."
There are eight independent variables. The independent variables in this research are security, privacy, quality of information, WOM, brand name, past experiences, web design and navigation, perceived risk. While the dependent variable is online brand trust.

3.3 Population and Sample

In this research, the population that used are all of internet users in big cities in Indonesia where internet user penetration is usually much larger (Jakarta and Bandung for example). Research that conducted by Mark Plus stated that the most internet user is young people in the range of 15-30 years old. Referring to Mark Plus study it is expected that the respondent come from this ages.

According to BPS, there are 254 million populations in Indonesia and the total user of internet in Indonesia are almost 82 million people. It is difficult to decide the number of internet users that interested in shopping online. According to Sekaran (2009) in case the population could not be calculated exactly, the sample can be decided by using Bernoulli statistic formula.

3.4 Data Analysis Technique

This descriptive and multiple regression analysis is used for analyzing the data. Descriptive analysis is undertaken when the characteristics or the phenomena to be tapped in a situation are known to exist, and one wants to be able describe them better by offering a profile of factor (Sekaran, 2006: 158).

4. Data Analysis and Result

All of the data passed the classical assumption test. Hence, a multiple regression analysis can be executed. Linear regression analysis were used to identify whether or not there are correlation between independent variables and dependent variables. The SPSS result for multiple linear regression analysis are as follows.

Table 1. Multiple Linear Regression

![Table 1. Multiple Linear Regression](image)

Referring to the Table 4.1 the regression equation that correlate the independent variable and the dependent variable can be shown as follows:

\[ Y = 1.019 + 0.402X_1 + 0.424X_2 + 0.086X_3 + 1.019X_4 + 0.126X_5 + 1.613X_6 + 0.544X_7 + 0.411X_8 \]

Those equations can explained as follows:
1. The coefficient regression of privacy has positive effect to online brand trust
2. The coefficient regression of privacy has positive effect to online brand trust
3. The coefficient regression of quality of information has positive effect to online brand trust
4. The coefficient regression of brand name has positive effect to online brand trust
5. The coefficient regression of WOM has positive effect to online brand trust
6. The coefficient regression of past experience has positive effect to online brand trust
7. The coefficient regression of website design and navigation has positive effect to online brand trust
8. The coefficient regression of perceived risk has positive effect to online brand trust

The Constant value of 1,019 means that it indicates if Applecoast doesn’t make any changes to any factors (security, privacy, quality of information, brand name, WOM, past experience, website design and navigation, perceived risk) the brand trust still increase by 1,019 %.

The variable regression coefficient value means that if the variable at that coefficient increased one unit then brand trust value will increase to some amount of the coefficient unit, by assuming that the other independent variable values are fixed.

The equation also explained that the most influencing variable in influencing the brand trust is \( X_6 \), that is past experiences.

Coefficient determination was used to identify the amount of influence given by the variables towards online brand trust. The summary is shown as follows

<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>.923</td>
<td>.852</td>
<td>.849</td>
<td>1.35332</td>
</tr>
</tbody>
</table>

It can be shown from table 4.2 that the R square value is .852. It means the independent variables that influencing the dependent variable is 85.2 %, while the rest that is 14.8 % still not investigated by this study

5. Conclusion and suggestion

5.1 Conclusion

Based on the analysis results the conclusion can be taken as follows
1. All Variables (security, privacy, quality of information, brand name, WOM, past experience, website design and navigation and perceived risk have positive effect toward online brand trust.
2. The most influencing variable that influence brand trust is past experience
3. The variables that influencing the brand trust in thus study just only 85,2 %

5.2 Suggestion

Based on the analysis results the suggestion can be taken as follows
1. The past experience is the most important variable to be maintained. It means the all things concerning the experiences from the customer concerning the e commerce should be improved( such as last purchasing from web brand and from website)
2. The next researcher should investigate more variable in the next research in order to increase the R square

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The 6th Seminar & Conference on Business & Technology in ICT Industry (SCBTII 2015)

Analysis Of Dilemma In A Conflict By Using Drama Theory Approach (Case Study On Conflict Of Indosat’s Frequency Abuse By IM2 Year 2011-2013)

Dini T. Alamanda, Ni Ketut Putri Lidya, Husni Amani

Manajemen Bisnis Telekomunikasi dan Informatika
Faculty of Economic and Business, Telkom University

1aturipana@gmail.com, 2ketutputri94@gmail.com, 3husni.amani@telkomuniversity.ac.id

Abstract

As the network becoming more dense due to the increase of accessors has resulted the average speed of the internet in Indonesia slowing down. This problem can of course be solved by technical solutions through a government policy to provide additional pathways. On the other hands, the commitments of private parties are also required, particularly the telecommunications providers in order to make technical and commercial adjustments which involve huge investments. The purpose of this research is to figure out the conflict conditions, to know dilemmas that appeared and disappeared in the stage of Indosat’s frequency misapplication or abuse conducted by IM2, and to be accomplished using drama theory approach. This research utilizes secondary data that had been collected from online news on October 2011 – July 2013 period. The conflict is separated into 3 (three) frames, first frame is when LSM Konsumen Telekomunikasi Indonesia (LKTI) undertook an extortion to Indosat and IM2. Beforehand, LKTI had denounced the contract agreement involving Indosat and IM2 to the Indonesian Attorney due to an indication of corruption matter. Second frame is when IM2 as a corporation was punished as the suspect by the Indonesian general attorney. And the last frame, in the stage is when the Supreme Court involved as a new player and reduced the conflict. All the related data to this conflict mapped into common reference frame and analysed using confrontation manager software. As the results, this conflict indicates that from the first frame until the last, there were 7 (seven) dilemmas faced by all related parties beyond the conflict. In the first and second frames consist of rejection, threat and persuasion dilemmas whereas third frame contains rejection dilemma faced by the Indonesian Attorney and the Supreme Court. The implication of this research indicates that the contract agreement between these two parties (Indosat & IM2) was considered as violation against rules and figures out the missing dilemmas that examined in this paper.

Keywords: Drama Theory; Game Theory; Dilemma; Agreement; Telecommunication.

1. Introduction

The conflict of Indosat and IM2 cooperative agreement started to raise when the NGO of Indonesian Telecommunication Consumers (LKTI) reported the abuse of frequency band 2,1 Ghz/3G by Indosat and IM2. This corruption is predicted to cause state loss of about Rp. 3,8 trillion. To follow up, the General Attorney of the republic of Indonesia ordered an investigation for this radio frequency band 2,1 GHz misuse by IM2 and the former director of IM2 was found as the suspect of the corruption [1].

The cause of the complexity of this case was the difference in perceptions between the Internet industries and law enforcement agencies in perspective of the frequency and the network. In the process of the settlement of this case, the General Attorney had determined the former Director of IM2 Indar Atmanto, former Directors of Indosat Johnny Swandi Sjam and Harry Sasongko Tirtotjondro and the two related companies, namely PT Indosat Tbk and PT Indosat Mega Media (IM2) as the suspects [2].

However, a different attitude shown by the Minister of Communication and Information stating that IM2 did not violate Law No. 36 Year 1999 on Telecommunication. In organizing the Internet access services, IM2 is in
collaboration with Indosat to utilize Indosat’s Telecommunication Network. The cooperation was not in the utilization of the frequency spectrum together as referred to Articles 14 and 15 PP53 / 2000. Indosat and IM2 Cooperation was lawful as explained by the Minister of Communication and Information in Letter No. 65 / M.Kominfo / 02/2012 dated February 24, 2012 [3].

This study is conducted aiming at 1) Describing the conditions of conflict involving Indosat and IM2 2) Knowing the dilemmas that arose in the conflict of Indosat and IM2 3) Knowing the missing dilemmas when the conflict was over.

2. Literature Review

2.1 National Telecommunication Regulations

The Indonesian Government has issued several implementing regulations of the Telecommunications Act of 1999 in the form of two government regulations [4], ie Government Regulation No. 52 of 2000 on Telecommunications (PP Telecommunications 2000) and Government Regulation No. 53 of 2000 on Radio Frequency Spectrum and Satellite Orbit [4].

2.2 Game Theory

According to [5] game theory is the science that studies the mathematical models of conflict and the cooperation among decision makers acting rationally.

One of the conflict theories that can be used to understand the conflict process is game theory. This theory is categorized in two groups: 1) 2 and n players game; 2) zerosum and non-zero sum game, zero-sum game is a game where the first party will win and another party will lose, whereas it is possible for both parties to win together or lose together on non-zero sum game (von Newman in [6]).

Only a few studies have investigated conflict for emotional responses that can provoke irrational reactions and lead the players to redefine the game and drama theory is one of them [7,8]. Drama theory used to analyze how the framework could be changed to another framework [9], in which the game changes under internal pressure and show, how, through these changes, the frame and the characters stances may be transformed until they arrive at a totally satisfactory solution [10].

2.3 Drama Theory

According to [11] drama theory deals with emotional aspects of a person in decision making process. Emotions make a person act irrationally. Players begin by defining what is desirable and what can be done. Theory of drama shows how players result in irrational act and change the frame, thus creating the possibility of rational action at a higher level. Drama theory tries to capture changes structurally (sudden emotional changes caused by temporary change of frame) from the conflict in a dynamic process.

Bryant [12] classifies dilema into two in a process of conflict, namely:

1) Dilemmas of confrontation
   a. Threat Dilemma, ThD
      Party 1 faces the dilemma of threats against party 2 when the threat of side 1 is not considered serious (untrustworthy) by the second, because party 2 knows that there is future (other future scenarios) in addition to the position of party 2 which is preferred by the first party to the position of threat.
   b. Rejection Dilemma, RD
      Party 1 will face the dilemma of the rejection toward party two if the first has obstacle to convince others that they are serious with their rejection for the position of party 2 because party 1 is doubted to prefer the position of threat compared to the position of party 2.
   c. Positioning dilemma, PoD
      Party 1 faces a position dilemma against the second party, if party 1 prefers the position of party 2 compared to its own position. But party 1 can refuse party 2 position in the hope of getting a better offer, or
because the position of party 2 is considered unrealistic, or even party 1 prefers the threat position compared to the position of party 2; or party 1 does not believe in party 2’s position.

d. Persuasion Dilemma, PD

Party 1 will face a persuasive dilemma on the second party when the first party prefers the position of party 2 compared to the threat position, so that the first party threat faces constraints to convince party 2 to accept their position.

2) Collaboration Dilemmas

a. Trust dilemma, TD

Party 1 faces a dilemma of trust against party 2 if the first party is not sure that the second will commit to a shared position that, in this case party 1 can also move to another position, or looking for ways to make them sure with the commitment of party 2.

b. Cooperation dilemma, CD

Party 1 has the dilemma of cooperation with party 2 when party 1 is also tempted not to commit to the shared position, there may be other position that is more attractive compared with the shared position. And if party 1 wants to eliminate this dilemma, then the party 1 could move to another position, or party 1 can convince party 2 that they remained committed to the common/shared position.

In Indonesia, drama theory has been used in a variety of case study example case of collaboration Coca-Cola and Carrefour by [19], [20] examined conflict within Citarum River Basin’s Stakeholders. [21] studied about the role of emotion in elimination contribution and collaboration dilemma. In 2011, [22] explained How Does Emotion Influence Collaboration?-An Agent Based Simulation of the Dynamic of Confrontation. [23] then analyzed the conflict dilemma using the drama theory on the case of supply chain collaboration

3. Research Methodology

3.1 Players and Option

This conflict involves several parties described in Table 1. Parties involved in frame I: LKTI, IM2, the parties involved in frame II: A, IM2, and parties involved in frame III: GA,SC.

Table 1 Players associated with Indosat and IM2 Conflict

<table>
<thead>
<tr>
<th>Players</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Indosat Mega Media</td>
<td>IM2 PT Indosat Mega Media (IM2) a company wholly owned by PT Indosat Tbk, one of the leading telecommunication providers in Indonesia [13]</td>
</tr>
<tr>
<td>Indonesian Telecommunication Consumer NGO</td>
<td>LKTI Denny AK, a man claiming to be chairman of the Indonesian Telecommunication Consumer (KTI) has been quite vocal in his criticism to telecom operators and regulators. Through the guise of KTI NGO, Denny AK then launched a number of bizarre actions in the telecommunications industry [14]</td>
</tr>
<tr>
<td>Central Jakarta District Attorney (Kejaksaan Negeri Jakarta Pusat)</td>
<td>A General Attorney, Provincial Attorney and District Attorney are the power of the state, especially in the field of prosecutions, which are all unified as a whole that can not be separated [15]</td>
</tr>
<tr>
<td>General Attorney's Office (Kejaksan Agung)</td>
<td>GA The prosecutor is a state institution executing state power, especially in the field of prosecution [15]</td>
</tr>
<tr>
<td>Supreme Court (Mahkamah Agung)</td>
<td>SC As the highest Court, the Supreme Court is a court of cassation which served to foster uniformity in the application of the law through the decision of the cassation and reconsideration to keep all the laws and regulations throughout the territory of the Republic of Indonesia applied fairly, accurately and completely [16]</td>
</tr>
</tbody>
</table>

The data collection technique used in this study is documentation technique through collecting documents and data needed in research problems and then studied intensively in order to support and increase the trust and verification of an event [17]. Researchers gathered the information through trusted Indonesian online news media within the period of October 2011 - July 2013 related to the cooperation agreement of Indosat and IM2.
3.2 Data Analysis Methods

Data were analyzed using Confrontation Manager (CM) software. CM is used to model the interaction between organizations or between individuals and to develop a plan to engage and persuade others that their position is the best one for the benefit of all parties [18]. Researchers will create a common reference frame of the conflict based on the results of the CM. The results of this mapping are to be analyzed further.

The left side of the matrix consists of the parties involved in the conflict. Each party has options located right below. In the column of the matrix various scenarios that could occur from the interaction of all parties are described, which consists of the positions offered by each party. The position is a form of scenarios offered by one party to another that is open (public position) so that all parties can understand the position. A scenario is one of the alternative combinations in the form of conditions to accept, reject or abstain on all of the options from each of the parties (players).

Based on the matrix it is explained that the unshaded curve represents rejection and the fully shaded curve represents the acceptance (adoption) of the option. In addition, there is also scenario t, which is the form of threat position.

To validate the data, because only using secondary data, this study adopt several sources of information and applied four criterias for choosing them. The sources hould be 1) anofficial news portals that are managed by legal and official organization; 2) have licensed activity in gathering news; 3)have the search news team (reporters) who are in charge of collecting the news directly to the field; and 4) popular in the Indonesian community.

4. The Discussion

4.1 Frame I

Three frames have been analyzed in the conflict. Frame I: the period when LKTI blackmailed IM2 in which LKTI had previously reported on the cooperation agreement of Indosat and IM2 over the alleged abuse of frequency 2.1 GHz / 3G by IM2 which is in fact owned by Indosat to the prosecutor until finally IM2 reported this criminal offense of extortion to the authorities. The common Reference Frame of the first frame shown in Figure 1.

![Fig 1. Model Matrix of the First Frame](image)

Based on the above common reference frame, there are two dilemmas faced by the players particularly by the LKTI. Both dilemmas include:

- **LKTI faced Rejection Dilemma against IM2**, where LKTI had a problem that their rejection on the position of IM2 was not credible in the eyes of IM2 because IM2 believed that LKTI prefers the position offered by IM2 to the position of threats. Before committing acts of extortion, LKTI had reported IM2 to the West Java High Court for abusing frequency of 2.1 GHz / 3G owned by Indosat.

- **LKTI faced Persuasion Dilemma against IM2** because LKTI was considered unable to convince the IM2 to accept their position because it was believed that IM2 prefers another position or threat, namely IM2 was going to report LKTI extortion to the Jakarta's police. LKTI held a secret meeting with Indosat and IM2 with the intention of asking for some amount of money from them if they wanted the report on the case of this frequency abuse revoked.

4.2 Frame II
The period when LKTI was specified guilty of the criminal case of extortion by the Central Jakarta District Court and IM2 was determined as the suspect by the General Attorney. Common Reference Frame in this period is shown in Figure 2.

Based on the common reference frame above there are three dilemmas faced by the players. But in general the three dilemmas are owned by the Prosecutor, namely:

- **Attorney faced Threat dilemma against IM2**, when IM2 felt that the Prosecutor would not carry out their threat. In this case the Attorney tried to make their threats becoming more credible and proved to IM2 that they were serious about their threats, the General Attorney will continue to execute the verdict that required IM2 to pay Rp1.3 trillion. The executor's team would seize IM2's assets if they still would not meet the pay penalty.

- **Attorney faced Rejection Dilemma towards IM2** when IM2 rejected on the position of the Prosecutor as not credible. This was because IM2 believed that the Attorney favored the position of IM2 more than the threat, for that IM2 did not have to pay a penalty of Rp1.3 trillion.

- **Attorney experienced Persuasion Dilemma for IM2**, when the Prosecutor was unable to convince IM2 to accept their position because it was believed that IM2 favored another position more or threat (t), ie IM2 would not pay the fine of Rp 1.3 trillion.

### 4.3 Frame III

This period took place when a new player showed up, namely the Supreme Court (MA) that issued two decisions of cassation, namely they freed IM2 from the fine or the pay penalty and sentenced the former director of IM2 eight years in prison. Common Reference Frame this period shown in Figure 3.
On a common reference frame above there are two dilemmas faced by all players. In general, the dilemma arose in frame III is the Rejection Dilemma appeared between:

- General Attorney experienced Rejection Dilemma for the Supreme Court. This was because of the rejection of the General Attorney against the position of the Supreme Court deemed not to be credible since the Supreme Court believed that the General Attorney Office favored their position more than the threat (t).
- MA faced Rejection Dilemma of the General Attorney for the Supreme Court rejection of the position of the General Attorney was not considered credible. It was none other than as a result of the General Attorney was confident that the Supreme Court preferred General Attorney Office’s position compared to the position of threat (t). Besides the proposal for reconsideration (PK) by the accused former director of IM2 still doubted by the General Attorney Office.

Based on the processing of common reference frame there were seven dilemmas faced by all parties involved from the first frame to frame III. In the first frame there were two (2) dilemmas, in the second frame increased to three (3) dilemmas and in the third frame a reduction of dilemmas took place into two (2). Next is Table 2 contains a summary of the dilemma faced by all players in the case of frequency of 2.1 GHz / 3G abuse conducted by IM2 owned by Indosat starting from the first frame to the third frame.

<table>
<thead>
<tr>
<th>Frame</th>
<th>LKTI</th>
<th>IM2</th>
<th>A</th>
<th>SC</th>
<th>GA</th>
</tr>
</thead>
<tbody>
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<td>I</td>
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<tr>
<td>II</td>
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<td>III</td>
<td>PD,</td>
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<td>RD</td>
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<td>IM2</td>
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<td>A</td>
<td>ThD,</td>
<td>PD</td>
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<td></td>
<td>RD</td>
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<td>SC</td>
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<td>GA</td>
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</tbody>
</table>

Description: PD = Dilemma of Persuasion; RD = Dilemma of Rejection; ThD = Dilemma of Threat.

From the first frame to the second frame, The Persuasion Dilemma of LKTI against the IM2 disappeared after LKTI pressured Indosat and IM2 by giving them a subpoena which was intended to request a sum of money from them if they wanted the report on the case revoked. Meanwhile the LKTI's Rejection Dilemma against IM2 faded away because LKTI decided to take rejection action namely to blackmail Indosat and IM2, although ultimately LKTI was found guilty by the Central Jakarta District Court on criminal case of extortion against the telecommunications company PT Indosat.

The missing dilemmas from the second frame to frame III were Threat and Persuasion Dilemmas owned by the General Attorney for IM2. The Threat Dilemma disappeared after the General Attorney Office finally made their threat to become more serious and credible by seizing IM2 assets if they were still not willing to pay compensation amounting to Rp1.3 trillion. In the meantime the Persuasion Dilemma of the Attorney for IM2 could be lost because the Attorney took action of pressure by declaring IM2 was guilty and becoming one of the suspects in this case with the compensation penalty of Rp1.3 trillion. This amount was based on BPKP audit report and the decision on the Corruption Court in Jakarta that IM2 as a corporation took a part in enjoying the corruption fund. And the dilemma that was still emerging from the second frame to frame III is Rejection Dilemma of the Attorney to the Supreme Court.

The efforts made by the General Attorney Office to eliminate this dilemma was to show that they were serious with their threat position that was trying to appeal to the Supreme Court against the decision of IM2 appeal in the Jakarta High Court that had freed IM2 from the punishment of compensation for Rp1,3 trillion.

In the third frame a new player appeared, namely the Supreme Court. In responding to the dilemma that still appeared in the second frame, The Dilemma Rejection of General Attorney Office could have gone away in the third frame as a result of rejection chosen by the Supreme Court in facing Rejection Dilemma to the General Attorney Office. The Supreme Court rejected the demands of the public prosecutors from the General Attorney Office and stated that IM2 was freed from the punishment to pay Rp1.3 trillion evidenced by the issuance of the appeal decision No. 263 K / TUN / 2014 which had rejected the appeal of BPKP on the Administrative Court (PTUN) decision over the case of IM2 stating that BPKP's report may no longer be used.
5. Conclusion and Recommendation

5.1 Conclusion

General Attorney Office tended to have many dilemmas of the conditions that occurred during the conflict in 2011 through 2013, particularly in the second frame. However, when the MA appeared in the third frame as the new player, dilemmas owned by the Prosecutors could be minimized because the role of the Supreme Court as the highest legal institution in Indonesia should have been able to influence each party involved in the conflict and to create a new frame so that the dilemmas in the previous frames could be minimized.

In accordance with the objectives of this research, there were dilemmas that appeared and disappeared as the results of the actions taken by one party against the other parties so that in the end they were able to create situations and positions that are compatible and mutually acceptable. Based on the common reference frame that consists of three frames, the actions that had been carried out by each party in general were negative actions such as threatening and forcing. But these conflicts could have been avoided if all players were able to take positive actions such as discussions, mutual understandings, having strong evidences, and good coordinations.

5.2 Study Limitation

This study has several limitations. Firstly, only secondary data used is obtainable from the internet news, so the strength of the data is determined by the validity of the sources used. Thus, the data can be enriched by doing triangulation to the parties involved. Secondly, there is also a need to improve measures of the study elements such as description of the bargaining zone and emotions that are not available in the secondary data taken. More elaborated measures of various aspects of game may also warrant future study.

5.3 Research Recommendation

For further research, we expect to validate the data using FGD with all stakeholder involved in this conflict using SMART (Simple Multiple Attributed Rating Technique) to make better consideration of players preferences.

References


The Analysis of Telkomsel Mobile Broadband Services Customer Loyalty Factors With Confirmatory Factor Analysis Modelling In Bandung 2015

Elvira Azis¹, Nurvita Triunasari²
Management Bisnis Telecommunication and Informatics, Business and Economy Faculty, Telkom University
¹vira.azis@gmail.com,²vita.statistik@gmail.com

Abstract

In today’s digital era the need for internet as the source of information is increasing yearly, along with the growing number of smartphone use to communicate and to access the internet. The provider companies in Indonesia are competing to offer mobile broadband services, namely a high speed internet data access service for smartphone users. This article aims at analyzing the factors influencing the Telkomsel mobile broadband services customer loyalty of 2015. The variables used in this article are customer satisfaction, perceived service quality, perceived value, trust, perceived switching cost, corporate image, and customer loyalty. The data were collected from 400 questionnaires filled by the Telkomsel mobile broadband services customers. Factors analysis techniques were used to reduce and analyze the items representing each factor. Empirically, it concludes that every item of the customer loyalty factors, namely customer satisfaction, perceived service quality, perceived value, trust, perceived switching cost, and corporate image are appropriate and representative to those factors.

Keywords: Mobile Broadband, Customer Satisfaction, Perceived Service Quality, Perceived Value, Trust, Perceived Switching Cost, Corporate Image, Customer Loyalty.

1. Introduction

Nowadays internet becomes very important for Indonesian people. Internet is used to get the information easily and quickly. In Indonesia, the number of internet users is increasing significantly within the last four years. Indonesia shows a high penetration of internet users, namely 38,191,973 in 2014 (Millward, 2014). Most of Indonesian people access the internet using smartphones due to its mobility and wide range. From 2010 to 2013 the number of smartphone users in Indonesia keeps on increasing by the number of 38.5 million people in 2013. The competition among the telecommunication operators becomes very intense and it results in war tariff to set the suitable tariff strategy for their customers. The provider companies are competing in improving their quality to attract customers and maintain customer loyalty. One of which massively offered is Mobile Broadband Services or data services for the smartphone users. Broadband services enable them to access information through the internet in high speed using transmission technology (Kris, 2012)

PT Telekomunikasi Seluler (Telkomsel) is one of such company. It is the biggest cellular operator company in Indonesia, serving more than 130 million customers, it means covering 52% of total customers of big three companies of a kind at the end of 2013 (Telkomsel Annual Report, 2013). The high demand of a high quality mobile data services for affordable smartphones and tablets encouraged Telkomsel to develop series of strategies to increase sales and to respond to the market. One of which is by providing such services especially for the smartphone and tablet users. The products and services that belong to the Telkomsel’s Mobile Broadband Services are New Pulsa Internet Telkomsel, Flash Ultima (Volume Base Service), Android Data Plan, Apple iPhone Data Plan, Online Holic, Opera Mini / Nokia Data Plan, New Blackberry Sosialita, MyTelkomsel Application, and BBM Live on Flash for Android and iOS.
Based on Fig 1, the total sum of customers is increasing each year but the customer growth percentage is decreasing despite the Telkomsel’s main focus of interest. The strict competition among the providers prevents Telkomsel from gaining the penetration or growing the number of customers quickly. Based on the interview with Telkomsel’s General Manager Customer Touch Point, Riri Amalas Yulita, the cause of the decrease was some of the Telkomsel’s Base Transceiver Stations (BTS) were overloaded and some were not optimized. The overloaded BTS slowens and disrupts the data services and it reduces the Telkomsel’s customer satisfaction and trust. However, young people aren’t subscribed to Telkomsel due to their tendency of price sensitive and their belief of Telkomsel as a high price provider. It reduces the customer value perception and degrades the company image. Such factors can trigger the decline of customer loyalty indicated by the migration of customers to another provider and threatens the Telkomsel’s customer loyalty (Fardani, 2014).

This article aims at analyzing the factors that influence Telkomsel Mobile Broadband Services customer loyalty in Indonesia. The variables of the study are customer satisfaction, perceived service quality, perceived value, trust, perceived switching cost, and corporate image, to customer loyalty (Qayyum, 2013).

2. Theories and Methodology

2.1 Customer Loyalty

The definition of customer loyalty is customer behavior or commitment to purchase or utilise certain products or services repeatedly and consistently despite the situation or the market that enables them to switch to another company (Ishaq, 2012). The indicators (Kotler P., Keller K L, 2009) are:
1. Repeated Purchase, namely loyalty to product purchase.
2. Retention, namely the resistance to negative influence from the company.
3. Referalls, namely referring company existence totally.

Customer satisfaction defines as someone’s pleasure or disappointment following the performance comparison of the product in mind to the performance expected. Customer satisfaction reflects the amount of customer positive feeling towards the services provider. Therefore, it is crucial to the services provider company to understand customer perception towards the services given because customer satisfaction is one factor that influences customer loyalty (Lee, 2010). The indicators of customer satisfaction (Tjiptono and Chandra, 2012) are:
1. Customer satisfaction towards the services.
2. The complaints are overcome by the customer.
3. The services provided are suitable with the customer expectation.

2.2 Perceived Service Quality

Perceived service quality is customer evaluation to the total excellent performance of certain services provider (Ishaq, 2012). Through a good quality services the company is able to increase customer intention to repurchase, to purchase more, to be less sensitive to the price increases, and to recommend the services to another party (Qayyum., 2013). The indicators of perceived service quality are:
1. Tangibles, namely physical facilities, equipments, employees, and adequate communication facilities.
2. Reliability, namely the ability to provide the promised services immediately, accurately, and satisfactorily.
3. Responsiveness, namely the customer services ability and willingness to help the customer and providing quick and responsive services.
4. Assurances, includes the employee’s knowledge, ability, politeness, and trustworthy traits.
5. Empathies, includes personal attention and comprehension to customer individual needs.

2.3 Perceived Value

Perceived value is customer total evaluation based on a relative comparison of the result or the advantage to the total expenses (Lee, 2010). Perceived value can influence the behavior of customer loyalty to the services provider. The indicators are (Qayyum, 2013):
1. The quality accepted is equal to the paid price.
2. The company offers affordable services.

2.4 Trust

Trust is perceived as customer belief in company attributes including company ability, integrity, and attitude in handling the customer and the trust that reflects customer sense of safety and willingness to rely on the company (Roostika, 2011). Customer trust in a company is an indication of positive attitude so that a trusting customer will build a positive intention of purchase in the services provider company. It shows the positive correlation between trust and customer loyalty. Trust consists of three indicators (Qayyum, 2013), namely: Trust in the company priority, Trust in the payment system, and Trust in the company integrity.

2.5 Perceived Switching Cost

Switching cost as one time cost is perceived as or is associated with the process of switching from one services or products provider to another by the customer and the indicators (Qayyum, 2013) are:
1. The cost when switching to a new cellular operator.
2. Customer uncertainty towards another cellular operator.
3. The effort made to switch to a new cellular operator.

2.6 Corporate Image

Corporate image is an overall impression in public mind about a company (Qayyum, 2013). It becomes the determiner of customer loyalty.

2.7 Framework

Customer loyalty can be measured by six variables, namely customer satisfaction, perceived service quality, perceived value, trust, perceived switching cost, dan corporate image (Qayyum, 2013). The frame work of the study uses Qayyum, Khang, and Krairit’s journal (2013). The relation among variables of the frame work can be seen in Fig. 2 below.

Fig 2. A Model Proposed in the Study
3. Methods

This is an analytic observational study using quantitative method. In the study, the determined population and sample is Telkomsel mobile broadband services customers in Indonesia. It is sampled using nonprobability sample, namely purposive sampling technique. Data collection was done via questionnaire to 400 respondents. The data was analyzed using Confirmatory Factor Analysis (CFA) technique. The measurement model analysis is also called Confirmatory Factor Analysis (CFA). CFA is a model of measurement which models the relation between latent variables and observed variables. The relation was reflective, namely the observed variable is a reflection of the latent variable.

4. Models Result of Two Stages Confirmatory Factor Analysis

The analysis on the model was done using LISREL 8.50 software and several modifications of models until getting the valid model where the stages of output interpretation give the result for the model analysis.

Model Identification Result
A model identification is an examination of a proposed model whether it produce a unique estimation or not. The equation is as follows:

\[ df = \frac{p(p+1)}{2} - \frac{23(23+1)}{2} - 53 = 223 \]

From the equation it was found that \( df > 0 \) (over-identified), it can be concluded that the proposed model resulted a unique estimation.

A. The Result of Confirmatory Factor Analysis Modelling
Below is a picture of CFA stages modelling:
Fig 3. Stage Analysis of CFA model
### B. Measurement Model Analysis

The following is a table containing the value of standardized loading factor and measurement error for first order CFA and second order CFA.

<table>
<thead>
<tr>
<th>Constructs and scale items</th>
<th>Loading</th>
<th>CR</th>
<th>AVE</th>
<th>T Test</th>
<th>Error Variance</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Customer satisfaction</strong></td>
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</tr>
<tr>
<td>CS1</td>
<td>0.77</td>
<td>0.72671781</td>
<td>0.526666667</td>
<td>26.52</td>
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</tr>
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<td>CS2</td>
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<td>CS3</td>
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<tr>
<td><strong>Perceived service quality</strong></td>
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</tr>
<tr>
<td>PSQ1</td>
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<td>0.475</td>
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<tr>
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<td>PSQ3</td>
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<td>PSQ5</td>
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<td><strong>Perceived value</strong></td>
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<td>PV1</td>
<td>0.55</td>
<td>0.627907</td>
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<td><strong>Trust</strong></td>
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<tr>
<td>T1</td>
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<td>T2</td>
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<td><strong>Perceived switching costs</strong></td>
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<td>0.87</td>
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<tr>
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<td>CI1</td>
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<td>CI3</td>
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<td>CI4</td>
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<td><strong>Customer loyalty</strong></td>
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<tr>
<td>CL1</td>
<td>0.8</td>
<td>0.840992</td>
<td>0.74</td>
<td>21.73</td>
<td>0.36</td>
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<td>CL3</td>
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<table>
<thead>
<tr>
<th>Table 2. 2nd Order</th>
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<table>
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<tr>
<th>Analysis of Direct Effects</th>
<th>Regression coefficients</th>
<th>p-value</th>
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<td>Satisfication &lt;- loyalty</td>
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<tr>
<td>Perceived service quality &lt;- loyalty</td>
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<td>0.04</td>
</tr>
<tr>
<td>Perceived value &lt;- loyalty</td>
<td>0.87</td>
<td>0.04</td>
</tr>
<tr>
<td>Trust &lt;- loyalty</td>
<td>0.96</td>
<td>0.05</td>
</tr>
<tr>
<td>Switching costs &lt;- loyalty</td>
<td>0.7</td>
<td>0.04</td>
</tr>
<tr>
<td>Corporate image &lt;- loyalty</td>
<td>0.87</td>
<td>0.04</td>
</tr>
</tbody>
</table>

Notes:
Model fit indices: Chi-Square 4902.63 (P = 0.0), df 15, Chi-square/df = 326.842, CFI = 1, GFI = 0.99, NFI = 1, NNFI = 1.01 , RMR = 0.078, RMSEA = 0.90

Source : Analysis data result using LISREL 8.50, Significance : $\alpha = 5\%$
5. Conclusion

Second order measurement model is a correlation between first order latent variables, i.e. Customer Satisfaction, Perceived Service Quality, Perceived Value, Trust, Perceived Switching Costs, and Corporate Image as indicators with a latent variable at the second order, namely Customer Loyalty. Based on the analysis on Table 3 it is shown that Customer Satisfaction has the highest loading value of 1.01. It means that such dimension has the biggest contribution in measuring Customer Loyalty variable. On the other hand, the smallest contribution in measuring Customer Loyalty variable came from Perceived Switching Costs, namely 0.7. The result from calculation of Variance Extracted on Table 4.3 for variable of Customer Loyalty is 0.43. It shows that the dimensions of Customer Satisfaction, Perceived service quality, Perceived Value, Trust, Perceived Switching Costs, and Corporate Image explain the variable of Customer Loyalty of 43%.

Reference


Abstract

Branchless Banking service has been adopted by more than 100 countries with the aim to expand the range of financial services. In our country, Central Bank of Indonesia has made a series of policies to increase Branchless Banking. With these policies people will have easier access to banking services in order to improve the movement of the local economy which are contribute to the national economy. With increasing level of sales and mobile phone user and also with rapid technology development in Indonesia, the integration of telecom service with banking services seems suitable to be develop in Indonesia. With a high population and the wide spread of residence, Telco Branchless Banking or T-Bank become a very attractive alternative of banking service for people. With T-Bank, people can make transaction by exchange their phone account number and withdraw the fund at the bank service counter near their residence or their place of business located. This topic is very interesting because discuss the collaboration between two industries which are telecommunication industry and the banking industry. This paper also analyze strengths, weaknesses, opportunities, and threats of T-Bank services in Indonesia. The result of strength point are people can use T-Bank for financial transaction without having a bank account, T-Bank is supported by our government, Indonesia already have resources and infrastructure for this service, there are high number of smartphone market penetration which are quite promising for this service development. Weakness point are T-Bank agent still lack of banking knowledge, T-Bank user must be extra careful when do the transaction with T-Bank because text the message is easy as SMS, T-Bank agent must get trust from T-Bank user. Opportunities point are penetration of network cellular provider to covered all of Indonesia region, there are existing interconnection between provider, T-Bank has function as same as cash transaction, it’s very easy to be T-Bank agent. And the last, the threat point are hard to get T-Bank agent with good reputation and trusted by the people around he lives, it’s very hard to build trust between T-Bank user and agent, confidentiality of T-Bank user’s data is still vulnerable.

Keyword: Branchless Banking, T-Banking, Telecommunication, Bank, SWOT

1. Introduction

The role and the function of banking are very strategic. As an intermediary institution, the banking position in a country is very important to drive the economic activity. Bank incapability in giving an optimal service can affect all economic sectors in the country to be unable to do an optimal work. In Indonesia, a survey from World Bank in 2010 stated that only 19.6 percent of Indonesian citizens that have bank account. The numbers of Indonesian citizens that do not have savings in bank are very high, whereas one of the easiest ways to enter the financial system and having access to financial service are to be registered as a bank account owner. In order to raise the possession of bank account in the country, in 2010 Bank Indonesia launched ‘TabunganKu’ an individual savings program with a low administration fee and simple requirements for all Indonesian citizens. ‘TabunganKu’ involved a large number of banks, for about seventy regular or Islamic banks and 700 regular or Islamic Rural Banks (Bank Perkreditan Rakyat) in Indonesia. Until now it was stated that ‘TabunganKu’ has 4.7 millions account with accumulation of the fund is 10 trillion Rupiah. The main purpose of ‘TabunganKu’ is as a media for people to save money, not for transactional activity, so they will be more consistent and routine in saving money for future keeping.

The level of bank account holder in the banking is very important because it can affect the rise of Indonesia competitiveness in the financial industry. As a comparison, quoted from Faisal Basri on bisnis.liputan6.com July 3rd 2014 edition, now the financial index of Thailand is sixty percent, Malaysia is about seventy percent, and China is sixty percent. While Indonesia, according to World Bank in 2011, it only has twenty percent of adult Indonesian citizens that has a bank account while the rest are not. According to the National Bank Association (Perhimpunan
Banknasional (“Perbanas”), taken from the-marketer.com March 27th 2013 edition, the number of Indonesian people who has a bank account number is only sixty millions people, while mobile phone account is reached 250 millions account from 240 millions population. It means that the number of bank account owner is only one fourth of the mobile phone account. From the statistic data on bps.go.id in 2010 with the launching of ‘TabunganKu’ until 2013, we can see that there are increases in the number of bank account in Indonesia from 92.838, 100.271, 114.650, to 147.522. However, it is considered as unsuccessful because the growth is very slow.

BankIndonesia has committed to raise the financial access that is said as the financial inclusion program with emerging a concept of bank that has no office, or a branchless banking as based in Indonesian Bank Regulation (Peraturan BankIndonesia – “PBI”) number 16/8/PBI/2014 – about electronic money. Electronic money is considered as an answer for solving the problem because previously it has been a success in other country as well. In the International world, especially in the emerging market, the branchless banking is not a new thing. From several literature study, it was written that more than a hundred country, e.g., Malaysia, India, Philiphine, Kenya, Pakistan, and Mexico, has implemented branchless banking. However, in Indonesian context, branchless banking is a new thing for banking industry in Indonesia. The implementation of broadening banking service in Indonesia is by “UPLK” or Financial Intermediary Service Units (Unit perantara Layanan Keuangan – “UPLK”), in the international context “UPLK” was known as “branchless banking”. “UPLK” is a service operator that offers paying and limited banking system that can be done not by physical bank offices/Telco, but using technology media and third party services like agent, which in further be called “UPLK” that have functions to serve unbanked and underbanked people.

The business models that can be done in the branchless banking activity are these 3 models, Bank Led, Telco led, and Hybrid. Bank Led is a bank that responsible to do banking activities from the beginning until the end. Telco Led is a telecommunication company that responsible to the banking activities from the beginning to the end. Hybrid is the combination from both models, the activities that both models have been done are: (a). Bank cooperated with Telco as a e-money seller published by Telco, and UPLK Bank is able to do the selling; or vice versa. (b). Bank cooperated with Telco as e-money seller published by Telco, and UPLK bank is able to do the selling, but the product of e-money published by Telco and has been sold by the Bank using the UPLK Bank has attaching the Bank name. (c). E-money and savings are being connected thus enable to do the transaction between two bank account, for example: Moving a part of savings balance to e-money (top up e-money), and Moving a part of e-money balance to the savings.

In these activities, related parties are as follows Bank, Telco, UPLK, and other supporting service like agent management network. These related parties must be cooperative therefore the activities can be done well. The activities that can be done in the UPLK are opening a bank account, cash deposit, cash withdrawal, and bills payment. It is almost the same as the regular commercial banking capabilities in general, and it is done only by using personal mobile phone. The bank expansion on the telco-branchless banking concept is a system of individual agent, which people who have shop venture, mobile phone top up stall, or grocery store are able to be an e-money distributor so the customer will not have to go to the bank to do the activities. Especially, this program will be expanding the financial access of rural people. By this agent, cultural resistances of rural people will be diminishing, for example the resistance of going to bank because it is being guarded by the security in the front of the bank, the room that are spacious and very clean thus it is not suitable for rural people who use only a simple foot wear to go there and the formal uniform worn by the bank workers make rural people resist to go to the bank. In addition, the access of financial service has not reached rural area.

With this agent concept in which the agent is customer’s neighbor or relative, it does not need a formal activities like going to bank. Therefore this agent concept is a mutually beneficial solution to make easier transaction, when it was used to very formal and inconvenience. In addition, people will not have to go to far places because the location of the agent is around their own living place thus it lessen another difficulties like paying for public transportation to reach the bank. Moreover, at the situation of opening an e-money account, it can be registered at each agent’s mobile phone. Telco Branchless Banking Program was launched by BankIndonesia at 2013, although it was still in the experiment level, this activity is expected to be able to support the expansion of financial service access for the people. As geographical condition in Indonesia is very wide and the big number of the citizen who are still in the category of unbanked people, it becomes a bussiness target that very appealing as long as it is supported by the inovation in the delivery channel.

The government role is also very affecting the implementation of this program, for supervision institution for banking there is BankIndonesia (BI) and Financial Services Authority (Otoritas Jasa Keuangan – OJK), and for
Telco there is Indonesian Telecommunication Regulatory Institution (Badan Regulator Telekomunikasi Indonesia – BRTI). These three institution must be cooperating in order to make the implementation of Telco Branchless banking will be implemented very well, accurate, and measured. Therefore in this research we will be looking at the strengths, weaknesses, threats, and opportunities that Telco Branchless Banking in Indonesia has been faced by using literature review technique. This technique is being used by giving the review, conclusion, and the writer consideration about several literature source about the topic taken from articles, books, information from the internet, newspaper, magazine, etc.

2. Literature Review

Branchless Banking represents a significantly cheaper alternative to conventional branch-based banking that allows financial institutions and other commercial players to offer financial services outside traditional bank premises by using delivery channels like retail agents, mobile phone etc. BB can be used to substantially increase the financial services outreach to the un-banked communities. Provision of enabling regulatory environment by careful risk-reward balancing is necessary to use such models. In line with its responsibility to promote financial inclusion without risking the safety and soundness of banking system. Branchless Banking means conduct of banking activities as outlined in these Regulations by Authorized Financial Institutions for customers having a branchless banking account. It does not include the information services already being provided by various Financial Institution to their existing customers using channels like, phone, internet, SMS etc. Branchless Banking account means an account maintained by a consumer in a Financial Institution in which credits and debits may be effected by virtue of Electronic Fund Transfers and which is used to conduct branchless banking activities as outlined in these Regulations. Branchless Banking Agent means agent providing basic banking services (as described in these Regulations) to the customers of a Financial Institution on behalf of the Financial Institution under a valid agency agreement.

SWOT Analysis, According Pearce & Robinson (2009:229) SWOT stands for Strengths and Weaknesses in the company internal condition along with the Opportunities and Threats in the situations faced by the company. Strengths are resources, skill, or other superiority towards the competitor and market needs served or want to be served by the banking services. Strength is a distinctive competence, which gives comparative superiority towards banking in the financial market. Strength can be contained in the financial capability source, image, market leadership, buyer-supplier relation, and other factors (Pearce & Robinson, 2009:231). Weaknesses are an inability or deficiency in the resources, skill, and capabilities that hindrance the banking effective performance. The facility of financial resources, management capacity, marketing skill, and brand image can be the weakness sources (Pearce & Robinson 2009:231). Opportunities are an important situation that advantaging the company circle. Important tendencies are one of the opportunity sources. Identification of market segment used to being ignored, changes in the competition situation, or the regulations in the technology changing, and the relation between the buyer and the supplier that getting better will give opportunities for the company (Pearce & Robinson, 2009:230). Threats are an important situation in which disadvantaging the banking environment. Threats are the main obstruction towards the present position or the company preference. The entry of new competitors, slow market growth, the increase of buyer or important supplier ability to bargain, technology changing, and new regulation that revised can be threats for company achievement (Pearce & Robinson, 2009:230).

3. Research Model

In this research, writer will be analyze the environment factors in the implementation of Telco Branchless Banking in Indonesia, by using its strengths and weaknesses along with threats and opportunities faced by the implementation of this program. In order to be an advice for further reasearch to find a better strategy.

By looking at the image above, we can see that the purpose of this research are as follow. First, to know the strengths and weaknesses factor in the implementation of Telco Branchless Banking. Second, to know the threats and opportunities factor in the implementation of Telco Branchless Banking.
4. Result

STRENGTH

Branchless Banking is a banking service without an office, and can be done without having a bank account. Branchless Banking will use the distribution network to give financial service outside the branch offices using technology and alternative networking with an effective fee, efficient, and in the convenient and secure condition. It is a product expected can solve the deficiency of people’s access in the formal financial service. Even using the cheapest mobile phone model people will be able to do the financial activities. The Branchless Banking service is optimizing the development of telecommunication technology that able to go through geographical limitation and social status. With the Short Messaging Service (SMS) feature in the mobile phones, made as simple as possible thus easy to understand even by uneducated people, this service is easy to be operated by people using his/her own mobile phone.

The government support is the strength of the branchless banking service in Indonesia. The supports from government through Bank Indonesia are the financial inclusion policy to expand the access and the scope of big banking service program, which is the public information system in all regions that going to be implemented later. People can access easily from weather forecast to the price of daily grocery needs and agriculture product. The financial service user provides the data supply, which in the future the scope will be expected to expand. If everything run as expected, it will not only a dream if in the future chili farmer just need to do transaction using mobile phone with the buyer, personal or in a big scale. Not only for the communication, but also until the payment methods, it just needs a mobile phones or using a branchless banking agent in every possible methods.

The next strength factor is the resources. In Indonesia the resources that needed is already available, from the government side as the regulatory institution as mentioned above, has already policy that are going to manage the telco-branchless banking. In addition telecommunication operator has provided telecommunication infrastructure until rural areas. Moreover, Indonesia has several big scale program like PNPM which considered very suitable for socializing the telco-branchless banking and can make the program to run as expected. Therefore, in the providing the banking service using telco-branchless banking method will be very inexpensive or saving cost because all the resources is already available. If we compare to the opening of new branch office, not only the cost will be very big but also the geographical condition is not supporting.

One of the strenght factor that can support the implementation of telco-branchless banking in Indonesia is the high number of smartphone penetration. According to Nielsen in 2013, Indonesia becomes one of the developing country with the highest smartphone penetration number, that is 23 percent or two times from previous year which is only twelve percent. The number it is higher than India that only reached eighteen percent and Philipina fifteen percent. Even though it still under Malaysia which reached eighty percent, Thailand 49 percent, and China 71 percent. The growth of smartphone penetration in Indonesia is considered fast, even the survey from Frost & Sullivan projected that it will be fifty percent in 2015. The condition of the high number of smartphone penetration and supported by the potency of decent income of the citizens is a prospect for the launch of this program. Therefore, the market from this service is not only from lower class status in the rural areas, but also for the medium to higher class status who lives in the city with modern live.

WEAKNESSES

If we will be a customer in a bank, we usually helped by the bank assistant to fill the identity form and the bank assistant will do the know-your-customer (KYC) principle, in other words the bank assistant holds the methods
of banking secureness. This bank assistant is being supervised, trained, and given a sufficient knowledge by the banking so it will not have any mistake in opening the account. For the telco-branchless banking service, there will not have special assistant to do the KYC principle, anyone can open an account in the agent with the cellular phone number registered as the account number used for transaction. In this case, there is a possibility that anyone can used the data wrongly, because there is no assurance about the originality of the data and confidentiality assurance from the agent.

Using this telco-branchless banking service is as easy as sending an SMS, if we see from one side, it is an advantage because it easy to operate the application. In the other side it can also be a weakness because as the user we need to be extra carefull since it is not a regular SMS but a service that has a connection with money. Not only from the user side that needs to be carefull, it also need an information technology network security and interconnection from the tellecommunication service company with all the related parties including the equipment that being used. It is because everything about money will have the possiblity to be scammed.

Lately, in Indonesia there is a popular scam using SMS asking for top uping mobile phones credit, and mobile phone credit scam. It makes hard to socialize the people about this new service. Similar with the principle of banking where people trust to save their money in a bank, in this telco-branchless banking there is also similar principle in which people’s trust is number one. The principle in which people trust the service that their money will be send to other account they wish to send, their balance will not decrease without their concern, and there will not a customer’s money that dissapered in the system.

According to the data provided in the beginning that the people’s penetration of the banking is still low, that is why it needs education about banking, the importance of managing financial matters and banking towards the people. It needs intense effort from several involved parties. It needs to give education or special attention towards the agent, therefore it needs a selection for the agent to make appropriate condition as expected to increase the people trust towards the agent.

**OPPORTUNITY**

Cellular phone penetration network in Indonesia has been very broaden, cellular phone is no longer a luxury item, the infrastructure resources is already available. Therefore, it is an opportunities for the telco-branchless banking service. By the avaialbility of interconnection between provider of telecommunication service, the value that are going to be acknowledged will become bigger because the availability of network externality.

The Telco-branchless banking is also has a function as cash. People do not have to bring cash and face the dangerous of street robbing to do the transaction. The community of mobile phone top up seller will be telco-branchless banking agents, in which the number of the community is very large and easy to find. Beside that, they already understand with telco product, that is why they are very suitable to become agent. Moreover, in Kompas October 2nd 2014, it was stated that 500 million transaction in a year with monetary circulation around five trillion rupiahs. Almost all the transaction usually done with conventional methods is using cash money. It was a very incredible number of cash and has not touched by the bank. The members of top up seller communities usually do not have a connection with bank. They are still conventional in doing sell and buy credit transaction towards the customer. Therefore this credit top up seller is not only an agent but also as a customer with a large amount of monetary circulation.

**THREAT**

By using the agent as the hand of telco-branchless banking, then this agent become one of the key holder of the success of this service. Accordingly the selection of the agent is very important and needs to be done with extra carefulness, related with the operational risk and reputation that become threats targeted the usage of these agents. To know more detailed about the candidate, authority from several country made a very detailed regulation. For example, Central Bank of Kenya requires track record, financial source, and reputation in the society. While Central Bank of Pakistan requires the candidate to have a business that have been operating for several time, good reputation and trusted by the people around he lives.

Still related to the agent, they are not only need to understand about customer due diligence (CDD) but also the principle like know your customer (KYC) when opening the account service. In a hope that there will not be
any misappropriation like money laundry or other forbidden activity like terrorism using the facility of telco-branchless banking. Even though the member of the community is not bank officers or telecommunication company employees that organize the telco-branchless banking, they must secure the confidentiality of customer’s data. Every bank and telecommunication company that operates the telco-branchless banking are also has a full responsible at every activity in this service.

Related to the customer and agent, it needs mutual trust so there will not be any conflict. Beside that, it also needs a call centre to answer all the questions that related to the usage of this service. The call centre will be different from the telco call centre because the form of the service is also different. It needs a regular education to deliver the development and also updated information.

There will be several participants that involved in the implementing of this service; there are telecommunication operator, bank, and government. These three participants need to work cooperatively so there will not be threat source that can damage the reputation that makes the service will not be working as expected. In addition, the biggest threat that need to be encountered in the government perspective. It is because from the regulator perspective, there are several things to be concerned about, e.g., money laundry, costumer protection, and in Indonesia it needs a lot of outlet which people can do cash-in and cash-out. Additionally, in Indonesia regulator manages specifically location and makes it compulsory for the institution to have the permission in every activities of cash-in and cash-out mechanism.

5. Discussion & Conclusion

The program of telco-branchless banking will be enable bank to reach the unbanked people and the people in the remote area to get the banking facility. Furthermore, the policy will be able to cooperate to support the operational efficiency, increase the credit distribution for UMKM, and facilitate bank to fulfill the compulsory to distribute twenty percent UMKM credit. The participants involved in here are the citizens, agent, and the government. The government has a role as a regulator that manages the policy of this service, managed by Bank Indonesia and observed by telecommunication operator.

The result for strength point is telco Branchless Banking can be done without having a bank account, Support from our government, resources infrastructure for this service, highest number of market penetration smartphone and the market for this service. Weakness point is less know your customer principle as the banking officer, the user must be extra careful because text the message is easy as SMS, trusty to the agent, an identification the agent blow up the data. Opportunities point is penetration of network cellular phone is cover all geographic condition on Indonesia, existing interconnection between provider, function as same as cash transaction, easy to have an agent. And for the last the thread point is hard to get agent with good reputation and trusted by the people around he lives, building trust between customer and agent, confidentiality of data.

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The Impact of Social Media Communication toward Consumers’ Purchase Intention (A Study on Followers of @NikeIndonesia Twitter Account)

Safira Shanastrí¹, Indrawati²
School of Economics and Business, Telkom University
¹safirashanas@students.telkomuniversity.ac.id, ²indrawati@telkomuniversity.ac.id

Abstract
In regards to technological development in 21st century, almost all aspects happen to experience digitalization. Nowadays, promotional activities not merely about advertising in printed media, billboard, banner, poster and etc. By utilizing technological improvement, promotional activities began to transform digitally and in the form of electronics such as TV, radio, website, etc. Social media has become a significant part of the consumer. Consumers are paying more attention to information written and shared online through social media. The purpose of this research is to identify the impact of social media communication on consumers’ purchase intention at followers of @NikeIndonesia Twitter account. The researcher used quantitative method in conducting the research. The population in this study is the followers of @NikeIndonesia Twitter account with total sample of 503 respondents. The researcher processed the data using smartPLS version 2.0 and Sobel Test. The result showed that: brand attitude is the most positive and significant aspect of purchase intention. Brand equity significantly and positively influence purchase intention. Brand equity is affected by firm-created social media communication and user-generated social media communication.

Keywords: brand attitude; brand equity; firm-created social media communication; purchase intention; user-generated social media communication

1. Introduction
Social media has now become a part of consumers, where they spend the majority of their time connected to virtual world. Consumers gave more attention to information that was written and shared viral through social media [1]. So many companies that now has expanded its promotional channel towards virtual world using social media tools such as Facebook, Twitter, Google+ and other social medias.

Such phenomenon is addressed by the world market leader in sports shoes, Nike. Nike is now also widening its promotion through social media channels in order to get closer to its customers. Nike branch located in each country also has a social media account each including Indonesia. Indonesia had a Facebook Fan Page “Nike Running Indonesia” with 297,515 likes on May 4, 2015. Not only Facebook Fan Page, Nike Indonesia also had a Twitter account @NikeIndonesia which had 165,237 followers until May 4, 2015 and the Twitter account has been verified which has proved the authenticity of the account and can be said that the account is an official account of Nike Indonesia. When compared with its strongest competitor, Adidas, Nike social media accounts were more attractive to public. Adidas Facebook Fan Page had a fewer likes when compared Nike’s, which were 19,559,357 compared to 22,076,870 likes on 4 May 2015. Adidas Twitter account @IndonesiaAdidasindonesia also had fewer followers than @NikeIndonesia’s which were 88,656 followers on May 4, 2015.

Although Nike managed to become the world market leader in sports shoes, since 2012 until early 2015, Nike had always been ranked second in Indonesia in a sport-casual shoe category [2]. Therefore, this study aimed to study “The Impact of Social Media Communication on Consumers’ Purchase Intention” on followers of @nikeindonesia twitter account which the variables have been identified in advance from previous research published in the journal entitled The Effect of Social-Media Communication on Consumer Perceptions of Brands (Schivinski and Dabrowski, 2013).
2. Literature Review

2.1 Integrated Marketing Communication (IMC)

IMC was the concept of well-done marketing communication planning to evaluate the role of each form of marketing communications (general advertising, sales promotion, public relations, etc.) and integrate these forms to provide clarity, consistency and impact of communication to the maximum. To achieve the purpose of communication, companies can use a tool called promotion mix. As for some of the elements contained in the promotion mix were advertising, direct marketing, interactive / internet marketing, sales promotion, publicity / public relations and personal selling [3].

2.2 Internet Marketing

2.2.1 Paradigm of Internet Marketing

According to Roberts and Zahay (2013:10), internet marketing is seen as a complex environment where marketers are trying to reach four generic objectives, namely customer acquisition, customer conversion, customer retention and growth in customer value [4].

2.3 Social Media Communication

2.3.1 Firm-created Social Media Communication

The dominance of web technology 2.0 and social media has led internet users to find a number of online media, and one of the most important is social networking. Social networking could be interpreted as a diversity of digital information source created, initiated, distributed and consumed by internet users as a way to educate one another about products, brands, services, personalities and other issues [5]. Unlike the traditional firm-created communication, social media communication had been recognized as a mass phenomenon with broad demographic appeal [6]. Additionally internet users began to migrate from traditional media and more and more are using social media channels to find information and opinions about brands and products [7].

2.3.2 User-generated Social Media Communication

The growth of brand online accounts, including social networking sites, has led to the rise of user-generated social media communication, or that it could be called the consumers testimony. User-generated content (UGC) was a rapidly growing medium to have a conversation about the brand and consumer insight regarding a product [8]. UGC was focused on consumer dimension, which was made by the general public, not by a professional marketer and disseminated via the internet [9].

2.4 Brand Equity

Brand equity can be defined as "an integral part of a product assets related to brands, names and symbols which add or subtract the value provided by a product or service to companies or consumers". A strong brand has a high level brand equity [10]. A brand assessment is a process of money expectations that spent on a brand. High brand equity provided many competitive advantages to company [11].

2.5 Brand Attitude

Brand attitude was defined as "a thorough evaluation conducted by consumer to a brand [12]". Brand attitude was often conceptualized as a global evaluation based on consumers reaction, whether it was a good reaction or not to associated brand stimulus [13]. Brand attitude often affect whether consumers will buy it or not. A positive attitude towards a particular brand will allow consumers to make purchases of said brand, but if it’s negative, it will hinder the consumer to make a purchase [14].

2.6 Purchase Intention

Purchase intention was defined as the readiness and willingness of an individual to purchase a particular product or service [15]. Social media plays an important role in intensifying the relationship between company and
its customers. Effective and efficient communication is conducted through social media will support the company's positive perception by consumers and therefore will bring up the purchase intention of consumers in a positive way as well [16].

2.7 Research Framework

The research framework that used was a framework of previous studies conducted by Bruno Schivinski & Dariusz Dabrowski (2013) in the journal entitled The Effect of Social Media Communication on Consumer Perceptions of Brands. Research framework that conducted in this study is shown in Fig 1:

![Fig 1. Research Framework](image)

The hypotheses of this study are as follows:

H1a: Firm-created social media communication has positive impact on brand equity.
H1b: Firm-created social media communication has positive impact on brand attitude.
H1c: Firm-created social media communication has positive impact on purchase intention through brand equity.
H1d: Firm-created social media communication has positive impact on purchase intention through brand attitude.
H2a: User-generated social media communication has positive impact on brand equity.
H2b: User-generated social media communication has positive impact on brand attitude.
H2c: User-generated social media communication has positive impact on purchase intention through brand equity.
H2d: User-generated social media communication has positive impact on purchase intention through brand attitude.
H3: Brand attitude has positive impact on brand equity.
H4: Brand attitude has positive impact on purchase intention.
H5: Brand equity has positive impact on purchase intention.
H6: Brand attitude has positive impact on purchase intention through brand equity.

3. Discussion

Analysis using the PLS consists of two steps that measure reliability and validity of measurement instruments and assess models to test hypotheses of the study. Here are the results of test validity and reliability:
Table 1 showed that there are 17 indicators that have loading factor value of at least 0.5, which means these indicators have convergent validity [16].

Table 2 showed that AVE of each variable was greater than 0.5, it indicated that items in each variable have sufficient convergent validity [17].

Table 3 showed the results of discriminant validity test. The simplest test to determine discriminant validity of the simplest is to compare AVE root value of two constructs with the correlation between these two constructs, the AVE root value must be greater than the root value of the correlation [18].

Table 4 Reliability Test

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Table 4 showed that variables in this study can be said to be reliable (crombach's alpha value was greater than 0.6 [19]), thus it can be used as an instrument to measure the variables defined in this study.

The total number of respondents collected was 503 respondents and they were followers of @NikeIndonesia twitter account. In PLS, model accuracy can be measured using R-Square value and path coefficients. To see how much the independent variables can affect the dependent variable can be seen from the R-Square value. R-Square value of 0.67 is considered strong, 0.33 means moderate and 0.19 is weak [20]. Here is the Table 5 which shows the r-square values contained in the model of the present study:

<table>
<thead>
<tr>
<th>Variable</th>
<th>R Square</th>
</tr>
</thead>
<tbody>
<tr>
<td>Brand Attitude</td>
<td>0.0248</td>
</tr>
<tr>
<td>Brand Equity</td>
<td>0.2566</td>
</tr>
<tr>
<td>Purchase Intention</td>
<td>0.3734</td>
</tr>
</tbody>
</table>

Table 5 showed that the r-square value of the brand attitude is 0.0248 or 2.48%, which meant that brand attitude variable can be explained by firm-created social media communication and user-generated social media communication amounted to 2.48% and the rest 97.52% explained by other factors that not examined in this study. This value was considered weak because r-square value of brand attitude variable was under 0.19. Then the r-square value of brand equity was 0.2566 or 25.66%, which meant that brand equity can be explained by the firm-created social media communication, user-generated social media communication and brand attitude amounted to 25.66% and the remaining 74.34% explained by other factors that not examined in this study, this value was considered moderate for r-square value of brand equity approaching 0.33. Then the r-square value of the purchase intention variable was 0.3734 or 37.34%, which meant that the purchase intention can be explained by brand equity and brand attitude amounted to 37.34% and the remaining 62.66% explained by other factors that not examined in this study, this value was considered moderate for r-square value of the variable purchase intention was above 0.33.

To see whether the independent variable gives impact or not, and how the direction of the relationship can be seen from T value and path coefficients. Path coefficients should have T count value greater than 1.65 (this value was obtained from the T table with a confidence level of 95%) [20]. Table 6 below shows the path coefficient and the T value:

| Path                  | Coefficients | T Statistics (|O/STERR|) | Note          |
|-----------------------|--------------|--------------------------|---------------|---------------|
| FC -> BE              | 0.06         | 1.13                     |               | H1a DENIED    |
| FC -> BA              | 0.11         | 1.8                      |               | H1b ACCEPTED  |
| UC -> BE              | 0.15         | 3.00                     |               | H2a ACCEPTED  |
| UC -> BA              | 0.09         | 1.66                     |               | H2b ACCEPTED  |
| BA -> BE              | 0.45         | 10.69                    |               | H3 ACCEPTED   |
| BA -> PI              | 0.42         | 9.82                     |               | H4 ACCEPTED   |
| BE -> PI              | 0.29         | 6.51                     |               | H5 ACCEPTED   |

Based on Table 6, we obtained explanation about the hypothesis that the firm-created social media communication gives positive and significant impact on brand attitude. User-generated social media communication gives positive and significant impact on brand equity and brand attitude. Brand attitude gave positive and significant impact on brand equity. Furthermore, to measure the value of the path coefficients and T Count through intervening variable, we used Sobel Test and showed that firm-created social media communication gives positive and
significant effect on purchase intention through brand attitude. User-generated social media communication gave positive and significant impact on purchase intention through brand equity and brand attitude. Brand attitude gives positive and significant impact on purchase intention through brand equity.

4. Conclusion and Recommendations

Based on the test results, purchase intention variable was most influenced by brand attitude. Brand attitude was influenced by firm-created social communication media and user-generated social media communication. Furthermore, purchase intention was also greatly influenced by brand equity. Brand equity was influenced by brand attitude and user-generated social media communication. Based on these findings the company should stimulate consumer desire to recommend Nike, meet consumer expectations through communication conducted through social media and testimony, as well as improving Nike products quality so consumers purchase intention can be improved.

References

The growth of internet user in Indonesia gives impact on many aspect of daily life, including commerce. Indonesian small medium enterprise took this advantage of new media to derive their activity by the meaning of online commerce. Until now, there are no known practical implementation how to predict their sales and revenue using their historical transaction, therefore create prediction model of e-commerce sales based on data. In this paper, we build sales prediction model on Indonesia footwear industry using crawl data on Tokopedia, one of the biggest ecommerce provider in Indonesia. Data mining is a discipline that can be used to gather information by processing the data. By using the method of classification in data mining, this research will describe patterns of the market and predict the potential of the region in the national market commodities. Our approach based on classification decision tree. We managed to determine predicted the number of items sold by the viewers, price, and type of shoes. However research which is concern on small medium enterprise with data mining Is not widely. With classification decision tree seller can boost the sales.

Keywords: Data Mining, Classification, Decision Tree, CHAID.

1. Introduction

In the scope of Asia, Indonesia has the 4th rank on internet user. Indonesia has 71.2 million internet user (internet world stats, 2015). This phenomenon proves that internet usage in Indonesia is getting higher and Internet has been an important need. In 2015 e-commerce in global market predicted to grow up to 20% : (aprisindo.or.id).The rapid growth of mobile, internet and population have contributed in e-commerce growth. Tokopedia.com is the largest online marketplace in Indonesia (Lukman, 2014). Indonesian shoes product has reached US $ 3.8 billion and the next year is US $ 4.5 billion sales, that increased by 18.4 %. Trend of keyword sepatu on google trend shows growth of foot wear search in Indonesia (Widjanarko, 2015).

Data mining is a discipline that can be used to gather information by processing the data. By using the method of classification in data mining, this research describes patterns of the market and predict the potential region of the national market commodities. However research which is concern on small medium enterprise with data mining is not widely used in Indonesia. Using classification decision tree, seller can boost the sales.

Research Question

Based on the background of the problem that has been expressed, then the problem can be formulated as follows:
1. How to predict sales on e-commerce using decision tree prediction model?
2. How to build sales prediction based on e-commerce sales data?

2. Theoretical Background

2.1 Social Computing

Social computing is concerned with the study of social behaviour and social context based on computational systems Social computing provides four main facilities to the behavioural modelling (Dubey et al., 2014:1):
1. **Model.** Building To create & build up models for behaviour
2. **Analysis.** Review the creation & already created models with their design work
3. **Pattern mining.** Minimize the patterns through mining
4. **Prediction.** Follow the rules & regulations to control the error in the designing

2.2 Data Mining

Data mining is the process of discovering insightful, interesting, and novel patterns, as well as descriptive, understandable, and predictive models from large-scale data (Zaki & Meira : 2014). Data mining is widely used in many domains, such as retail, finance, telecommunication and social media (Zhao : 2012).

2.3 CRISP-DP

The Cross-Industry Standard Process for Data Mining (CRISP-DM) is a popular methodology for increasing the success of DM projects. This methodology defines a non-rigid sequence of six phases, which allow the building and implementation of a DM model to be used in a real environment, helping to support business decisions (Chapman in Moro et al; 2014).

![CRISP-DM Process](source: zhao 2012)

2.4 Classification

Classification models describe data relationships and predict values for future observations (Swamy and Hanumanthappa 2012:1). Classification maps data into predefined groups of classes. It is often referred to as supervised learning because the classes are determined before examining the data (Nancy et al., 2013:583).

2.5 Decision Tree

Decision tree is a logical model represented as a binary (two-way split) tree that shows how the value of a target variable (output) can be predicted by using the values of a set of predictor variables (input) (Swamy and Hanumanthappa, 2012:1).

2.6 Web Mining

Web data mining applies data mining technology into the Web, and abstracts the interested information from Web text, Web information, Web data, and other Web services. Web data mining has three parts; content mining, user visit mode mining, and structure mining (Lei, 2013:232-233).
2.7 E-Commerce

E-commerce is a business activity that associate consumer, manufacture service provider and distributor, using computer network that called internet (Iyas, 2011:21)

3. Methodology

Researcher use data mining method to conduct Knowledge Discovery in Database (KDD). KDD is the nontrivial process of identifying valid, novel, potentially useful, and ultimately understandable patterns in data. In data mining, a decision tree is a predictive model which can be used to represent both classifiers and regression models (Milana and Abadyo, 2013).

We investigate data of shoes sales in Indonesia using web mining method on online marketplace website (tokopedia.com) until March 3rd 2015. The attribute of this research are price, type of shoes, insurance, product viewer, city of seller, rating of speed, accuracy and service have impacts on product sales. Data used in this research are data of shoes sales in Indonesia which captured using web mining method on online marketplace website (tokopedia.com) until March 3rd 2015. The attribute used in this research are price, type of shoes, insurance, product viewer, city of seller, rating of speed, service and accurate has impact on product sales.

There are several steps to make decision tree using CHAID algorithm which are:

1. Merging
   Category merging can be done on independent variable that has more than two category that are related.

2. Splitting
   In this part independent variable which used as the best split node. Splitting conducted with p-value on each independent variable.

3. Stopping
   Decision tree should be terminated by the rules. If there is no a significant independent variable or if a tree reaches a maximum value limit of the tree defined specifications.

![Figure 2. CHAID Algorithm Flowchart](image-url)
In CHAID analysis, the following are the components of the decision tree:

- **Root Node**: Root node contains the dependent variable or target variable. For example, a bank can predict the credit card risk based upon information like age, income, number of credit cards, etc. In this example, credit card risk is the target variable and the remaining factors are the predictor variables.

- **Parent's Node**: The algorithm splits the target variable into two or more categories. These categories are called parent node or initial node. For the bank example, high, medium and low categories are the parent's nodes.

- **Child Node**: Independent variable categories which come below the parent's categories in the CHAID analysis tree are called the child node.

- **Terminal Node**: The last categories of the CHAID analysis tree are called the terminal node. In the CHAID analysis tree, the category that is a major influence on the dependent variable comes first and the less important category comes last. Thus, it is called the terminal node.

**Bonferroni Correction** is a process that occurs when multiple statistical tests for freedom or lack of freedom performed at the same time. **Bonferroni Correction** use this formula (Permana, 2011):

1. **Monotonik Independent Variable**

   \[ M = \binom{c-1}{r-1} \]

2. **Independent Variable**

   \[ M = \sum_{i=1}^{c-1} (-1)^i \frac{(r-1)^i}{i!(r-i)!} \]

3. **Float Independent Variable**

   \[ M = \binom{c-2}{r-2} + r \binom{c-2}{r-1} \]

Descriptions:

- \( M = \text{Bonferroni Mining} \)
- \( c = \text{Total first independent variable} \)
- \( r = \text{Total independent variable after merging} \)

4. **Data Processing and Modeling**

   Classification method can be used to predict sales. Classification is one of the most frequently studied problems by data mining and machine learning (ML) researchers. It consists of predicting the value of a (categorical) attribute (the class) based on the values of other attributes (the predicting attributes) (Bhardwaj and Pal 2012:1)

   The decision tree on figure 3 is the result of tokopedia’s data classification. The tree has eleven nodes with seven terminal nodes. The depth of the classification tree is three. Significant variable to form the model are “dilihat”, “harga” and “tipe”. Each terminal nodes can be referred to one of the segment of “sold” variable. The conclusion of “penjualan” segment can be seen from percentage interval category of “sold” variable of each node.
Figure 3. Training Set Decision Tree

TABLE I. TERMINAL NODES

<table>
<thead>
<tr>
<th>Terminal Nodes</th>
<th>Descriptions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Terminal Nodes 1</td>
<td>Variable “terjual” that has variable “dilihat” on interval 1, 9, 10 and 12. Then variable “terjual” that has variable “harga” on interval 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13 and 14.</td>
</tr>
<tr>
<td>Terminal Nodes 2</td>
<td>Variable “terjual” that has variable “dilihat” on interval 1, 9, 10, and 12. Then variable “terjual” that has variable “harga” on interval 1. Then variable “terjual” that has variable “tipe” High Heels, Other, Office Footwear and Sneakers type.</td>
</tr>
</tbody>
</table>
Variable “terjual” that has variable “dilihat” on interval 1, 9, and 10. Then Variable “terjual” that has variable “harga” on interval 1. “terjual” that has variable Boot, Sandals & Flip Flop, Flat Shoes, Wedges, Stilettos, Vintage, Painted Shoes and Baby Shoes type.

Terminal Nodes 4 Variable “terjual” that has variable “dilihat” on interval 3

Terminal Nodes 5 Variable “terjual” that has variable “dilihat” on interval 2. Then variable “terjual” that has variable “harga” on interval 1, 2, 3, 4, 5, 6, 7, 8 and 9.

Terminal Nodes 6 Variable “terjual” that has variable “dilihat” on interval 2, Then variable “terjual” that has variable “harga” on interval 1.

Terminal Nodes 7 Variable “terjual” that has variable “dilihat” on interval 4, 5, 6, 7, and 8.

With terminal and classification pattern, we can predict sales. For illustration, if we sell shoes at Rp 62.000 with 80 viewer and classified as "Sneakers", there is 98,2% probability that the shoes will be sold 1-143 unit, 1,3% probability that the shoes will be sold 155-287 unit, 0,3% probability that the shoes will be sold 431-573 unit, and 0,2% probability that the shoes will be sold 860-1002 unit.

6. Conclusion

West Java, Jakarta and East Java are the first three largest location of footwear sales. When associated with sales count and viewer, we can see that West Java, Jakarta and East Java are still the first three on these categories. Table 4.2 also shows the number of footwear type based on city location. Average footwear price on tokopedia.com is Rp. 145.921. Province of Bangka-Belitong Islands has the highest average price, and then South Kalimantan and West Sumatra follow behind. Sales pattern on tokopedia.com shows that the higher the price the higher the sales. Footwear type highest price are boot, office footwear, and stilettos. And casual footwear has highest sales count and product views on tokopedia.com. Classification method can be used to predict sales. The decision tree on figure 4.11 and 4.12 are the result of tokopedia’s data classification. The tree has eleven nodes with seven terminal nodes. The depth of the classification tree is three. Significant variable to form the model are “view”, “price” and “type”. Each terminal nodes can be referred to one of the segment of “sold” variable. The conclusion of “sold” segment can be seen from percentage interval category of “sold” variable of each node.

References


www.aprisindo.or.id [15 Mei 2015]

The 6th Seminar & Conference on Business & Technology in ICT Industry (SCBTII 2015)

The Comparison of Accounting Hedge Method in Protecting the Value of Dollar-Denominated Debt

Dewa Putra Krishna Mahardika, Dedik Nur Triyanto
Telkom University

Abstrak
The aims of this study is to analyze the comparison of the use of hedging techniques to debt payment imports in a mining company in Indonesia. There are three hedging techniques used in this study. These hedging techniques are forward contract hedging, money market hedging and currency hedging options. The data used in this study are primary data obtained directly from the financial statements of a mining company in Indonesia and secondary data obtained from books, journals and websites related to the research problem. The average difference test used in this study is paired-sample t test. The results showed that in 2013 and 2014 all hedging techniques can minimize the risk of company’s dollar-denominated debt import.

Keywords: hedging, forward, option

1. Introduction

Since the crisis that hit countries in Asia, among those countries one of the country is Indonesia, the rupiah has decreased (depreciated) very sharply against the dollar. In connection with the foreign currency exchange rates, of course, each country fluctuates against other countries, then there is uncertainty in the payment of international trade because the transaction value may change in line with the fluctuations in foreign exchange rates.

The risk of fluctuations in the foreign exchange rate will be owned by companies that have cash flows in foreign currencies. Companies doing international trade especially in the position of the debt in foreign currency has a high risk, especially considering who paid the company increased and companies have to bear substantial losses. Therefore, the company management needs to use strategies to minimize the risks to be faced relating to the change in foreign exchange rates.

Volatility of foreign exchange rates has recently become uncontrollable due to exchange rate system adopted in freely floating exchange rates system. This is because this system led to the movement of the foreign exchange rate in the market which became very vulnerable by economic factors and non-economic factors. Inflows and outflows are so large and difficult to control that they have made the exchange rate fluctuations quite big and fast that it becomes more difficult to estimate.

When the whole country experienced global crisis, many companies in Indonesia who went bankrupt because of the obligation to pay the debt in foreign currency had increased very sharply in line with the depreciation of the rupiah against the dollar and the currencies of other countries.

In this study, the research unit of analysis is one of the mining company in Indonesia which has a number of debts due to the import of transactions of the company. The existence of the import debt is necessary to reduce the risk due to fluctuations in foreign exchange hedging. The need for derivative instruments (hedging) such as forward contracts hedging, money market hedging and currency hedging option gives access to forward contracts hedging, money market hedging and currency hedging in the banking option is only done by large companies.

These hedging techniques have actually been frequently used by foreign companies and banks, but in Indonesia here are still many people who do not understand these hedging techniques and the benefits for the business world. In Indonesia hedging techniques most frequently used are forward contracts and currency options. While money market hedging technique is rarely used, because the money market hedging involves taking a position in the money market to protect the position of the debt or receivable in the future. Another reason why money market hedging technique is rarely used because it is not in accordance with company requirements.
By comparing the forward contract hedging, money market hedging and currency hedging option can be determined which is more efficient hedging technique that can be used as an alternative for a mining company which is the object of this study. Accordingly, this research tries to answer the following questions:

1. Does the forward contract hedging minimize the risk of dollar-denominated debt import?
2. Does money market hedging minimize risk import dollar-denominated debt import?
3. Does hedging currency option minimize the risk of dollar-denominated debt import?
4. Is there a difference in the value of imports of debt that must be paid by the company between that use hedging techniques to those not using hedging techniques?

2. Literature Review

Every company doing international transactions would have a receivable (reception) and payable (expenses) in various foreign currencies. To determine whether or not carried out hedging on receivable or payable in a foreign currency, which need to be considered is the fluctuation of foreign exchange rates. Given exchange rate fluctuation risk, the Management company that has international transactions seek to avoid or reduce losses from the exchange rate fluctuations. The actions carried out by the management of one of them is to do a hedging technique called hedging.

Hedging is taking a position, obtaining a cash flow, assets, or contract (including a contract is forward) will rise (or fall) in value, and compensates by a decrease (or increase) in the value of an existing position. Therefore, hedging protects the owners from losses that can overwrite the existing assets. (Eiteman 2004: 148). According to Hamdy Hady (2010: 102) "hedging is the act by the company to avoid or reduce the risk of losses due to fluctuations in foreign currency exchange rates".

The main benefit of hedging is to protect the company from the risk of losses due to exchange rate fluctuation. According to Jeff Madura (2001: 197) "companies in general try to hedge or protect against exchange rate movements. They can hedge more effectively if you know how a certain amount is needed or received on a specific date in the future ".

By hedging a company will be able to establish the exact amount of debt that must be paid as well as the number of bills to be received in the future. On the other hand with a hedge, the company can no longer expect a profit that might occur when exchange rates fluctuate towards profitable for companies that have debts in foreign currency would gain if the exchange rate of the domestic currency strengthens when the debt matures.

The forward contract hedging technique is mostly done by large companies or Multinational Corporation (MNC) to protect the receivables and payables which are relatively large against the risk of foreign exchange fluctuations by locking an exchange rate on the transaction in the future. The foreign exchange trading activity is not only done at the current time delivery (spot), but can be made buying and selling currency at the time of delivery in the future (forward). According to Levi (2001: 57) a forward contract that is "forward exchange rate (the forward exchange rate) is an agreed exchange rate today to exchange currency at a certain date in the future". According Eiteman (2004: 154) "forward hedge involves a forward contract and a source of funds to meet the contract is. Forward contract entered into at the time of the creation of the relevant transaction exposure ".

Meanwhile, according to Brigham and Houston (2006: 327) "forward contract is an agreement whereby one party agrees to buy a commodity at a certain price at a certain date in the future and the other party agrees to carry out such sales".

From the definitions above can be concluded that the hedging forward contract is an agreement between the two sides in the form of delivery of a number of foreign currency at a given time in the future by other parties at a price agreed when the contract was made. Money market hedge involves taking positions in currency markets to cover the debt position or receivable in the future. The instruments are traded in the money market securities within a short-term period which is not more than one year. Each company can basically use the money market for the hedged transaction exposure in anticipation of cash inflow position and expenditures in the future. In this case the contract in the form of a loan agreement.

The Company strives to seek a loan on a currency in the money market, and then convert the loan in another currency. The value of loans indicated on the contract, can be used initially to carry out short-term investments such as buying securities, deposited in banks and others. At maturity the company will pay back the loan plus interest...
repayments. At the time of investment over the company gain efficiencies from the difference between the investment at an interest rate.

Those things are intended to enable companies to avoid exchange rate fluctuations that could harm the company's financial position. Because of the rupiah against currency fluctuations which occur resulting in changes in the value of imports of debt owned by the company. A company doing export and import transactions will be strongly influenced by fluctuations in currency exchange rates, especially against the currency used as means of payment.

**Money Market Hedging top Payable**

In the money market hedge on the debt, if the company has excess cash, the company can make short-term deposits in foreign currency which will be needed in the future. In many cases, MNC choose to hedge the debt without using cash balances. According to Jeff Madura (2006: 421) "hedge currency market can still be used in this situation, but it takes two currency position: (1) borrow funds in original currency and (2) short-term deposits in foreign currency".

Step-by-step techniques for protecting money market hedging debt are as follows:

1. Determining the amount payable at maturity.
2. Finding the present value of the debt with interest rate of foreign currency deposits, and convert to the local currency.
3. Borrowing money from the domestic currency at the present value of the debt that has been converted into the domestic currency, so it can invest the money into foreign currency, and when the debt matures these investments will be able to cover the debt in foreign currencies.
4. Paying the debt in domestic currency after the maturity plus interest.

**Money Market Hedging on Receivables**

If the company has receivables in foreign currency, the company can hedge this position by borrowing in the currency now and convert them into dollars. Receivables received will be used to repay the loan.

In some cases, MNC may not need to borrow funds for 90 days. According to Jeff Madura (2006: 423) "in this situation, hedge money market receivables can still be done if the company uses two positions on the money market: (1) borrow the currency used in the accounts receivable and (2) invest in original currency ".

Steps hedging techniques to protect the money market accounts are as follows:

1. Determine the amount receivable at maturity.
2. Determine the amount of loans in foreign currency by finding the present value of these loans into domestic currency and invest it.
3. Convert the loans into domestic currency and invest it.
4. At maturity, the company gets certainty on acceptance receivables at the amount of investment in the domestic currency plus interest. At maturity the company also will receive a receivable for investments in domestic currency plus interest and will be used to repay the loan.

Companies realize that the hedging instruments such as forward contracts and futures can sometimes be detrimental if the debt exchange to depreciate. In this case, without a hedging strategy may be more will surpass that uses hedging forward contracts and futures. The ideal type of hedging are able to isolate the company from adverse exchange rate movements and also enable the company to take advantage of favorable exchange rate movements. Hedging and currency option contains both these attributes.

Currency call option gives the right to buy a particular currency at a specified price (the exercise price) during a specified time period. Currency call option does not require the owner to buy the currency on the price. If the currency spot rate remains lower than the exercise price during the validity period of the options, the company can let the option expire and buying currency at the prevailing spot rate.

On the other hand, if the spot rate appreciates currency then buy option allows companies to buy the currency valued at exercise price. In other words, a company that holds a call option has set a maximum price (exercise price) to buy a currency. However, the company also has the flexibility to let the option expire and buying currency at the prevailing spot rate of currency required for repayment.

Currency put option gives the right to sell a specific currency at a specified price (the exercise price) during a specified time period. Companies can use the put option as a hedge receivables due to the put option guarantees a
certain price (exercise price) that is used to sell the currency of settlement of accounts receivable. Currency put option does not require the owner to sell the currency at a specified price.

If the spot rate is currently companies receiving foreign currency is higher than the exercise price, the company can sell the currency received at the spot rate and let the option expire.

3. Research Framework

In this study the hedging techniques used are forward contracts hedging, money market hedging and currency hedging options. The third reason for selection of these hedging technique is to protect the company's assets from loss, and also can eliminate the advantage obtained from the increase in the value of assets in the hedge. While the technique is not used because the futures contract forward contract is similar to a futures contract, with the difference that the forward contracts are generally used for large transactions, while the futures contract used for smaller amounts. From the description above, the outline of the framework of this research can be seen in the following figure:

The technique used data analysis in this research is the analysis of quantitative data using different test methods which will be used to analyze the data as follows:

1) Analysis of the company if the import value of the debt using the contact forward hedging techniques.

\[
\text{Forward rate} = \text{Spot rate} + \frac{\text{Interest rate differential} \times \text{Spot rate} \times \text{Days}}{360 \times 100}
\]

Debt value of imports = forward rate x the transaction value of imports
2) Analysis of debt value of imports by using money market hedging techniques.
   a. Determining the value of the debt in dollars at maturity
   b. Looking for the present value (PV) of the value of the debt:
      \[
      \text{The value of debt (dollar)} = 1 + (\text{interest rates on dollar deposits} \times \frac{30}{360})
      \]
   c. Convert the present value (PV) of the debt (dollar) into the rupiah, then borrow rupiah at the present value of the debt to be invested into dollars so that at maturity can cover the debt value.
      \[
      \text{Loans (Rp)} = \text{the present value of debt} \times \text{spot rate}
      \]
   d. Repay the loan plus interest at maturity. The amount of debt to be paid at maturity:
      \[
      \text{Value of imports Debt} = \text{Loans (USD)} \times (1 + \text{lending} \times \frac{30}{360})
      \]

3) Analysis of import value of debt by using currency option hedging techniques to perform call option.
   a. Determine the amount to be paid per unit:
      \[
      \text{The amount paid} = \text{strike price} + \text{premium per unit call option}
      \]
   b. Value of the debt to be paid at maturity:
      \[
      \text{The value of imports payable} = \text{amount to be paid per unit} \times \text{the transaction value of imports}
      \]

4) Analyze comparison the value of imports of debt by using a forward contract hedging, money market hedging, and hedging currency option during the study period.

5) For statistical calculations import transaction data will be made in the form of monthly.

4. The Result

The average difference test used in this study is paired t test (paired-sample t test) to be processed with SPSS 17. This test was used to compare the difference in the average of the two samples are paired.

The amount of debt the value of imports of mining companies surveyed in 2013 and 2014 when the open positioning and using hedging techniques can be seen in the table below:

<table>
<thead>
<tr>
<th></th>
<th>2013</th>
<th>2014</th>
</tr>
</thead>
<tbody>
<tr>
<td>Method</td>
<td>Debt Amount (Rp)</td>
<td>Debt Amount (Rp)</td>
</tr>
<tr>
<td>Open Positioning</td>
<td>71,050,993,700</td>
<td>67,349,838,590</td>
</tr>
<tr>
<td>Forward Contract Hedging</td>
<td>69,489,596,430</td>
<td>67,570,069,840</td>
</tr>
<tr>
<td>Money Market Hedging</td>
<td>69,754,746,640</td>
<td>67,840,630,450</td>
</tr>
<tr>
<td>Currency Option Hedging</td>
<td>73,182,239,980</td>
<td>69,369,148,150</td>
</tr>
</tbody>
</table>

Paired differential t-test can be shown below

<table>
<thead>
<tr>
<th>Paired Differences</th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>Std. Error Mean</th>
<th>95% Confidence Interval of the Difference</th>
<th>t</th>
<th>df</th>
<th>Sig. (2-tailed)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pair 1 tanpa hedging - melakukan hedging</td>
<td>-13.10726</td>
<td>129.51676</td>
<td>17.30741</td>
<td>-47.79208 - 21.57555</td>
<td>-.757</td>
<td>5</td>
<td>5</td>
</tr>
</tbody>
</table>

The above table shows that the test results when the open positioning and hedging acquired a significance level of 0.552 which means the probability is much greater than the significance level of 5%. So the results of testing this hypothesis is rejected Null hypothesis (H0) that states there is no difference in the value of imports of debt that must be paid by the company between that use hedging techniques to those not using hedging techniques or accept the alternative hypothesis (Ha).

5. Conclusion

Based on the results of data analysis and discussion that has been described, it can be concluded as follows:

1. The use of a forward contract hedging, debt can minimize the risk of imports. These results are consistent with studies that have been done by Sujana (2006) which states that it is better if the company chooses a forward contract hedging because the benefits far greater in minimizing the risk of losses due to exchange rate fluctuations.
2. If the company uses hedging money market can also minimize the risk of import debt. Results of this study together with the study conducted by Aisjah (2005) which states that the four alternative hedging strategies, the most profitable in anticipation of the transaction exposure is to perform the techniques of money market instruments (money market hedging).
3. However, if the company uses hedging currency option to do a call option to minimize the risk of debt import company. Results of this study together with the study conducted by Hagelin (2004) which states that the currency option hedging of transaction exposure has the effect of reducing the economic risk is better than the money market hedging and forward contracts hedging.
4. After testing statistical hypothesis for the payment of debts and imports in 2013 to 2014, it turns out there is a difference in the value of imports of debt that must be paid by the company between that use hedging techniques to those not using hedging techniques (open positioning).

References


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Abstract
The total mobile games downloaded in Indonesia was number one in ASEAN. Mobile games also become the biggest contributor to iOS and Google Play income. About 65% income for iOS and Google Play comes from games and the rest comes from another application such as Instant Messaging, Social Media, etc. Mobile games download in Indonesia also increase till 85% from 2013 to 2014. Until 2014, mobile games had already generated 41 million dollar. Indonesia, until the end of 2014, had 30.7 million active gamers with half of it is a spender player. In Indonesia, smartphone users were 41.6 million in 2013 and predicted to reach 103.6 million in 2017 with penetration rate reach 53%. Those data show that there is a huge potential business for game industry. Contrast with the growth and potential revenue from mobile game, business players say that foreign titles still the one who get most of those benefits. Users in Indonesia still have low intention to purchase content of the game, especially the one made and entitled by Indonesian. Business players have to know what factors those affect user’s intention and usage when they are choosing mobile games to be played. This research is conducted to find out factors that affect users intention and behaviour in choosing mobile games. To achieve these objectives, writers did literature review from several international journals and conduct interviews. There are two session of interviews, session one is done to find out factors which are considered by respondents when they are going to play a game. The questions given to the respondents are based on external factors (Perceived Ease of Use, Content Quality, Connection Quality, Social Influence, and Usage Cost) and internal factor (Flow). Session two is done to reconfirm the factors and composed the proposed model. Total correspondents are 25 (18 in session one and 7 in session two). This study proposed modified model by splitting Flow Variables into two variables, remove Connection Quality variable, add Visual Appeal variable, replaced Usage Cost with Economic Value, and add Use Behavior. This proposed model can be a reference to predict use behavior of Indonesian Mobile Gamer in adopting Mobile Game.

Keywords: Mobile Games; Adoption; TAM; Extended TAM; Indonesia

1. Introduction

Game industry has a good potential in Indonesia. According data from Bloomberg, Indonesian game industry has a positive growth 20%-30% from 2010 to 2014 (Kaab, 2014). Newzoo, a market research company from Netherlands, stated that Indonesia contributed half of game market in ASEAN with the total value of 1.4 billion Dollar. With a growth projection 56% from 2013 to 2017, Indonesia will generate annual revenue as much as 1.3 billion Dollar from mobile (Monica, 2015).

Nowadays, the gamers are shifting from fix online game to mobile game. The shifting from fixed online game to mobile game is supported by connection trend shifting from fixed connection to mobile connection (Galih and Ngazis, 2012). The device used for mobile gaming is smartphone. Smartphone users in Indonesia were 41.6 million in 2013 and predicted to reach 103.6 million users in 2017 with penetration until 53% (APJII, 2014). That is why mobile game is very attractive for game industry players, such as game developers, game publishers, etc.

Contrast with all growths and potential revenues from mobile game in Indonesia, local player has not got benefit since most of the gamers tend to use foreign games as stated by Bhaskoro in Dailysocial.net (Bhaskoro, 2014). Dien Wong, co-founder and CEO AlterMyth Studio, said that users in Indonesia also have low intention to...
purchase content in the game (Bhaskoro, 2014). In addition, percentage of purpose using internet shows game (10.1%) still has low portion under social media (87.4%), info search (68.7%), instant messaging (59.9%), video streaming (27.3%), etc (APJII, 2014).

Analyzing factors that affect usage intention and use behavior of customers towards mobile game is needed in order to increase motivation them to choose and play mobile game. In 2012 Zhou proposed and tested mobile gaming adoption model for Chinese gamers. Same with Zhou (2012), Liu and Li (2011) also conducted a research about mobile gaming adoption in China. In Taiwan, Liang and Yeh (2012) already researched mobile game adoption model. Okazaki, Skapa, and Grande (2008) proposed and tested model which can predict intention to play mobile game in US, Spain, and Czech Republic. Till now, writer does not yet find adoption model that fit for Indonesian game player. Therefor, this research is conducted to propose adoption model that fit for Indonesian gamers.

2. Literature Review

2.1. Theory Acceptance Model

Theory Acceptance Model (TAM) first was developed by Fred D. Davis in 1989. In early 21st century, TAM was modified with addition several variables and then well known as TAM2 (Venkatesh & Davis, 2000; in Pan, 2011). In first model of TAM, Davis postulate two fundamental factors that affect people to adopt technology innovation. Those factors are Perceived Ease of Use and Perceived Usefulness. Davis defining Perceived Ease of Use as the degree to which a person believes that using a particular system would be free from effort (Davis, 1989). And Perceived Usefulness is defined as the degree to which a person believes that using a particular system would enhance his or her performance (Davis, 1989). Modified TAM was used by most of research in mobile game which will be explore more detail in part 2.2.

2.2. Previous Research for Mobile Gaming Adoption

Several research on mobile gaming adoption already conducted (Zhou, 2012; Liu & Li, 2011; Liang & Yeh, 2012; Okazaki, Skapa, & Grande, 2008; Pan, 2011; Choe & Schumacher, 2014, Ha, Yoon, & Choi, 2007). They used TAM as a basic model that represents external factors. In their research, they added several variables in order to get a better model.

Zhou (2012) proposed and tested mobile gaming adoption model with the best fit indices value. In his research, he explored the effect of Flow toward Usage Intention of mobile game. In his model, Flow (F) is affected by Perceived Ease of Use (PEoU), Content Quality (CTQ), Connection Quality (CNQ). Beside Flow, the result also shown that Social Influence and Usage Cost as variables affecting Usage Intention of mobile game.

Liu and Li (2011) also developed and tested model for mobile gaming adoption. In this research, they explored the impact of Use Context to all variables that construct the model. This research shown that Use Context affected Perceived Ease of Use, Attitude, Behavioral Intention, Perceived Enjoyment, and Cognitive Concentration. Beside that, this research also shown that Perceived Usefulness, Perceived Enjoyment, and Cognitive Concentration affected Attitude. Furthermore, this research also proved that Attitude affected Behavioral Intention.

In 2010, Liang and Yeh developed and measured mobile gaming adoption model that is constructed by Playfulness, Ease of Use, Attitude, Subjective Norm, and Continuance Intention. Liang and Yeh (2010) also added Use Context as a moderator. From this research we can found that Attitude had great effects on the Continuance Intention and Playfulness had significant influence on user’s Attitude toward playing mobile games.

Okazaki, Skapa, and Grande (2008) already made research that explains mobile gaming adoption in a crosscountry context. In this research, Visual Appeal, Escapism, Perceived Fun, Perceived Novelty, Economic Value, Perceived Convenience, Perceived Ease of Use, Attitude, and Intention to Play construct the model. And The measurement test shown that Perceived Convenience is the strongest determinant of the Attitude. Furthermore, Attitude is factor that affecting Intention to Play.

Pan (2011) proposed and tested model that can predict Adoption of mobile gaming in China. The measurement test show that Perceived Enjoyment had the strongest effect on Adoption. In this research also found that Flow, Perceived Ease of Use, and Social Influence had effect on Adoption of mobile game.

Choe and Schumacher (2014) investigated influence of different types of vibration on adoption of mobile game. The result of testing shows that specific vibration significantly increases Perceived Ease of Use, Perceived Usefulness, and Cognitive Concentration. Only Perceived Enjoyment seems not to be affected directly.
Ha, Yoon, and Choi (2007) conducted a study that resulted in a model analyzing attitude toward playing mobile games. The study found that attitude significantly influences flow experience, perceived ease of use, perceived enjoyment (PE), and perceived attractiveness. Fit indices from several previous journals about mobile game adoption model can be seen in Table 1.

<table>
<thead>
<tr>
<th>No</th>
<th>Journal</th>
<th>CFI</th>
<th>NFI</th>
<th>NNFI</th>
<th>RMSEA</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Understanding the effect of flow on user adoption of mobile games</td>
<td>0.972</td>
<td>0.94</td>
<td>0.966</td>
<td>0.058</td>
</tr>
<tr>
<td>2</td>
<td>Exploring the impact of use context on mobile hedonic services adoption</td>
<td>0.965</td>
<td>0.933</td>
<td>0.956</td>
<td>0.061</td>
</tr>
<tr>
<td>3</td>
<td>Determinants of adoption of mobile games under mobile broadband wireless</td>
<td>0.92</td>
<td>NA</td>
<td>NA</td>
<td>0.07</td>
</tr>
<tr>
<td>4</td>
<td>Capturing Global Youth Mobile Gaming in the U.S., Spain, and the Czech</td>
<td>0.87</td>
<td>NA</td>
<td>NA</td>
<td>0.065,0.073,0.081</td>
</tr>
</tbody>
</table>
beneficial performance consequences that would have been expected (in Liu and Li, 2011). While Cognitive Concentration is the effort required for engagement in the mobile gaming and mobile users can normally perform several tasks at the same time (Liu and Li, 2011).

2.6. Social Influence (SI)

Social Influence reflects the effect of others that are considered important to the user. Social Influence is similar to the Subjective Norm variable on the Theory of Planned Behavior. When friends and colleagues recommend users to use the mobile game, the user can follow their opinion and adopted the game eventhough the user has not formed a positive Attitude towards the game. Unified Theory of Acceptance and Use of Technology (UTAUT) argues that Social Influence is a significant determinant of adoption by users (Venkatesh et al., 2003; in Zhou, 2013). Existing research also describes the effect of Social Influence on Behavioral Intentions in the context of mobile data services (Thong et al., 2011; in Zhou, 2013), instant messaging (Shen, 2011, in Zhou, 2013), and multimedia messaging services (Kim et al., 2011, in Zhou, 2013).

2.7. Economic Value (EV)

According Mathwick et al., (2001), Economic Value represents the perceived affordability of online shopping, in those users can afford reasonable amount of investment in time and money (in Okazaki, Skapa, and Grande, 2008). While in this study Economic Value illustrates the extent to which the level off airness between the investment of time and money to play mobile games with the value obtained by playing mobile games. Investment of money must be spent in order to be able to play games includes mobile internet package subscription fee, the cost of downloading mobile games, and costs incurred for the transaction in the game.

2.8. Mobile Game Adoption Model by Zhou

Mobile game adoption model that was developed by Zhou (2012) has the best fit indices value. Zhou (2012) construct the model with several variables: Content Quality, Connection Quality (reflects the access speed and stability), Perceived Ease of Use, Social Influence, Usage Cost (the costs derived from using mobile games, such as communication fees and transaction fees), Flow, Usage Intention and (user intention to use and continue using mobile games). The model shown in Figure 1.

Fig 1. Mobile Game Adoption Model (Zhou, 2012)

3. Interview Result

To propose mobile gaming adoption for Indonesian players, writer make personal interview to 25 respondents that is divided into two sessions. Personal interview is one of qualitative research techniques that are commonly used to find the answer of how and what people think about the object. The number of respondents wasn’t defined in the beginning research. These numbers rise when writer feel the answer was going to saturate. The purpose of this qualitative research is not about number. The aim is to get insight from use behaviour of respondents. Moreover, respondents were selected from different and various background (government employee, bank employee, college student, teacher, etc).

Interview session one conducted and involve 18 respondents. In this session respondents are asking several question about variables in Zhou model (2012) and ends with personal opinion about factor that affecting respondents in adopting mobile games. The results of interview session one can be seen in figure 2.
Fig 2. Interview Session 1 Result

From figure 2 can be seen that Content Quality is the most affecting factors for respondents. And more than half respondents said Perceived Ease of Use, Connection Quality, and Social Influence are important factors in adopting mobile game.

Figure 2 also show that more than half respondents agree that Flow and Usage Cost affect them to play mobile game. In addition 33% of respondents say that graphics (GRAPH) affect them to play mobile game. And all respondents intend to play mobile game.

From interview session 1 result, writer make several modifications for mobile game adoption model that is developed by Zhou (2012). Those modifications are: split Flow into Perceived Enjoyment and Cognitive Concentration, remove Connection Quality, and add Visual Appeal as independent variable.

Flow split into two variables because after finishing interview session 1 about 39% of respondents still can enjoy the game without having to put attention and focus to the game. So, in order to get optimum result writer decide to split Flow into Perceived Enjoyment and Cognitive Concentration, two dimensions of Flow variable.

Next, Connection Quality is removed because respondents not only play online mobile game but also offline and semi-online mobile game. So, to get universal model for both of online and offline mobile game, writer decide to remove Connection Quality.

The last variable is Visual Appeal. Graphics is the most factors affecting respondents feel enjoy when playing mobile game. And Visual Appeal is variable that can represent the quality of graphics. So, writer decide to add Visual Appeal into proposed model as Independent Variable that affect both of Perceived Enjoyment and Cognitive Concentration.

To confirm proposed model, writer conduct interview session two with total seven respondents. And the result of interview can be seen in these following figures.

Fig 3. Interview Session 2 Result

Figure 3 show us that Perceived Ease of Use, Content Quality, and Visual Appeal are factors that affect all respondents to play mobile game. Meanwhile, 86% of total respondents affected by Social Influence when decided to play mobile game.

Figure 3 also show us that Perceived Enjoyment and Usage Cost affect all respondents when decided to play mobile game. And 57% of total respondents agree that Cognitive Concentration affect them when decided to play mobile game. In the end, writer replaced Usage Cost with Economic Value because writer feel Economic Value
more suitable. Economic Value emphasize more value on investment both of time and cost incurred. Contrast with Usage Cost that emphasize just on cost incurred.

In addition, writers also put several statements in interview session 2 in table 2.

Table 2. Statements in Interview Session Two.

<table>
<thead>
<tr>
<th>No.</th>
<th>Statement</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td><strong>Perceived Ease of Use</strong></td>
</tr>
<tr>
<td></td>
<td>a. Respondent A : I would rather play game that easy to play better than the hard one. If the game is hard I will uninstall it from my smartphone.</td>
</tr>
<tr>
<td>2.</td>
<td><strong>Content Quality</strong></td>
</tr>
<tr>
<td></td>
<td>a. Respondent B : I prefer play game simple content but unique and different from common other game.</td>
</tr>
<tr>
<td>3.</td>
<td><strong>Visual Appeal</strong></td>
</tr>
<tr>
<td></td>
<td>a. Respondent A : For me, Eye catching is very important for game. With colorful and beautiful graphics, I have more intention to play it.</td>
</tr>
<tr>
<td>4.</td>
<td><strong>Social Influence</strong></td>
</tr>
<tr>
<td></td>
<td>a. Respondent D : I play this game because I feel attracted when I look my friend play it.</td>
</tr>
<tr>
<td>5.</td>
<td><strong>Perceived Enjoyment</strong></td>
</tr>
<tr>
<td></td>
<td>a. Respondent E : I will feel pleasant when I can beat my enemy and get additional point. But I will feel upset when I get lost.</td>
</tr>
<tr>
<td>6.</td>
<td><strong>Cognitive Concentration</strong></td>
</tr>
<tr>
<td></td>
<td>a. Respondent D : Gameplay for this game that make me have to focus to the game if I want to win each level</td>
</tr>
<tr>
<td>7.</td>
<td><strong>Economic Value</strong></td>
</tr>
<tr>
<td></td>
<td>a. Respondent E : This is free game. If I have to pay it, I will choose another free game with same genre.</td>
</tr>
<tr>
<td>8.</td>
<td><strong>Usage Intention</strong></td>
</tr>
<tr>
<td></td>
<td>a. Respondent F : Yes, I will still play it because I can get new friend, making social relationship, and sharing everything from this game.</td>
</tr>
</tbody>
</table>

4. Conclusion

After several interviews, the proposed model to predict consumer behavior toward mobile game in Indonesia is as shown in Figure 4. The proposed model constructed by five independent variables, three intervening variables, and one dependent variable.
The next process that will be done by the writers are composing the measurement model and test it through pilot test. Once the measurement is valid and reliable, it will be used to collect main data to test if the model can be applied to predict the behaviour of gamers in Indonesia.

References


The Security Risk Analysis On The Information Technology Infrastructure Of An Internet Service Provider

Lidya Vega Neaxie, Puspita Kencana Sari
Faculty of Economic & Business, Telkom University, Bandung

Abstract

Information technology has an important role in supporting business processes and improve the competitiveness of enterprise. Information technology growth has changed information become a valuable assets for the company. The higher value of information assets, the more people want to gain access to information and control it. This causes the potential threats and risk to the assets. Therefore, some companies began to consider the process to maintain and protect their information through implementing good information security management. Some risks and threats can attack the security aspects of information, namely Confidentiality, Integrity, and Availability. So that, it need a specific approach to manage risk adequately by doing risk management of its information assets. One of the internet service provider, PT XYZ, has potential risks on its information technology infrastructure assets, such as disruption of production equipment, theft of assets, and changes in technology. This study aims to analyze the risk related to infrastructure of internet services in PT XYZ. The risk analysis using qualitative methods based on ISO/IEC 27005:2011 framework as one of information technology risk management standard. There were 22 infrastructure assets that need to be identified for its value, level of threat and degree of vulnerability. The results showed most of threats and vulnerabilities has a low level. Based on the type and level of threat for each infrastructure assets, there are 97 risks with medium level and 27 with low level.

Keywords: ISO/IEC 27005, information security, information technology, risk management

1. Introduction

Information are the assets of the organization that very valuable and important as other assets (Sutabri, 2012). As a consequence, information security is a necessity to protect corporate assets from threats. The use of information technology in operational activities may increase the risk to be faced for the organization. Based Global IT Security Risk survey by B2B International, half of companies worldwide surveyed did not know about the security threats that might happen (Cybi Newsletter, 2013).

PT.XYZ currently provides a variety of Internet services including broadband internet access, and other applications to the internet services. PT.XYZ faces many risks in providing their services. PT.XYZ owned network may be vulnerable to the unauthorized access, computer viruses, cyber threats and other disruptions. Product PT.XYZ, the connection to the internet service is a product of the Internet with an open network to all people so becoming vulnerable to the potential threats and risks. One location is the provision of internet services in a central infrastructure that is known have the potential of disruption in their Internet infrastructure assets. This information was obtained from the Network Assistant Manager as PIC of the infrastructure of the internet service in the Central. Results of the interview stated that the Internet infrastructure in the Central had potential risks such as damage caused outages that could not provide their services to the customers.

1.1 Problem

Based on the existing background, there are problems as following:
1. What assets of information technology infrastructure are need to be protected?
2. What are the potential threats and vulnerabilities that can occur on information technology assets?
3. How are the level of the risk that may occur to information technology assets based on ISO/IEC 27005: 2011 framework?
4. What are the controls to protect information technology assets and prevent the risk that may occur based on ISO/IEC 27001: 2013?

2.1 State of the Art

There are previously researches about risk assessment and determination of the level of risk on asset valuation, asset assessment of threats likelihood and the level of vulnerability of the asset. As an example, researches by Maryam et al. (2012) and Ghazouani (2014) had tried to obtain recommendation the right protection control from estimated level of risk and risk evaluation. This study is limited only covers the risk management process carried out in clause 7 to clause 8.3 in the ISO/IEC 27005:2011 framework to better focus on the purpose of research that is to conduct a risk assessment and determination of the level of risk based on asset valuation, assessment of likelihood threats and the level of vulnerability of the asset.

2. Literature

2.1 Information Security Threats

Threats are divides into four types of threats: (1) the interruption, where the computer system resources are destroyed or become unavailable and useless; (2) interception, where that unauthorized parties can access resources and make changes to the data; (3) modification, where is an unauthorized person is not only access but also damaging resources; (4) fabrication, where unauthorized counterfeit insert objects into the system (Prasojo, 2011). Furthermore, the threats may occur from various sides, start from the users (clients), communication lines, servers, and systems in companies (Laundon and Laudon, 2010).

2.2 Risk management

To define risk consists of the following four steps (Mc.Leod and George, 2008): (1) Identify the business assets that must be protected from risk; (2) Recognizing the risk; (3) Determine the level of impact on the company if the risk does occur; and (4) analysing the weaknesses of the company. The objective of risk management is to minimize losses and increase the chance or opportunity. Basically the risk management is the prevention of the occurrence of a loss or accident. Furthermore, according to the purpose of the overall risk management process to identify, evaluate and mitigate risk by selecting proper protection (Tashi, 2011).

2.3 ISO/IEC 27005 : 2011

ISO/IEC 27005 focuses on risk analysis, as a first steps to the selection of security controls. ISO/IEC 27001 and ISO/IEC 27002 more explicitly to the planning, implementation and operation of the security controls. Company policy regarding security of information provides guidance for information security management (Cazemier et.al, 2010). The process of information security risk management consists of the determination of context (clause 7), risk assessment (clause 8), the treatment of risk (clause 9), acceptance of risk (clause 10), risk communication (Clause 11) monitoring and assessment of risk (Clause 12).

However, this study is limited only covers the risk management process carried out in clause 7 to clause 8.3 in accordance with the framework in Figure 1. The process of risk management is using a framework based on the standard ISO/IEC 27005:2011, including the process of determining context risk management to determine the risk management objective and scope as well as limitations. This study conducted a risk assessment of infrastructure assets. Furthermore, risk identification process is to determine the value or valuation of assets to threats and vulnerabilities that may occur. Perform asset identification, asset ownership assessment and risk estimates to determine the level of...
risk that occurred to obtain results for the evaluation of risk. Evaluation of risk to the determination of existing controls if it is appropriate and needs to be improved or new controls recommendations to be implemented.

![Risk Management Process in Information Technology](image)

**Fig. 1. The risk management process in information technology**

Source: Adapted from ISO/IEC 27005 (2011)

3. **Method**

This study used a qualitative research approach, aimed to describe and analyse the phenomena, events, social activities, attitudes, beliefs, perceptions, thoughts people individually or in groups, and some descriptions to find principles and explanations that lead to the conclusion that is inductive, the researchers let the problems arise from a data or left open to interpretation. Furthermore, this study uses a case study approach, a case study is a study aimed at collecting data, extract meaning, and gain an understanding of the case (Ghoni and Almanshur, 2012).

3.1 **Data Analysis Technique**

Data analysis techniques used are referring to the framework of ISO/IEC 27005, as the identification and valuation of assets, the identification and assessment of threats and vulnerabilities, and risk assessment. Results from subsequent identification will be carried out estimation of risk and risk evaluation. Risk analysis means to estimate risk or risk assessment infrastructure assets using a matrix approach to ISO/IEC 27005 in order to determine the level of risk of the asset value, the level of threat and the degree of vulnerability that can be seen in Table I, as follows:

<table>
<thead>
<tr>
<th>Vulnerabilities</th>
<th>Low (L)</th>
<th>Medium (M)</th>
<th>Height (H)</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>0</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>1</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
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<td>2</td>
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<td>5</td>
</tr>
<tr>
<td>4</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Asset Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>0-1-2</td>
</tr>
<tr>
<td>3-4-5</td>
</tr>
<tr>
<td>6-7-8</td>
</tr>
</tbody>
</table>

**Table I. Matrisks of Risk Level**

**Legend:**

- **0-1-2**: Low Risk, means not incurring huge losses for the company.
- **3-4-5**: Med risk, means causing losses for the company.
- **6-7-8**: High risk, means incurring huge losses for the company.
After risk estimation, the next process that determines control recommendations to measures of risk evaluation. Selection of control recommendation based on ISO / IEC 27001: 2013 for protection control of infrastructure that providing internet services based acceptance level that have to predetermine by the respondents.

4. Result and Discussion

4.1 Identification Asset of Infrastructure

Asset is value to the organization and therefore need protection. Identifying assets, it should be remembered that the information system consists of more than hardware and software (ISO/IEC 27005: 2011). Results identification of infrastructure assets acquired internet service, there are 22 list of assets assessment and risk analysis to asset protection. Assets that are intended can be categorized into personnel, hardware, system software, software, data, support facilities (Sutabri, 2012). Furthermore, based on interviews, infrastructure assets are grouped into five groups according to the standard ISO/IEC 27005: 2011 is a group of assets that consist of data and information from potential data bandwidth graphs, and service activation potential data interference as well as potential data router; hardware asset group / network that consists of an access device, the metro, and the router device; software asset group that consists of a system on a device access, metro systems on devices and systems on the router device; the group consists of the building supporting facilities, CCTV, air-conditioning and Hydrant (APAR); and human resource asset group consists of employees PT.XYZ.

Results of the valuation of assets known that having a value of highest asset value of assets 4 or in other words are included in the assets most critical to support internet service connection is an asset of groups of data/information in the form of a potential data graphs of bandwidth, the data potential activation of the service and disruption and potential data router. The next group of assets is critical that the hardware/ network and its supporting software, namely from the side of the gateway device that consists of router device, because this is a device that connects to the gateway with service to support more than one hundred thousand subscribers Internet service. The next group of human resources that employees PT.XYZ with the value of assets is critical because the employee as a user or key behind all of the devices in operation.

4.2 Identification of Threats and Vulnerabilities

Threat is an action or event that could harm the company that resulted in pecuniary losses / costs, labour effort, good name and reputation of the most severe bankrupt organization (Sutabri, 2012). ISO/IEC 27005: 2011 mentions the threat may come from natural or human, and cannot be intentional or unintentional. Threats may arise from within or from outside the organization. Threats should be identified in general and by type. Some threats may affect more than one asset. That occurs because different impacts depending on which assets are affected.

So the types of threats that may occur in any of the assets sometimes have the same kind sometimes different, depending on the location and type of assets. Based on interviews, threats can be divided into three categories, namely low levels (L), medium (M), and high (H) according to the likelihood of the infrastructure assets. The results found 29 types of threats that may occur in the infrastructure asset, where the asset can have multiple threats of the same type and also different types. One type of threats can attack the assets and some other assets.

Group of hardware/ network assets, especially the access or device that is located outside the building (outdoor) levels possible threats occurring is high (H). This type of threat with the medium likelihood (M) and low (L) for hardware asset group / network that is kind of threats such as natural disasters, fire, flood, hardware error / failure, and theft. Group of software assets, the level of possible threats that occur are the medium category (M) for the types of threats such as denial of service and hacking. The level of the possibility of low threat (L), for the kind of threats such as software error / failure and attack viruses, and no one whereas for the possibility of high threat level (H). Groups of data and information assets have a low threat level (L) for the types of threats such as data corrupted / failure, data is lost /altered and abuse of privileges. The next group of assets supporting facilities in this building, CCTV, air-conditioning and Hydrant (APAR) has a threat level of medium (M) to the type of threats such as damage because it depends on the length of time of use, especially for air conditioning has an additional the threat level was
medium (M) to type of threat of corrosion and dust. The degree of vulnerability is affected by the condition or location of the assets are located and the device functions in the service configuration, because the assets or devices that are outside of the building (outdoor) will have a higher level of vulnerability compared with infrastructure assets that were in the building.

4.3 Risk Analysis, Risk Estimation and Risk Evaluation

Risk analysis means identifying assets, threats and vulnerabilities level identification for the purpose of estimating the risk to each asset. Risk estimation using a matrix of risk level of the ISO/IEC 27005: 2011 as shown in Table I in the previous section. Finally the results of risk estimates will be obtained for each level of risk infrastructure assets based on assessment of the level of threat and vulnerability. The risk assessment is based on a combination of asset value and threat level explained in Table II as follows:

<table>
<thead>
<tr>
<th>Risk Level</th>
<th>Risk Number of Combination asset value and threats</th>
<th>Risk Category</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>0 risk</td>
<td>Low Risk</td>
</tr>
<tr>
<td>1</td>
<td>13 risks</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>14 risks</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>29 risks</td>
<td>Medium Risk</td>
</tr>
<tr>
<td>4</td>
<td>57 risks</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>11 risks</td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>0 risks</td>
<td>High Risk</td>
</tr>
<tr>
<td>7</td>
<td>0 risks</td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>0 risks</td>
<td></td>
</tr>
</tbody>
</table>

Based on Table II above, we can know the result of the level of risk based on the level of threat and vulnerability on any combination of the assets and the level of threat. Overall infrastructure assets at risk in the category of medium and low risk, and there are no high risk category. Medium risk category are in the top range with a value 5, this means infrastructure assets reached its highest value in the medium risk category. It can be seen that there are 124 risk on a combination of assets and threats that may occur in infrastructure assets, with details of 27 low risks and 97 medium risks.

Based on interviews of risk acceptance level has been determined that the moderate risk category (medium risk) to limit the risk value of 4. The consideration for the impact that may result from the value of the assets and the threat is still acceptable by PT. XYZ. The remaining level of risk with a score of 5 or above acceptance risk level cannot be accepted by PT. XYZ. It is necessary to provide recommendations for the risk category the threshold level of acceptance as a form of risk evaluation. Based on Table II, it can be seen that there are 11 risks that were over the acceptance level with the following details: a group of hardware assets that is device access to the threat of vandalism by animals and humans, there is no power backup, breaking / broken cable or pathcord (6 kinds of combinations of assets and threats), then the group of software assets that system on the router device with the threat of denial of service, operating errors and hacking (4 kinds of combinations of assets and threats), and a group of human assets that employees with a lack of awareness of information technology security (1 kind of a combination of assets and threats).

Based on Table III, it can be seen that there are 8 controls the recommendations based on annex of ISO/IEC 27001 (2013). Among these controls, there are 5 controls that have been implemented full by PT.XYZ that network controls, security cabling, network security management, security of the network services, segregation in networks. Although 5 of these controls have been implemented in full in order to protect assets from threats and risks in the risk assessment but there is still a value of 5, which includes moderate risk category (medium risk). This can occur because maybe there are controls that have not been effective in its implementation, so these controls still need improvement in its implementation or the need to add new controls to be implemented or may need to replace the control because it does not match the type of asset. The third control already existing but incomplete i.e siting and protection equipment, equipment maintenance and information security awareness, education and training because there is no control protection has not been implemented.
Table III. Control Recommendation Based on ISO/IEC 27001: 2013

<table>
<thead>
<tr>
<th>No</th>
<th>Control Recommendations (Clause)</th>
<th>There is complete / No, not yet complete</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Network controls (A.13.1.1)</td>
<td>Yes, Complete</td>
<td>Update the system filters and firewalls to reduce a threat Hacker.</td>
</tr>
<tr>
<td>2.</td>
<td>Equipment siting and Protection (A.11.2.1)</td>
<td>Yes, Not Completed</td>
<td>Creating order (box) iron for outdoor devices.</td>
</tr>
<tr>
<td>3.</td>
<td>Equipment maintenance (A.11.2.4)</td>
<td>Yes, Not Completed</td>
<td>Creating security systems such as locks and padlocks.</td>
</tr>
<tr>
<td>4.</td>
<td>Cabling security (A.11.2.3)</td>
<td>Yes, Complete</td>
<td>Using cables (pathcord) with cable quality and good protector.</td>
</tr>
<tr>
<td>5.</td>
<td>Network security management (A.13.1)</td>
<td>Yes, Complete</td>
<td>Update the system filters and firewalls to reduce a threat Hacker.</td>
</tr>
<tr>
<td>6.</td>
<td>Security of Network Services (A.13.1.2)</td>
<td>Yes, Complete</td>
<td>Using the latest tools to perform penetration tests and vulnerability-test to the Internet service.</td>
</tr>
<tr>
<td>7.</td>
<td>Segregation in networks (A.13.1.3)</td>
<td>Yes, Complete</td>
<td>Update the system filters and firewalls to reduce a threat Hacker.</td>
</tr>
<tr>
<td>8.</td>
<td>Information security awareness, education and training (A.7.2.2)</td>
<td>Yes, Not Completed</td>
<td>Training for those responsible for information security.</td>
</tr>
</tbody>
</table>

5. Conclusion and Recommendations

PT.XYZ actually own and implement some control protection for infrastructure assets of Internet service connection, including physical protection control, logic, and other organizations. However, the controls should be carried out with better and improved because there are still a number of threats that are above the level of acceptable risk (acceptance level). Furthermore, there should be a risk assessment for all of the services are not only for the services of certified course, that the risk assessment for internet connection services can be documented clearly.

PT.XYZ also need to perform periodic risk assessment least once a year thoroughly for all products belonging PT.XYZ services so that the protection afforded more comprehensive and targeted.

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The 6th Seminar & Conference on Business & Technology in ICT Industry (SCBTII 2015)

The Effect of Some Aspects of the Management Control System on Financial Performance (A Case Study in PT. Garuda Indonesia)

Anissa Apriliana Tahir, Willy Sri Yuliandhari
Accounting Program Study
Faculty of Economic and Business, Telkom University

Abstract

The purpose of this research is to find out empirical evidence that the management control system (employee performance, compensation, communication, conflict resolution, commitments, product and market policies) influence on financial performance. The study was conducted at the head office of PT. Garuda Indonesia (Persero) Tbk in Jakarta.

Methods of data collection was performed with distributing questionnaires to the respondents as many as 53 people. Samples of this research were managers and employees at the Division of Accounting and Finance of PT. Garuda Indonesia (Persero) Tbk, using Non Probability Sampling Method. Data were analyzed using multiple regression analysis. Data processing was performed using the software program from the Statistical Society of Science (SPSS). Results of this study indicated that some aspects of the management control system (employee performance, compensation, communication, conflict resolution, commitments, as well as product and market policies) is significant and gave positive impact on financial performance, simultaneously. Partially, compensation becomes the biggest variable affecting the financial performance, followed by the variable employee performance and product and market policies. Whereas communication, conflict resolution, and the commitment have no effect on the financial performance.

Keywords: Management Control Systems; Employee Performance; Compensation; Product and Market Policy; Financial Performance

1. Preface

PT. Garuda Indonesia (Persero) Tbk as the only state-owned airline, which has been developing its presence in the world and recognized domestic and international flights, it is appropriate to say if PT. Garuda Indonesia (Persero) Tbk has an admirable track record and achievements. This is particularly true with respect to the luxuries, which the airline obtained from the SOE status. According to the Annual Report Garuda Indonesia in 2010, one of the achievements listed is became the airline with the assessment of "four star" of CAPA (Corrective and Preventive Actions). Moreover, Garuda Indonesia is also one of the airlines with the best service according to one of airlines institute survey, as well as joining SkyTeam (Alliance of International Airlines) on March 5, 2014.

The majority of Indonesian society assumes no problem with the nation's best airline of Indonesia. However, as quoted from (www.investasi.kontan.co.id) on Monday, February 10, 2014, the performance of PT. Garuda Indonesia (Persero) Tbk in 2013 is battered. SOEs net profit of airlines has dropped up to 10-fold, as shown in second half 2013 report, the company's net profit was only US $ 11.03 million. This is far below the net profit GIAA at same period in 2012 which reached US $ 110.59 million. Operating revenues GIAA apparently only increased slightly from US $ 3.47 billion to $ 3.71 billion. Emirsyah Satar, President director of GIAA said, the performance of PT. Garuda Indonesia (Persero) Tbk in 2013 was mainly influenced by the weakening of the rupiah against the US dollar and elevated fuel prices. This causes a decline in the rate of return on assets (ROA) of the company in 2013 to 0.38% and return on equity (ROE) to 1.00%. Table 1 below shows the rate of return in assets and equity of PT. Garuda Indonesia (Persero) Tbk 2010-2013.
Table 1. Data Return On Assets (ROA) and Return On Equity (ROE) PT. Garuda Indonesia (Persero) Tbk Year 2010-2013

<table>
<thead>
<tr>
<th>Year</th>
<th>2010</th>
<th>2011</th>
<th>2012</th>
<th>2013</th>
</tr>
</thead>
<tbody>
<tr>
<td>ROA</td>
<td>2.46%</td>
<td>3.08%</td>
<td>4.40%</td>
<td>0.38%</td>
</tr>
<tr>
<td>ROE</td>
<td>8.03%</td>
<td>6.96%</td>
<td>9.94%</td>
<td>1.00%</td>
</tr>
</tbody>
</table>


Table 1 shown ROA and ROE in 2013 which has decreased dramatically compared to the previous year. Whereas in 2010-2012 there is an increase in ROA. However, ROE in 2011 was decreased compared to 2010 value, but increase again in 2012.

In addition, cases of threats to strike several times and the pilot strike incident PT. Garuda Indonesia (Persero) Tbk, which is incorporated in the Garuda Pilots Association (APG), on July 28, 2011 which then became public alarms that the internal condition of PT. Garuda Indonesia (Persero) Tbk., is not as good as it looks. Intense Media headlines at that time have made the internal problems of the PT. Garuda Indonesia (Persero) Tbk., turn out to be a public attention. (Source: www.viva.co.id)

Based on these facts, the study of the management control system at the company PT. Garuda Indonesia (Persero) Tbk., and how they affect the financial performance of the company, became the topic of our interest. Several phenomena mentioned above, had clearly reflect that the management of PT. Garuda Indonesia (Persero) Tbk., are still having gaps in the control system that must be addressed by the management in order to achieve the company's goals and avoid financial losses, due to inefficiency of the company's management control system.

This study adopted the study of Gani and Jermias (2009 in Lo, 2014) on the impact of mismatch strategy with management control systems on company performance, which conducted in the banking sector. The study found that company with adjusted strategy and management control system has better performance than those not doing so. The results also suggested that incompatibility with SPM strategy gives a significant negative correlation with financial performance measurement.

Based on the background described and the results of previous research, the authors were motivated to analyze further on factors such as management control systems and their effects on financial performance. This study entitled "THE EFFECT OF SOME ASPECTS OF THE MANAGEMENT CONTROL SYSTEM ON FINANCIAL PERFORMANCE (A Case Study in PT. Garuda Indonesia)."

2. Basic Theory and Methods

2.1 Basic Theory

2.1.1 Contingency Theory
Contingency theory provides answers on the suitability of control system to the company structure. Moreover, the theory is clearly stated all possible impacts of the suitability with company’s performance (Islam and Hu, 2012). In this context, suitable management control system will have a significant influence on a better company performance. Contingency structure theory have defined a valid correlation between the suitability and performance (Donaldson, 2006). Conceptual factors including business strategy, management control system, etc. which have to be well synergized. Therefore, the contingency theory will be use as the foundation in explaining the correlation between variables used in this study.

2.1.2 Control Theory
Control theory will assist the company to provide effective and better management policy (Loehle, 2006). In this case, management control system that fulfill the control theory specification will turn into the system which provides information from the feedback of company’s performance evaluation. Company to assist manager in embracing effective and efficient decisions could also use management control system (SPM). Therefore, control theory had become one of foundation on the implementation of SPM in companies.

2.1.3 Management Control System
Management control system (SPM) is actually a process for managers to influence other organization members in order to implement organization’s strategy (Anthony and Govindarajan, 2007:6). Sandino (2007) also stated that SPM is not only to be used for controlling planned company’s expenses.

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2.1.4 Employee/Job Performance
According to Henry Simamora (2004:7), employee/job performance is certain level where employee had achieved job’s requirements. Job performance could then be described as how far someone implements his or her work responsibilities and assignments (Nugroho, 2006). Based on description mentioned above, it could be concluded that job performance is a useful evaluation system to drive and motivated employee performance.

2.1.5 Compensation
Compensation is what the employees received as an exchange for their contribution to the organization (Simamora, 2004:442). Meanwhile, according to Dessler (2007:46) compensation is referring to all kinds of payments or presents to employee and is originated from their works. From several definitions stated above, it could be concluded that compensation is a reward given by company as an appreciation to the employee performance.

2.1.6 Communication
Communication is a process of message or objective delivery by one side or one person to the other side or person, directly or through media (Fahmi, 2014:163). Communication which emphasized in this sub-chapter is the manager capability to the company vision to concerned side(s) in honest and open ways.

2.1.7 Conflict Resolution
Conflict resolution according to Mindes (2006: 24) is the ability to solve differences with others, and is an important aspect in social and moral development, which requires skills and assessment capability to negotiate, conciliation and development of fairness. Meanwhile, Fisher et al. (2001:7) stated that conflict resolution is an effort to grasp on conflict roots, whilst still attempting to build new lasting relation(s) between conflicting parties.

2.1.8 Commitment
Commitment is ability and desire to synchronize personal behavior with necessity, priority and company’s goals. This is comprise ways of goals’ development or fulfilling company’s requirement, where one have to prioritize organization mission other than individual interest (Soekidjan, 2009). This sub-chapter, it is emphasized that commitment is manager’s capacity to be committed in the development of employee awareness to accomplish the company’s vision.

2.1.9 Product and Market Policy
Product and market policy is the company’s capacity to produce goods or services able to meet the needs and satisfactions of costumers.

2.1.10 Performance
Performance is measurement or indicator for success in all operational activities with respect to the company vision’s achievement. Performance have a direct influence on manager(s) decision for the next strategies. Best solution to assure the well running of company strategy is to combine the financial and financial performance measurement. Therefore, low levels employee must be aware on the effects of their operational decision to financial state of the company (Anthony and Govindarajan, 2007:462). The measurement of performance in this study was subjective, i.e. by distributing questionnaire to respondents.

2.1.11 Financial Performance
Financial performance is the ability of company to make profit which focused on monetary results such as net profit, capital return, cash flow, etc. Financial performance could be measured with the use of profitability ratio. According to Fahmi (2011:54) profitability ratio is suitable for one to show the rate of company success in profit making. In the other hand, profitability ratio is also applicable for measuring management effectiveness from profit yielded with contrast to marketing and investment. Profitability ratio comprised of Gross Profit Margin, Net Profit Margin, Operating Profit Margin, Total Asset Turnover, Return On Asset, and Return On Equity. However, with respect to the practicality as stated previously in the background of this research, authors will only focused on ROE as an indicator in a subjective financial performance measurement.
ROE (Return On Equity)

ROE is an indicator of measurement from available income for the company’s owner(s) based on capital invested in the company (Syamsuddin, 2009:64). The higher the ratio the better performance. High ratio indicates company capital efficiency and stronger position of the company’s owner(s), vice versa. Bank of Indonesia have defined the value of ROE ≥ 12% for the company to be categorized as ‘healthy’ (Lestari and Sugiharto, 2007). Formula to calculate ROE, as follows:

\[ ROE = \frac{\text{Net Income}}{\text{Equity}} \times 100\% \]  \hspace{1cm} (1)

2.2 Rational Framework

Below is the rational framework of this research.

![Rational Framework](image)

Fig 1. Rational Framework

2.3 Research Methodology

The present study use Non probality sampling techniques, i.e. saturated sampling techniques. Saturated sample technique is a technique where all population members were appraised. According to Sugiyono (2013:85), other terminology for saturated sampling is census, where every member of population turned out to be sample. In this research, samples were managers and employees at the Accounting and Finance Division, with total respondent of 53 persons.

Analysis techniques deployed in this study were descriptive statistic and multiple regression. Model for Multiple regression is as follows.

\[ Y = a + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \beta_5 X_5 + \beta_6 X_6 + \varepsilon \]

Where :
- \( Y \) = Financial Performance
- \( X_1 \) = Employee Performance
- \( X_2 \) = Compensation
- \( X_3 \) = Communication
- \( X_4 \) = Conflict Resolution
- \( X_5 \) = Commitment
- \( X_6 \) = Product and Market Policy
- \( \varepsilon \) = Error term
- \( a \) = Constanta
- \( \beta_1, \beta_2, \beta_3, \beta_4, \beta_5, \beta_6 \) = Regression Coefficients

3. Discussion

3.1 Validity Test and Reliability

Instrument test in this research both for validity and reliability aspects were conducted on 53 respondents.
Results showed that research instrument applied is valid, where the correlation is higher than r-table value of 0.345. Moreover, results also showed that research instrument was also reliable with Cronbach’s alpha value of > 0.70.

3.2 Classic Assumption Test

Normality Test
Normality test shows that Asymp. Sig value (2 tailed) is 0.997 (p < 0.05), in the other words residual variable having a normal distribution. Therefore, research model of this research have satisfied normality assumption requirements. The normality test based on Kolmogrov-Smirnov (K-S) non-parametric statistic test.

Multico-linearity Test
From Multico-linearity test result shows that all independent variable data were freed from multicolinearity since the tolerance value is > 0.1 and the VIF value is < 10. These values clearly showed that multico-linearity did not occurred on each variable in models, which means there is no correlation nor perfect connection among independent variables that formed the equation.

Table 2. Multico-linearity Test

<table>
<thead>
<tr>
<th>Coefficient</th>
<th>Model</th>
<th>Tolerance</th>
<th>VIF</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>KINERJA KARYAWAN</td>
<td>0.992</td>
<td>1.01</td>
</tr>
<tr>
<td></td>
<td>KOMPARASI (X2)</td>
<td>0.940</td>
<td>1.652</td>
</tr>
<tr>
<td></td>
<td>KOMUNIKASI (X3)</td>
<td>0.431</td>
<td>2.321</td>
</tr>
<tr>
<td></td>
<td>RESOLUSI KONFLIK (X4)</td>
<td>0.326</td>
<td>2.088</td>
</tr>
<tr>
<td></td>
<td>KOMITENEN (X5)</td>
<td>0.422</td>
<td>3.399</td>
</tr>
<tr>
<td></td>
<td>PRODUK (X6)</td>
<td>0.090</td>
<td>1.010</td>
</tr>
</tbody>
</table>

Heteroskedasticity test
Heteroskedasticity test results could be seen ini scatter plot which did not developed particular pattern, therefore, it could be concluded that the regression analysis were not suffered from Heteroskedasticity disturbance.

![Scatterplot](image)

*Fig. Scatterplot*

*Source*: The Data Processing SPSS, 2015

3.3 Multiple Linear Regression Analysis

Methods applied in this research to analyze data suitable for multiple linear regression analysis to used in model correlation between dependent and independent variables, with more than one independent variable numbers using SPSS program. Below is the regression equation.

\[ Y = -0.983 + 0.591X_1 + 0.689X_2 - 0.161X_3 + 0.085X_4 - 0.133X_5 + 0.303X_6 \]

Where:

\[ Y = \text{Financial Performance} \]
\[ X_1 = \text{Employee Performance} \]
\[ X_2 = \text{Compensation} \]
Based on these equations can be described as follows:

1. Constanta ($\alpha$) = 0.983. This shows a constant price, i.e if the variable of Employee Performance ($X_1$), Compensation ($X_2$), Communication ($X_3$), Conflict Resolution ($X_4$), Commitment ($X_5$), Product and Market Policy ($X_6$) = 0, then financial performance is remain 0.983.

2. Coefficient $X_1$ ($\beta_1$) = 0.591. This shows that employee performance variable have a positive influence on financial performance. In the other words, if employee performance variable was increased one digit, then the financial performance will be increased 0.591.

3. Coefficient $X_2$ ($\beta_2$) = 0.689. This shows that compensation variable have a positive influence on financial performance. In the other words, if compensation variable was increased one digit, then the financial performance will be increased 0.689.

4. Koefisien $X_3$ ($\beta_3$) = -0.161. This shows that communication variable have a negative influence on financial performance. In the other words, if communication variable was increased one digit, then the financial performance will be decreased 0.161.

5. Koefisien $X_4$ ($\beta_4$) = 0.085. This shows that conflict resolution variable have a positive influence on financial performance. In the other words, if conflict resolution variable was increased one digit, then the financial performance will be increased 0.085.

6. Koefisien $X_5$ ($\beta_5$) = -0.133. This shows that commitment variable have a negative influence on financial performance. In the other words, if commitment variable was increased one digit, then the financial performance will be decreased 0.133.

7. Koefisien $X_6$ ($\beta_6$) = 0.303. This shows that product and market policy variable have a positive influence on financial performance. In the other words, if product and market policy variable was increased one digit, then the financial performance will be increased 0.303.

### 3.4 Hypothesis Test

**Coefficient of Determination**

Determinant test (R2) is done to see how far the ability of the model to explain variations in the independent variables. Its value is 0-1, if (R2) is getting close to zero then the model is not good. The test results showed that the value of R Square = 0.760. Mean 76.0% variable financial performance can be explained by the independent variable Management Control System. Meanwhile, the remaining 24.0% is explained by other variables not examined in this study.
Simultant Test (F test)

Table 4. Hypothesis Test Simultaneously (F test)

Source: The Data Processing SPSS, 2015

In Table 5 it can be seen $F_{hitung}$ is 24.336 with a significance level of 0.000. Therefore, the second calculation that $F_{count} > F_{table}$ (24.336 > 2.304) and the level of significance 0.000 < 0.05. This shows that $H_a$ accepted, which means that independent variables consisting of employee performance, compensation, communication, conflict resolution, Commitment, and product and market policy together significantly affect financial performance.

Partial Test (t test)

Table 5. Hypothesis Test Partially (t test)

Source: The Data Processing SPSS, 2015

Based on these equations can be described as follows:

1. Variable Employee Performance ($X_1$) has a value of $t$ is greater than $t$ table. Because the value of $t$ (3.972) > $t$ table (2.013), then $H_0$ is rejected. Therefore it can be concluded that partially, Employee Performance ($X_1$) is significant and gave positive impact on Financial Performance ($Y$).

2. Variable Compensation ($X_2$) has a value of $t$ is greater than $t$ table. Because the value of $t$ (4.773) > $t$ table (2.013), then $H_0$ is rejected. Therefore it can be concluded that partially, Compensation ($X_2$) is significant and gave positive impact on Financial Performance ($Y$).

3. Variable Communication ($X_3$) has a value $t$ is smaller than $t$ table. Because the value of $t$ (-1.229) < $t$ table (-2.013), then $H_0$ is accepted. Therefore it can be concluded that partially, there is no influence of Communications ($X_3$) on the Financial Performance ($Y$).

4. Variable Conflict Resolution ($X_4$) has a value $t$ is smaller than $t$ table. Because the value of $t$ (0.402) < $t$ table (2.013), then $H_0$ is accepted. Therefore it can be concluded that partially, there is no influence of Conflict Resolution ($X_4$) on the Financial Performance ($Y$).

5. Variable Commitment ($X_5$) has a value $t$ is smaller than $t$ table. Because the value of $t$ (-0.847) < $t$ table (-2.013), then $H_0$ is accepted. Therefore it can be concluded that partially, there is no influence of Commitment ($X_5$) on the Financial Performance ($Y$).

6. Variable Product and Market Policy ($X_6$) has a value $t$ is greater than $t$ table. Because the value of $t$ (3.220) > $t$ table (2.013), then $H_0$ is rejected. Therefore it can be concluded that partially, Product and Market policy ($X_6$) is significant and gave positive impact on Financial Performance ($Y$).
4. Conclusion

Based on data analysis and test, it could be concluded (hopefully will be able to answer research problem formulation which in line with the aim of this research, as follow):

1. Conclusion based on descriptive analysis of filled questionnaires, are as follow:
   a. Employee performance of Accounting and Finance Division at PT. Garuda Indonesia (Persero) Tbk Head Office is laid on suitable/good category (71.0%). This performance was calculated and analysed from indicators, such as: quality, quantity, effectiveness, independency in work, working commitment and time punctuality has done well.
   b. Compensation for employee of Accounting and Finance Division at PT. Garuda Indonesia (Persero) Tbk Head Office is laid on neutral (doubt) category (66.5%). This indicates that compensation is viewed as enough, but not suitable/good. Indicators used for this variables were: fairness, salary, incentives, work facilities, benefits considered sufficient by the employee, but if compensation is given further enhanced can be useful to improve the company's financial performance.
   c. Communication of the employee of Accounting and Finance Division at PT. Garuda Indonesia (Persero) Tbk Head Office is fall into category suitable/good (69.9%). Indicators used were: communication motivation, communication knowledge and communication skills has done well.
   d. Conflict resolution of Accounting and Finance Division at PT. Garuda Indonesia (Persero) Tbk Head Office is also fall into suitable/good category (68.7%). Indicators used were: compromise, confrontation, and harmony has done well.
   e. Commitment of Accounting and Finance Division at PT. Garuda Indonesia (Persero) Tbk Head Office is well under suitable/good category (75.6%). This indicates that commitment variable is going well. Indicators used, were: commitment to achieve vision, mission and goals of organization, working under standard and procedure defined by company, committed in human resource and product quality development, and last but not least commitment for the team work solidarity development has done well.
   f. Product and Marketing Policy of Accounting and Finance Division at PT. Garuda Indonesia (Persero) Tbk Head Office is also perceived suitable/good (70.7%). Indicators used were: price and volume, innovation, resource and human capital developments has done well.
   g. Finance performance of Accounting and Finance Division at PT. Garuda Indonesia (Persero) Tbk Head Office is valued high with main indicator ROE (70.2%). Undoubtedly, the employee of Accounting and Finance Division at PT. Garuda Indonesia (Persero) Tbk Head Office assessment on the finance performance the company is good.

2. Based on simultaneous significant test (F-test), it could be concluded that several aspects in management controlling system (employee performance, compensation, communication, conflict resolution, commitment and product and marketing policy) simultaneously have a significant effect on the financial performance with total value of 76.6%, whereas the remaining of 24% would be under variables which is not topics of this research.

3. With respect to Partial signficancy test (t-test) results, it could be concluded that employee performance, compensation, product and market policy were positively affecting the financial performance. Meanwhile, communication, conflict resolution and commitment did not significantly affecting the financial performance.

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The 6th Seminar & Conference on Business & Technology in ICT Industry (SCBTII 2015)

**Study Of External And Internal Environment On Hobi Foto Bandung (HFB) Community In 2015**

Pritjoohan Agung Winawang, Farah Alfanur
Telkom University

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**Abstract**

Community is a social group which is formed due to interaction among individuals in a social structure existing in one place that is united by the same interest. Photography community is one of examples. This research aims to find out the condition of external environment (opportunity and threat) and internal environment (strength and weakness) and make alternative strategy that can be applied on the Hobi Foto Bandung (HFB) community in order to be able to continuously to survive and superior.

The method of this research is a qualitative method with explorative type. This research uses external and internal characteristics analysis and SWOT analysis. Based on external and internal factors analysis which were performed in the period from February to July 2015 in Hobi Foto Bandung (HF B) Community in Bandung, it was known that there are external factors include economic factors such as the rise in photographic tool prices and it affects HFB, art and culture conditions can have a positive impact, social phenomenon of vulgar photography models can have a negative impact, there is no government regulation regarding community yet, positive impact of technological development, positive competition with other communities. Internal factor analysis showed that HFB promotion through the internet and its activities, human resource management condition needs to be improved, financial management still not effective, HFB production aspect with assets / equipment for activities, this development is still in management discussion stage, HFB utilizes information media through facebook.

Alternative strategies that can be used by HFB in order to continue to survive and be superior are by increase human resources (HR) element, maximizing the promotion for attracting society in joining this community, utilizing the public space and the support from government, maximizing the photo hunting activities, maximizing the cooperation with other parties, conducting more activities which involve the members by utilizing the culture, nature, and public space in Bandung, maintaining a good relationship with other communities, minimizing the activities of photography using a sexy/vulgar model.

Keywords: Community, Photography, External Factor, Internal Factor, SWOT

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1. **Introduction**

1.1 **Background of Study**

One of human characteristics is as a social creature who likes to live together or in a group. A human being or an individual can develop commonly as a human if she or he lives and forms a social group and interacts each other. A community can be called as an interaction in a social structure located in a different location or in a distant location but it is united by the same interest and value, for example, artist community, labour community or education community (Iriantara, 2007).

The existing communities in Indonesia are growing quite rapidly, the hobby-based community often raises a creative idea which can create a new opportunity as a working capital. The growing communities today can create the seeds of new generation for Indonesia in building better and more developed Indonesia, and it is expected that various communities can continuously innovate further to make new breakthroughs (Armandhani, 2014).

Photography already becomes a people’s lifestyle nowadays. It is indicated by the proliferation of photography community. The camera producers also enjoy this trend; the sales of camera producer are surged (Uma, 2012). The rapid development of photography community is in line with the sales of camera in Indonesia. In 2013, the overall sales of camera in Indonesia reached 1.3 units. From this amount, the sales of DSLR camera contribute 330 thousand units (Panji, 2014). The growth of DSLR (Digital Single Lens Reflector) camera market in Indonesia almost reaches 10% per year. It is recorded that its market reached 300 thousand units in 2012, and it increased by 330 thousand units in 2013 and in 2014, it is predicted in a greater amount, which is over 350 thousand units (Cakdie, 2014).

The rapid development of community in Indonesia is accompanied by the development of community in
Bandung. There are a lot of communities in Bandung, either already officially registered or not registered in the government of Bandung. Bandung can be said as a city which has the most communities in Indonesia (Sebandung, 2014). Based on the data obtained from the Youth and Sports Department of Bandung, there are various communities engaging in the field of youth and 177 communities are officially recorded and 18 of them are in the field of film and photography (Dispora, 2014).

To support the activity of photography community in Bandung, Taman Cempaka was established and launched as Taman Foto Bandung (Photography Park) by the government of Bandung. Taman Foto Bandung is a public space initiated by all communities and photography networks as a hub of photography in Bandung (Fotografi Indonesia, 2013).

One of photography communities established because of the same interest is Bandung Photo Hobby community / Hobi Foto Bandung (HFB) community since 1 July 2007 which continues to gain members until now; HFB also carries many genres such as macro, landscape, and human interest. Behind its success, HFB now is facing some problems: the collection of members which has not been maximized, the regeneration of administrator which is obstructed, there is no structure of administrator, HFB has not been registered in the government, and the activities of HFB are rarely conducted. HFB community needs a community development and wants better, either in form of activity or contribution to the environment of Bandung and surroundings, in order to develop and to be more qualified (an interview with the administrator).

To have a better development plan, HFB can formulate the development plan of the community which will be conducted by analysing the internal and external factor environment of the community. A stage which can be conducted is identifying and analysing internal factors including the strengths and weaknesses and external factors including opportunities and threats (Baroto, 2014). Based on the explanation and background above, this research is titled “Study of External and Internal Environment on Hobi Foto Bandung (HFB) Community in 2015”.

1.2 Formulation of Problem

Based on the explanation, the formulations of problem in this research are:

1. How is the condition of external environment factor which influences on Bandung Photo Hobby community / Hobi Foto Bandung community?
2. How is the condition of internal environment factor which influences on Bandung Photo Hobby community / Hobi Foto Bandung community?
3. What are the strengths, weaknesses, opportunities, and threats of on Bandung Photo Hobby community / Hobi Foto Bandung community?

2. Theoretical Foundation and Methodology

2.1 Strategy

A strategy of an organization/company is a unity of a comprehensive and integrated plan which is directed to achieve the goal of the company (Buchory and Saladin, 2010). The strategy is used by senior executives to evaluate the strengths and weaknesses related to the opportunities and threats around the environment. Then, those senior executives decide what strategy which will be adjusted between the main competency of the company/organization as well as the opportunities of the environment (Rachmad, 2014).

2.2 Strategy Management

A strategy management can be defined as the arts and science in planning, implementing, and evaluating the cross-functional decision which enables an organization to achieve its goal. Based on this definition, the strategy management is focused on how a company integrates its management, finance, marketing, production, research, and development as well as its information system to get and to achieve a success in an organization (David, 2011).

2.3 External Assessment

In the external assessment, an external audit is conducted. The external audit is used to develop a list of opportunities which can be an advantage for a company and a threat which has to be avoided by the company/organization. Those external strengths can be divided into five wide categories: (1) Economic Strength, (2)

2.4 Internal Assessment

In the internal assessment, an internal audit is conducted. All organizations have their own strengths and weaknesses; there is no organization which has the strengths and weaknesses which are exactly the same with other organizations. The representatives of manager and employees from all companies need to be involved in determining the strengths and weaknesses of the company. The internal audit needs a collection and an integration of information regarding the management, marketing, human resource, finance/accountancy, production/operation, research and development as well as operational system of the company management (David, 2011).

2.5 SWOT Analysis

SWOT analysis is the overall evaluation regarding the strengths, weaknesses, opprotunities, and threats. The SWOT (Strengths, Weaknesses, Opportunities, and Threats) analysis is a way to observe the condition of external and internal environment (Kotler and Keller, 2012).

SWOT analysis (Strengths, Weaknesses, Opportunities, and Threats) is a popular historical technique where the manager can quickly create a general picture about the strategical situation of the company (Pearce & Robinson, 2011). The SWOT matrix is an important additional instrument which can help the manager to develop four types of strategy: SO (Strengths – Opportunities) strategy, WO (Weaknesses – Opportunities) strategy, ST (Strengths – Threats) strategy, and WT (Weakness – Threats) strategy (David, 2011).

2.6 Community

A community is a collection of individuals who live in a certain location and usually associated with the same interest (Iriantara, 2007). According to Wilbur J. Peak in Iriantara [1], a community is not only a collection of people or human beings living in the same location and place but also a community indicates a social interaction among those collections of people. Iriantara [1] said that the community can be said as an interaction in a social structure located in different and distant places but it is united by the same interest and value, for instance, artist community, labours community, or education community.

Based on Abdulla in Payoka [15], a community formally shows a social system with a relationship pattern directly distinguished with the social system which is more formal, more abstract, and more instrumental. Then, according to Payoka [15] a simple meaning of a community is a collection of people which is formed by the same interest or hobby such as writer community and photography community. The framework of this research can be seen in Figure 1.
2.7 Research Method

The method of this research uses a qualitative research with the type of explorative research. According to Sekaran [16], an explorative study is conducted when certain situations are unknown, or there is no available information regarding the same problem or issue of research solved in the past. Based on Zikmund [17], a qualitative research is a research which refers to discuss the aim of research through techniques allowing the researcher to interpret a complex phenomenon without relying on the numeric instruments, but by focusing on finding out the real meaning and new knowledge.

The sampling technique of this research is snowball sampling. The resource of this research is the internal structure of Hobi Foto Bandung community which covers two founders and also administrators of Hobi Foto Bandung community as the main resource. One administrator and two members of Hobi Foto Bandung community are as the supporting resource.

The data collection technique of this research is by conducting an interview, an observation, and documentation, a data validity test using a credibility test with triangulation of source, member check, and triangulation of technique. The data analysis technique of this research is the internal and external environment analysis as well as the SWOT analysis.

3. Discussion

3.1 External Factor

The economic factor, which is the increment of photography tool price, also impacts on Bandung Photo Hobby community / Hobi Foto Bandung community. One of the impacts will become an obstacle for the members who have minimal budget but some of members are also willing to buy the expensive tools since photography is their hobby. In addition, it can be anticipated by buying the secondhand tools.

Social, culture, and environment factor also has impacts on it. The society gives a positive response against the existence of Hobi Foto Bandung community, the cooperation between the community and other parties is also undertaken, the elements of arts and culture as well as nature also are quite influential, but the social phenomenon of too sexy/vulgar model in photography can affect negatively.

There are also impacts on the government, politics, and legal factor. Nowadays, there is no government regulation governing the photography community. Regarding the official registration, HFB community plans to register its membership to the government. However, the government does not have a direct role yet. The development of Bandung positively influences on HFB community, for example, HFB community has been using the internet, social media, and the development of photography tools. Besides, HFB community also has a website, hobifotobandung.com. It also can give a positive impact on the community.

In the competitive aspect, Hobi Foto Bandung (HFB) community has a good relationship with other photography communities in Bandung, but there is a competition, in a positive way, to look more superior. Besides, there is no thing which brings down each other or there is no conflict with other communities. The strength of other communities tends to be more organized and they have bigger sources of income fund.

3.2 Internal Factor

As the marketing aspect, Bandung Photo Hobby community / Hobi Foto Bandung (HFB) community also does a promotion about its community through social media (online media) like Facebook and through the conducted activities media. The place of HFB activities is also quite strategic in the crowd, for example, in Dago Car Free Day.

As the human resource aspect, there is no difficult requirement to join this Hobi Foto Bandung (HFB) community. Besides, this community emphasizes more on the kinship so the members feel acknowledged and convenient. The decision-making in the community is based on the agreement of the administrators, there is no formal structure yet, the collection of members has not been conducted effectively yet, the regeneration is not effective, there is no internal rules, the training and workshop are also not effective yet, and the contribution and role of the members are still lack.

The financial aspect covers the source of funding of HFB from the profit of member t-shirt and wallet sales, sponsorship/donors, joint fund of the activities, but there is no monthly due. The collected money is used for the activities, the monthly income and outcome are uncertain; the responsibility of financial management is still unclear.
The production/operation aspect with the owned tools or assets is to support the activity of exhibition such as the light stand, banner, material, and magnet. The community carries wide genres and themes of photography covering macro photography, street photography, human interest (hi), model photography, and landscape photography. The activities of HFB such as exhibition, photo hunting, hangout, and watch movies are rarely conducted now.

In the research and development aspect, HFB wants to make an organizational structure and to make contribution to the development of Bandung. HFB community has not taken steps to develop its community and it is still in the stage of ‘going to talk about it’.

The information system aspect is that HFB has not implemented an integrated system since it is still in the scope of a small and not too complex community. HFB mostly uses Facebook as the media of information.

3.3 SWOT Analysis (Strength, Weakness, Opportunity, Threat).

The SWOT Matrix of this research can be seen in Table 1.

<table>
<thead>
<tr>
<th>Faktor Lingkungan (Internal)</th>
<th>Strength</th>
<th>Weakness</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1. The activities and online media as the promotion facility.</td>
<td>1. No organizational structure.</td>
</tr>
<tr>
<td></td>
<td>2. The strategic location of activities in Bandung.</td>
<td>2. The untidy members collection.</td>
</tr>
<tr>
<td></td>
<td>3. The messages of photography in Bandung.</td>
<td>3. The ineffective regeneration.</td>
</tr>
<tr>
<td></td>
<td>4. The development of the public space in Bandung.</td>
<td>4. No internal regulations.</td>
</tr>
<tr>
<td></td>
<td>5. The government policy which can support the community.</td>
<td>5. The ineffective training and workshop for the members.</td>
</tr>
<tr>
<td></td>
<td>6. The cooperation with other parties.</td>
<td>6. The unclear responsibility and financial management.</td>
</tr>
</tbody>
</table>

Table 1. SWOT Matrix

4. Conclusion

Based on the analysis results, it is concluded that the conditions of external factor environment such as the economic factor, the increment of photography tool price is not significantly influential. The conditions of social, culture, and environment factor cover the positive response from the society, the cooperation with other parties, the elements of culture and arts which are quite influential and beneficial, the social phenomenon of sexy/vulgar photography model which can be threatening. The conditions of government-politics-legal factor cover no government regulation regarding the community, HFB registration to the government related to the collection of members, no direct role from the government, the city development in Bandung positively influences on HFB such as the public space. The conditions of technology factor cover the use of internet and social media as well as the use of photography tool technology. The competitive aspects are the good relationship with other communities and the competition in becoming more superior.

The conditions of marketing aspect in the internal environment factor is that Hobi Foto Bandung community does a promotion using social media and its activities, the location of HFB activities is quite strategic. The conditions of HFB human resource are the easiness in joining the community, the kinship of the community, the agreement-based decision making. The obstacles are no organizational structure, the untidy member collection, the less efficient regeneration, no internal regulations, the less training and workshop, and the less contribution from the members. The
condition of finance are the funds from the profit of t-shirt and wallet sales, sponsorship, no monthly due, the due which is collected when it is needed, the collected fund for the activities, the uncertain monthly income and outcome, and the ineffective financial management. The conditions of operational aspect are the HFB assets of tools for exhibitions, the wide genres of photography, the positive activities such as photo hunting and watching movie, exhibition, etc. The conditions of research and development are the plan to make an organizational structure and the will to contribute to Bandung. As the aspect of information system, HFB has not implemented an integrated system since it is still in the scope of a small and not too complex community. HFB mostly uses Facebook as the information media.

Based on the analysis and identification results against the condition of external and internal environment factor in *Hobi Foto Bandung* community, it is found out that there are 11 external factors which consist of eight opportunities and three threats. There are 13 internal factors which consist of five strengths and eight weaknesses owned by *Hobi Foto Bandung* (HFB) community:

**Opportunities**
1. The positive response from the society
2. The activities with the elements of culture and arts in Bandung
3. The beauty of natural environment in Bandung
4. The use of internet technology and social media
5. The development of photography tool technology
6. The development of the public space in Bandung
7. The government policy which can support the community
8. The cooperation with other parties

**Threats**
1. The increment of photography tool price
2. The photography of too sexy/vulgar model
3. Other photography communities in Bandung

**Strengths**
1. The activities and online media as the promotion facility
2. The strategic location of activities
3. The kinship of the community
4. The wide genres of photography
5. The easy requirement in joining the community

**Weaknesses**
1. No organizational structure
2. The untidy members collection
3. The ineffective regeneration
4. No internal regulation
5. The ineffective training and workshop for the members
6. The unclear responsibility and financial management
7. The activities which are rarely conducted anymore
8. The members who less contribute to the activities

Based on the analysis and discussion results, it can be known that some alternatives or suggestions can be implemented by Bandung Photo Hobby community / *Hobi Foto Bandung* (HFB) community in order to survive and continuously develop. Those alternatives are:
1. Maximizing the promotion to attract people’s interest and gaining new members using the internet and social media.
2. Maximizing the photo hunting.
3. Cooperating with other parties to conduct a training/workshop
4. Conducting activities by utilizing the cooperation/support from the government
5. Frequently conducting activities which involve the members by using the culture, nature, and public space in Bandung.
6. Minimizing activities with the photography of too sexy model
7. Maintaining a good relationship with other communities
8. Increasing the elements of human resources to survive and to compete.
References


Impact of Operation Synergy, Profitability and External Factor on Stock Returns  
(Case Study: PT. SMARTFREN TELECOM Tbk.)

Dr. Norita S.E., M.Si Ak., CA¹, Laksamana Herga Natanegara S.Mb²  
Master of Management, Economics and Business School,  
Telkom University  
¹norita.chan@yahoo.com, ²laksamaherga@gmail.com

Abstract

This study was conducted to examine the effect due to the Merger Synergy Operating to Stock Return. The variables used are the Sales Growth, Return on Assets, Net Profit Margin, Earnings Per Share, and BI Rate, on Smartfren’s Stock Return, the period of the 1st quarter of 2007 to the first quarter of 2015. The focus of this study was to measure and analyze the influence of these variables on Stock Return. This study is expected to be useful for the parties concerned, such as companies management, academics, investors, and for the development of financial theory.

The sampling technique used is purposive sampling with criteria: (1) a company engaged in the business of Telecommunications, (2) Telecommunication Company merged in 2010. Data were obtained from the company's quarterly financial statements and the publication of Indonesian Capital Market Directory. The analysis technique used is multiple regression with the ordinary least square and hypothesis testing using t-statistic to test the partial regression coefficient and F-statistic to examine the simultaneously influences. The analysis showed that the variable Return On Assets, Sales Growth, Net Profit Margin, Earnings Per Share and SBI simultaneously not significant to Smartfren’s Stock Return in the period of the 1st quarter of 2007 to the first quarter of 2015. The t-test statistic from this study indicate that the only variable Return On Asset and Earning Per Share are partially affect the Stock Return. The predictive capability of five variables on Stock Return of 15.4%. Synergies in Smartfren’s merger process does not work as a whole, since the postal costs are still high and can not be controlled resulting in lower profitability and lower Smartfren’s Stock Return.

Keywords: Merger, Return on Asset, Sales Growth, Net Profit Margin, Earning Per Share, BI Rate, Stock Return, Profitability, Operating Synergy

1. Introduction

One of the Telecommunication Company, Smartfren is a result of the merger between PT Mobile-8 Telecom Tbk and PT Smart Telecom Tbk. PT Smartfren Telecom formed on March 3, 2010 when PT Mobile-8 Telecom Tbk. and PT Smart Telecom Tbk. agreed to merge. The data indicate that PT Mobile-8 Telecom Tbk. noted some unfavorable financial statements in the years before the merger is done. According to Detik.com (04/2009) while the position of cash and cash equivalents of FREN in the end of 2008 fell by 97 percent from Rp 852.67 billion at the end of 2007 to Rp 23.73miliar. But in its development, Smartfren Tbk. nonetheless recorded poor results in terms of finance. Quoted from Republika (03/2014) that Smartfren throughout 2013 posted a net loss of Rp 2,534 trillion. This loss is higher than 2012 which amounted to Rp. 1.562 trillion. According to Detik.com (10/2011) stock price of Smartfren is stagnant at Rp. 50, no trade at all. It’s shares had stopped moving since March 29, 2010 until this news is published. Plus the Smartfren’s reverse stock split process in 2012 which indicates that their shares are not marketable.
To increase the value of the company, one of the strategies that can be used is a merger. In a very tight and global competition, the merger has been viewed as one way to become the market leader. Latest issue, the biggest trigger for mergers and acquisitions according to Gaughan (2011: 71) is the economic crisis and recession in the United States in 2008, companies in the World for mergers and acquisitions with a motive to survive the economic conditions are in crisis.

According to Gaughan (2011: 35) the period of merger and acquisition activity is divided into 6 large waves, often called a wave of merger recorded in the history of the United States. According to DePamphilis (2009) one of the most popular motifs of merger is synergy, then according Manurung (2011: 8) synergy divided into 2 Operating and Financial Synergy. Operating synergy differentiated into 2 part. First, Enhancing Operating Revenue and the second is Cost-Reducing Synergies. According to Vishwanath (2008) operating synergy in general is a major part of value creation in a merger, in addition to financial synergy. Gaughan (2011: 134) explains that the effect of synergy in operating-side-Enchancing Revenue Operating Synergy is a process of increasing the potential for additional sources to increase companies income. Also, Gaughan explains that the effect of synergy in operating-side-Enchancing Revenue is increasing the potential for additional sources of income. This income may be derived from such means as sharing marketing opportunities with cross-marketing of products each merger partner. With a broader product line, every company can sell more products and services to their market base. In other side, Cost-Reducing Operating Synergy, according to Gaughan (2011: 135) merger planners tend to look for synergies that reduce costs as the main source of operating synergies.

Operating Synergy in the form of cost reduction and revenue enhancing can be seen from the growth in sales and operating cost reductions are assessed on the company's operating margin (Damodaran, 2005). Gaughan (2011: 135) also found an efficient company will be able to give shareholders a greater rate of return. This opinion was supported by Lichtenberg’s research (1987) increasing the efficiency of company to use their fixed assets that have change a lot of ownership structure in the company. Moreover, according to Shahrur (2005) re-examine that occurred around the announcement of 463 horizontal mergers over the period 1987-1999. Shahrur noted the positive returns on the companies that are merging and these findings imply that the market sees the merger as an attempt to improve company’s efficiency.

Furthermore Menaje (2009) says that Earning Per Share and Return On Asset have an effect on stock prices. According to Dini’s research (2013) states that the Net Profit Margin variables affect the stock price of a company. Prabath (2014) explains that in addition to the accounting information, financial ratios play a significant role in determining stock prices. And for according to Luthvi (2014) external factor especially BI Rate has impact significantly to stock's return.

2. Research Purposes

Based on the described phenomenon, the importance of the objectives of this study are as follows:

a. To determine the influence of operating synergies proxied by Sales Growth and Net Profit Margin, Profitability proxied by Return on Assets and Earnings Per Share and External Factors proxied by SBI on Stock Return Smartfren simultaneously

b. To determine the influence of operating synergies proxied by Sales Growth and Net Profit Margin, Profit
ability proxied by Return on Assets and Earnings Per Share and External Factors proxied by SBI on Stock Return Smartfren partially

3. Research Methodology

The method used on this research is descriptive verification method. According to Sekaran (2010: 105) descriptive study describes a symptom, phenomenon, or event researched factual. The purpose of descriptive research is to provide a history or also to illustrate aspects relevant to the events examined from the point of view of someone, industry organizations, etc. Verification research method, according to Sugiyono (2012: 18) the verification method is a method of research which aims to determine the relationship between the two variables or more to test the truth of a hypothesis.

Type of data that used on this research is secondary data. Secondary data derived from other parties that have been processed so that it can be directly used. According to Sekaran (2010: 184) secondary data, among others such as government publications, information on the company, previous research, document libraries, online data, websites, and the Internet. Researchers used secondary data derived from the quarterly financial reports of PT Smartfren Telecom Tbk from 2007 to 2015. The sampling technique that used on this research is purposive sampling technique. According to Dantes (2012: 46) purposive sampling is a technique that based on the traits and characteristics or goals that has been set by the author.

The basic assumption of this purposive sampling is careful consideration and strategic research in determining the cases to be included in the sample. By studying the samples, researchers can draw conclusions generalize to the situation in the population. Criteria of the sample selection on this research is Telecommunication Companies that listed on the Indonesia Stock Exchange and merged in 2010, the authors take PT Smartfren Telecom Tbk as sample of this research. Consider that only PT Smartfren Telecom Tbk., companies that meet two criteria established by author. According to Gujarati (2010: 177) F-test statistic used to measure the goodness of fit of the regression equation or to find out if all the independents variables included in the equation together affect the dependent variable.

According to Gujarati (2010: 149) the significance test is a procedure in which the sample results are used to prove the truth or falsity of the null hypothesis. It means that the test of significance of this is that estimators and sampling distributions declared by the null hypothesis (H₀). According to Gujarati (2010: 152), in the language of the significance test, a statistically significant say if the value of the test statistics are in the critical region.

4. Results And Discussion

First, the data were tested with the classical assumption as required for regression testing. Further tests carried out by stationary as required on time series data. Then test the hypothesis with statistical F-test and t-test statistics. The variables used on this test is operating synergies proxied by Sales Growth and Net Profit Margin, profitability is proxied by the Earning Per Share and Return On Assets and external factors that proxied by BI Rate as an independent variables and Stock’s Return as the dependent variable.

Based on Table 1 shows the results of multiple linear regression for independent variables on the dependent variable. F- statistic probability value is equal to 0.087851, which means greater than predetermined level of significance is 0.05 which means that the null hypothesis is accepted. It can be said that operating synergies proxied by Sales Growth and Net Profit Margin, profitability is proxied by the Earning Per Share and Return On Assets and external factors that proxied by BI Rate simultaneously has no significant effect on Smartfren’s stock return. In addition, the predictive ability of the five variables on Stock Return of 15.41% as indicated by the amount of the adjusted R-Squared value 0.154067, or 15.41%.

On t-test statistics, only profitability which mean Earning Per Share and Return On Asset that has partially significant effect on Stock Return. This is based on p-value respectively 0.0046 and 0.0123 which is smaller than predetermined level of significance level of 0.05, which means that the null hypothesis is rejected. It can be said that the Earning Per Share and Return On Asset significantly influence to Stock Return. While the statistical t-test results for the Operating Synergy variable which is Net Profit Margin and Sales Growth showed has no partially significant effect to Stock Return. This is evidenced by the p-value of net profit margin and sales growth were respectively 0.1214 and 0.3996 which is greater than the level of significance 0.05, which means that the null hypothesis is accepted.
Table 1. Result of Hypothesis Test

<table>
<thead>
<tr>
<th>Variable</th>
<th>Coefficient</th>
<th>Std. Error</th>
<th>t-Statistic</th>
<th>Prob.</th>
</tr>
</thead>
<tbody>
<tr>
<td>C</td>
<td>0.544424</td>
<td>0.385390</td>
<td>1.412657</td>
<td>0.1692</td>
</tr>
<tr>
<td>EPS</td>
<td>0.009371</td>
<td>0.003032</td>
<td>3.090687</td>
<td>0.0046</td>
</tr>
<tr>
<td>NPM</td>
<td>0.001179</td>
<td>0.000737</td>
<td>1.599151</td>
<td>0.1214</td>
</tr>
<tr>
<td>ROA</td>
<td>-2.527721</td>
<td>0.942594</td>
<td>-2.681666</td>
<td>0.0123</td>
</tr>
<tr>
<td>SG</td>
<td>-0.061129</td>
<td>0.071417</td>
<td>-0.855936</td>
<td>0.3996</td>
</tr>
<tr>
<td>SBI</td>
<td>-7.033185</td>
<td>4.664969</td>
<td>-1.507660</td>
<td>0.1433</td>
</tr>
</tbody>
</table>

R-squared 0.286244
Adjusted R-squared 0.154067
S.E. of regression 0.197745
Sum squared resid 1.055785
Log likelihood 9.971703
F-statistic 2.165610
Prob(F-statistic) 0.087851

Furthermore, the statistical t-test results for the External Factor variable which is BI Rate showed no partially significant effect to Stock Return. This is evidenced by the p-value of BI Rate is equal to 0.1433 which is greater than the level of significance 0.05, which means that the null hypothesis is accepted.

Operating synergies are proxied Sales Growth and Net Profit Margin turns partially no significant effect on Stock Return. Phenomena in Smartfren, this is not match with some theory that stated the effect of the merger is a synergy effect has impact on stock return. In case of Smartfren, possibly Revenue-Enhancing Synergy Operating occurred within the company, but, the company can’t handle the costs, as the result the cost still too high. It’s make efficiency of the company's financial performance cannot be perfectly achieved. This causes the efficiency of the company's financial performance is the benchmark investors' assessment does not happen perfectly so that no significant effect on Stock Return.

Profitability proxied by Return On Assets and Earnings Per Share partially significant effect on Stock Return. This confirms previous studies which have been described in the introduction. In fact profitability in case Smartfren Telecom has decreased along with the decrease of corporate profits, this caused the market assesses that Smartfren Telecom cannot effectively use the assets that accrue as a result of the merger to generate profits or judge that the company is inefficient in using their assets. Then, as the market thought that the company is not efficient, then caused a decline in stock prices which automatically lower Return company's shares. It is also likely to lead to the company felt the need to do a reverse-stock split to stimulate buying and selling shares.

External factors are proxied by SBI also has no effect on the company Stock Return, this proves that descend and rise Stock Return the company is not associated with macroeconomic factors that exist in the company’s business environment, especially interest rate of Bank Indonesia.

5. Conclusion

The conclusion to this study is the research period 1st quarter 2007 to the 1st quarter of 2015 by using multiple linear regression method, that variable Sales Growth, Return on Assets, Net Profit Margin and Earnings Per Share and SBI simultaneously no significant effect on Stock Return Smartfren.

Later in this study was found from 1st quarter 2007 to the 1st quarter of 2015 by using multiple linear regression method, operating synergies proxied by Sales Growth and Net Profit Margin and External Factors proxied by SBI partially no significant effect on Return stock Smartfren. While profitability is proxied by the Earning Per Share and Return On Asset partial significantly influence Stock Return. It can be concluded that the merger process in case Smartfren, no effect on Retun Shares Smartfren. In addition, it indicates the merger process does not work perfectly. External factors are proxied by SBI also has no effect on the company Stock Return, this proves that descend and rise Stock Return the company is not associated with macroeconomic factors.
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An Analysis Of Consumer Preferences In Choosing A Prepaid GSM SIM Card Provider In Indonesia

Ricky Afiffuddin Basyir, Elvira Azis
Faculty of Economic & Business, Telkom University

Abstract

Undeniable the fact that cellular phones are the most popular communication gadgets all over the world including Indonesia. Subscriber Identity Module Card (SIM Card) is a card used in cellular phones. In Indonesia itself, there are two types base of the SIM cards, which is SIM cards based of Global System for Mobile Communication (GSM) and SIM cards based of Code Division Multiple Access (CDMA). GSM SIM card is the first and most popular used in Indonesia. The increasing demand for mobile telephony boosted demand for the SIM card so that it leads to competition especially for prepaid GSM SIM card provider. Intense competition in the market for a prepaid SIM card provider of telecommunications companies demanding to know the needs of the market at the moment, for it required research regarding the Analysis of Consumer Preferences. This analysis is based on a sample of customer prepaid GSM SIM card. We use orthogonal method for design of 16 cards that are used in questionnaires as conjoint analysis with the help of Statistical Package for Social Science (SPSS). The results showed that customer care attribute is the attribute that most consumers into consideration. Telecommunications providers should focus on developing their telecommunication services to attract customers switch selects one of the telecommunications provider.

Keywords: conjoint; preference; telecommunication; attributes; GSM

1. Introduction

Currently in Indonesia there are 7 mobile telecommunications services operators, PT. Hutchison 3 Indonesia (Tri), PT. XL Axiata (XL), PT. Indosat (Indosat), PT. Sampoerna Telekomunikasi Indonesia (Ceria), PT. Telekomunikasi Selular (Telkomsel), PT. Smartfren dan PT. Bakrie Telecom. (Librianty, 2015). GSM-based communication technology has two payment schemes, namely prepaid and postpaid. Prepaid payment scheme was carried out at the beginning before usage, while postpaid performed at the end after usage.

In Indonesia there are seven providers of prepaid SIM cards GSM-based, the SIM cards simPATI and SIM cards Kartu AS which are the trademarks of Telkomsel company. Mentari and IM3 which are the trademarks of Indosat company. XL Prepaid and AXIS which are the trademarks of XL Axiata company and 3 (Tri) which is a trademark of Hutchinson company.

Currently in Indonesia there are 270 million mobile phone users. While the total population of Indonesia by 2014 approximately 253,609,643 inhabitants. So it can be noted that the number of cellular phone SIM cards that spread beyond the population of Indonesia itself. It also results in the telecommunications industry market share be saturated so that operators become more focused to customer service improves rather than looking for new customers. In detail, each operators claim the number of subscribers provider are Telkomsel has 135 million subscribers, XL has 68,5 million subscribers, Indosat has 59,7 million subscribers and Tri has 40 million subscribers. (Gusti, 2014)

Indonesian community will have many choices in fulfilling his needs to communicate. So many and varied telecommunications provider has to offer, then will sue other telecom operators to continuously provide quality
products and services that can increase the power of their own brand. Indirectly, it would allow consumers to switch from one provider to another provider.

Cost is one of the factors that led consumers can switch mobile telecommunications operator. In addition to cost, many other things into consideration of consumer choice in determining a particular telecommunications operator. The quality of service and a range of other products that offered telecommunications operator may encourage consumers to choose according to your needs and abilities.

Indirectly, consumers have a preference for his needs. Consumer choice the good and the best option and also a selection of important and not important. With many choices offered by the mobile telecommunications industry, consumers choose their own services and products in accordance with his wishes.

Consumer preferences is influencing consumer choice when faced with many variety choice of products of its kind. Therefore, it is very important for a company to know the preferences of the Customer. Preferences can be used by the company to recognize the needs of consumers in order to produce products based on market orientation. (Hair, 2010)

Consumer preferences can be known with doing research using the method of conjoint analysis, i.e., by dividing the service on the telecommunication industry to be attributes corresponding to the needs of the consumer. Of these attributes can be known where attributes are important and not important for consumers so that it can be a material consideration for telecommunications companies to determine direction of product development strategy and policy.

1.1. Statement of the Problem

Development of the number of subscribers of mobile phone users in Indonesia is quite fantastic. From 240 million cell phone users in 2011, the prepaid customers have the greatest share specifically about 95% (Nugraha 2012). Whereas in terms of ad spending, the telecommunications sector is the largest advertiser in all media with a value of more than Rp 4.9 trillion (Pradana, 2013).

The telecommunications sectors is an industry that tends to grow from year to year. Not denying that the available market share was increasingly absorbed gradually. It also results in an increasingly tight competition for the telecommunications industry in getting customers.

Jesie [3] said to win the competition in the business world, the main things that must be observed by the company is customer satisfaction. Every company should be able to provide products according to customer’s needs and desires. Similarly, in the telecommunications business, the company should be able to provide service in accordance with what is expected of the customer.

Therefore, according to Oyatoye, O. Emmanuel, Adebiyi, O. Sulaimon, and Amole, Bilqis B (2013), strategies and policies to promote the telecommunications industry market must be mapped based on the needs and preferences of consumers. Consumer preference is the most important factor in determining the success of the business and policy directions the organization because most of the information technology and product development are dominated by consumer demand.

1.2. Brief Literature Review

The conjoint analysis is the most general analysis to be applied to the study of market research and product development with the goal of obtaining a score of usefulness (utility) that can represent the interest of every aspect of products, also acquired importance score so from the score can be drawn conclusions about the attributes of what most considered the consumers in choosing a product. Conjoint procedures try to put a value on the level or levels of each attribute, so that the resulting value or utility that is linked on the stimulus suited or as close as possible to the evaluation of the input provided by the respondent. (Supranto, 2010)

In the conjoint analysis, the stimulation is the combination of the attribute levels, determined by the researchers. Besides the conjoint analysis aims at making market segment based on the similarity of preference levels or level, it also used in the conjoint analysis to estimates the share of different brands in the level attribute that can be used as an input into an option simulator to determine the selects donation on the market with different types of brands. The thing that makes researchers using the fifth case study and then the concept or the primacy of each object can be used in case studies in the combination of the attributes or level that will be given to the respondent. Attributes can be identified through discussions with management, secondary data, or analyzing data qualitative research. (Supranto, 2010)
The base model used is the additive model, i.e. the value of usability levels for all attributes on a specific product design are mutually adds. The earliest form of conjoint analysis is called full profile. This approach can be used when the combination of the existing set of no more than six combinations, so that respondents can easily evaluate and compare for a short terms (Hair, 2010). These studies examine the attributes of the telecommunications services on a prepaid GSM SIM card provider. There are five attributes, i.e. cost, call quality, support facilities, coverage and customer care. For example, the telecommunications provider attribute consists of five attributes and 10 levels, then it is likely a combination of profiles could occur is $2^5 = 32$ possible profile. The figure derived from the multiplication of the number of levels of each attribute.

In this research, profiling using the statistical tools SPSS 20.0 in order to profile arrangement can be easily formed. In SPSS 20.0, attribute and level designed in orthogonal and produced a wide number of plan card in every different product. Plan card is the arrangement of attributes and levels that will be used as a profile. Attributes and levels were created an orthogonal with the help of SPSS 20.0 syntax then generates stimuli that would later become the questionnaire.

2. Materials dan Methodology

This research was conducted in two major cities in Indonesia, Jakarta and Bandung. This research is done by using the method of non-probability sampling is the selection of samples by providing opportunities that are not equal to the corresponding element to be sampled, in particular this research method using convenience sampling. Convenience sampling is the sampling procedure to get people or units that are most easily available [12]. The sample used as many as 200 samples in each city.

Each respondent is given a question in the form of a questionnaire in the form of cards. Each cards has a different attribute combinations, then the respondents were asked to give a score value on each card according to the tastes and desires. Score value is the valuation of options towards a combination of attributes. Score value in this research are as follows:

<table>
<thead>
<tr>
<th>Lowly preferred</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>Highly preferred</th>
</tr>
</thead>
</table>

Description:
- Option 1 = score 1
- Option 2 = score 2
- Option 3 = score 3
- Option 4 = score 4

2.1. Estimates of Conjoint Analysis

The study uses five selected telecommunications service attributes based on previous journal literature. Attribute to the selected telecommunications services is cost, call quality, support facilities, coverage and customer care which can be seen in the following Table 1.

Table 1. Attributes and Level of Telecommunications Service

<table>
<thead>
<tr>
<th>Attribute</th>
<th>Level</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cost</td>
<td>1</td>
<td>Telecommunication usage rate is high (expensive)</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>Telecommunication usage rate is moderate</td>
</tr>
<tr>
<td></td>
<td>3</td>
<td>Telecommunication usage rate is low (cheap)</td>
</tr>
<tr>
<td>Call quality</td>
<td>1</td>
<td>Call quality with clear voice (clarity)</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>Call quality without clear voice (obscurity)</td>
</tr>
<tr>
<td>Support Facilities</td>
<td>1</td>
<td>Adequate supporting facilities</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>Fairly supporting facilities</td>
</tr>
<tr>
<td></td>
<td>3</td>
<td>Inadequate supporting facilities</td>
</tr>
<tr>
<td>Coverage</td>
<td>1</td>
<td>Wide coverage of telecommunications signals</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>Narrow coverage of telecommunications signals</td>
</tr>
<tr>
<td>Customer care</td>
<td>1</td>
<td>Customer care service is good (quick response and understandable)</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>Customer care service is fair (slow response and understandable)</td>
</tr>
<tr>
<td></td>
<td>3</td>
<td>Customer care service is bad (slow response and not understandable)</td>
</tr>
</tbody>
</table>
Then created a profile with the help of SPSS 20.0. Attributes and levels are designed in an orthogonal and results as a plan card combination that to be used as a profile. With the of SPSS 20.0, the level and the attribute and generates stimuli that serve as the questionnaire.

Table 2. Card Stimuli in This Study

<table>
<thead>
<tr>
<th>Card</th>
<th>Cost</th>
<th>Call quality</th>
<th>Supporting facilities</th>
<th>Coverage</th>
<th>Customer care</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>High</td>
<td>Clarity</td>
<td>Adequate</td>
<td>Narrow</td>
<td>Bad</td>
</tr>
<tr>
<td>2</td>
<td>High</td>
<td>Clarity</td>
<td>Inadequate</td>
<td>Narrow</td>
<td>Fair</td>
</tr>
<tr>
<td>3</td>
<td>Low</td>
<td>Obscurity</td>
<td>Adequate</td>
<td>Wide</td>
<td>Fair</td>
</tr>
<tr>
<td>4</td>
<td>Moderate</td>
<td>Obscurity</td>
<td>Inadequate</td>
<td>Narrow</td>
<td>Good</td>
</tr>
<tr>
<td>5</td>
<td>Moderate</td>
<td>Obscurity</td>
<td>Fairly</td>
<td>Wide</td>
<td>Fair</td>
</tr>
<tr>
<td>6</td>
<td>High</td>
<td>Clarity</td>
<td>Inadequate</td>
<td>Wide</td>
<td>Good</td>
</tr>
<tr>
<td>7</td>
<td>Low</td>
<td>Clarity</td>
<td>Fairly</td>
<td>Narrow</td>
<td>Good</td>
</tr>
<tr>
<td>8</td>
<td>Low</td>
<td>Obscurity</td>
<td>Inadequate</td>
<td>Wide</td>
<td>Bad</td>
</tr>
<tr>
<td>9</td>
<td>High</td>
<td>Obscurity</td>
<td>Adequate</td>
<td>Wide</td>
<td>Good</td>
</tr>
<tr>
<td>10</td>
<td>High</td>
<td>Obscurity</td>
<td>Fairly</td>
<td>Wide</td>
<td>Good</td>
</tr>
<tr>
<td>11</td>
<td>Low</td>
<td>Clarity</td>
<td>Adequate</td>
<td>Narrow</td>
<td>Good</td>
</tr>
<tr>
<td>12</td>
<td>Moderate</td>
<td>Obscurity</td>
<td>Adequate</td>
<td>Narrow</td>
<td>Good</td>
</tr>
<tr>
<td>13</td>
<td>High</td>
<td>Obscurity</td>
<td>Fairly</td>
<td>Narrow</td>
<td>Bad</td>
</tr>
<tr>
<td>14</td>
<td>High</td>
<td>Clarity</td>
<td>Adequate</td>
<td>Wide</td>
<td>Good</td>
</tr>
<tr>
<td>15</td>
<td>High</td>
<td>Obscurity</td>
<td>Adequate</td>
<td>Narrow</td>
<td>Fair</td>
</tr>
<tr>
<td>16</td>
<td>Moderate</td>
<td>Clarity</td>
<td>Adequate</td>
<td>Wide</td>
<td>Bad</td>
</tr>
</tbody>
</table>

The number of profiles that are used in the conjoint analysis according to Hair et al. (2010), can be calculated by:

Number of estimated parameters = Total number of levels – Number of attributes + 1

There are two ways to reduction a profile in which considered excess in a conjoint study, i.e.:
1. Fractional factorial design
   This method is the most common and most frequently used. The process of creating the possibility of a profile with the number of profiles depends on the type of composition rules to be used by the respondent, this way typically use Orthogonal Plan on SPSS.
2. Bridging design
   This method is used when the number of factors more than seven factors, the process is by dividing the factor into sub-sections.

Process of reduction profile within this research use the fractional factorial design due to the number of attributes in this study amounted to five attributes, which are not more than seven attributes. With the help of SPSS, attribute and level are made on the first stage processed by a syntax. As for the number of attributes in this research totalled five attributes and 13 levels then it is likely the combination is $3 \times 2 \times 3 \times 2 \times 3 = 108$ stimuli. However, by using the method of fractional factorial design by Hair et al. (2010) in SPSS which aims to have an efficient card, SPSS generates 16 pieces of card. Card that is in the minority and the majority are automatically selected by SPSS as shown in Table 2.

3. Discussion

The result of data processing with the help of SPSS to 200 samples in each city i.e. Jakarta and Bandung can be seen in the following tables. Correlation and significance analysis of conjoint results shown in Table 3. Can be seen in the table, the values of Pearson’s and Kendall’s generate a score 0.951 and 0.867. Correlation of the Pearson’s claims that a correlation of data obtained in the field have a classification of very high group and the value of correlation of Kendall’s also have a classification of very high group.

As for the significance of the observation data results a value 0.000. That value is under 0.05 so the significance’s accepted because it is under the specified maximum value that is 0.05. (Suliyanto, 2007)
Table 3. Results of the Correlation and Significance Analysis of Conjoint in the Prepaid GSM SIM Card Concept

<table>
<thead>
<tr>
<th></th>
<th>Value</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pearson's R</td>
<td>.951</td>
<td>.000</td>
</tr>
<tr>
<td>Kendall's tau</td>
<td>.867</td>
<td>.000</td>
</tr>
</tbody>
</table>

Table 4. shows the results of the conjoint analysis for telecommunication service concept that desired by consumers. From the results of the estimation of utility can note that desired by the consumer is to cheaper costs indicated by the value of utility 0.091. While the call quality attributes shows that consumers want a clear voice phone calls that indicated by the value of the utility 0.201. Support facilities that desired by customer is an adequate supporting facilities that shown with an utility value 0.145. The coverage of signal that desired by consumers is a wide signal coverage that indicated by the value of utility 0.124 and the customer care that desired by consumers is a customer care service with the good service that indicated by the value of utility 0.325.

Table 4. Results of the Conjoint Analysis in Telecommunications Service Concept

<table>
<thead>
<tr>
<th>Attribute</th>
<th>Utility Estimate</th>
<th>Std. Error</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cost</td>
<td></td>
<td></td>
</tr>
<tr>
<td>High</td>
<td>-.039</td>
<td>.061</td>
</tr>
<tr>
<td>Moderate</td>
<td>-.051</td>
<td>.071</td>
</tr>
<tr>
<td>Low</td>
<td>.091</td>
<td>.071</td>
</tr>
<tr>
<td>Call Quality</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Clarity</td>
<td>.201</td>
<td>.046</td>
</tr>
<tr>
<td>Obscurity</td>
<td>-.201</td>
<td>.046</td>
</tr>
<tr>
<td>Support Facilities</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Adequate</td>
<td>.145</td>
<td>.061</td>
</tr>
<tr>
<td>Cukup memadai</td>
<td>.037</td>
<td>.071</td>
</tr>
<tr>
<td>Inadequate</td>
<td>-.183</td>
<td>.071</td>
</tr>
<tr>
<td>Coverage</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Wide</td>
<td>.124</td>
<td>.046</td>
</tr>
<tr>
<td>Narrow</td>
<td>-.124</td>
<td>.046</td>
</tr>
<tr>
<td>Customer Care</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Good</td>
<td>.325</td>
<td>.061</td>
</tr>
<tr>
<td>Fair</td>
<td>-.177</td>
<td>.071</td>
</tr>
<tr>
<td>Bad</td>
<td>-.149</td>
<td>.071</td>
</tr>
<tr>
<td>(Constant)</td>
<td>2.149</td>
<td>.053</td>
</tr>
</tbody>
</table>

The importance value of each attributes can be seen in Table 5. Overall the respondents pay more attention to a telecommunications services in terms of customer care service. Customer care service which is good become into consideration more for the respondent in determining the selection in a particular telecommunication provider in meeting their telecommunication needs. In addition to customer care service, other telecommunications service into consideration of respondents based on their importance, i.e. call quality of phone calls into consideration the second respondents, support facilities into consideration the third respondents, signal coverage into consideration the fourth respondents and cost into consideration the last respondents.

Table 5. Attribute Importance Values

<table>
<thead>
<tr>
<th>Attribute</th>
<th>Values</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cost</td>
<td>8.749</td>
</tr>
<tr>
<td>Call quality</td>
<td>24.789</td>
</tr>
<tr>
<td>Support facilities</td>
<td>20.210</td>
</tr>
<tr>
<td>Coverage</td>
<td>15.311</td>
</tr>
<tr>
<td>Customer care</td>
<td>30.941</td>
</tr>
</tbody>
</table>

Averaged Importance Score

4. Conclusion

This research explains how consumer preferences toward telecommunications service specifically for users of prepaid GSM SIM card. Telecommunications providers should focus on developing their telecommunication services to attract customers switch to select one of the telecommunications provider. Conjoint analysis helps to explain the preferences of consumers againsts a product and services including services in the telecommunications
Based on the results of the conjoint analysis that already done, can be noted a conclusions about the consumer preferences of telecommunications services in prepaid GSM SIM card. Telecommunication services that are desired by the respondents is a customer care service with a good services, coupled with a clear voice of phone call quality, an adequate supporting facilities, a wide signal range and low cost. Telecommunications provider in Indonesia is expected to be able to develop services in accordance with the consumer preferences so that the telecommunications industry can continue to increasingly evolve and consumers are becoming increasingly satisfied.

References:


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The 6th Seminar & Conference on Business & Technology in ICT Industry (SCBTII2015)

The Impact Adoption Of M-Commerce Base On Tam To Consumer Intention In Indonesia: Study Of Line Shopping

Gede Pradnya Wigraha¹, Maya Ariyanti²
Telkom University
¹gwigraha@students.telkomuniversity.ac.id; ²maya.ariyanti@gmail.com

Abstract

LINE has launched LINE Shopping in Indonesia which makes it even more interesting for e-commerce businesses. LINE Shopping is managed by LINE team, aggregating online merchants and promoting deals exclusively for Line Users. M-commerce has a great potential and Line Shopping was able to exploit the opportunity, it is crucial to find out what are the most influencing factors for m-commerce adoption. Line exceptional performance in harnessing the power of m-commerce has got to writer’s interest.

This research uses TAM developed by Wei et al. (2009). This research is causal research. Populations in this research are LINE Shopping users in Indonesia. The sample taken was 100 respondents with convenience sampling approach. This Research uses Multiple Regression Analysis as measurement tool.

Simultaneously, Perceived Usefulness (X1), Perceived Ease of Use (X2), Social Influence (X3), Trust (X4), and Perceived Cost (X5) have influence toward Intention to Use (Y) on m-commerce in Indonesia. While partially, Perceived Usefulness, Perceived Ease of Use, Trust and Perceived Cost are significantly influential toward Intention to Use m-Commerce. Social Influence however is not significantly influential toward Intention to Use.

LINE shopping need to keep up their work and improving by doing continuous updates on the aspects that will maintain or increase LINE shopping intention of use. For the next researcher, it would be better if they have more references and to give more focus on the upstream customers.

Keywords: m-commerce, Technology Acceptance Model (TAM), Line Shopping.

1. Introduction

LINE, a very well-known chat application has launched LINE Shopping in Indonesia which makes it even more interesting especially for e-commerce businesses. As opposed to the official accounts operated by brand owner or merchant, LINE Shopping is managed by LINE team, aggregating online merchants and promoting deals exclusively for Line Users. Since its launch in December 2013, LINE Shopping has taken Indonesian LINE users by storm. LINE Shopping has created such hype over several promotional discounts on branded products, such products can be sold out within day even hours (dailysocial.net/November, 2014).

Given the fact that m-commerce has a great potential and Line Shopping was able to exploit the opportunity, it is crucial to find out what are the most influencing factors for m-commerce adoption. Line exceptional performance in harnessing the power of m-commerce has got to writer’s interest.

2. Literature Review

According to Davis, TAM is an information systems theory that models how users come to accept and use a technology. Meanwhile, “perceived usefulness (PU) is the degree to which an individual believes that using a particular system would enhance his/her job performance”. And “perceived ease of use (PEOU) is the degree to which an individual believes that using a particular system would be free of physical and mental effort” (Davis, 1986). TAM evolved alongside technological developments, thus TAM 2 (Vankatesh and Davis, 2000) and TAM 3 (Vankatesh & Bala, 2008) was born. Technology to be accepted in this context is mobile
Schwiderski-Grosche and Knospe (2002), define mobile commerce as using a mobile device for business transactions performed over a mobile telecommunication network, possibly involving the transfer of monetary values. The current business environment is getting more competitive in order for many companies to stay competitive; businesses have always strived to improve themselves by creating better products and services for their customers. With the recent emergence of the wireless and mobile networks, a new platform for business to trade their product and service known as m-commerce is beginning to gather attentions from businesses (Wei et al, 2009:01). Then we come to the conceptual framework of this research, which will put TAM, mobile commerce and other aspects together as a research construct.

Conceptual framework is a model of how theory relates to the various factors that have been identified as an important issue. A good framework will explain the theoretical linkage between the variables being studied. Thus, theoretically it is necessary to explain the relationship between the independent variables and the dependent variable.

In 2009, Wei et.al has developed a research model indicating the adoption of m-commerce based on TAM literature.

![Fig. 1 Conceptual Framework](image)

In Wei et.al (2009) framework, there are 5 factors indicating the adoption of m-commerce which are Perceived Usefulness, Perceived Ease of Use, Social Influence, Trust and Perceived Cost. Two of the factors which are Perceived Usefulness and Perceived Ease of Use were adopted from original TAM developed by Davis in 1989.

Based on the research framework mentioned previously, the hypotheses are:

H1: PU, PEOU, SI, Trust, and Perceived Cost are influential toward consumer IU of m-commerce in Indonesia.

3. Methodology

Independent variables are one that influences the dependent variable in either a positive or negative way (Sekaran, 2010). Independent variables in this research are 5 which are Perceived Usefulness (PU), Perceived Ease of Use (PEOU), Social Influence (SI), Trust and Perceived Cost.

According to Sekaran (2010) Dependent variable is the variable of primary interest to the researcher.
Through the analysis of the dependent variable, it is possible to find answers or solution to the problem. Dependent variable in this research is Intention to use (Y).

In this study, the measurement scale used is a Likert scale. Likert scale is a measurement scale with four response categories ranging from “strongly disagree” to “strongly agree,” which requires the respondents to indicate a degree of agreement or disagreement with each of a series of statements related to the stimulus object (Indrawati, 2015).

It is impossible to measure the entire population; therefore a small amount of people will be representative samples. Based on Sekaran and Bougie (2010:262) population refers to the entire group of people, events, or things of interest for which the researcher wants to make inferences. Therefore the population for this research will use is all of LINE user in Indonesia.

While sample based on Sekaran and Bougie (2010: 263) is the subgroup which has been select to participate in this research to represent the whole population. In this research, sampling technique that the researcher used is Non Probability Sampling, which is convenience sampling. There are around 900 thousand followers of LINE Shopping. In this case, writer cannot assume every one of the follower is active because LINE does not provide an option to delete user account, because it is hard to find the exact amount of users, therefore to determine the amount of sample in this research, the technique using from Bernoulli formula. From the formula obtained 100 respondents.

Verificative (causal) research usually done when researcher has read previous research that discuss about inter-variable relation. To conduct a test that proves a similarity between the current and previous research in regards to inter-variables relation. (Indrawati, 2015:116). Verificative analysis is needed in order to analyze each indicators measured in this study. Multiple regression analysis is a general statistical technique used to analyze the relationship between a single dependent variable and several independent variables (Hair et al, 2010:161).

4. Discussion

In general, this study showed satisfactory results. The analysis was conducted involving 100 respondents. Descriptive analysis shows that m-commerce adoption in Indonesia is categorized as good. Unfortunately however, there is one dimension that cannot be categorized as good. But it still shows that m-commerce in Indonesia has already adopted nicely.

This study used five variables as the independent variables which are: Perceived Usefulness (PU), Perceived Ease of Use (PEOU), Social Influence (SI), Trust, Perceived Cost and one variable as the dependent variable which is Intention to use. After a test was conducted in SPSS 20, it resulted in the following results.

<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>.833</td>
<td>.693</td>
<td>.677</td>
<td>1.066</td>
</tr>
</tbody>
</table>

Determination coefficient value can be seen from R square which appears in the determination coefficient table of 0.693. It means that the influence of Perceived Usefulness (X1), Perceived Ease of Use (X2), Social Influence (X3), Trust (X4), and Perceived Cost (X5) toward Intention to Use (Y) on m-commerce in Indonesia is 69.3%, while the rest 30.7 % were influenced by unobserved factors.
Table 2 Coefficient

<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>1.517</td>
<td>1.390</td>
<td>1.091</td>
<td>.278</td>
</tr>
<tr>
<td>X1</td>
<td>.115</td>
<td>.043</td>
<td>.156</td>
<td>2.690</td>
</tr>
<tr>
<td>X2</td>
<td>.180</td>
<td>.071</td>
<td>.157</td>
<td>2.527</td>
</tr>
<tr>
<td>X3</td>
<td>.113</td>
<td>.059</td>
<td>.130</td>
<td>1.906</td>
</tr>
<tr>
<td>X4</td>
<td>.760</td>
<td>.081</td>
<td>1.105</td>
<td>9.356</td>
</tr>
<tr>
<td>X5</td>
<td>-0.869</td>
<td>.110</td>
<td>-.851</td>
<td>-7.887</td>
</tr>
</tbody>
</table>

Based on the analysis above, by looking at the regression analysis where constant and regression coefficients is obtained. Multiple Linear Regression equation can be made as such:

\[ Y = 1,517 + 0,115X_1 + 0,180X_2 + 0,113X_3 + 0,760X_4 - 0,869X_5 \]

The equation above can be interpreted as follows:

\( a = 1,517 \) Means that if Perceived Usefulness (X1), Perceived Ease of Use (X2), Social Influence (X3), Trust (X4), and Perceived Cost (X5) is zero then Intention to Use (Y) on m-commerce in Indonesia will be 1,517.

\( b_1 = 0,115 \) Means that if Perceived Usefulness (X1), increased by one unit and the other variables are constant, therefore the variable Intention to Use (Y) on m-commerce in Indonesia will grow to 0,115.

\( b_2 = 0,180 \) If Perceived Ease of Use (X2) increased by one unit and the other variables are constant, then Intention to Use (Y) on m-commerce in Indonesia will increase by 0,180.

\( b_3 = 0,113 \) If Social Influence (X3), increased by one unit and the other variables are constant, then Intention to Use (Y) on m-commerce in Indonesia will increase by 0,113.

\( b_4 = 0,760 \) If Trust (X4) increased by one unit and the other variables are constant, then Intention to Use (Y) on m-commerce in Indonesia will increase by 0,760.

\( b_5 = -0,869 \) If Perceived Cost (X5) increased by one unit and the other variables are constant, then variable Intention to Use (Y) on m-commerce in Indonesia will decrease 0,869.

### 5. Conclusion

Based on the research and discussion regarding “THE IMPACT ADOPTION OF M-COMMERCE BASE ON TAM TO CONSUMER INTENTION IN INDONESIA: STUDY OF LINE SHOPPING.”, the writer has come to a conclusion as such:

Perceived Usefulness (X1), Perceived Ease of Use (X2), Social Influence (X3), Trust (X4), and Perceived Cost (X5) are influential toward Intention if Use (Y) on m-commerce in Indonesia. It means that Perceived Usefulness (X1), Perceived Ease of Use (X2), Social Influence (X3), Trust (X4), and Perceived Cost (X5) are collectively or simultaneously influential toward Intention of Use (Y) on m-commerce in Indonesia. Despite that, it seems that Social Influence does not partially influence Intention of Use on Line Shopping.
References


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Mapping Supply Chain Management Business Process Model at Small Medium Enterprises Printing Industry in Indonesia Using Supply Chain Operation References Variable (Bandung, Yogyakarta and Bali)

Dodie Tricahyono, Herry Irawan, Ratih Hendayani
Economics and Business School of TELKOM UNIVERSITY JL. Telekomunikasi no.1 Terusan Buah Batu
Bandung, West Java, Indonesia

Abstract

The ASEAN Economic Community (AEC) is contributed on competition between local entrepreneurs with entrepreneur ASEAN countries, especially those that get direct impact of this competition is Small and Medium Enterprises (SME) businessman. One of the SME businessman is the SME entrepreneurs on the printing industry, which does not have a supply chain business processes that can be utilized as a benchmark for their operations job, so that it can became their weakness in the competition. Trough SCOR as a most effective framework for the supply chain, it can be a solution for the SME to get their business process to understand their supply chain operation and be their competitive advantage. This research involves 67 respondents in SME printing industry with three primary objects in the printing center in Bandung, Yogyakarta and Bali. This type of research is qualitative research and the methods are mapping business process flow model of supply chain based on SCOR variables such like, plan, source, make, deliver and return. Based on the mapping of model business processes with SCOR variable it is known that all object in Bandung, Yogyakarta and Bali are have same supply chain business process despite the detail characteristic of plan, source, make, deliver, return are little different in each city.

Keyword: SCM Business Process Model, SCOR, SME printing Industry

1. Introduction

As a member of ASEAN, Indonesia should be involved in the ASEAN Economic Community (AEC) Although AEC is still a controversy in Indonesia, AEC can bring in foreign investors to grow the economy, but on the other hand, which is a very crucial problem that is by the presence of foreign investors, then the foreign market will dominate Indonesia while local business (particularly the perpetrators of small and medium enterprises (SMEs) will not be able to compete in terms of capital. (Rahadian, Rachmawati, 2015)

One of the SMEs in Indonesia who already have a cluster system for the same industry, namely industrial centers is a Sablon Suci and industrial centers that have the most investment value with the value of 11,403 billion rupiah and is one of the industrial centers are very influential for the development of the existing industrial centers in Bandung. This concern is more for the Government to continue to develop industrial centers, especially Sablon Suci and industrial centers. (The Department of cooperatives and SMEs, 2012)

Not only the Central printing that located in Bandung, the another centers for printing and who was well known both in and outside the country there are in Jogjakarta and Bali. Established on the opinion of Sidarto (2008), practitioners of the industry are required to be able to invent products that are inexpensive, good-quality, and timely in accordance with the customer's desire to acquire the market competition. For it requires an awareness of the importance of the role of the parties in the supply chain area, the awareness created on the concept of Supply Chain Management. To win the competition, especially in the face of AEC, industry practitioners should know the position of his company against the average of peers both rival companies in the country or a competitor from Member of the AEC. Thus, to arrive at improvements to systems, supply chain company, previously performed by measurement of the Supply Chain Operations Reference (SCOR) to evaluate reliability, responsiveness, flexibility, costs and assets
and mapped its business process flow model based on SCOR variable, plan, source, build, deliver returns.

Supply Chain Council’s chosen SCOR due to indicate the usage of this model to reduce the supply chain conflict (Prakash, 2013) for good quality but cheap suppliers or consumers or distributors are trusted, due to start this year the SMES we will face foreign company members of the AEC and should have their competitive advantage. The topic will be tested to get business process model of supply chain management in SME?

2. Literature Review

The Supply Chain Council has suggested the Supply Chain Operations Reference (SCOR) Model. This research resulted that this model was effective and widely used in manufacturing companies (Prakash et al, 2013). And Supply Chain Council supports the Supply Chain Operations Reference (SCOR) Model as a reference standard Supply Chain business process model that can meet the expectations of management clearly to build his company’s supply chain integrates (Gordon, 1997). Jameeshooran establish a framework that can ameliorate the operation of the Supply Chain that shown firm connections between job analysis with Supply Chain performance (Jameeshooran, et al, 2000). SCOR also can used to compare the performance of supply chain of any retail by using SCOR model combined with elements of the marketing mix (Eryuruk et al, 2014), that can prove that with SCOR variable can strengthen the performance so that the printing centers in Bandung, Jogjakarta and Bali can be more competitive. Because the performance of the supply chain is becoming one of the key factors for a successful business. It is therefore necessary in the maturation of the measurement of the supply chain. The implementation of the SCOR on the manufacturing company with the purpose to maintain the efficiency of the SCOR as good as there is in the developed world (Salman et al, 2013). Arun and Desmuhk (2009) prove that small medium enterprises need supply chain Performance Measurement Framework to gained their competitiveness. SCOR can used to evaluate the performance of the company are shown in the key performance index that perform the assessment of the supply chain performance on a small medium company (Ruth et al, 2011). SCOR Model to perform comprehensive performance measurement and through the variable can know the measurement (Thakar et al, 2009). Wang (2009) explained that the supply chain has changed company that individual becomes an arena management to value, understand the practice of global supply chain management is becoming increasingly important. SCOR Model developed by SCC became the dominant framework in supply chain planning. Sidarto (2008), been concerned regarding awareness of the concept of supply chain management to acquire the competition in creating products that are inexpensive, good-quality, and timely in accordance with the wishes of the client. To make measurements along the supply chain management activities can be quantified by the Performance of Activity and Supply Chain Operation Reference. SCOR will measure of reliability, responsiveness, flexibility, costs and assets. The essay is in line with research done on SMES of the printing industry, i.e. using SCOR to measure the performance of the company for evaluation then conducted to develop a supply chain is a good company to win the competition. Essay made by Setiawan (2009) view on the indigence for the importance of performance measurement in order to optimize the supply chain network and increased competitiveness of the culprits of the provision chain. The performance measure aims to defend the plan goals, performance evaluation, and decide the next steps both on the level of strategy, tactics and operations. These essays have in common with research done on SME of the printing industry that is used SCOR for performance measurement in the framework of the development of a network of supply chains to enhance the competitiveness of the company.

3. Methodology

The population of the research was the entrepreneur of the printing business with samples printing Centers in Bandung, Yogyakarta and Bali printing Centers. The number of sample in this research of the three major cities in Indonesia is 67 SME printing business. This research is a qualitative research with mapping the process business with SCOR variable based on observation to get the data and a structured interview with SCOR variable as key point in the interviewing. Based on SCOR, Supply Chain Management is defined as the procedure by which consist of integrated Plan, Source, Make, Deliver, and Return, from supplier up to the customers, suppliers and consumers, and all are aligned with the company's operational strategy, materials, workers, and the stream of data. As described below. (Bolstroff, 2007) SCOR is typically utilized to identify, measure, reset, and improve Supply Chain operations. This can be accomplished with the gyration of the process:

Capture the configuration of the Supply Chain driven by:
a. Plan, a plan that deals with the level of aggregation/unity and a source of information.
b. Source, a source that is associated with the location and product

c. Make, make that deal with the locations and methods of production

d. Deliver, delivery-related networks, the spread of supplies and products

e. Return, refund of associated with the locations and methods

4. Results and Discussion

Based on the field observation and interviewing the 13 respondents at SME printing industry in Bali, the result of activity process that can be used to mapping the business process based on the SCOR Variables can see in table 1.

Table 1. Activity process based SCOR Variables in Bali

<table>
<thead>
<tr>
<th>SCOR Variables</th>
<th>Activities in each process</th>
</tr>
</thead>
</table>
| Plan           | 1. Receiving orders  
                  2. Count the number of orders  
                  3. Ordering raw materials  
                  4. Count the number of employees  
                  5. Work out the estimated time of culmination |
| Source         | 1. Meet the raw material  
                  2. Calculate the number of raw materials |
| Make           | 1. The selection of the material  
                  2. Thinning out of fabric  
                  3. Tailoring materials  
                  4. Creation of design  
                  5. Paint color selection  
                  6. The screen printing process itself is relatively simple  
                  7. Drying  
                  8. Washing the T-shirt screen printing  
                  9. Packaging |
| Deliver        | 1. Do the delivery  
                  2. Check delivery |
| Return         | 1. Give back the merchandise counter  
                  2. Determine how many goods return  
                  3. Estimate the cost to deliver it to the company |

Table 1 showed that from each SCOR Variables have several activities that can describe a simple business process especially in supply chain at SME printing industry in Bali. And for the next research object, also based on the field observation and interviewing the 38 respondents at SME printing industry in Bandung, the result of activity process that can be used to mapping the business process based on the SCOR Variables can see in table 2.

Table 2. Activity process based SCOR Variables in Bandung

<table>
<thead>
<tr>
<th>SCOR Variables</th>
<th>Activities in each process</th>
</tr>
</thead>
</table>
| Plan           | 1. Determine the amount of the order  
                  2. Calculate the amount of labor required  
                  3. Calculate how long the machining process  
                  4. Determine the type of material used  
                  5. Determine the type of the used screen printing  
                  6. Determine the price of |
| Source         | 1. Purchase of raw materials  
                  2. Check out the raw materials  
                  3. Maintain relationships with suppliers |
| Make           | 1. Cutting  
                  2. Designing screen printing  
                  3. Pasting into a frame (film)  
                  4. Drop sweet screen printing |
Same like Table 1, Table 2 also showed that from each SCOR Variables have several activities that can describe a simple business process especially in supply chain at SME printing industry in Bandung. For the last city the method also based on the field observation and interviewing the 16 respondents at SME printing industry in Jogjakarta, the result of activity process that can be used to mapping the business process based on the SCOR Variables can see in table 3.

Table 3. Activity process based SCOR Variables in Jogjakarta

<table>
<thead>
<tr>
<th>SCOR Variables</th>
<th>Activities in each process</th>
</tr>
</thead>
</table>
| Plan           | 1. Determine the amount of the order  
|                | 2. Determine the type of material used  
|                | 3. Calculate how long the machining process  
|                | 4. Determine the type of the used screen printing  
|                | 5. Determine the price of  |
| Source         | 1. Purchase of raw materials  
|                | 2. Check out the raw materials  
|                | 3. Maintain relationships with suppliers  |
| Make           | 1. Measurement  
|                | 2. Cutting  
|                | 3. Sew  
|                | 4. Designing · Pasting into a frame (film)  
|                | 5. Drop sweet screen printing  
|                | 6. Fabric Printing  
|                | 7. Drying  
|                | 8. Steam  
|                | 9. Qualities control  
|                | 10. Pack  |
| Deliver        | 1. Sending product  
|                | 2. Check delivery  |
| Return         | 1. Receive the goods return  
|                | 2. Counting the number of errors  
|                | 3. Determine the burden is paid by the company or by the consumer  |

From table 1 until table 3 is clearly explain every each process based on SCOR Variables and on the basis of any details the process of supply chain activities of the whole object in three towns have a little differences in detail activity but actually have a same process, then it can be inferred a model business processes that can become a benchmark business process value chain for every SME printing industry in Indonesia shown in Figure 1. Models of Supply Chain Business Process Flow in SME Printing Industry.
5. Conclusion

The solid aim of inquiry in the third major city of Indonesia, actually causes a supply chain process such as that controlled in the variable SCOR i.e. Plan, source, make, deliver, and return just the perpetrators of this printing SME
still do not understand the business processes of their usual the actual doing and unmapped clearly so that the perpetra tors of this printing SME less developed because there is no benchmark or mapping business processes that they can make a guide. The result of this research is the Supply Chain Business Process Flow in SME Printing Industry for achieved the research aim. And from this research it known that every SME printing industry in the three town have a big same process activity and only little differences that actually still have same process. For further research can be conducted to find out the SME business processes in other industries.

References


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The Effect of E-Service Quality to Customer Satisfaction
(A Case Study in Bhinneka.com Indonesia)

Indrawati 1 and Kenang Kania Natasha 2
Telkom University (Tel-U), Indonesia,
1 indrawati@telkomuniversity.ac.id, kania245@yahoo.com

Abstract
The rapid growth of internet users in Indonesia has made Indonesia as one of the potential target market for e-commerce. There were several companies from Indonesia itself and other countries came and did e-commerce, as the result the competition in this sector in Indonesia become very tough. To win this competition the e-commerce company, such as Bhinneka.com should satisfy its customers. The on line Service Quality is believed to have a significant influence on e-Customer Satisfaction. This study tests the influence of on line Service Quality-- efficiency, reliability, responsiveness, fulfillment, and privacy to the customer satisfaction in e-commerce (e-retailer). This study involved 100 respondents which were selected by using purposive sampling. Multiple regression analysis was used to analyze the relationship between the variables dependent and independents. This study revealed that efficiency, reliability, responsive-ness, fulfillment and privacy jointly and separately have a positive and significant influence on customer satisfaction. This study also suggests some ideas regarding the efforts to increase e-Customer Satisfaction.

Keywords: Service quality, e-service quality, Customer Satisfaction, Indonesian

1. Introduction
Indonesian Internet users increase rapidly from 25 million in 2008 to 63 in 2012 (Asosiasi Penyelenggara Jasa Internet Indonesia, 2013). The rapid growth of internet users in Indonesia creates new potential market for companies to take advantage for enhancing their business through electronic commerce (e-commerce), the buying and selling of goods or services on the Internet, especially in the World Wide Web (Rouse, 2005). The development of internet is directly proportional to the growth of e-commerce (eMarketer, 2013) since Internet changes the buying behavior of Indonesian who spent 30 hours online per week (Karimmudin, 2014) Indonesia digital buyer penetration is increasing more than 1% every year and in the next years, Indonesia digital buyer are expected to be increased (eMarketer, 2013) along with the development of Internet provider in Indonesia and government program to create internet-literate society. Indonesia becomes one of the potential target market for e-commerce, as the result many e-commerce companies are interested to involve in this sectors, especially in e-retailing (Internet based retailing). Internet based retailing are believed to be superior to those that delivered through conventional channels due to their convenience, interactivity, and relatively low cost among other advantages.

The seventh top e-retailer and classified sites in Indonesia are Kaskus.co.id, Tokobagus.com, Berniaga.com, Lazada.co.id, Bhinneka.com, Zalora.co.id, and Bib-li.com. Kaskus.co.id is well known for their forums and market place where the member can sell products in their sites. Tokobagus.com (or now known olx.co.id) was 12th in Indonesia and the 526th worldwide, while its competitor berniaga.com was the 23rd in Indonesia and the 1470th worldwide. This two e-commerce sites well known for the place for classifieds. These sites provide places for advertisements. They provide sites to allow their member to sell or list their products in the sites free of charge. The last 4th e-commerce sites known as e-retailer type, is Lazada which was ranked the 33rd in Indonesia and the 2,158th worldwide. Lazada.co.id sells fashion items, gadget, and many other things. Bhinneka.com was rank the 54th in Indonesia and 3,819th worldwide. Zalora.co.id was ranked the 136th in Indonesia and the 9,835th worldwide, it is well known as fashions e-retailer in Indonesia and world wide,
and last is Blibli.com which was rank the 163rd in Indonesia and the 11,752nd worldwide (Alexa, 2014a).

Bhinneka.com is one of the oldest e-commerce site in Indonesia. The business starts in 1993 and reaching e-commerce business in 1999. Bhinneka focusing on gadget as their main products, and recently they includes another category such as music instrument, baby toys and hobbies as their products. Their vision is to become world class company with the passion of information technology usage and become the pride of nation. The mission of Bhinneka.com is to become number one web store in Indonesia that provide completeness and convenience to shop, and also to acknowledge and provide pleasant shopping experiments to their customers. With capital budget around US $ 8,500, Hendrik Tio started the business. Today Bhinneka.com has growing and becoming one of top e-commerce sites in Indonesia with turn over more than US$ 500 million (SWA, 2014). Although, the turnover is increasing but, the transaction in online is decreasing. In 2012 Bhinneka could manage to got in average 800 online transactions in a month and 2% of customer who visited the web and did transactions but in 2013 the transaction rate was less than 1% with the average transaction was 400 (Mazidah, 2014). And in early 2014 the Alexa rank for Bhinneka.com was decreasing constantly. The rank of Alexa is based on the web the number of web’s visitors, if the rank is decreasing means the visitors of the web is also decreasing. The Bhinneka.com daily page views had also decreasing during June-November 2014 periods (Alexa, 2014b). The daily page views decreased along with the decreased in Alexa rank. This was dangerous for its business, since the decreasing number of visitors and the daily page views are indications that the Bhinneka.com customers are decreasing. The decreasing trend of websites daily visitors and page views are two indicators that there is a decreasing trend in Bhinneka.com customer satisfaction. If this trend is continuously decreasing, the probability of Bhinneka.com wins the competition in its own home country (Indonesia) will be impossible and Indonesian market will be dominated by foreign companies.

1.1 Problem Statement, Research Question And Objectives

The problem statements of this study are 1) there are symptoms of decreasing trend in customer satisfaction of Bhinneka.com. The customer satisfaction is an important issue for any business system, both traditional and online. Customer satisfaction is critical element to establishing long term relationship (Peterson, Balasubramanian, and Bronnenberg, B.J (1997). Then, understanding factors that impact web customer satisfaction is great importance for e-commerce. According to Zeithaml, Parasuraman, and Malhotra (2002) online service quality is one of the key to drive customer satisfaction in e-commerce. 2) There are limited published studies that have been conducted in testing the effect of online service quality to the customer satisfaction of e-commerce. The research that studying the decreasing of customer satisfaction in relation with service quality has not been addressed yet, thus whether or not the online service quality dimensions that the company offers are giving positive influence to customer satisfaction has not been well explored yet, especially in Indonesia.

Given the problem statements above, the present study seeks to answer a research question: “Does e-Service Quality or Online Service Quality-- efficiency, reliability, responsiveness, fulfillment, and privacy influence positively the customer satisfaction in e-commerce (e-retailer)?”

In line with the research question, the objective of the study is to test if e-Service Quality or Online Service Quality -- efficiency, reliability, responsiveness, fulfillment, and privacy have a positive influence on the customer satisfaction in e-commerce (e-retailer).

1.2 Significant Of Study

The results of this research are hopefully can give useful knowledge in the field of e-commerce business and academic that related to the effect of online service quality to customer satisfaction. This study is the way to investigate the relation between Zeithamal models which is in traditional market with the e-commerce business especially in customer satisfactions. The results are also significant to be used by e-retail business especially in Indonesia to increase their customer satisfaction which is very important for their current and future businesses.

2. Literature Review And Conceptual Model

E-commerce is developed from traditional commerce, the common business that does not need internet or other electronic way to do transactions or activities, while e-commerce is based on internet and other electronic ways. There are 13 factors that dif-fers e-commerce and traditional commerce, namely in term of implementation dynam-ics, business case, financial transaction, effect of business process, frequency of trans-action, product choice, trust level,
relationship duration, cost, reliability, flexibility, and effect on distribution channel (Mougayon, 1997). Those factors create e-commerce and traditional commerce has its own strengths and weakness in each factor, and creates choices for the industry players.

Due to the difference between traditional commerce and e-commerce, the service quality for each customer should be different. In traditional commerce, Parasuraman, Zeithaml and Berry (1985 and 1988) stated that the service quality dimensions consists of reliability, assurances, tangibles, empathy, and responsiveness. Furthermore, Parasuraman et al. (1985) explained that Reliability refers to the ability of company to perform the promised service dependably. Assurance refers to the knowledge and courtesy of company’s employees and their ability to build trust. Tangibles refer to the physical facilities, equipment, and employees’ appearances. Empathy refers to the ability of company to care and give individualized attention to customers. Responsiveness refers to willingness of company to help customers and provide prompt service.

In e-commerce, the service quality is online Service Quality (e-Servqual) was developed by Zeithaml, Parasuraman and Malhotra (2000) through focus group interview. They had identified seven dimensions of online service quality, namely: efficiency, fulfillment, reliability, responsiveness, compensation, privacy and contact. In the next process, Zeithaml et al. (2003) identified four dimensions only of e-Servqual, namely: reliability, fulfillment, privacy and efficiency. Furthermore they explained that Reliability refers to the technical functioning of the site, particularly the extent to which it is available and functioning properly. Fulfillment is how the organization’s promises and products are delivered on time. Privacy dimension includes assurances that the customers’ data are not shared and the credit card information is secured, and Efficiency means the ability of customers to get to the websites, looking their desires product and the information that they need with minimal effort (Zeithaml and Bitner, 2003).

Zeithaml and Bitner (2003) also found another three dimensions that become makes senses only when the online customers have questions or run into problems. The dimensions are: compensations, contact and responsiveness. Compensations involve the compensation to the customer such as cash back, free delivery and handling costs. Contact is the ability of the organization to be able to speak or communicate with the customers online or through phone. Responsiveness measure the ability of e-retailer to provide information to the customers while the problems occurs (Zeithaml and Bitner, 2003). Griffith and Krampf that referred by Zeithaml and Bitsner found that access and responsiveness of the website are the key indicators of online service quality. Based on Oliver’s definition of satisfaction, Zeithaml and Bitner (2003) defined satisfaction as the customer’s evaluation of a product or service in terms of whether that product or service has met their needs and expectations. According to Kotler (2000) satisfaction is person’s feeling of pleasure or disappointment that resulting from comparing the perceived performance to the expectations. Hunt (1991) wrote that satisfaction is a function of consumer’s belief that he or she was treated fairly. Gustafsson, Johnson, and Roos (2005) said that customer satisfaction is defined as the overall evaluation of the performance of an offering date. This overall evaluation has a strong positive effect on customer loyalty intentions across of services and products category. Based on those theories, customer satisfaction is the feeling of customers about the products or services performance evaluated at the end of consuming the product. Measuring and understanding the customer satisfaction is important to make the customers become loyal-- they do repeat buying, refer the product to other people, and reject other companies’ product.

Scholars had researched the effect of online service quality or e-service quality to the customer satisfaction. Cronin and Taylor (1992) hypothesized that satisfaction is an antecedent of service quality. Zeithaml and Bitner (2003) stated that on line service quality as one of factors that drives customer satisfaction. Wolfinger and Gilly (2003) found that online service quality has significant effects to the overall customer satisfaction. Wolfinbarger and Willy (2003) found that reliability and fulfillment are the strongest predictor of customer satisfaction. Liu and Arnett (2000) identified that responsiveness and privacy are the critical dimensions for website success in the contact the customer satisfaction. Efficiency, Reliability, Fulfillment, Privacy, and Responsiveness have been proven by several authors in different studies, such as: Yang & Fang (2004), Yang & Jun (2003) and Saha & Zao (2005) as the dimensions of E-Service Quality that have significant effect on the customer satisfaction.

Considering the theories discussed above, the overall service quality dimensions used in this research are efficiency, fulfillment, reliability, privacy, and responsiveness as shown in figure 1.
3. Hypotheses, Measurement And Data Collection Method

In line with the schematic relationship among variables as shown in Figure 1, the hypotheses of this present study are as follows:

H.1. Overall Service Quality has a positive influence on e-Customer Satisfaction.
H.2. Efficiency has a positive influence on e-Customer Satisfaction.
H.3. Reliability has a positive influence on e-Customer Satisfaction.
H.4. Responsiveness has a positive influence on e-Customer Satisfaction.
H.5. Fulfillment has a positive influence on e-Customer Satisfaction.
H.6. Privacy has a positive influence on e-Customer Satisfaction.

To test the hypotheses, this study collected data by using questionnaire. The validity and reliability of the questionnaire were assessed to ensure that the questionnaire accurately measured the constructs (Sekaran and Bougie, 2010). The reliability test determines the consistency of a developed instrument in measuring its target construct, and can be conducted using an inter-item consistency reliability test (Sekaran and Bougie, 2010). Among the types of this test, the most popular for multipoint-scaled items is the Cronbach’s Alpha (α) coefficient, the higher the coefficient, the better the measuring instrument. α coefficients with values ranging from 0.60 to 0.70 are deemed as the lower limit of acceptability; thus, a minimum value of 0.7 is necessary to indicate reliability (Hair, 2010).

Validity is verified to determine the effectiveness of the developed instrument in measuring its target construct and whether the instrument measures the correct construct (Sekaran and Bougie, 2010). Validity can be divided into: (a) content or logical validity; (b) criterion-related validity, which is categorized into predictive and concurrent validity; and (c) construct validity, which can be measured by convergent and discriminate validity.

Content validity can be achieved through careful item selection, a studious review of previously tested measures, as well as through incorporation of suggestions from literature and information obtained from a pilot study of the instrument (Churchil and Iacobucci, 2005). All of these suggested methods for achieving good content validity of a construct were used in preparing the operationalization for each construct in the present study. The questionnaire was also assessed by two education experts who are also as experts in the Indonesian language and one business practice in e-commerce. The aim of this process was to validate the content of the questionnaire in terms of relevance, representativeness, suitability, accuracy, and wording (Indrawati, 2015).

To test the construct validity and reliability of the questionnaire used, this study distributed the questionnaire to 30 respondents. The collected data were analyzed by using SPSS for Windows version 17.0 program. There are 24 items of 6 variables, and the result of SPSS shows that all the items were valid and reliable, thus all the items were hold retained in the questionnaire that were distributed to the respondents of main data collection.

A survey method using a questionnaire was conducted to collect the main data for testing the hypotheses. This study involved 100 respondents which are selected by using purposive sampling. The questionnaires in Google doc. format were distributed through social media and online forums such as kaskus.co.id, chip.co.id, and female daily users.
that has experienced online shopping in Bhinneka.com sites. The e-mail address were required to prevent double answer, thus no data come from the same email address included in the data analyzing process. All the data collected from the web questionnaires were automatically recorded in spreadsheet format in author google account. Thank you mail were sent to the individuals who participate in the research, and free mobile balance were given to the respondent to increase the rate for participating the research.

4. Data Analysis Methods And Result

Multiple regression analysis was used to analyze the influence of efficiency, fulfillment, reliability, privacy, and responsiveness to customer satisfaction and (Hair, 2010) The F test was used to determine the level of significant of the relationship between independent variables simultaneously on the dependent variable (Sekaran and Bougie, 2010) The result of statistics analysis shows that the calculated F value is 124.426 with a significance (P) value of 0.000 which is less than 0.05. Thus, this study concludes that variable efficiency, reliability, responsiveness, fulfillment and privacy jointly have a positive and significant influence on customer satisfaction.

This study also use T test to determine the significance effect of efficiency, reliability, responsiveness, fulfillment and privacy to customer satisfaction separately or partially (Sekaran and Bougie, 2010). The result of statistics analysis shows that the calculated T value of Reliability, Fulfillment, Responsiveness, Privacy, and Efficiency are respectively 3.195; 2.490; 5.170; 3.436; and 2.341 with a significance value (P) less than 0.05. Thus, this study concludes that variable efficiency, reliability, responsive-ness, fulfillment and privacy partially have positive and significant influenced on cus-tomer satisfaction.

The coefficient of determination (R²) was used to determine the level of accuracy in regression analysis, the coefficient of determination (R²) is between 0 and 1. If R² is zero means that independent variable has absolutely no effect on the dependent variable. If the R² more close to one, it can be said that the effect of independent variables on the dependent variable is good. R² is also used to determine the percentage change in the dependent variable which are caused by the independent variable (Sekaran and Bougie, 2010). The statistics test result shows that the adjusted R² in this research is 0.862. It means that 86.2% of customer satisfaction are determined by efficiency, reliability, responsiveness, fulfillment and privacy of online service quality. While the rest, which is 13.8% of customer satisfaction are effected by others variable which are not included in this research.

5. Conclusion And Discussion

The findings of the study show that all of the hypotheses in this study were supported by the data. This study also found that the Responsiveness dimension of Bhinneka.com had the lowest score. To improve the responsiveness dimensions, the company should handle products returns through creating better system to make the products return can be handled well. The company also need to provide convenience options for returning items, since the convenience option as the second worst service quality.

The delivery aspect was the biggest issues in fulfillment dimension. The company should quickly deliver the products that consumer had ordered and if there was any problem with delivery, the company should give notices to the customers.

Some of the respondents felt that they did not get correct online services from Bhinneka.com sites. Hence the company should make sure that every service in the sites was delivered correctly and maintain their sites technical functions is working properly. They also mention that they could not able to complete their transactions quickly. The company could decrease the length of order form and allow direct online payment methods to enables the customers to finish their transactions quickly.

References
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Abstract

Micro Small and Medium Enterprise (MSMEs) in Indonesia is still not able to use the internet technology for his business well, especially for marketing. In order to create marketing strategy in which using internet technology, MSMEs need to know the right information with their consumer target. By predicting level of internet technology adoption from their consumer, MSMEs can know information what their need to creating marketing strategy in which using internet technology. To predict level of internet technology adoption, this research using the UTAUT 2 theory by assessing behavioral intention and use behavior. This research using 214 sample which analyzed by PLS-SEM. This research shown that the value of behavioral intention to using internet technology by MSMEs consumer is 52.2% which positive significant is performance expectancy, social influence, and habit. The value of use behavior to using internet technology by MSMEs consumer is 52.2% which positive significant is habit and behavioral intention. To design marketing strategy by using internet technology, MSMEs need to stimulate the adoption of internet technology by consumer through improvement of facilitating condition for shopping, hedonic motivation in shopping, effort expectancy, and comparison of the cost when shopping online than offline shopping.

Keyword: MSMEs; UTAUT2; PLS-SEM; E-Commerce; Internet Adoption

1. Introduction

Every individu now has been used Internet almost in thier all live activities, include shopping activity. Shopping using internet by Indonesian people now has been a trend and new life style, and this opinion was also approved by traders (Hermansah, 2015). This phenomenon was characterized by data that KOMINFO summarized that was the increasing of value online transaction from USD 8 billion in 2013 to USD 12 billion in 2014 (Bint005, 2015). In January 2015, number of indonesian people which has been used internet to everything they need was 72.7 million people (Kemp, 2015). Another data that has been summarized by KOMINFO in Buku saku dan Tren TIK Indonesia show that was three type main activities that indonesian people always do with using internet was opening sosial media, selling or buying some product, and learning (Basuki, 2015).

MSMEs Indonesia now have a important role in Indonesia economics. SMEs has a role as a highest contributor in GDP and a most open jobs in almost every industry. In 2014, SMEs contribute to GDP by 59% and contributed to open jobs by 97% (Deny, 2014). MSMEs is Micro Small Medium Enterprise that regulated in UU No. 20 Tahun 2008, the criteria that include in MSMEs which have net worth from Rp 50 million Rupiah (micro enterprise) until Rp 10 billion Rupiah (medium enterprise) and have a annual sales from Rp 300 million Rupiah until Rp 50 million Rupiah. Although MSMEs has an important role in Indonesian economics, MSMEs often face a problem that is capital, mentoring, and market access (Afriyadi, 2014).

previous research has shown MSMEs in some Indonesian region still doesn't yet using internet technology in their business activities well, most of all SMEs has a intention to using internet internet to their business and they realize that internet role in their business (Oswari, Suhendra, & Harmoni, 2008; Khristianto, 2012; Roosdhani, Wibowo, & Widiastuti, 2012; Prastika & Purnomo, 2014). In order to design marketing strategy within the technology of internet, there is need right and specific information about the consumer target. That information can be informed by knowing the level of internet adoption to shopping online from the consumer target. Consumer has a different level adoption in using the internet to shopping online. it is caused many factor which related with behavioral intention and also use behavior. Systematic and structured model will be inform how consumer adopting the internet
to shopping online in their life. The UTAUT 2 is focusing on the level of consumer technology adoption have ability to predict behavioral intention and use behavior from consumer with seven exogenous variable.

This research has adopt the UTAUT 2 model to get information about: (1) how much the value of relationship between latent predictor variable in UTAUT 2 with latent variable endogenous behavioral intention from Indonesian peoples which has been use the internet to shopping online, (2) how much the value of relationship between latent variable facilitating condition, habit and behavioral intention to endogenous latent variable use behavior, (3) how much the overall value relationship between latent predictor variable in UTAUT 2 with latent variable endogenous behavioral intention from Indonesian peoples which has been use the internet to shopping online, (4) how much the overall value relationship between latent variable facilitating condition, habit and behavioral intention to endogenous latent variable use behavior.

The main topic on this research is to get information about MSMEs consumer in Indonesia, so Tokopedia.com site is choose as a research location. it is because one of Tokopedia.com mission is to support individual and MSMEs Indonesian to grow their business with internet. By focusing only on one site, this research try to figure out the right information about how Indonesian peoples who become MSMEs consumers adopting internet technology in shopping activities.

2. Theoretical background

The UTAUT 2 theory or known as Unified Theory of Acceptance and Use of Technology in Consumer context was developed to assessing the level of technology adoption from consumer by approach in behavior intention and use behavior. This theory was developed in 2012 from UTAUT theory by Venkatesh, Thong and Xu with adding three new construct namely hedonic motivation, price value and habit. With adding these three construct, that's increasing on behavior intention as much as from 54% to 74% and use behavior as much as 40% to 52%. The latent predictor variable in UTAUT 2 theory has have seven construct, that is performance expectancy (X1), effort expectancy (X2) social influence (X3), facilitating condition (X4), hedonic motivation (X5), price value (X6) and habit (X7). Fig 1 shown the relationship on each variable in UTAUT 2. in every relationship on UTAUT 2 have a moderator variable that is age, gender, and experience.

Performance expectancy in this research explain about the degree of consumer believes that with using internet will bring a lot of benefit and help him to online shopping. Previous research (Elvandari, 2011; Alwahaishi & Snasel, 2013; Gatautis & Medziausiene, 2014; Harsono & Suryana, 2014) has shown that
performance expectancy has significant relationship on behavioral intention.

H1 : performance expectancy has a significant effect to behavioral intention.

Effort expectancy in this research explain about consumer doesn't have any problem to operate internet technology when he was shopping. Previous research (Elvandari, 2011; Gatautis & Medziausiene, 2014; Harsono & Suryana, 2014) has shown effort expectancy has a significant relationship on behavioral intention.

H2 : effort expectancy has a significant effect to behavioral intention

Social influence in these research include social factors that influence consumers using Internet technology to shop online that comes from those closest to the consumer. Previous research (Alwahaishi & Snasel, 2013; Gatautis & Medziausiene, 2014; Harsono & Suryana, 2014) showed a significant relationship between social influence on behavioral intention.

H3 : Social influence has a significant effect to behavioral intention.

Facilitating condition in this research illustrate the various things that are able to facilitate the use of the internet such as internet connection, device or gadget that support, knowledge and skills and other things needed by consumers in shopping online. Previous research (Alwahaishi & Snasel, 2013; Harsono & Suryana, 2014) shown that facilitating condition has a significant effect on behavioral intention significantly and directly to the use behavior.

H4a : facilitating condition has a significant effect to behavioral intention.
H4b : facilitating condition has a significant effect to use behavior.

Hedonic motivation in this research illustrate that the use of Internet technology can provide pleasure or entertainment to consumers in shopping online through interaction or content contained in online shopping sites. Venkatesh et al. (2012) explains that the hedonic motivation seacara direct influence on behavioral intention as well as indirect effect on use behavior through behavioral intention.

H5 : Hedonic motivation has a significant effect to behavioral intention.

In this research, price value describes the suitability of the costs incurred with the benefits received by consumers in the use of Internet technology to shop online. Previous studies (Escobar-Rodriguez & Carvajal-Trujillo, 2013; Harsono & Suryana, 2014) found the price value has an influence on behavioral intention.

H6 : price value has a significant effect to behavioral intention

In this research, habit intended to determine consumer habits in using the Internet to shop online in their daily lives. According to previous research (Escobar-Rodriguez & Carvajal-Trujillo, 2013; Harsono & Suryana, 2014) habit has a significant influence on the behavioral intention and use behavior.

H7a : habit has a significant effect to behavioral intention.
H7b : habit has a significant effect to use behavior.

In this study behavioral intention is used to describe how much the desire of consumers to use Internet technology to shop, while the use behavior is used to explain the intensity of consumers using Internet technology for everyday shopping. Previous studies (Venkatesh, Thong, & Xu, 2012; Harsono & Suryana, 2014) illustrates that berkargaruh behavioral intention to use behavior.

H8 : behavioral intention has a significant effect to use behaviour

3. Methodology

3.1. Measurement

This research was descriptive using quantitative data to investigate causal relationships of a particular phenomenon. Data collection tool In this research was a questionnaire containing 23 questions. The questionnaire
used was adopted from previous studies (Venkatesh, Thong, & Xu, 2012; Escobar-Rodriguez & Carvajal-Trujillo, 2013; Harsono & Suryana, 2014) which consists of three items for performance expectancy, three items for effort expectancy, three items for social influence, three items for facilitating condition, three items for hedonic motivation, two items for price value, one item to habit, four items for behavioral intention, and one item for use behavior.

Processing data using PLS-SEM analysis with the help of software SmartPLS V.2 M3. In the PLS-SEM analysis there are three categories of estimates obtained from three iterations process the data that is first through the testing process models produce weight outer estimate, both through the testing process produces models inner path estimate and third processes through interpretation the data generating means and constants. In the inner models test can be seen the value of $R^2$, the path coefficient, the t-value and p-value. T and P value indicates the level of significance. In this research using a confidence level of 95% ($\alpha = 5%$). P-value calculations using the assistance of the MS Excel software with formulas T.DIST.2T, the degree of Freedom value of 213 which is derived from the number of samples minus one.

Value path coefficient is between -1 to 1, if it is close to 1 then the value can be said to be a strong positive relationship and vice versa, and if it is close to 0 then the relationship is weak even weaker and can be said to have no effect (Ghozali, 2011; Hair, Hult, Ringle, & Sarstedt, 2014). The $R^2$ shows the coefficient of determination. The value of each variable relationship shown on the path coefficient value. In the assessment criteria by using PLS, the result $R^2$ of 0.67 indicates that the model of 'good', of 0.33 indicates that 'moderate' and 0.19 indicate 'weak' (Ghozali, 2011). Changes in the value of $R^2$ can be used to assess the effect of certain independent latent variables on the dependent latent variable does have a substantive effect. The changes are referred to as the effect size and symbolized by the value $F^2$. This assessment is done only on the variables which have been regarded as significant only (Ghozali, 2011). $F^2$ value of 0.02; 0.15; and 0.35 can interpret that the effects of these variables on endogenous variables are weak, moderate and strong. It is important to assess the relevance of the relationship of significance. The purpose of the PLS-SEM is to identify not only the significance and path coefficient (the relation) only in the inner models but also a significant effect and relevance (Hair, Hult, Ringle, & Sarstedt, 2014).

3.2. Sample and data collection

Measurement scale used is Likert scale with the alternative choice of four answers from strongly agree to strongly disagree. The population in this study is the Indonesian people who have shopped online in Tokopedia site with a minimum age of 17 years. the number of samples used follows the rules in PLS-SEM method. Data should not normally distributed when using PLS-SEM analysis because the analysis of PLS-SEM allows to use all the available data variance (Hair, Hult, Ringle, & Sarstedt, 2014).

Data collected by distributing questionnaires that have been proven valid and reliable and is done by using google tool form. Questionnaires were distributed into several public media such as Kaskus forums, Twitter and Facebook, email and via Line instant messaging. The data collected has been screened in advance in order to deliver results in accordance with the purpose of research. This study uses 214 data collected from Indonesian people who have never shopped in Tokopedia.com site. Data were collected from August to September 2015. The collected data were grouped by gender, age, place of residence, the experience of using the internet, and the shopping experience by using the internet.

4. Results and discussion

4.1. Outer model evaluation

The purpose of the test is to assess the outer model was valid and reliable. The model can be said to be valid and reliable if the value AVE of more than 0.5; composite reliability more than 0.708 and the value of outer loading more than 0.708 (Hair, Hult, Ringle, & Sarstedt, 2014). Based on the calculation table 1 can be said that the research model using PLS-SEM has valid and reliable.
4.2. Inner model evaluation

The results of the analysis of the inner model at table 2 indicates the level of the desire to use the internet to shop online at a moderate level, and also the intensity level using the internet to shop online at a moderate level. The results at table of the analysis of the inner model indicates the effects of the significant variables are at a weak level. Based on the results of the analysis of the inner model in table 2, it is known that the accepted hypothesis is H1, H3, H7a, H7b and H8. Fifth relationship is significant at 95% confidence level associated significantly positive. Results of the analysis of the inner model has also been successfully answer research questions by looking at the value of R2 and path coefficient in Table 2. it can be concluded that consumers MSMEs have a level of desire to use the internet (behavioral intention) to shop online technologies by 52.2%, while the intensity of Internet usage (use behavior) by 52.2%. This indicates that the consumer has a pretty good willingness to use the Internet as a medium for shopping.

4.3. Managerial implication

This research gives information to MSMEs such as to create the design of a marketing strategy by using Internet technology, MSMEs need to attention on supporting facilities for consumers (X4), the convenience factor and pleasure to consumers (X5), a factor of expectations of business customers when using the internet to shop online (X2), and factor cost comparison with the results obtained when using the internet (X6). These factors can be stimulated with several forms such as: (1) create content sales detail and quality that is described in the video, image.
or text, (2) determine a reliable delivery service, (3) enhance the reputation and testimony, (4) gives information that clearly when communicating directly with potential buyers, and (5) make a series of sales promotion by offering more attractive prices in the online store compared to offline stores.

5. Conclusion

This research successfully predict the level of consumer adoption of Internet technology by MSMEs assessed from a desire to use (behavioral intention) and the intensity of use (use behavior). The conclusions in this study include: (1) the value of the relationship of each predictor variable to variable relatively small behavioral intention towards the weak. (2) The value of the variable the relationship facilitating condition, habits and behavioral intention to use variable behavior towards medium is relatively small. (3) The overall relationship between the predictor variable to variable behavioral intention amounted to 52.20% and included into the category of medium-sized models. (4) The overall relationship between the variables facilitating condition, habits and behavioral intention to use variable behavior amounted to 52.20% and included into the category of medium-sized models.

6. Limitation and future research

This research has some limitations that can be used as suggestions for future research. Suggestions for further research are: (1) Expanding the location of the research object to some other C2C site, (2) Comparing the results with theoretical approach to the adoption of other technologies such as TAM and C-TAM-TPB, (3) Comparing the demographics of the sample in order to get more detailed and accurate. (4) Comparing the research analysis methods such as using a CB-SEM or MANOVA in order to obtain research results from a different angle.

Reference

The Influence Of Sistem Quality, Information Quality And Service Quality Of Sistem Informasi Direktorat Jenderal Pajak (Sidjp) To User Satisfaction
(A Case Study On Tax Service Office Pratama Bandung Cibeunying)

Dessry Marlissa1, Dudi Pratomo2
1,2Prodi S1 Akuntansi, Fakultas Ekonomi dan Bisnis, Universitas Telkom
1dessrymarlissa@students.telkom.ac.id, 2dudipratomo@telkomuniversity.ac.id

Abstract

This research aims to examine the highlight of Information System of Directorate General of Taxes (Sistem Informasi Direktorat Jenderal Pajak or SIDJP) at Tax Service Office (Kantor Pelayanan Pajak or KPP) Pratama Bandung Cibeunying. There are 4 variables examined, which are the quality of system, information, service and users satisfaction. The present research uses the descriptive verification method. This research is conducted by distributing questionnaires to tax officers at KPP Pratama Bandung Cibeunying, with a sample number of 53 respondents. The technique used for sampling is purposive sampling. In order to analyze the data, multiple linear regression analysis method and hypothesis testing are used. Statistical testing is also used by applying SPSS 20.0. The result of this research shows that partially the quality of system negatively affects users satisfaction towards SIDJP, whereas the quality of information and service has positive effects. Simultaneously, the quality of system, information and service positively influence SIDJP users satisfaction at KPP Pratama Bandung Cibeunying. The amount of the effect is 62.7% and the rest is 37.3% which is influenced by other factors that are not researched.

Keywords: quality of system, quality of information, users satisfaction, Sistem Informasi Direktorat Jenderal Pajak (SIDJP)

1. Introduction

Tax revenue is the main resources for the National income in financing the government, and tax development aims to foster the social welfare through the amelioration and the improvement of public infrastructures. Tax allocation is not only given to taxpayers but also for the interest of those who do not pay tax. Therefore, the role of tax revenue in a country is crucial in supporting the government. In this case, Directorate General of Taxes (Direktorat Jenderal Pajak) is the pointed institution to manage taxes under the supervision of Finance Ministry Republic of Indonesia (Departemen Keuangan Republik Indonesia). The target of tax revenue is regularly improving over the years. Demand on tax revenue improvement urges General Directorate of Taxes to conduct tax reformation which is the perfection of tax policy and tax administration system thus available tax revenue potential could be optimally collected by valuing the principles of social justice and giving the taxpayers prime services. The first Information System used in line with tax modernization is Integrated Tax Administration System (Sistem Administrasi Perpajakan Terpadu or SAPT), which further improved to Information System of Directorate General of Taxes (Sistem Informasi Direktorat Jenderal Pajak or SIDJP). The utilization of SIDJP is not merely focusing on one particular working unit of Directorate General of Taxes (DJP) but to all Tax Service Office (KPP) in Indonesia. KPP which is a working unit of DJP has undergone modernization on its system and organization structure into an institution which is orienting on the function instead of the tax type since 2002. Thus there are three types of modern KPP: KPP Besar, KPP Madya, and KPP Pratama. KPP Pratama is responsible to manage the largest taxpayers among all KPP. The occupational and functional distribution in KPP Pratama are divided into several parts: General Subsection, Service Section, Data and Information Processing Section,
Extention Section, Consultation and Supervision Section, Billing Section, Inspection Section, Functional Occupation Group of Tax Inspection, and Appraising Functional Occupation Group (Lestari et.al.,2013). The objective of SIDJP is to provide supporting facilities for accurate taxpayers data through active participations from each sections in monitoring taxpayers data.

2. Literature Review

2.1. Information System

According to Hall (2007:9) information system is a series of formal procedure where data are collected and processed into information and distributed to users.

2.2 Accountancy

Typically, accountancy can be defined as a process of identification, registering, summarization, and reporting of a company transaction activity. The final objective of accountancy is the publication of financial report which counts as information.

2.3. Information System of Accountancy

Hall (2009) explained that SIA processes any financial and non-financial transaction that directly influences the financial transaction processing, while SIM processes all the non-financial transaction that generally is not processed by SIA.

2.4. Tax

According to Mardiasmo (2011:1) tax is civil dues to the state treasury according to constitutions (that can be imposed) with no direct services in advance and is used to pay for general expenses.

2.5. Information System of Directorate General of Taxes

Below is the definition of Information System of Directorate General of Taxes (SIDJP) according to SE-19/PJ/2007:

"Information System of Directorate General of Taxes is an information system in tax administration in the environment of Directorate General of Taxes modern office that uses hardwares and softwares which are connected by one network in headquarters". The components of this SIDJP application are core system, cases generator, workflow system and taxpayers profiles. The establishment of SIDJP is expected to be able to produce profiles of taxpayers that can be tools to support an accurate taxpayers’ data by assembling participations from various parties in monitoring taxpayers’ data.

2.6. Performance

According to Rivai (2004:300) performance is a function from motivation and the ability to complete a task or a work. One should posses a degree of willingness and a certain level of ability.

2.7. The Success of Information System

The model that is examine in this research is a model proposed by William H Delone and Ephraim R. McLean. This model of the success of information system which was developed by Delone & McLean (1992) instantly gets responses. One of the reasons is their model is considered a simple yet valid enough model. From six dimensions of the success of information system designed by Delone & McLean (2003), researcher merely uses four dimensions as variables in this research, which are: quality of system, quality of information, quality of service and users satisfaction. Each dimension has assessment indicators that further became the questions for questionnaires.
2.8 Framework

![Diagram showing the relationship between System Quality, Information Quality, Service Quality, and User Satisfaction]

**Effect of System Quality Towards Users Satisfaction**

Researches show that whatever dimensions that is used, the effect remains positive and significant. For examples, researches conducted by Fendini et.al (2013), Nurniah (2005), and Baridwan and Latifah (2013) provide an empirical evidence that system quality positively and significantly affect users satisfaction. If the quality of system is good according to its user’s perception, they would tend to feel satisfied in using the system. It is predicted that the higher the quality of system that is used, the higher the satisfaction level of that information system’s final user.

**Effect of Information Quality Towards Users Satisfaction**

In their model, Delone & McLean used five dimensions to assess the quality of information, which are: completeness, ease of understanding, personalization, relevance, and security. Users of information system surely wish they could get the information they need by using the system. Characteristics of information produced by one particular information system could be different with information from other information system. The higher the quality of information produced by one particular information system is predicted to be influential to the higher satisfaction of a particular information system’s final user. Findings from Fendini et.al, (2013) and Nurniah (2005), proved that information quality positively and significantly influence users satisfaction.

**Effect of Service Quality Towards Users Satisfaction**

Researches conducted by Fendini et.al, (2013, Nurniah (2005), and Baridwan and Latifah (2013) provide evidence that service quality positively and significantly affect users satisfaction. Myers et.al, (2007) stated that service quality, just like system quality and information quality, affect users satisfaction. When users of an information system feel that the quality of service given by the program package provider is good, they would tend to feel satisfied using that system. It is predicted that the higher the quality of service given will be influential to the higher user’s satisfaction.

2.9 Research Hypotheses

According to Sugiyono (2011:64) hypotheses is a temporary answer to the research questions, where research questions have been stated in interrogative sentences.

According to the research questions mentioned earlier, researcher proposes hypotheses as follows:

1. System quality, information quality, and service quality positively and simultaneously influence users
satisfaction
2. System quality positively influences users’ satisfaction.
3. Information quality positively influences users’ satisfaction.
4. Service quality positively influences users’ satisfaction.

2.2 Methodology

This research included in descriptive verificative research. According to Uma Sekaran (2011:158), descriptive research is a research conducted to investigate and to be able to explain the characteristics of variables examined in a situation.

2.2.1 Operational Variables

The independent variables in this research are System Quality (X1), Information Quality (X2), and Service Quality (X3). Dependent variable in this research is SIDJP’s users satisfaction (Y).

2.2.2 Populations and Samples

Populations taken in this research are the staffs of KPP Pratama Bandung Cibeunying as many as 73 persons. Method of samples collecting used in this research is purposive sampling which is a samples determining technique with certain considerations (sugiyono, 2012:85). Respondents for this research are tax employees working in KPP Pratama Bandung Cibeunying environment. Criterias that has been determined by researcher in determining samples are:
1. Employees in Service Section
2. Pegawai pada Seksi Pemeriksaan.
3. Employees in Inspection Section
5. Employees in Consultation and Supervision Section
6. Employees in Data and Information Processing Section.

According to criterias determined above, samples of 53 employees were gained.

3. Discussion

3.1 Validity Test

Validity test was used to measure whether or not the questionnaires are legal or valid. Validity test was conducted by comparing the score of r-count with r-table for degree of freedom (df) = n-3, where n stands for the amount of sample with alpha 0.05. In this research, sample amount (n) = 53 respondents of tax employees. The amount of (df) could be calculated 53-3 = 50, and alpha = 0.05, thus r-table is obtained for tax employees for about 0.235. R-table could be found in Spearman’s r-table in the attachment section with n column n = 50 on the left of the table and column α(1) above the table with the significance 0.05. Therefore, r-table was obtained as many as 0.235. This validity test was used with the assistant of Statistical Program from Society Science (SPSS) version 20.0 in processing the data. The results show that all the statements in questionnaires are valid.

3.2 Reliability Test

Reliability is basically the extent to which a measurement could be trusted or is reliable. Reliability measurement of the questions was done by distributing questionnaires to respondents, the the result score is measured on its correlation with the answer score of the same questions by applying software SPSS 20.0, with the menu Cronbach’s Alpha (α). According to Ghozali (2013:47) an instrument is considered reliable if it has 0.7 or more reliability coefficient or alpha. In this research, the amount of cronbach’s alpha of variable X1 (System Quality) is 0.768; variable X2 (Information Quality) is 0.770; variable X3 (Service Quality) is 0.805 and variable Y (Users Satisfaction) is 0.812.

Those amounts are reliable since it fulfil the minimum requirement of reliability with the cronbach’s alpha coefficient is bigger than 0.7. From that data it could be concluded that the questionnaires are reliable to be used to measure the research conducted with reliability score above 0.7.
3.3 Classic Assumption Test

A. Normality Test
To examine whether or not the residual score is normally distributed. Normality test in this research was conducted through statistical test Kolmogorov-Smirnov (K-S). Based on the results it could be seen that generally variables of System Quality, Information Quality and Service Quality have kolmogorov-smirnov score as many as 1.201 and significant score 0.112 that means the significant score is higher than the alpha which is 0.05. Therefore, the data used in this research has fulfilled the assumption of normality. One of the requirements for multiple regressions has been fulfilled.

B. Multicollinearity Test
Multicollinearity is a phenomenon in which between two or more independent variables at regression model there is a perfect or almost perfect linear intercourse. A good regression model means there should not be any correlation between independent variables. The common score used to ascertain multicollinearity is VIF > 10 and Tolerance <0.1. According to the test result, tolerance score from the three independent variables which are System Quality (X1), Information Quality (X2), and Service Quality (X3) is higher than 0.01 which means there is no correlation between independent variables. The VIF score also shows the same result, those third independent variables which are System Quality (X1), Information Quality (X2), and Service Quality (X3) have score below 10. Therefore, this test implies that there is no correlation between independent variables, or in other words, exempted from multicollinearity. One requirement of multiple regressions has been fulfilled.

C. Heteroscedasticity Test
Heteroscedasticity is a phenomenon where there is variant disparity of the residual at regression model. A good regression model expresses that there is no Heteroscedasticity issue.

D. Autocorrelation Test
Autocorrelation test was used to examine whether in the linear regression model there is correlation between disrupting error at t period and disrupting error at t-1 period (before). A good regression model is a regression that is free from autocorrelation. This research used Durbin-Watson (DW) test to examine the regression model. DW score in this research is 2.256. This score would be compared with the table score which used a significant score of 5%, sample amount (n) 53 and the amount of independent variable is 3 (k=3), therefore in Durbin Watson table a dl score of 1.4402 and du score of 1.6785 would be obtained. The dl and du scores could be acquired from Durbin Watson table in the attachment page with n column = 53 and k = 3. Thus, DW score 2.256 is smaller than 4-du (4-1.6785) = 2.3215 which means 1.6785 < 2.256 < 2.3215 (du < d < 4-du). It could be concluded that at this regression model there is no positive or negative autocorrelation.
3.4 *Multiple Linear Regression Analysis*

By using software SPSS, the result of multiple linear regression analysis was obtained with $\alpha$ score (konstanta) as many as 0.125, $\beta_1$ score as many as 0.015, $\beta_2$ score as many as 0.226 and $\beta_3$ score as many as 0.316. Therefore, an equation of multiple linear regressions could be formed as follow:

$$Y = 0.125 + 0.015X_1 + 0.226X_2 + 0.316X_3$$

3.5 *Hypotheses Test*

**A. Coefficient of Determination**

Determination coefficient mainly measures the extent of a model’s ability in describing various independent variables. By the output in table 4.41, R square number is 62.7%. It shows that the ability of independent variables in describing dependent variable reach the number of 62.7% or the free variable used in the model is capable to describe variable variety of users’ satisfaction to the amount of 62.7%. The rest, 37.3%, is influenced by other variables that are not included in this research model.

**B. Simultaneous Testing**

By the testing result, it is known that the score of F count is 27.452 with 0.000 significance. Since the significance is below 0.05, it could be concluded that $H_0$ is rejected and $H_a$ is accepted. It means that System Quality, Information Quality, and Service Quality have a positive affect towards Users’ Satisfaction. Furthermore, F count $>$ F table which is 51.387 $>$ 2.794 where F table can be found in F Table Statistics in the attachment with a significance of 0.05 $df = 49$ and $n = 53$.

**C. Partial Testing**

By the testing result, significance score in the variable of System Quality ($X_1$) is higher that 0.05 which is 0.822. Moreover, $t_{count} < t_{table}$ where 0.227 $<$ 1.6741. T table is acquired from t table which is in attachment with the criteria of column $df = 49$ and one tail at upper table column thus t table of 1.6741 is acquired. Therefore, $H_0$ is accepted while $H_a$ is rejected. It means that System Quality is influential to Users’ Satisfaction.

Then, according to table above, significance score in the variable of Information Quality ($X_2$) is below 0.05 which is 0.03. Moreover, $t_{count} > t_{table}$ where 3.146 $>$ 1.6741. T table is acquired from t table which is in attachment with the criteria of column $df = 49$ and one tail at upper table column thus t table of 1.6741 is acquired. Therefore, $H_{02}$ is accepted while $H_{a2}$ is rejected. It means that Information Quality is influential to Users’ Satisfaction.

Then, according to table above, significance score in the variable of Service Quality ($X_3$) is below 0.05 which is 0.00. Moreover, $t_{count} > t_{table}$ where 4.177 $>$ 1.6741. T table is acquired from t table which is in attachment with the criteria of column $df = 49$ and one tail at upper table column thus t table of 1.6741 is acquired. Therefore, $H_{03}$ is accepted while $H_{a3}$ is rejected. It means that Service Quality is influential to Users’ Satisfaction.

4. **Conclusion and Suggestion**

4.1 **Conclusion**

This research aims to find out whether or not System Quality, Information Quality and Service Quality influence Users’ Satisfaction. This research was conducted towards 53 tax employees at Tax Service Office (KPP) Pratama Bandung Cibeunying. Results and conclusions were gained as follows:

1. System Quality at KPP Pratama Bandung Cibeunying received good responses. It can be seen from the average of respondents’ answers towards each question which 80.87% agreed. It indicates that tax employees experience the benefit given by SIDJP, thus they could do their performance better.

2. By the result of the average of respondents’ answers regarding Information Quality, 80.07% of tax employees agreed that information quality given by SIDJP has a high quality. The main factor of this high quality came from the security indicator that asserts that each of SIDJP users has user’s profile, thus the employees has to use their own ID to access SIDJP.

3. By the result of the average of respondents’ answers regarding Service Quality, 79.38% of tax employees agreed that the provider has given a good service. Provider could provide a fast and responsive help, because if there is a delay it will obstruct performances in Tax Office.

4. By the result of the average of respondents’ answers regarding SIDJP Users Satisfaction in KPP Pratama Bandung Cibeunying are 77.74% of tax employees. Generally, SIDJP could give satisfaction for its users since SIDJP
helps them to perform more effectively and efficiently.  
5. According to the result of simultaneous hypotheses testing, the System of Quality, Information Quality, and Service Quality is positively influence SIDJP Users’ Satisfaction at KPP Pratama Bandung Cibeunying. Where the result of statistic analysis shows the positive influence as many as 62.7% and the rest 37.3% is influenced by other factors. Therefore, it could be concluded that System Quality, Information Quality, and Service Quality has 62.7% of influence towards SIDJP Users’ Satisfaction at KPP Pratama Bandung Cibeunying.  
6. According to the result of partial hypotheses testing, it is acquired that:  
   a. Variable of System Quality negatively influences SIDJP User’s Satisfaction.  
   b. Variable of Information Quality positively influences SIDJP User’s Satisfaction.  
   c. Variable of Service Quality positively influences SIDJP User’s Satisfaction.  

4.2 Suggestion  
After researcher gives the conclusion of the result of this research regarding the influence of System Quality, Information Quality, and Service Quality to SIDJP Users’ Satisfaction according to tax employees at Tax Service Office (KPP) Pratama Bandung Cibeunying, researcher will elaborate several suggestions as follows:  

4.2.1 Theoretical Aspects  
1. Suggestion for next researchers  
   a. Next researchers are suggested to conduct research using other variables, for example Intention To Use towards Net benefit.  
   b. Next researchers are suggested to use research objects from KPP with different levels, such as KPP madya or large KPP. Research could also be conducted in several KPP Pratamas. Research is suggested to be done in another KPP to find out the most dominant factor that influence SIDJP Users’ Satisfaction in every KPP.  

4.2.2 Practitioner Aspects  
1. For System Quality in general, employees have experienced the benefit given by SIDJP. However, KPP still has to improve the application of SIDJP to minimalize the possibility of system error in accessing process or in inputting taxpayers’ data. Furthermore, provider should involve users in making the application.  
2. Generally, tax payers have given good responses to Information Quality of the use of SIDJP. However, there are several employees that still get difficulties in using SIDJP. It can be seen from respondent who answered disagree to the statement that the system is easy to understand. It is caused by the employees’ limit in operating computers due to the old age. Therefore, KPP should intensely socialize how to use SIDJP to employees.  
3. The service given by the provider of SIDJP to tax employees is generally good. However, provider still should improve their service to tax employees especially to those who are in middle-age that often get difficulties in doing their work.  
4. For the users’ satisfaction, it is influenced by system quality, information quality, and service quality. The better the quality given, the higher the users’ satisfaction. Therefore, SIDJP should frequently be upgraded thus it could be operated more effectively and efficiently.  

References  


Factors Affecting Online Shopping Behaviour Intentions (A Study On Lazada Indonesia)

Putri Damatashia Liana Pratiwi¹ dan Indrawati, Ph.D.²
School of Economic and Business Telkom University
¹putridamatashia@students.telkomuniversity.ac.id, ²indrawati@telkomuniversity.ac.id

Abstract

Nowdays, in Indonesia the revenue of B2C e-commerce had increased significantly from IDR 17,72 trillion in 2013 to 63,57 trillion rupiah in 2016 (expected). Lazada Indonesia was the first rank B2C e-commerce in Indonesia in term of traffic visit. However, with a very tight competition in the B2C e-commerce market, Lazada Indonesia should be able to maintain and even increase its current position. Thus, the purpose of this study is to analyze the factors affecting online shopping behavior intentions toward the use of Lazada Indonesia website. The factors that used in this research had been identified in previous studies, namely attitude, subjective norms, perceived behavioural control and trust. The method that used in this study was quantitative method. The population in this study was the users of Lazada Indonesia website with total sample of 498 respondents. This study used SmartPLS version 2.0 for data processing. The results showed that attitude, subjective norms, perceived behavioral control and trust variables significantly influenced the users' behavior intentions of Lazada Indonesia website. Online shopping behaviour intentions and attitude achieved an R-Square 0.4544 and 0.1266. Since subjective norms has the highest influence on online shopping behaviour intentions, this study suggest that Lazada Indonesia should encourage consumers to share information about Lazada Indonesia to increase positive word of mouth (WOM).

Keywords: e-commerce, B2C, online shopping behaviour intention

1. Introduction

This past few years, e-commerce in Indonesia especially e-commerce B2C showed an impressive rapid growth in its revenue. In 2013 it was estimated that Indonesia acquired IDR 17,72 trillion in 2013 to 63,57 trillion rupiah in 2016 (expected). Lazada Indonesia was the first rank B2C e-commerce in Indonesia in term of traffic visit. However, with a very tight competition in the B2C e-commerce market, Lazada Indonesia should be able to maintain and even increase its current position. Thus, the purpose of this study is to analyze the factors affecting online shopping behavior intentions toward the use of Lazada Indonesia website. The factors that used in this research had been identified in previous studies, namely attitude, subjective norms, perceived behavioural control and trust. The method that used in this study was quantitative method. The population in this study was the users of Lazada Indonesia website with total sample of 498 respondents. This study used SmartPLS version 2.0 for data processing. The results showed that attitude, subjective norms, perceived behavioral control and trust variables significantly influenced the users' behavior intentions of Lazada Indonesia website. Online shopping behaviour intentions and attitude achieved an R-Square 0.4544 and 0.1266. Since subjective norms has the highest influence on online shopping behaviour intentions, this study suggest that Lazada Indonesia should encourage consumers to share information about Lazada Indonesia to increase positive word of mouth (WOM).

The company that ranked the first in e-commerce B2C Indonesia today is Lazada Indonesia. Lazada Indonesia had the highest web traffic in the ASEAN market today [1]. Lazada who had just entered Indonesia in 2012, was able to snatch the first place in e-commerce B2C Indonesia. Even in the world rankings, Lazada Indonesia was in position 631 and capable of rivaling Bhinneka and Zalora Indonesia which was in position 5009 and 6434 sequentially [4].

The number of visitor to Lazada Indonesia’s site in each month reached 6.6 million and ranked first in the e-commerce B2C sector in Indonesia. Lazada Indonesia also accept order for more than 10,000 items per day [13]. This amount is far more than the online shopping providers such as Zalora Indonesia which in 2013 the average order was about 2,000 to 3,000 items per day [14].
2. Problem Statement

Based on the above discussion, the problem statements are as follows:

Though Lazada Indonesia has managed to rank first in the ecommerce B2C’s market, the intense competition in the market requires Lazada Indonesia to be able to compete with other providers in order to survive in its current position. One way is to know what factors that can affect the actual intentions of the customers to shop online. By knowing these factors, Lazada Indonesia expected to retain customers and increase sales in the future.

Form the results of the previous literature review, this research has not found any published research article about the factors that influence the intention of online shopping, especially in Lazada Indonesia’s site users.

3. Research Question

This study aims to study the “Factors That Affecting Online Shopping Behaviour Intention” that the factors has been identified in advanced of previous studies authored by Lee and Ngoc (2010) entitled “Investigating The Online Shopping Intentions of Vietnamese Students: An Extension of The Theory of Planned Behaviour”.

This research question are thus stated as follows:
1. How do attitude impact online shopping behaviour intentions?
2. How do subjective norms impact online shopping behaviour intentions?
3. How do perceived behavioural control impact online shopping behaviour intentions?
4. How do trust impact online shopping behaviour intentions?
5. How do trust impact attitude toward online shopping behaviour intentions?

4. Scope of the Study

This study covers the behavioural intentions of Lazada Indonesia’s site user. This study used a sample from Lazada Indonesia’s site user. As a company, Lazada Indonesia should be able to understand their own consumers while consumers browsing in Lazada Indonesia’s site, specifically the factors affecting their intentions to use the website.

5. Literature Review and Research Framework

5.1 E-Commerce dan B2C

Laudon et al (2012:49), defines e-commerce as use of the internet and the web to conduct business transactions. Formally, linking commercial transactions between organization and individual. B2C (business-to-consumers), is the category of e-commerce involving online business and trying to directly reach consumers on an individual basis and the type that have the most in demand by the consumer. Online retail store or so called e-tailer is the online version of the realtor store (retail company), where consumers can shop anytime without limitation of time without leaving home or office [9]. Haubl dan Trifts (2000) defines online shopping as the exchange or the computer activity conducted a consumer through a meand of connecting a computer as its base,where the consumer computer connected to the internet and can be interacting with the retailer or a virtual store that sells product or services through the network [5].

5.2 Online Shopping Behaviour Intentions

Online shopping behaviour intentions, refer to the intentions or motivations when trying to adopt a specific behaviour [10]. Kotler and Amsrstrong (2011) in Laudon et al (2012) states that there are five steps in the process the customer decides to buy online: awareness of need, search for more information, evaluation of alternatives, the actual purchase decision, and post-purchase contact with the firm [9].

5.3 Theory of Planned Behaviour

Variables that used in this study were taken from the theory of planned behaviour by Ajzen. Ajzen (1988) developed the Theory of Planned Behaviour (TPB), this theory provides a model that can measure how human actions are directed. This model represents the three variable that suggest that theory would predict intentions to perform a behaviour. Variables that contained in this model include, attitude, subjective norms, and perceived behavioural control [2].
5.3.1 Attitude

Attitude describes and individual’s feeling, inclination or disinclination towards performing a behaviour. An overall attitude from prospective technology’s user toward using a given technology-based system or procedure represents major determinants as to whether or not the consumer will ultimately use the system [15].

5.3.2 Subjective Norms

Subjective norms capture the consumers’ perceptions of the influence of significant others (e.g., family, peers, authority figures, and media). It is related to intention because people often act based on their perception of what others think they should be doing [8]. Applied to e-commerce, subjective norm reflects a consumer’s perceptions of whether online purchasing is accepted and encouraged by important referent others; these perceptions influence online purchase intention [17].

5.3.3 Perceived Behavioural Control

Perceived behavioural control (PBC), refers to how individuals behave in making their own decisions influenced by their ability to do so. The ability to shop online, for example, the accessibility of the internet, will probably refrain consumers from doing online shopping [15].

5.4 Trust

Other variable that used in this study is trust. Trust play an important role in business processes, where customers are looking for experience and trust in the quality of goods, even more so, in online shopping because of the greater ease with which vendors can behave in an opportunistic manner. Some researchers have expressed trust as variables that greatly contributed to the purchase behaviour. They also said that an important reason why online consumers are reluctant to shop online is because of the lack of trust that currently exists between the majority of businesses and consumers on the Web, and they generally stay away from e-vendors that they do not believe [10] [16].

5.5 Research Framework

The research framework was adopted from the theory of planned behaviour [2]. On this theory, there are three variables that affect the behaviour intentions and it was proved, from several previous studies as do Lee and Ngoc (2010) showed that these three variables can indeed influence behaviour intentions. Lee and Ngoc (2010) in their research also add trust as variable that affect behaviour intentions. According to Gefen et al (2003) in Lee and Ngoc (2010), after consumers have a satisfying experience with previous results and ready to trust the online shopping provider, their beliefs about the outcome of behaviour or attitude toward online shopping will increase [10]. From the studies, conducted by Lee and Ngoc, the results showed that trust has a major influence on the attitude of the customer. Therefore, there is a possibility that the trust acts as a moderate factor of the relationship between attitude and online shopping behaviour intentions [10]. For these reasons, this research also added trust in research framework as a variable that affect online shopping behaviour intentions and attitude toward online shopping behaviour intentions.

Based on the TPB model and previous studies on the key role of trust in online shopping, a research framework for the study is given in Figure 1:

![Figure 1. Research Framework (Lee & Ngoc, 2010)](image-url)
6. Hypotheses

The hypotheses of this study based on the research framework as show in Figure 1 are as follows: H1: The attitude has a positive and significant impact toward online shopping behaviour intentions.

H2: The subjective norm a positive and significant impact toward online shopping behaviour intentions.

H3: The perceived behavioural control a positive and significant impact toward online shopping behaviour intentions.

H4: The trust toward online shopping has a positive and significant impact on online shopping behaviour intentions.

H5: The trust has a positive and significant impact on attitude toward online shopping behaviour intentions.

To test the hypotheses, this study collected data by using questionnaires containing question that will answer the research question that has been determined. This questionnaire will be distributed to those who have used Lazada Indonesia’s site. The analysis techniques that used in this study is VB-SEM (Varianced Based Structural Equation Model) through SmartPLS versi 2.0.

7. Results and Discussion

Analyzing using PLS involves two steps. First, is assessment of the measurement model to test the realibility and validity of the instrument. Second, is assessment of the structural model to test the research hypotheses [6].

Assessment of measurement model is generally performed to ensure that the measurement is realiable and valid before making any conclusions about the relationship between the constructs of the model. In assessment of measurement model, there are three criterions that should be fulfilled, which are indicator realibility, internal consistency realibility, and convergent validity [6].

Indicator realibility defines the extent to which a variable or a set of variables is consistent to that it intends to measure [6]. In PLS, the indicator realibility is evaluated by factor loading, the rule to accept the item is if the item has at least 0,5 or higher [6]. Here is Table 1 that shown the results of convergent validity using factor loading:

<table>
<thead>
<tr>
<th>Kode</th>
<th>FL</th>
<th>Kode</th>
<th>FL</th>
<th>Kode</th>
<th>FL</th>
</tr>
</thead>
<tbody>
<tr>
<td>A_1</td>
<td>0.7201</td>
<td>SN_7</td>
<td>0.7735</td>
<td>T_6</td>
<td>0.6846</td>
</tr>
<tr>
<td>A_2</td>
<td>0.7781</td>
<td>PBC_2</td>
<td>0.7545</td>
<td>T_7</td>
<td>0.8045</td>
</tr>
<tr>
<td>A_3</td>
<td>0.7243</td>
<td>PNC_3</td>
<td>0.637</td>
<td>T_8</td>
<td>0.7368</td>
</tr>
<tr>
<td>A_4</td>
<td>0.6925</td>
<td>PBC_4</td>
<td>0.7545</td>
<td>T_9</td>
<td>0.7357</td>
</tr>
<tr>
<td>A_5</td>
<td>0.7749</td>
<td>PBC_5</td>
<td>0.676</td>
<td>OSBI_2</td>
<td>0.6761</td>
</tr>
<tr>
<td>A_6</td>
<td>0.7311</td>
<td>PBC_6</td>
<td>0.7517</td>
<td>OSBI_3</td>
<td>0.7023</td>
</tr>
<tr>
<td>A_7</td>
<td>0.6617</td>
<td>T_1</td>
<td>0.6963</td>
<td>OSBI_4</td>
<td>0.7071</td>
</tr>
<tr>
<td>A_8</td>
<td>0.6132</td>
<td>T_2</td>
<td>0.6745</td>
<td>OSBI_5</td>
<td>0.7412</td>
</tr>
<tr>
<td>SN_1</td>
<td>0.6522</td>
<td>T_3</td>
<td>0.7447</td>
<td>OSBI_6</td>
<td>0.7357</td>
</tr>
<tr>
<td>SN_5</td>
<td>0.6809</td>
<td>T_4</td>
<td>0.752</td>
<td>OSBI_7</td>
<td>0.7635</td>
</tr>
<tr>
<td>SN_6</td>
<td>0.7569</td>
<td>T_5</td>
<td>0.7732</td>
<td>OSBI_8</td>
<td>0.7084</td>
</tr>
</tbody>
</table>

Table 1 shows the LF of each item of the proposed model that resulted by running SmartPLS software. As it can be seen on Table 1, all the items have LF value of above 0,6, indicating that each item of the questionnaire met the indicator realibility requirement.

As for the internal consistency realibility, it measures the degree to which the indicator variable or manifest variable simultaneously loads when the latent variable increases. The most well known criterion for assessing internal consistency realibility is Cornbach Alpha (CA) and an alternative measure to CA is Composite Realibility (CR) [6]. The values of CA and CR are range from 0 to 1. Values above 0,7 indicates that the questionnaire had a pretty good level of realibility.

Convergent validity measures the degree to which individual items reflecting a construct converge in comparison to items measuring different con structs. A commonly applied criterion of convergent validity is AVE. An AVE value
of at least 0.5 indicates that a latent variable can, on average, explain more than half of the variance of its indicators.

Table 2 shows the CA, CR, and AVE values of each construct in this study. It shows that all the construct used in his study have CA and CR above 0.7 which indicates that each construct had a good level of reliability, and AVE values above 0.5 indicates that each construct met the convergent validity.

<table>
<thead>
<tr>
<th>Variabel</th>
<th>CR</th>
<th>CA</th>
<th>AVE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Attitude</td>
<td>0.8921</td>
<td>0.8619</td>
<td>0.5096</td>
</tr>
<tr>
<td>Online Shopping Behaviour Intentions</td>
<td>0.8825</td>
<td>0.8448</td>
<td>0.518</td>
</tr>
<tr>
<td>Perceived Behavioural Control</td>
<td>0.8399</td>
<td>0.7632</td>
<td>0.5133</td>
</tr>
<tr>
<td>Subjective Norms</td>
<td>0.8087</td>
<td>0.7483</td>
<td>0.5151</td>
</tr>
<tr>
<td>Trust</td>
<td>0.9132</td>
<td>0.8935</td>
<td>0.5397</td>
</tr>
</tbody>
</table>

The second step, is assessment of the structural model to test the research hypotheses. In PLS, the correctness of the proposed model can be measured by using Path Coefficients and R-Squared. The path coefficients should have t-values of at least 1.65 to be considered significant at the 95% confidence level [6]. Table 3 shows the path coefficients and t-values of the model as a result of bootstrapping. All the paths are significant at the 95% confidence level of significance.

| Path Coefficients | T Statistics (|O/STERR|) | Keterangan |
|-------------------|---------------|----------------|-------------|
| Attitude -> OSBI  | 0.2468        | 4.859          | H1 DITERIMA |
| PBC -> OSBI       | 0.2557        | 5.0624         | H2 DITERIMA |
| SN -> OSBI        | 0.286         | 7.059          | H3 DITERIMA |
| Trust -> OSBI     | 0.0918        | 2.5985         | H4 DITERIMA |
| Trust -> Attitude | 0.355         | 7.7863         | H5 DITERIMA |

R-Square criterion measures a construct’s percentage variation that is explained by the model or the proportion of the total variation in the dependent variable explained by the independent variables jointly [6]. Values above the cutoff 0.67, approximately 0.333, and 0.190 or lower are deemed substantial, average and weak respectively [6]. Based on the SmartPLS, the model of this study achieved an R-Square for online shopping behaviour intention at 0.4544 and attitude at 0.126 as shown in Table 4 below. This result indicates that the model averagely explained the variance in the online shopping behaviour intention on Lazada Indonesia’s site user.

<table>
<thead>
<tr>
<th>Variabel</th>
<th>R Square</th>
</tr>
</thead>
<tbody>
<tr>
<td>Online Shopping Behaviour Intention</td>
<td>0.4544</td>
</tr>
<tr>
<td>Attitude</td>
<td>0.126</td>
</tr>
</tbody>
</table>

8. Conclusion and Implication for Practice

Based on the results, this study concludes that online shopping behaviour intention was influenced by subjective norms (0.286), perceived behavioural control (0.2557), attitude (0.2468), and trust (0.0918). Then attitude influenced
by trust for 0.355. Since subjective norms has the highest influence on online shopping behaviour intentions, this study suggest that Lazada Indonesia should encourage consumers to share information about Lazada Indonesia to increase positive word of mouth (WOM). Lazada Indonesia also provide coupound to every customer who successfully invite others to join in Lazada Indonesia. Besides the subjective norms factor, the next factor that should be paid attention was perceived behaviour control, attitude, and trust.

Though trust has the least influenced toward online shopping behaviour intentions, but trust also has a huge influenced on attitude which was 0.355 and attitude was also a factor that has an influenced on online shopping behaviour intention. So other ways that could be used to improve the attitude toward online shopping behaviour intention was to increase consumer’s trust. This research suggest that Lazada Indonesia should increased its security system on Lazada Indonesia sites such as upgrading security software regularly. To improve customer’s comfort, Lazada Indonesia should have a clear policy on returns and transactions on the spot. This will assure customers if they want to return the items that do not fit with what they order before.

References

Grönroos Model: The Influence of Service Quality Dimensions on Customer Loyalty with Customer Satisfaction as Intervening Variable

1Dini Turipanam Alamanda, 1I Putu Bayu Indra Brata, 1Osa Omar Sharif, 1,2Adhi Prasetio, 1Citra Kusuma Dewi

1Telkom University, Jl. Teleunikasi No. 1, Bandung, Indonesia
2Universitas Pendidikan Indonesia, Jl. Dr Setiabudi No. 229, Bandung, Indonesia

Abstract

The purpose of this study is to determine the perceptions of office workers in Bandung about Telkom Speedy, an Asymmetric Digital Subscriber Line (ADSL) service quality. In addition, it aims to determine the influence of service quality on loyalty through customer satisfaction office workers in Bandung. Grönroos model comprising outcomes related dimension, image related dimension, and process related dimension is used to measure the service quality. Questionnaires were distributed to 211 office workers in Bandung. Descriptive and causal research are used in this study. Data collected then be processed using path analysis technique. The result showed that the service quality of Speedy products significantly affected by outcome related, image related, and process related dimensions. Additionally, Service Quality significantly influenced customer loyalty as well. There was low indirect influence outcome related dimension and image dimension to customer loyalty through customer satisfaction. There was moderate indirect effect related process dimension to customer loyalty through customer satisfaction.

Keywords: Grönroos model, service quality, customer satisfaction, customer loyalty, Asymmetric Digital Subscriber Line

1. Introduction

Asian continent has the largest number of internet users in the world. Internet users in Asia reached 44.8% of total users worldwide or exactly as many as 1,076,681,059 out of 2,405,518,376 internet world population. Indonesia ranks fourth in Asia Top 10 Internet Countries by June 30, 2012.

Until 2012 it was noted that Indonesia has a population of 248,645,008 inhabitants, while the number of Internet users is 55 million users. From these data, Indonesia still has the potential to experience growth in the number of Internet users. The Government expects in 2014 Internet users will increase to 80 million. To support the government programs, internet providers are competing to provide special offers to attract potential customers to buy. One of the internet service providers that aggressively capture new customers are from the fixed line internet service provider (ISP), Telkom Speedy.

Telkom Speedy aggressively targeting to increase new customers each year. One of the areas targeted for growth is the region of West Java. In line with what was proclaimed by the government, General Manager Customer Service Unit Telkom West Java region, Binuri, also targeting Speedy customers in West Java in 2013 to reach half a million subscribers from the existing 230,000 subscribers by 2012. To reach half a million subscribers, Telkom will prepare some new projects such as setting up various development projects and upgrading of telecommunication networks in the region of West Java.

Speedy was ranked first for top brand index category ISP fixed on Top Brand Award in 2013 with the brand index of 62.3%. Speedy as the top brand for fixed line ISPs have the opportunity to increase its customer’s base. However, despite the enormous potential, speedy should keep trying to improve the service quality.

In general, the speed of download and upload in Indonesia are 2.49 Mbps (download) and 1.24 Mbps (upload). Indonesia is ranked 153 (download) and 141 (upload) from 182 countries. This test is done by millions of the latest test results from Speedtest.net. This index compares and rates the download and upload speeds in countries around the world.
The low average download and upload speeds in Indonesia is one indication of the service quality that is still lacking. Speedy as one of the players in this industry also has the same problem. In addition to the speed of the connection, there are other factors that must be considered such as the stability of the connection and after sales services related to employee performance of Telkom Speedy.

Observations were made from the date of February 11, 2013 to April 25, 2013 on the official twitter account @TelkomSpeedy and @DhaniSpeedy, which are the official Speedy customer care. Both of these account become a media for customers to complaints that wish to get the attention of the Telkom Speedy. The results showed that there are still a lot of complaints by consumers every day through the official speedy twitter account.

The observation found that most complaints are related to slow connections, often disconnected, slow response to customer complaints, and the expensive price which does not comply with the quality provided. Slow connection and disconnected were very often complained and usually the customer asked questions about the cause of it. The slow responses to customer complaints are also often complained mainly due to the complex procedure of filing a complaint. Regarding to the premium price set by Telkom Speedy, if the quality is less well received by the customer, the customer will feel that the money they spent is not accordance with their perceived quality.

Observations were also performed on local Indonesian Internet forums, Kaskus. Observations were carried out on existing posts in the Speedy complaints forum, from February to April of 2013. Comments can be grouped into four different complaints: disconnecting and RTO (request time out) (30%), slow connection (26%), disappointed then recommend other providers (26%) and not satisfied with the customer care (Plasa/147) and technicians (18%).

Complaints on the internet are also supported by the internal data from Unit Customer Service (UCS) regional III Telkom Bandung. In April and May, the number of complaints in West and East Bandung are 5,013 complaints. The complaints include a dashed connection, the slow connection, cannot connect, cannot browse, billing issue, the public IP disorders, and the technician’s request. The number of complaints is an indication that the service quality of Speedy is not good.

SWA magazine did some research on the Net Promoter Score (NPS) from various categories companies in Indonesia. NPS is one of the most simple and easy to understand measurement about customer loyalty, so it is very popular and many are using it. The results for the Fixed-Internet Service Provider category, NPS Speedy ranked second with a score of 7.83% in 2012. Speedy NPS is still smaller compared to Fastnet, although the top brands Speedy indexed well above the Fastnet.

NPS results are also supported by the company's internal data. In 2011 up to 2012 customer churn rate are still high and the total number of customer’s churn in the two-year increased from 6938 to 9958. It is also admitted by Gede Yuda Lingga, regional UCS Manager III Telkom Bandung West area in 2013, that the customer churn rate is still high. In Figure 1 we can see the complete graph customer’s churn in 2011 until 2012.

Furthermore, Gede Yuda Lingga also mentioned that the majority of Speedy retail customers have a job as employee in private companies, state enterprises, and government agencies. Employees usually require Internet network at home as well, because they usually bring their work home. They also need the Internet as a means for communication, information retrieval, even for entertainment. Due to the importance of the internet, employees will be more concerned with the quality of the internet connection and is not sensitive to the price they have to pay. Employees also will be satisfied and loyal if they get a good quality, although the price they pay quite expensive.
Based on the previous description, the purpose of this study is to see how the respondents response to the service quality. This study also aimed to investigate how much service quality dimensions (outcomes related, image related, and process related) influence to customer loyalty through customer of speedy products satisfaction on products Speedy on employees in Bandung.

2. Literature Review

One of service quality model that was first developed is Total Perceived Quality Model based on multiple dimensions (Grönroos, 1982, 1990; Cronin and Taylor, 1992; Parasuraman et al., 1985, 1988). Based on this model, the customer perceived quality of a service consists of two main dimensions: technical dimension or outcomes related and functional dimension or process related dimension. Kang and James (2004) extended Grönroos model by adding process related dimension which is quality assessment based on how the quality of the service delivery received by the customer.

Perceived service quality is a global judgment or attitude related to the superiority of the service, whereas satisfaction is related to a specific transaction (Parasuraman et al., 1988). Kotler and Armstrong (2012) state that satisfaction is the post-purchase evaluation of products or services taking into consideration the expectations. Research has shown repeatedly that service quality influences on customer satisfaction.

Delivering service quality is imperative for the success of business organizations. Therefore, there has been a closer proximity between the two concepts of services quality and customer loyalty (Karunaratna, 2014). Loyalty is defined as repeated purchases of particular product or service during a certain period of time (Yi and Jeon, 2003). Immatika (2012) and Obeidat (2012) proved that there is an influence of service quality on customer loyalty. While Hazlina (2011); Kang and James (2004); Tam (2004); Vanpariya and Ganguly (2010); Dharmalingam (2011); Navaratnaseelan and Elangkumaran (2014) examined that service quality has positive and significant correlation with customer satisfaction. Other studies such as Caruana (2002); Agus et al. (2007); Shafiq (2010), Sukmawati (2011); Safitri and Pratito (2010); Santouridis and Trivellas (2010); Kitapci, Ibrahim and, Zu’hrem (2013) as well as Akbar and Parvez (2009) proved that there is a strong relationship between service quality, customer satisfaction and customer loyalty.

Based on the above literature, the hypotheses of this study are:

H1 : $\rho_{y_1x_1} = \rho_{y_1x_2} = \rho_{y_1x_3} \neq 0$, outcomes related dimension, image related dimension, and process related dimension influence customer satisfaction of Telkom Speedy on employee’s in Bandung.

H2 : $\rho_{y_1x_1} = \rho_{y_1x_2} = \rho_{y_1x_3} \neq 0$, outcomes related dimension, image related dimension, and process related dimension to customer loyalty of Telkom Speedy on employee’s in Bandung.

3. Methodology

Type of this research is descriptive and causal. Descriptive research is used to map the respondent and causal research is used to look at the relationship between variables and answer the research objectives. A questionnaire was used and distributed to 211 respondents. Respondents are employees who work in Bandung. The selection of respondents is done by non-probability sampling method using purposive sampling technique.

The data analysis techniques used in this study are the range values to see the respond of respondents to the service quality of Speedy and path analysis to see the relationship between the variables in the research. Analysis of the range values using the continuum line with 25% - 43.75% as very bad category, 43.76% - 62.50% as bad category, 62.51% - 81.25% as good category and more than 81.26% - 100% as very good category. Path analysis model construction was adapted from Agus et al. (2007) and Caruana (2002). This model is depicted in Figure 2.
FIGURE 2. LINE DIAGRAM RESEARCH

Explanation:
X₁ = Outcome Related Dimension
X₂ = Image Related Dimension
X₃ = Process Related Dimension
Y₁ = Customer Satisfaction
Y₂ = Customer Loyalty
P = Coef. of Path
ε = factor error

First sub-structure : Customer Satisfaction (Y₁) = ρ Y₁X₁ + ρ Y₁X₂ + ρ Y₁X₃ + ε₁
Second sub-structure : Customer Loyalty (Y₂) = ρ Y₂X₁ + ρ Y₂X₂ + ρ Y₂X₃ + ε₂
Third sub-structure : Customer Loyalty (Y₂) = ρ Y₂Y₁ + ε₃

4. Result and Discussion

4.1. Profile of Respondents

Respondents taken for this study have the following profile: (1) 74% of men and 26% women, (2) The majority of respondents (47%) were aged at 26-35 years old, 27% 36-45 years, 22% of respondents were under or equal to 25 years old, and 4% of respondents were aged over 45 years, (3) in terms of education, 26% were graduates, 21% were graduates of diploma, and 5% had high school as their last education, (4) majority respondents working in a private company (44%), the government agencies (25%), the state-owned companies (20%), and 11% were working in other places, (5) in terms of location, 33% work in the northern part of Bandung, 25% in eastern part of Bandung, 22% work in the southern part of Bandung, and 42% work in the western part of Bandung.

4.2. The Value Range Analysis on the Service Quality of Telkom Speedy Respondents

The analysis of the response from respondents to the service quality is divided into an explanation of each dimension and then described further for each indicator.

The score of response collected from respondents on outcomes related dimension was 1,648 of the total ideal score of 4 x 3 x 211 (2,532). Percentage of response related to the outcome related dimension variable of Telkom Speedy is (1648:2,532) x 100 = 65.09%. Amongst them, 67.54% stated that Telkom Speedy is reliable products; 65.28% stated that Telkom Speedy Internet connection speed was as promised; and 62.44% stated that Speedy is less stable connections (or not good).

The score of response obtained from respondents on image related dimension is 1,151 of the total ideal score of 4 x 2 x 211 (1,688). Percentage response from respondents to the variable service quality Speedy (1151:1,688) x 100 = 68.19%. 69.67% of respondents stated that Telkom Speedy has good product reputation and 66.71% said that Speedy is a trustworthy product.

Finally, the score of response obtained from respondents on process related dimension is 4603 of the total ideal score of 4 x 8 x 211 (6752). The percentage respond from respondents for process variables related dimension of Telkom Speedy is (4603: 6752) x 100 = 68.17%. Details of the explanation are 63.39% stated that the response to the
complaints of the customers Telkom Speedy is good; 63.03% stated that complaint handling by Telkom Speedy is fast; 64.93% stated that Telkom Speedy is able to find solutions for their problems quickly; 71.32% indicates that Telkom Speedy has competent personnel in delivering services to customers; 68.13% said that the billing payment facility provided by Telkom Speedy provides is convenience; 75.49% said that Telkom plaza has strategic location and 63.34% stated that the service flow is good (simple bureaucracy).

4.3 Analysis of service quality (outcomes related, image related, and process related dimensions) effect on customer loyalty through customer satisfaction

The result of the calculation of the sub-structure 1 regarding the influence of variables \( X_1, X_2, X_3 \) produced equation for \( Y_1: Y_1 = 0.239X_1 + 0.161X_2 + 0.548X_3 + 0.242 \). Outcome related dimension \( (X_1) \) has 17.63% of the total effect on customer satisfaction \( (Y_1) \), and has indirect influence by 2.82% if through images related dimension \( (X_2) \) and 9.1% if through a process related dimension \( (X_3) \). Image related dimension \( (X_2) \) has 2.6% direct impact on customer satisfaction \( (Y_1) \) and has indirect influence by 2.82% if through outcomes related dimension \( (X_1) \) and 6.78% if through a process related dimension \( (X_3) \). The total effect of process related dimension \( (X_3) \) is 45.88% of the customer satisfaction \( (Y_1) \). So that the influence outcomes related dimension, image related dimension, and process related dimension to customer satisfaction variables simultaneously equals 75.71%.

The calculation result of the sub-structure 2 regarding the influence of variables \( X_1, X_2, X_3 \) produce equation for \( Y_2: Y_2 = 0.298X_1 + 0.038X_2 + 0.525X_3 + 0.369 \). Outcome related dimension \( (X_1) \) has 8.88% direct effect on customer loyalty \( (Y_2) \) and has a 0.83% indirect effect if through images related dimension \( (X_2) \) and 10.87% if through a process related dimension \( (X_3) \). Image-related dimension \( (X_2) \) has a 2.5% total effect on customer loyalty \( (Y_2) \) which 0.14% of it is direct influence. While the process related dimension \( (X_3) \) has a direct influence of 27.56% and 1.53% indirect effect if through images related dimension \( (X_2) \) and 10.87% indirect influence through Outcome related dimension \( (X_1) \). Thus the influence outcomes related dimension, image related dimension, and process related dimensions simultaneously is 63.04% on customer loyalty.

The third sub-structure equation is \( Y_1 = 0.239X_1 + 0.161X_2 + 0.548X_3 + 0.242 \) and \( Y_2 = 0.832Y_1 + 0.308 \). The results showed that outcomes related dimension, image related dimension, and process related dimension, each of it has an influence on customer loyalty through customer satisfaction intervening variables. The highest indirect influence obtained from process variables related dimension (46.6%), followed by the outcome variable related dimension (19.88%), and image variables related dimension (13.4%). These results are consistent with studies that have been conducted by Santouridis and Trivellas (2010) on the Impact of Service Quality and Customer Satisfaction on Customer Loyalty in Mobile Telephony in Greece. So also with the study of Akbar and Parvez (2009) concerning Parvez Impact of Service Quality, Trust, and Customer Satisfaction on Customer Loyalty. Both studies concluded that customer satisfaction has been found to be an important mediator between perceived service quality and customer loyalty.

5. Conclusion and Further Research

5.1. Conclusion

The result showed that the overall service quality of Speedy products have a good response from employees in Bandung. Simultaneous test found that service quality variables significantly influence the variable of customer satisfaction. Service Quality significantly influence customer loyalty variable. Indirect influence outcome related dimension to customer loyalty through customer satisfaction intervening variable equals 19.88%. Indirect effect image dimension related to customer loyalty through customer satisfaction intervening variable equals 13.4%. Indirect effect related process dimension to customer loyalty through customer satisfaction intervening variable equals 45.6%.

5.2. Further Research

This study still has a shortage of literature theory used in the measurement of technical quality on service quality dimensions according to the model Grönroos. Future studies are expected to seek a more complete literature for technical quality in order to get a better test. Further study also expected to try to use the theory of Service quality in Telco for research in the field of telecommunications, particularly the internet industry because it would be appropriate for the industry that has many technical network quality. In terms of the respondents, this study is only done on
respondents who are employees who subscribe to Telkom Speedy in Bandung. Further research can be done by examining the respondents other than employees such as a community of bloggers and community of gamers who need the internet with good quality.

References


Bankruptcy Prediction by Using *Multiple Discriminant Analysis* and Logit on Pharmaceutical

Dr. Norita, S.E., M.Si, Ak., CA¹, Gustina Hidayat, S.E²
Magister of Management, Economic and Business School, Telkom University
¹norita.chan@yahoo.com, ²gustina.mengmeng@gmail.com

Abstract

Bankruptcy is a very essential issue of the study. Compared to five models in this research, there are: Altman, Springate, Zmijewski, Zavgren and Olhson. This study aims to determine the financial distress prediction models with the most suitable in its application to pharmaceutical companies in Indonesia. Comparisons were made by analyzing the level of accuracy of each models. The samples used were seven pharmaceutical company listed on the Indonesia Stock Exchange 2009-2014. In hypothesis testing using different test engineering analysis tools paired sample t-test, the results show that there are differences between the five models in predicting potential bankruptcy. The most suitable models applied to pharmaceutical companies in Indonesia and has the most appropriate value accuracy 95% is a model of Zmijewski.

Keywords: Pharmaceutical Industry; financial distress; predicting potential

1. Introduction

The industrial sector is one of a driver for economic growth to be better, in which the industrial sector is considered to be highly efficient of using economic resources and absorb a lot of labor. However, within this past years the pharmaceutical industry is declining, one of the reasons is the government statement in this case the Ministry of Finance No. 104/2009 establishes rules to be limiting the allocation of funds for medical advertisement, so that the pharmaceutical industry should restrict advertising expenditures. Because of this, the pharmaceutical industry becomes difficult to develop because people are not aware of any new drug products, which in turn give an impact on the demand of drug. together with a deteriorating economy and declining purchasing power of society due to the increase in the cost of living community. In addition caused also by high interest rates, and the high cost of imported raw materials.

Even the director of PT. Indofarma Tbk complained of a decrease in its turnover, in April and May 2015 Indofarma has a deficit of Rp. 17 billion. PT. Kimia Farma Persero Tbk said it had a loss of Rp. 3 billion as a result of fluctuations in US dollar exchange rate (www.pelita.or.id). If the company's State-Owned Enterprises (SOE) is bankrupt, the need for generic drugs to the people will be lost, as it also happened in the world of pharmaceutical education. It could be all pharmacy colleges will be closed, because graduates are not absorbed by the market.

Bankruptcy prediction analysis would help the company in making decision to look at a company's ability to manage its cash. How to overcome and minimize the occurrence of bankruptcy, the company can supervise financial condition. One analysis used to determine the company's financial condition is the ratio analysis, but the analysis of financial statements only pressing right on the financial aspects only. Therefore requires an analysis tool to combine various financial aspects, the tool is an analysis of bankruptcy.

Academic research can provide a model in order to prevent bankruptcy in Indonesia, where the model can help companies, investors, creditors, and other parties to oversee the company's financial performance. Stages of development of the research methodology are relatively new to calculate the risk of financial distress (financial distress risk) have been conducted throughout the 1980s and early 1990s using logit analysis besides using *Multiple Discriminant Analysis*, in these studies generally use the model financial analysis ratio of bankruptcy.
All models were created by using some companies abroad for the sample. In Indonesia, the research on financial distress prediction model has been widely applied, generally only use the model of Altman. While the research on financial distress prediction models are still limited, including the research that was conducted by Peter (2011) Altman bankruptcy analysis method, Springate, Zwejewski at PT. Indofood Sukses Makmur, Tbk period 2005-2009, reveals that Altman predicts that period all companies potentially bankrupt, Springate only in 2007 and 2008 are predicted to be bankrupt while the results of Zwejewski no company could be potentially bankrupt. Based on the description that has been described the author tried to apply the analysis of potential bankruptcy at one of the industries listed in the Indonesia Stock Exchange, namely Consumer Goods Industry with a concentration Pharmaceuticals, so for the writer take the title Analysis of Bankruptcy Using Multiple Discriminant Analysis and Logit in Industrial Pharmacy Listed in Indonesia Stock Exchange 2009-2014.

2. Purpose Of The Study

1. To know if there are any difference prediction potential bankruptcy to be found by using Multiple Discriminant Analysis model: Altman Z-Score, Springate, Zmijewski, and Logit model: Ohlson, Zavgren on company pharmaceutical list on Indonesia Stock Exchange.

2. Knowing which model has the highest level of accuracy among Multiple Discriminant Analysis and Logit to be applied in Indonesia to predict the potential financial distress at the pharmaceutical company listed in Indonesia Stock Exchange.

3. Method Research

This type of research is included in an explanatory survey, because the survey is done by taking a sample of the population and use secondary data from financial reports through the internet. The method used in this research is descriptive and comparative research methods. Samples is the object / subject under study as reduction of the population. According Sekaran (2010: 263) sample is part of the population. Samples consist from some members selected from population. The sampling technique used was purposive sampling technique. According to Dante (2012: 46) sampling purposive is a sampling technique that is based on the traits and characteristics or goals set by the author. There are some limitations of the data available for the pharmaceuticals industry which is listed in industry stock exchange, so that the author establishes the following criteria:

1. Pharmaceutical companies that listing in Indonesian Stock Exchange (BEI) in 2009 -2014.

2. Companies that have a complete financial report in 2009 -2014.

Based on the criteria above, from 10 companies there are 7 companies use for sampled in this study. They are: Darya Varia Laboratia Tbk, Indoefarma Tbk, Kimia Farma (Persero) Tbk, Kalbe Farma Tbk, Merck Indonesia Tbk, Merk Sharp Dohme Pharma Tbk, and Tempo Scan Pacific Tbk.

4. Results and Discussion


Before doing the prediction comparison of bankruptcy, first we should calculating the score of each method. The results of the calculation are:

a. Altman Z = 1.2 1.4 X1 + X2 + 3,3X3 + 0.6 +1.0 X4 X5  Supardi (2003:15)
### Tabel 1. Results Calculation Model Altman

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<thead>
<tr>
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<th>2009</th>
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<th>2011</th>
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<th>2013</th>
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**Discrimination zone**

a) $Z < 1.8$ the company is financial distress
b) $1.8 < Z < 2.99$ the company is in Grey area
c) $Z > 2.99$ the company is non-financial distress

b. Springate $S = 1.03X1 + 3.07X3 + 0.66X6 + 0.4X5$ Ayu (2008:18)

### Tabel 2. Hasil Perhitungan Model Springate

<table>
<thead>
<tr>
<th>Perusahaan</th>
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<th>2011</th>
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**Discrimination zone**

a) $S < 0,862$ the company predict in experiencing financial distress
b) $S > 0,862$ the company predicted to be non-financial distress

c. Zmijewski X-score $= -4.3 - 4.5X7 + 5.7X8 - 0.004X9$ (Komang: 2014)

### Tabel 3. Hasil Perhitungan Model Zmijewski

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<td>-3,70419</td>
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<td>-3,35282</td>
</tr>
<tr>
<td>Inaf</td>
<td>-0,95809</td>
<td>-1,10048</td>
<td>19,33491</td>
<td>-1,88643</td>
<td>-4,50192</td>
<td>-4,3312</td>
</tr>
</tbody>
</table>
kaef  -0,54347 -1,20202 -3,01163 -3,00561 -2,74784 -2,44621  
klbf  -3,4695  -4,11913 -3,9315  -3,92331 -3,67689 -3,88559  
merk  -4,79338 -4,61377 -5,23021 -3,63904 -3,93792 -4,16211  
scpi  6,159298 1,255672 -2,78642 -2,46545 -2,53946 -0,416  
tspc  -3,37852 -3,36331 -3,3164  -3,36288 -2,67328 -2,77335  

a)  \( X < 0 \) the company is non financial distress  
b)  \( X > 0 \) the company is experiencing financial distress  
d.  \[ Z_{avgren} Y = 0.23883 - 0.108INV - 1.583REC - 10.78CASH + 3.074QUICK + 0.486ROI - 4.35DEBT + 0.11TURN \]  
   (Yuliana : 2007)

### Tabel 4. Hasil Perhitungan Model Zavgren

<table>
<thead>
<tr>
<th>Perusahaan</th>
<th>2009</th>
<th>2010</th>
<th>2011</th>
<th>2012</th>
<th>2013</th>
<th>2014</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dvla</td>
<td>0,795685</td>
<td>1,154853</td>
<td>5,337639</td>
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<td>8,05721</td>
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<tr>
<td>Inaf</td>
<td>-10,3773</td>
<td>-1,47134</td>
<td>-9,99776</td>
<td>-0,0007</td>
<td>-8,0876</td>
<td>-3,0791</td>
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<tr>
<td>Kaef</td>
<td>-62,0093</td>
<td>-46,4704</td>
<td>-3,50998</td>
<td>-3,67273</td>
<td>1,53751</td>
<td>1,05212</td>
</tr>
<tr>
<td>Klbf</td>
<td>2,139343</td>
<td>5,125974</td>
<td>4,53918</td>
<td>4,70019</td>
<td>3,98021</td>
<td>4,63632</td>
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<tr>
<td>Merk</td>
<td>9,65509</td>
<td>10,83292</td>
<td>12,8306</td>
<td>5,14179</td>
<td>4,47629</td>
<td>2,47689</td>
</tr>
<tr>
<td>Scpi</td>
<td>5,262514</td>
<td>-1,18509</td>
<td>0,977296</td>
<td>0,983909</td>
<td>4,88019</td>
<td>4,17855</td>
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<tr>
<td>Tspc</td>
<td>3,090748</td>
<td>3,152653</td>
<td>2,900549</td>
<td>2,329599</td>
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</tr>
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</table>

### Tabel 5. Discrimination Zone calculation

<table>
<thead>
<tr>
<th>Cut off point</th>
<th>2009</th>
<th>2010</th>
<th>2011</th>
<th>2012</th>
<th>2013</th>
<th>2014</th>
</tr>
</thead>
<tbody>
<tr>
<td>Zavgren</td>
<td>5,438722</td>
<td>3,234693</td>
<td>8,046603</td>
<td>3,308479</td>
<td>7,248502</td>
<td>95,07449</td>
</tr>
<tr>
<td>t tabel</td>
<td>4,302653</td>
<td>4,302653</td>
<td>4,302653</td>
<td>4,302653</td>
<td>4,302653</td>
<td>4,302653</td>
</tr>
<tr>
<td>Rentang Interval Bawah</td>
<td>-1,13816</td>
<td>-0,35018</td>
<td>-5,28181</td>
<td>-0,54708</td>
<td>-2,82448</td>
<td>-490,74</td>
</tr>
<tr>
<td>Rentang Interval Atas</td>
<td>4,795734</td>
<td>4,957339</td>
<td>2,443562</td>
<td>4,323276</td>
<td>-137,53</td>
<td>-296,71</td>
</tr>
</tbody>
</table>

**Discrimination zone**

- **a.**  \( Y > X - t_{\alpha/2} \)  *is the lower limit of the range interval bankrupt*
- **b.**  \( Y > X + t_{\alpha/2} \)  *in the category of vulnerable*
  **c.**  \( X - t_{\alpha/2} \)  *the high limit of the interval ranges potentially bankrupt.  

**e.**  \[ Olishon O = -1,32 - 0,407A + 6,03B - 1,43X1 + 0,0757C - 2,37D - 1,83X7 + 0,285E - 1,72F - 0,521G \]  
   (Stevanus : 2014)
Dr. Norita, S.E., M.Si, Ak., CA1, Gustina Hidayat, S.E

Tabel 6. the result of Olhson calculation

<table>
<thead>
<tr>
<th>Perusahaan</th>
<th>2009</th>
<th>2010</th>
<th>2011</th>
<th>2012</th>
<th>2013</th>
<th>2014</th>
</tr>
</thead>
<tbody>
<tr>
<td>dvla</td>
<td>-1,95777</td>
<td>-2,40989</td>
<td>-2,82688</td>
<td>-3,0754</td>
<td>-3,08273</td>
<td>-3,11825</td>
</tr>
<tr>
<td>inaf</td>
<td>0,687519</td>
<td>-0,02823</td>
<td>18,76751</td>
<td>-1,49882</td>
<td>-3,39799</td>
<td>-0,42517</td>
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<tr>
<td>kaef</td>
<td>-0,54111</td>
<td>-1,54836</td>
<td>-2,61397</td>
<td>-3,24285</td>
<td>-4,48234</td>
<td>-5,08226</td>
</tr>
<tr>
<td>klbf</td>
<td>-11,473</td>
<td>-13,0369</td>
<td>-14,9019</td>
<td>-19,787</td>
<td>-21,7752</td>
<td></td>
</tr>
<tr>
<td>Merk</td>
<td>-2,33631</td>
<td>-1,80439</td>
<td>-3,01532</td>
<td>-1,74354</td>
<td>-2,49515</td>
<td>-2,56062</td>
</tr>
<tr>
<td>Scpi</td>
<td>6,97015</td>
<td>6,031465</td>
<td>2,148822</td>
<td>0,047365</td>
<td>0,312125</td>
<td>0,532551</td>
</tr>
<tr>
<td>Tspc</td>
<td>-5,80623</td>
<td>-6,29599</td>
<td>-7,27388</td>
<td>-7,89076</td>
<td>-10,0177</td>
<td>-11,2548</td>
</tr>
</tbody>
</table>

a. $O > 0.38$ the company experiencing financial distress
b. $O < 0.38$ the company experiencing non-financial distress

After knowing the score of each method, the test is done using a paired sample test. This technique is used to knowing whether the sample had an average pairwise which are clearly different. Based on the ten test paired sample test against six companies including experience a difference in predicting bankruptcy is among the Springate with Altman, Altman with Zmkijewski, Zavgren with Altman, Altman with Olhson, Springate with Zmijewski, and Springate with Olhson.

4.2 The model that has the highest accuracy values for predicting financial distress pharmaceutical companies that applied in Indonesia

The results of any model that has the potential to score experiencing distress or non-distress, and then compared with the initial sample categories, which correspond to the definition of financial distress by Luciana (2006) companies that have a value of negative equity and negative net income categorized as having potential financial distress. The obtained results prediction of the unknown prediction accuracy of each model, the accuracy rate indicates what percentage of the model correctly predicts the overall sample there. The level of accuracy of each model is calculated by, (predictions same amount / number of samples) x 100%. After calculation is based on the five models showed different predictions on seven companies during the six periods of the study, to clarify the recap results can be seen in the table:

Table 7. Potential Bankruptcy Prediction Recap

<table>
<thead>
<tr>
<th>Prediction</th>
<th>Altman</th>
<th>Springate</th>
<th>Zmijewski</th>
<th>Zavgren</th>
<th>Olhson</th>
</tr>
</thead>
<tbody>
<tr>
<td>ND-ND</td>
<td>31</td>
<td>30</td>
<td>37</td>
<td>19</td>
<td>36</td>
</tr>
<tr>
<td>GA-ND</td>
<td>5</td>
<td>3</td>
<td>9</td>
<td></td>
<td></td>
</tr>
<tr>
<td>D-ND</td>
<td>5</td>
<td>8</td>
<td>2</td>
<td>12</td>
<td>3</td>
</tr>
<tr>
<td>D-D</td>
<td>1</td>
<td>1</td>
<td>3</td>
<td>2</td>
<td>3</td>
</tr>
</tbody>
</table>

Accuracy 76% 74% 95% 50% 93%

Where: ND = Non Distress  GA = Grey Area  D= Financial Distress

According to the table, it can be seen that the model Zmijewski has an accuracy rate of 95% which is the highest among other models. Followed by models Olhson 93%, 76% Altman, Springate 74% and the latter is Zavgren 50%. So with that, it can be concluded that the highest prediction model accuracy for pharmaceutical
companies in Indonesia is a model Zmijewski. Zmijewski models using different theories, ie the ratio of profitability, volatility and leverage the condition of the company as the most important variable to predict financial distress. Sample selection methods used Zmijewski in study were randomly selected, so the number of firms in two categories (distress and non-distress) does not have the same amount.

5. Conclucion

1) From ten of testing methods there are six of them experienced a difference in predicting bankruptcies between Altman with Springate, Altman with Zmijewski, Altman with Zavgren, Altman with Olhson, Springate with Zmijewski, and Springate with Olhson.

2) The most suitable model applied to pharmaceutical companies in Indonesia and has the highest value of accuracy which is 95% is Zmijewski model.

References


Dantes, Nyoman Prof. Dr. 2012. Research Methods. Yogyakarta. CV Andi Offset


Luciana 2006 Prediksi financial distress company Go-pubic with menggunakan multinomial logit analysis.


www.pelita.or.id
The 6th Seminar & Conference on Business & Technology in ICT Industry (SCBTII 2015)

Measurement Model for Testing The Effect of Electronic Service Quality towards Customer Satisfaction
(A Study of Rakuten Belanja Online Indonesia)

Asprillya Balqist and Indrawati
Faculty of Economic & Business, Telkom University

Abstract.
The purpose of this research was to determine the measurement model that can be used to test the effect of electronic service quality toward customer satisfaction in Rakuten Belanja Online Indonesia. There are six dimensions of electronic service quality being used in this research that were predicted to influence the customer satisfaction. The dimensions are information, ease of use, website design, reliability, security and personalization. The data were collected by using purposive sampling by choosing the individuals which met the certain characteristics, in this case were people who had an experience shopping in Rakuten Belanja Online. The measurement model has been tested by using 30 respondents who have shopping experience in Rakuten Belanja Online. The pilot test reveals that the measurement model is valid and reliable to be used for further study.

Keywords: e-commerce, service quality, electronic service quality, customer satisfaction

1. Introduction

E-commerce become popular in global trade and already become the activities spread at a tremendous pace. The U.S department of Commerce defines e-commerce as “The sales goods and services where an order is placed by the buyer or price and term of sale are negotiated over the internet”. According to UCLA (University of California, Los Angeles) center for communication policy (2001), online shopping has become the third most popular internet activity, immediately following email using or instant messaging and web browsing. The amount of online shopping which able the transaction through the internet has been increased and revenue of online shop is estimated to increase (Liang and Lai, 2002; Rohm and Swaminathan, 2004).

Rakuten Belanja Online is subsidiary from Rakuen Inc. from Japan which is the largest B2B2C (Business-to-Business-to-Customer) e-commerce company in Japan and third largest e-Commerce Marketplace Company worldwide that established in 1997. Business to Business to Customer refers to a situation where one business makes a commercial transaction with another. According to alexa.com the popularity and visitor of Rakuten Belanja Online has been decrease significantly in early 2015. There are 222 complain to Rakuten Belanja Online from early 2015 until August 2015. The most complaint is about bad service from the Rakuten Belanja Online to the customer. The e-commerce business realizes the key success or failure is not determined by website presence and low price but also the electronic service quality (Yang, 2001; Zeithaml, 2002). Santos (2003) defined e-service quality as overall customer assessment and judgment of e-service delivery in the virtual marketplace. Providing service quality is a major issue especially in online shopping. With the good service quality, it will increase the customer satisfaction.

Analyzing factor that affect the electronic service quality toward customer satisfaction is needed in order to increase the total customer in Rakuten Belanja Online. So far, there is no published research regarding this matter yet. This research has an objective to propose a measurement model to analyze factors that affect electronic service quality toward customer satisfaction in Rakuten Belanja Online.
2. Literature Review

According to Parasuraman et al. (1988), service quality can be defined as an overall judgment similar to attitude towards the service and generally accepted as an antecedent of overall customer satisfaction. Parasuraman et al. (1988) have defined service quality as the ability of the organization (performance) to meet or exceed customer expectations. It is the difference between customer expectations of service and perceived service (Zeithaml et al., 1990). If expectations are greater than performance, then perceived quality is lower and result customer dissatisfaction (Parasuraman et al., 1985; Lewis and Mitchell, 1990). There were 5 determinants or components of service quality. Zeithaml, et al. (2010) describes these five determinants of service quality as:

1. Tangible
2. Empathy
3. Reliability
4. Responsiveness
5. Assurance

One of the first definitions of e-service quality is conceptualized by Zaithaml, Parasuraman and Maholtra (2002), they state that internet service quality is the extent to which a website facilities efficient and effective shopping, purchasing and delivery of products or services. Bressolles (2006) defined six dimension of electronic service quality, which are information, ease of use, website design, reliability, security and personalization.

Information: According to Bressolles and Nantel (2008) information is the extent to which the website provides relevant, accurate and in-depth information about products/services proposed. Information is important for customer in order to find the information of the product, the policies of the online shop, an etc. Poor quality of information can make dissatisfaction for the customer, influence the purchase decision, the ability to plan, implement and execute organizational policies (Redman, 1998).

Ease of Use: According to Al – Momani and Noor (2009) ease of use is defined as the degree to which a person believes that using an information system would be free of effort. Bressolles and Nantel (2008) also defined ease of use as ease of using the website, searching for information, navigation, and website organization and layout. According to Dong Jin Kim, Woo Gon Kim and Jin Soo Han (2007) the perceived ease of use has an influential impact on a person’s online shopping channel preference and satisfaction.

Website Design: Website design is crucial for online stores (Than&Grandon, 2002). Website design describes the appeal that user interface design presents to customer (Kim&Lee, 2002). According to Bressolles and Nantel (2008) website design is the appearance of the website items of its color, creativity and attractiveness. A website design is important to online shop (Tran & Grandon, 2002). Cho and Park (2001) conducted an empirical research to examine the e-commerce user customer satisfaction index (ECUSI) for internet shopping. They found that the customer satisfaction is assessed using the quality of website design. Wolfinbarger and Gilly (2003) found that website design factors are important as strong predictors of customer quality judgments, satisfaction and loyalty for internet retailers.

Reliability: Reliability refers to the ability to perform the promised service accurately and consistently, including frequency of updating the website, prompt replies to customer enquiries, and accuracy of online purchasing and billing, prompt deliveries and keeping personal information secure (Parasuraman, et al., 1998; Van Riel, Semeijn & Janssen, 2003; Janda, Trochcia & Gwinner, 2002; Kim & Lee, 2002; Lee & Lin, 2005). According to Bressolles and Nantel (2008) reliability is the ability of the service provider to deliver the correct product/service quickly and on time, as well as the quality of after-sale support. Reliability represents the ability of the website to fulfill orders correctly, deliver promptly, and keep personal information secure (Parasuraman et al., 1988; Janda et al., 2002; Kim & Lee, 2002). Zhue et al. (2002) argued that reliability has a positive impact to customer satisfaction.

Security: Security/privacy dimension is defined as the ability of the site protects customer information (Parasuraman, et al., 2005). According to Bressoles and Nantel (2008) security dimension is the ability of the service provider or website to instill a feeling of confidence and trust in the customer. The issue of
security/privacy has been important issue in online retailing and consumers are concern about it regarding the dangers and risks of releasing personal information to unknown sources (Van Riel, et al., 2003; Sharma & Sheth, 2004). The security/privacy dimension has been rated most critical when influencing non – purchasers perception of service quality and has also been shown to have strong impact on customer satisfaction (Szymanski & Hise, 2000).

Personalization: Personalization is how the web site responds to its customers in an online environment (Zeithml, et al., 2002a). Personalization is become the important thing to customer satisfaction because involves the individualized attention, personal thank you notes, and the availability of online shop to respond the message, question, comment or customer problem (Yang, 2001).

Customer Satisfaction: According to Oliver (1997) defined the customer satisfaction as the customer fulfilment response, it is a judgment that a product or service feature, or the product or service itself, provide a pleasurable level of consumption – related fulfillment, including levels of under – or over – fulfillment. Wolfinbarger and Gilly (2003) and Bressolles (2006) identify a positive link between six electronic service quality dimensions which are information, ease of use, website design, reliability, security, and personalization to customer satisfaction.

![Framework Diagram]

Tabe 1. Operationalization of variables

<table>
<thead>
<tr>
<th>Variable</th>
<th>Definition</th>
<th>Item</th>
<th>Reference</th>
</tr>
</thead>
<tbody>
<tr>
<td>Information</td>
<td>The extent to which the website provides relevant, accurate and in – depth information about product or service proposed.</td>
<td>This site provides detailed information about the products offered.</td>
<td>Bressolles&amp; Nantel (2008)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>This site provides detailed information about the service offered.</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>The information on this site is relevant.</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>The information on this site is précised.</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>The information on this site fulfills my needs.</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>The information on this site is easy to understand</td>
<td></td>
</tr>
</tbody>
</table>
| Ease of Use | Ease of using the website, searching for information, navigation and website organization and layout. | This site is easy to use.  
It is easy to search for information on this site.  
It is easy to navigate this site.  
It is easy to find what you are looking for on this site.  
The organization and layout of this site makes it easier to search for information.  
The layout of the site is clear.  
The layout of the site is simple.  
This site shows creativity. | Bressolles&Nantel (2008) |
|-------------|--------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------|--------------------------------------------------|
| Website Design | The appearance of the website items of its color, creativity and attractiveness | This site offers good illustrations of the product.  
This site offers good illustrations of the services.  
This site visually attractive.  
The design is appropriate for this type of site. | Bressolles&Nantel (2008) |
| Reliability | The ability of the service provider to deliver the correct product or service quickly and on time, as well as the quality of after - sale support. | This site provides information about delivery dates  
This site gives indications of product availability (quantities in stock).  
This site offers several types of delivery.  
The site explains the stages of the order process in detail.  
The site provides the contact details for customer services (e-mail, phone)  
I trust the overall security of the site. | Bressolles&Nantel (2008) |
| Security | The ability of the service provider or website to instill a feeling of confidence and trust in the customer. | This site offers functionality which makes it more secure.  
I think that my private life is protected on this site.  
I think that my financial information is protected on this site.  
I trust this site not to misuse my personal information | Bressolles&Nantel (2008) |
Personalization

How the website respond to its customers in an online environment.

I can interact with this site to receive personalized information

This site has interactive functions which help me to navigate.

This site records my preferences.

This site offers me extra services or information based on the preferences.

I can contact the company easily through this site

Customer Satisfaction

The perception of pleasure fulfillment of a service and loyalty as deep commitment to the service provider.

Would you say that overall this site is satisfied?

Would you recommend this site to a friend?

Would you like to visit the site again in the future?

Would you like to purchase from this site again?

I am satisfied with the products offered on this site.

I am satisfied with the services offered on this site

Measurements model: The best fit model in a study must be supported with a good measurement model which fulfills the reliability and validity requirements. The four basic approaches to establishing validity are content validity, face validity, construct validity and convergent validity. One of the measurement model is questionnaire. Content validity was obtained by the items from existing journal that will be used for the questionnaire, logically it is suitable for measuring the variables that will be measured (Indrawati, 2012). Select an existing item also suggested by by Churchil and Iacobucci (2005), Chew (2007) and Sekaran and Bougie (2010). Zikmund and Babin (2010) defined face validity as the subjective agreement among professionals that the items logically reflect the concept being measured. Ask for experts’ comments and suggestions in order to have good content validity as also suggested by Fink, Mitchell both cited in Hamidfar (2008). The questionnaire has been distributed to 30 people in order to test the readability of the questionnaire. After the questionnaire is readable, the next step is pilot test to prove if the questionnaire fulfills the construct validity (Indrawati, 2012).
3. Materials And Methods

The proposed model in this study has six independent variables which are Information (INF), Ease of Use (EOU), Website Design (WD), Reliability (RLB), Security (SC) and Personalization (PER). The dependent variable in this study is customer satisfaction. Operational variables in this research can be seen in Table 1.

Validity and Reliability Test: Validity is how well the items of the questionnaire measure the particular construct intended to measure, while the reliability of a measure indicates the extent to which it is without bias (error free) and hence ensures consistent measurement across time and across the various items in the measurement (Sekaran and Bougie, 2010). The item can be stated as valid if the Corrected Item – Total Correlation (CITC) is more than 0.361. The item can be state as reliable by testing for both consistency and stability. Cronbach’s alpha (α) is the most commonly applied estimate of a multiple – item scale’s reliability. Cronbach’s alpha ranges in value from 0, meaning no consistency, to 1, meaning complete consistency. Scales with coefficient α between 0.80 and 0.95 are considered to have very good reliability. Scales with coefficient α between 0.70 and 0.80 are considered to have good reliability and α value between 0.60 and 0.70 indicates fair reliability. When the coefficient α is below 0.6. The scale has poor reliability (Zikmund and Griffin, 2010).

4. Results And Discussion

A pilot study of the questionnaire was conducted to obtain a good instrument that fulfills the reliability and validity requirements, especially those of construct validity. The questionnaire has been distributed to 30 respondents. The questionnaire is written in English language and Bahasa Indonesia. The questionnaires were distributed to respondents by the researchers through a google drive. The validity and reliability of the questionnaires were analyzed using the SPSS software. The results of the pilot study are presented in following.

Table 2. The CITC and CA values of Information Variable

<table>
<thead>
<tr>
<th>Item codes</th>
<th>CITC</th>
<th>CA</th>
</tr>
</thead>
<tbody>
<tr>
<td>INF1</td>
<td>0.855</td>
<td>0.933</td>
</tr>
<tr>
<td>INF2</td>
<td>0.878</td>
<td></td>
</tr>
<tr>
<td>INF3</td>
<td>0.772</td>
<td></td>
</tr>
<tr>
<td>INF4</td>
<td>0.792</td>
<td></td>
</tr>
<tr>
<td>INF5</td>
<td>0.788</td>
<td></td>
</tr>
<tr>
<td>INF6</td>
<td>0.765</td>
<td></td>
</tr>
</tbody>
</table>

Table 3. The CITC and CA Values of Ease of Use Variables

<table>
<thead>
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<th>CA</th>
</tr>
</thead>
<tbody>
<tr>
<td>EOU1</td>
<td>0.632</td>
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</tr>
<tr>
<td>EOU2</td>
<td>0.624</td>
<td></td>
</tr>
<tr>
<td>EOU3</td>
<td>0.575</td>
<td></td>
</tr>
<tr>
<td>EOU4</td>
<td>0.767</td>
<td></td>
</tr>
<tr>
<td>EOU5</td>
<td>0.778</td>
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<td>EOU6</td>
<td>0.788</td>
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</tr>
<tr>
<td>EOU7</td>
<td>0.893</td>
<td></td>
</tr>
</tbody>
</table>

Table 4. The CITC and CA Values of Website Design Variable

<table>
<thead>
<tr>
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<th>CA</th>
</tr>
</thead>
<tbody>
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<td>EOU1</td>
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<td>0.924</td>
</tr>
<tr>
<td>EOU2</td>
<td>0.824</td>
<td></td>
</tr>
<tr>
<td>EOU3</td>
<td>0.860</td>
<td></td>
</tr>
<tr>
<td>EOU4</td>
<td>0.811</td>
<td></td>
</tr>
<tr>
<td>EOU5</td>
<td>0.855</td>
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</tbody>
</table>
Table 5. The CITC and CA values of Reliability Variable

<table>
<thead>
<tr>
<th>Item codes</th>
<th>CITC</th>
<th>CA</th>
</tr>
</thead>
<tbody>
<tr>
<td>RLB1</td>
<td>0.781</td>
<td>0.876</td>
</tr>
<tr>
<td>RLB2</td>
<td>0.845</td>
<td></td>
</tr>
<tr>
<td>RLB3</td>
<td>0.762</td>
<td></td>
</tr>
<tr>
<td>RLB4</td>
<td>0.692</td>
<td></td>
</tr>
<tr>
<td>RLB5</td>
<td>0.711</td>
<td></td>
</tr>
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</table>

Table 6. The CITC and CA values of Security Variable

<table>
<thead>
<tr>
<th>Item codes</th>
<th>CITC</th>
<th>CA</th>
</tr>
</thead>
<tbody>
<tr>
<td>SC1</td>
<td>0.857</td>
<td>0.898</td>
</tr>
<tr>
<td>SC2</td>
<td>0.780</td>
<td></td>
</tr>
<tr>
<td>SC3</td>
<td>0.872</td>
<td></td>
</tr>
<tr>
<td>SC4</td>
<td>0.794</td>
<td></td>
</tr>
<tr>
<td>SC5</td>
<td>0.745</td>
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Table 7. The CITC and CA values of Personalization Variable

<table>
<thead>
<tr>
<th>Item codes</th>
<th>CITC</th>
<th>CA</th>
</tr>
</thead>
<tbody>
<tr>
<td>PER1</td>
<td>0.662</td>
<td>0.900</td>
</tr>
<tr>
<td>PER2</td>
<td>0.681</td>
<td></td>
</tr>
<tr>
<td>PER3</td>
<td>0.713</td>
<td></td>
</tr>
<tr>
<td>PER4</td>
<td>0.748</td>
<td></td>
</tr>
<tr>
<td>PER5</td>
<td>0.818</td>
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</tr>
</tbody>
</table>

Table 8. The CITC and CA values of Customer Satisfaction

<table>
<thead>
<tr>
<th>Item codes</th>
<th>CITC</th>
<th>CA</th>
</tr>
</thead>
<tbody>
<tr>
<td>CS1</td>
<td>0.870</td>
<td>0.937</td>
</tr>
<tr>
<td>CS2</td>
<td>0.831</td>
<td></td>
</tr>
<tr>
<td>CS3</td>
<td>0.788</td>
<td></td>
</tr>
<tr>
<td>CS4</td>
<td>0.893</td>
<td></td>
</tr>
<tr>
<td>CS5</td>
<td>0.798</td>
<td></td>
</tr>
<tr>
<td>CS6</td>
<td>0.846</td>
<td></td>
</tr>
</tbody>
</table>

**Information; results of pilot study:** Table 2 presents the pilot study results for the Corrected Item-Total Correlation (CITC) and Cronbach’s Alpha (CA) values for all six items of the Information (INF) construct. The 0.933 CA value indicates that the information construct has good reliability. Each item of Information construct has value of CICT above 0.361 which indicates that the items have good validity.

**Ease of Use; results of pilot study:** Table 3 presents the pilot study results for the Corrected Item-Total Correlation (CITC) and Cronbach’s Alpha (CA) values for all seven items of the Ease of Use (EOU) construct. The 0.881 CA value indicates that the ease of use construct has good reliability. Each item of Ease of Use construct has value of CICT above 0.361 which indicates that the items have good validity.

**Website Design; results of pilot study:** Table 4 presents the pilot study results for the Corrected Item-Total Correlation (CITC) and Cronbach’s Alpha (CA) values for all five items of the Website Design (WD) construct. The 0.924 CA value indicates that the website design construct has good reliability. Each item of Website Design construct has value of CICT above 0.361 which indicates that the items have good validity.
Reliability; results of pilot study: Table 5 presents the pilot study results for the Corrected Item-Total Correlation (CITC) and Cronbach’s Alpha (CA) values for all five items of the Reliability (RLB) construct. The 0.876 CA value indicates that the reliability construct has good reliability. Each item of Reliability construct has value of CITC above 0.361 which indicates that the items have good validity.

Security; results of pilot study: Table 6 presents the pilot study results for the Corrected Item-Total Correlation (CITC) and Cronbach’s Alpha (CA) values for all five items of the Security (SEC) construct. The 0.898 CA value indicates that the security construct has good reliability. Each item of Security construct has value of CITC above 0.361 which indicates that the items have good validity.

Personalization; results of pilot study: Table 2 presents the pilot study results for the Corrected Item-Total Correlation (CITC) and Cronbach’s Alpha (CA) values for all five items of the Personalization (PER) construct. The 0.900 CA value indicates that the personalization construct has good reliability. Each item of Personalization construct has value of CITC above 0.361 which indicates that the items have good validity.

Customer Satisfaction; results of pilot study: Table 2 presents the pilot study results for the Corrected Item-Total Correlation (CITC) and Cronbach’s Alpha (CA) values for all six items of the Customer Satisfaction (CS) construct. The 0.937 CA value indicates that the customer satisfaction construct has good reliability. Each item of Customer satisfaction construct has value of CITC above 0.361 which indicates that the items have good validity.

5. Conclusion

The measurement model proposed in this study has been tested by using 30 respondents who live in Indonesia. They are respondents that have shopping experience in Rakuten Belanja Online. The pilot test reveals that the measurement model which consists of 7 constructs and 39 items proposed in this study is valid and reliable. Therefore, this proposed measurement model is ready to be used in further study.

References


Analysis Changes in Exchange Rate Against US Dollar in Nine Months

Hendratno
Manajemen Bisnis Telekomunikasi dan Informatika
Faculty of Economic and Business, Telkom University
hendratno@telkomuniversity.ac.id

Abstract

World market conditions in an event in one country affect the global market conditions. This poses a significant risk to the value of a company's liabilities or claims in foreign currency, which will mature in the future. To cover the risk of the future of the businesses that have the value of foreign exchange transactions were large enough, should hedge or a hedge against liabilities. By hedging will occur additional burden on companies, but this must be done in an effort to minimize losses is much greater. There are several hedging instruments to choose a company that has debt in foreign currency (USD) can pick and adapted to the needs of each company. Average calculation that; any increase of Rp 500, - USD exchange rate against the rupiah, will result in additional liabilities / debts amounting to 4% of total liabilities.

Keywords: Exchange Rates; Debt; Hedging

1. Introduction

Use values of the rupiah against the US dollar by the end of 2014 around Rp 12,500, - / USD, but at the end of September 2015 has exceeded the range of Rp 14,500, - / USD. Skyrocketing USD exchange rate cannot be separated from the law of supply and demand, it is clear this is due to the increasing need / demand for USD ongoing. Of course, many other factors are more fundamental occurrence of such event, either due to the condition of the internal situation in the country, as well as other factors beyond the state. Internal factors include: the need to repay debts USD domestic private companies and state-owned enterprises (SOEs) and government debt. Position the end of 2014; Foreign debt of the private sector, including state-owned companies, reached $ 167 billion. Government foreign debt properly controlled. Related to private sector debt existing BI regulations is to safeguard the health of foreign debt.

The amount of overall debt position early in 2015 reached USD 300 billion (USD 3,752 million) with the composition of USD 167.16 billion (USD 2,089, - million) of private debt, including state-owned companies, while the government debt of USD 128 billion (USD 1,601, - trillion) and Bank Indonesia no debt amounted to USD 4.91 billion (USD 61, - trillion) Data: BI beginning of 2015. Figures in rupiah at Rp Exchange. 12.500, - / USD, while the end of the month of September 2015 exchange rate reached Rp 14.500, - / USD. Average calculation that any increase in the exchange rate of Rp 500, - USD will increase by 4% in the number of rupiah, with the increase in the exchange rate during the 9 months amounted to Rp 2,000, - calculation of the debt in rupiah would increase by about 20%. Assuming the amount of debt remain so in the current debt within the USD will increase as follows (rounded):

<table>
<thead>
<tr>
<th>NO</th>
<th>INSTITUTION</th>
<th>DEBT (In thousands USD)</th>
<th>PER JAN. 2015 (In Billion Rp)</th>
<th>PER SEPT. 2015 (In Billion Rp)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Private</td>
<td>167,000,000</td>
<td>2.089,000,000</td>
<td>2.423,874,000</td>
</tr>
<tr>
<td>2</td>
<td>Government</td>
<td>128,000,000</td>
<td>1.601,000,000</td>
<td>1.857,316,000</td>
</tr>
<tr>
<td>3</td>
<td>BI</td>
<td>61,000,000</td>
<td>61.000,000</td>
<td>71.273,000</td>
</tr>
</tbody>
</table>

For companies whose debt in USD was very unfavorable conditions would even threaten efforts to gain the advantage. A rough calculation that if the gain in one year than the debt (return on debt) is less than 20% while the increase in the debt reaches 20%, the gains will be eroded / exhausted because of the increase in USD exchange rate. Besides the cause of the country, the increase in USD exchange rate caused by external factors, among others: the conditions are quite dynamic development of the world, among others the conditions in Russia, in America there /
FED trend of rising interest rates, oil prices, devaluation of the Chinese Yuan and others. Surely this was anticipated by the government and authorities (Bank Indonesia). Related to the debt burden of USD of private companies and state enterprises, the Government implement Bank Indonesia regulation on hedge (hedging) against any foreign borrowing of domestic private and state-owned companies.

Problems:
Of phenomena, in this paper the problem is:

1. What is the impact load of the companies that have liabilities / debt denominated in USD, while the rupiah weakened continue
2. How best to avoid losses due to exchange rate changes.

The scope of the problem by limiting discussion of observation on companies who pick debt denominated in USD. The research method is based terori related literature and articles / posts related, opinions and predictions of analyzes conducted by financial experts who write in the media.

2. Literature Review

The Indonesian Wikipedia: that hedging or in English called hedge or hedging in the financial world can be interpreted as an investment made in particular to reduce or eliminate risks involved in an investment in the other. Hedging is a strategy that was created to reduce the incidence of unexpected business risks, while maintaining the possibility to benefit from the investment.

A hedger or perpetrators hedging will typically invest in a security that is believed to have a price below market value should be and combine them with other securities relating to these securities. Holbrook Working, a pioneer of the theory of hedge mention this theory to the term "Speculation in the base" (basic speculation), which is essentially the difference between the theoretical value hedge with real market value.

Hedging Definition Etymologically, hedge funds comes from the English language meaning "hedge". In terminological, in a comprehensive dictionary of economic mentioned that hedging is an action to reduce the uncertainty about price movements in the future of a "commodity" (commodity) "securities" (financial security) and "foreign currency" (foreign currency). (Christopher Pass and Bryan Lowes Leslie Davies, Complete Dictionary of Economics, trans. Drs, Tumpal Rumapea, MA, Drs. Damos OVY Sihombing, MBA, vol II, p. 112). Hedging devices that most people do in the world, among others: forward contracts, options, futures contracts, and swap contracts. Overall this device is essentially equally an agreement to buy or sell an asset at a certain time for a certain price anyway. The only difference is a tradable commodity. Forward contracts and swap contracts using specific instruments mainly on currencies, futures contracts EAM use commodities, while the option could encompass almost all commodities including stocks, bonds, currencies, and futures contracts.

According to Demo (1996); hedging can be grouped into three; (a) Straight Hedge is an attempt to create a symmetrical between cash flows of assets and instruments hedge its (b) Opinion Hedge ie as we buy insurance (insurance here is in terms of function rather than the institutional side) and (c) Speculative Hedge namely is high risk because of a combination of several assets of hedge instruments in which cash flows cannot be systematically with each other.

3. Research Methodology

With the method of literature that is based terori related problems and presented in the article, opinions and predictions of analyzes conducted by financial experts who write in the media. To analyze the problem by taking into account the implementation of the implementation of hedging (hedging).

4. Discussion

Three In describing the importance of hedging is in order to minimize the losses of the company due to the falling value of the rupiah against the US dollar, by understanding the movement of the exchange rate over time. At the beginning of 2015 is the exchange rate at Rp. 12.500, - / USD while at the end of September 2015 reached Rp. 14.500, - / USD. In this discussion presented analysis of financial experts, predicted, the spotlight on the government's policy.
on the movement of exchange rate changes, namely the exchange rate against the USD were taken and selected from the media in September 2015. While the movement of the exchange rate against the USD on 10 September to 29 September 2015 as follows:

<table>
<thead>
<tr>
<th>Date</th>
<th>Exchange Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>10 Sep 2015, Thu</td>
<td>14,320.00</td>
</tr>
<tr>
<td>11 Sep 2015, Fri</td>
<td>14,320.00</td>
</tr>
<tr>
<td>14 Sep 2015, Mon</td>
<td>14,340.00</td>
</tr>
<tr>
<td>15 Sep 2015, Tue</td>
<td>14,400.00</td>
</tr>
<tr>
<td>16 Sep 2015, Wed</td>
<td>14,450.00</td>
</tr>
<tr>
<td>17 Sep 2015, Thu</td>
<td>14,450.00</td>
</tr>
<tr>
<td>18 Sep 2015, Fri</td>
<td>14,385.00</td>
</tr>
</tbody>
</table>

Some financial analysts result of the movement of the exchange rate against the USD as published in Liputan6.com as follows:

**Agustina Melani / September 3, 2015:**

**Anticipation of the Fed Interest Rates, Rupiah Touch 14 170**

Analyst PT Bank Brothers Tbk, Rully Nova said market participants await US interest rate hikes. Moreover, US economic data tend to be variations ranging from employment data improved, while the manufacturing index weakened. While from domestic factors, Rully said market participants were looking forward to stimulus economic policy package that will be announced early next week. There was also the release of Bank Indonesia's foreign exchange reserves. "The possibility of foreign exchange reserves decline. The market is still wait and see".

**Septian Deny / September 3, 2015:**

**Step BI is right**

Chief Economist of Bank Negara Indonesia (BNI) Ryan Kiryanto stated efforts by Bank Indonesia (BI) in dealing with the turmoil weakening of the rupiah against the US dollar (US) is right, namely preventing the exchange rate is not weakened towards deeper so already on the track, policy-policy BI that nature already preemptive, meaning that before anything happens, BI has created fences or signs ". One of the BI policy is considered to help improve the position of the rupiah against the dollar that change limits the maximum value of purchase currency through spot transactions conducted without a specific purpose (underlying). "The most recent example, BI makes the policy of limiting foreign exchange by individuals who under laying transaction, which was US $ 100 thousand per month per person, lowered to US $ 25 thousand.

**Agustina Melani / September 4, 2015:**

**Rupiah Will Return Risen So Popular**

The weakening rupiah touched Rp 14,000 per US dollar (US) to watch out for the government, but the depreciation of the exchange rate is estimated to be only temporary and should be strengthened to return to the level of the range of 12,500 / USD up to 13,000 / USD. Economist at the University of Gajah Mada (UGM) in Yogyakarta, Tony Prasetiantono rate, the government needs to be aware of potential crisis that always haunt the economy of this country, although this time Indonesia has not been included in these conditions. Tony believes the exchange rate will bounce back because of any weakness there must be a limit. Likewise with the strengthening of the US dollar because the State of also feeling the effects of this phenomenon of super dollars. Cabinet Secretary, Pramono Agung said that: the government will overhaul the massive rule so as to bring the flow of capital from foreign investors.

**Yuliardi Hardjo Putro / September 4, 2015:**

**Stronger US dollar, BI urges Entrepreneurs Take advantage BGSA Facilities:**

Bank Indonesia seeks to maintain the exchange rate against the US dollar (US) that does not deteriorate. One of them by utilizing soft bilateral guarantee agreement (BGSA) that transact import export to several countries, mainly China
using the yuan. That is, the payment of import-export transactions to China do not have to go through the transit exchange with the United States dollar (US). This transit can directly use the exchange rate with the yuan.

**Fiki Ariyanti, September 6, 2015:**
**Missing investor confidence, Rupiah Makin Alarming**
The rupiah exchange rate that has almost approached the level of 14,200 / USD cannot be separated from the loss of confidence of market participants and investors to invest in Indonesia. So that there is a large inflow of foreign capital out of the country. CSIS Senior Economist, Pande Raja Silalahi said the weakening of the rupiah is closely related to the negative sentiment in the country. Another factor for reasons of national and global economic slowdown, the most prominent of which hit the exchange rate is a non-economic issues. "The lack of public and investor confidence to drive the economy of Indonesia. There is a signal inconsistency of the government, as the economy is slowing but still post high targets". The realization of infrastructure development is very slow. That is evidenced by the absorption of the government budget for capital expenditure and infrastructure is still very low. Problems internal increasingly severe due to lack kompakaban Labor Cabinet ministers that could affect the measures taken for the Indonesian nation.

**Ifsan Lukmannul Judge, September 7, 2015:**
**Rupiah increasingly eroded, Touch Level 14 249 / USD**
Due to an improving US employment boost expectations of a rate hike amid US stimulus policy which will be announced by the government. Analyst PT Bank Brothers Tbk, Rully Nova said, the weakening rupiah because of the improvement in the US employment data to improve market participants' expectations for the rise in US interest rates. US Labor Department report released on Friday last week, data showed nonfarm payrolls increased 173 thousand last month, slowing from a rise in July were revised to increase 245 thousand. Sedangkaan unemployment rate fell to 5.1 percent, the lowest in more than seven years, thus increasing expectations of rising US interest rates. Since the end of last year, sentiment rise in US interest rates has continued to make strong dollar and suppress almost all major world currencies and currencies in developing countries such as Indonesia. Strengthening of the US dollar grew when the Central Bank of China lowered the exchange rate of the yuan, or devalued by approximately 2% for three consecutive heart.

**Fiki Ariyanti, September 7, 2015:**
**Rupiah and JCI Shaken and Reaction Two Ministers Jokowi**
The stock market and financial markets buffeted Indonesia back shaking due to negative sentiment from rising market expectations on interest rate hike United States (US). The rupiah sinking to the level of 14 277 per US dollar and Stock Price Index (CSPI) fell 112.07 points to 4301.36. Minister of Finance (Finance), Bambang Brodjonegoro cause of the weakening rupiah and JCI today (07.09.2015) more due to negative sentiment from regional and global. "There is an element of regional and global sentiment. That time in Turkey (event G20), the market reaction is not good on Monday," he said after a working meeting with the 2016 Budget Bill Banggar in Parliament, Jakarta. To improve the national economy today, the government launched a package of economic policy as a stimulus to strengthen the Indonesian economy. "The most important policy package about deregulation, strengthening the purchasing power through the village funds, and efforts to bring dollars from outside. That's the big picture," The Government will direct the acceleration of the absorption of funds from the central village of Rp 20.7 trillion and Rp 30 trillion area. "So almost Rp 50 trillion, and if it is used properly, the effect was good," While the Coordinating Minister for Economic Affairs Nasution added, the economic policy package will be released two days, especially the deregulation policy.

**Ifsan Lukmannul Judge, September 10, 2015:**
**Policy Package Release, Rupiah fact Collapsing to 14 340**
The rupiah exchange rate against the USD back under pressure on Thursday (09/10/2015) due to the strong expectations of rate hikes amid dollar demand is still high. Positive sentiment over economic policy package announced by the president of Joko Widodo was strong sentiment from outside the offset. Economist of PT Bank Danamon Indonesia Tbk, Dian Ayu YUSTINA say, weakening rupiah due to strong external factors, such as high expectations of US interest rates and the lack of improvement in the economy in China. "Soon FOMC, US data (economic data) good, while China has been no change."

In a poll conducted by the Wall Street Journal, most economists and analysts estimate that the Fed will raise interest rates this year. But the increase will not be made in September, but by December. Meanwhile, the positive sentiment
on the deregulation and economic stimulus that describe the government has not seen the impact to the exchange rate. “The impact is yet to be seen, but the existing policy is quite positive”. This package is expected to drive the national economy for the better. “The government is proceeding with efforts to drive the national economy. Therefore, the government today launched the first phase of the economic policy package, September 2015 consisting of three steps”. The first step to overcome the economic problems is to boost the competitiveness of national industry, through deregulation, de-bureaucratization, as well as law enforcement and business certainty. He explained that there are 89 regulations that overhauled regulation of 154, which is considered to hamper the competitiveness of national industries. In addition, it is also already prepared 17 draft regulations, 11 draft presidential decree, two draft presidential instruction, 63 draft ministerial regulation and 5 other rules. "The government is committed to resolve all the deregulation package in September and October 2015." The second step, the government will accelerate the national strategic projects by eliminating various obstacles in the implementation and completion of a national strategic project. The Government will also strengthen the role of heads of regions to conduct and support accelerated implementation of national strategic projects. Third step, increase investment in the property sector. The government issued a policy to encourage the construction of housing, particularly for low-income people, as well as open up greater investment opportunities in the property sector ."

Achmad Dwi Afriyadi, September 16, 2015:
Weakening Rupiah No Need feared
Ahead of the decision of the Central Bank of the United States (US) or The Federal Reserve (Fed) to raise the benchmark interest rate, the exchange rate against the dollar weakened. Even in intraday trading, the exchange rate has almost touched the figure of 14,500 per dollar. Vice President of Research and Analysis Valbury Asia Securities, Nico Omer Jonckheere said, psychologically exchange rate will break the level of 15,000 per dollar. "Approximately 15,000 per US dollar because I believe that much can weaken a little and to get there," however, does not need to be addressed with a negative, it's positive because other countries also weakened. Economist of PT Bank Central Asia Tbk (BCA), David Sumual added, the rupiah was dependent on the Fed's decision. This condition is similar to when the Fed reduces the stimulus (tappering off) in 2013 ago. He said the position of the exchange rate fluctuates depending on the release of the Fed. "So I think the next two-day meeting will be the focus of the market going up or down. It is possible to weaken or strengthen. Depending on the release. If the release of aggressive rupiah weakened. If the statement could strengthen moderate".

Ifsan Lukmannul Judge, September 18, 2015:
Post announcement of the Fed, Rupiah Move Horizontal
Post-US interest rate policy announcement on Thursday afternoon (Friday morning Jakarta time), the exchange rate to move the narrow range. Rupiah does not fall too deep because the central bank also decided to hold the benchmark rate.

Fiki Ariyanti, September 20, 2015:
Push Rupiah, BI Should Bond Market Intervention
Rupiah exchange rate was almost touching 14,500 per US dollar (US) has been blamed as a deliberate government and Bank of Indonesian (BI). Danareksa Research Institute economist Purbaya Yudhi Sadewa said, the issue of stabilizing the rupiah is the responsibility of BI, not the government. But he acknowledges, BI ever one step forming market expectations for policy. "A few months ago, around February or March, the central bank absorbed a lot of dollars that foreign reserves rose. Without realized that his pace caused the market to dryness US dollar and the market thinks we want to weaken the exchange rate," Expectations are deliberately weakening rupiah is embedded in the minds of market players, thus difficult for the central bank to reverse the situation. However, further Purbaya, BI finally insyaf to re-fix the expectations after passing 14,000 rupiah per US dollar. "BI Insyaf and want to reverse expectations, but still just one step. Sometimes intervention in the foreign exchange market is not clear, and they are still shy of intervention in the bond market, so the price of the bond we corrected," he explained. Worse yet, said former Deputy III for Strategic Issues Management Office of the Presidential Staff, while bond prices fell, foreigners who invest in a portfolio of bonds in Indonesia fear and ultimately switch to the US dollar. "This step adds pressure to the exchange rate.
So BI is not optimal to control the exchange rate, "said Purbaya. He suggested that BI is able to give a positive signal
that the Central Bank so expect the exchange rate to strengthen. The trick, he continued, BI must be clear in intervention in the bond market, the Central Bank must more actively buy these bonds. "Nearly 40 percent of bondholders us foreigners. If they are afraid grasp Indonesian bonds, the impact would be very significant if they exit or sell obligasinya. BI do not be afraid to buy bonds without having to wait the price is cheap ".

Ifsan Lukmannul Judge, September 28, 2015:
The Fed sentiment Rupiah Drag Touch to Level 14 738 / USD
Continuing weaken against the US dollar (US) in trading Monday this week. It was triggered by strengthening expectations of a rate hike United States (US) by the end of this year. Head of Research and Analysis Division PT Monex Investindo Futures, Ariston Tjendra said that the weakening of the rupiah is still depressed US rate hike expectations. "Friday gross domestic product (GDP) in the 2nd quarter the US released pretty good, exceeding expectations. 3.9 percent vs. 3.7 percent. This supports expectations of US interest rate hikes this year. Besides that Janet Yellen in a speech on Friday early day also still open opportunities rate hike at the end of the year ". Indonesian economic data is still not good enough, so no that support the strengthening of the rupiah against the US dollar. On Monday's trading Ariston estimate rupiah trading around 14,680 to 14,800 per dollar.

Ifsan Lukmannul Hakim, 30 Sep 2015:
Economy Package Volume II Build Stronger amount to 14.678 per US dollar
The rupiah exchange rate to move higher, a little away from the lowest point in 17 years, in trading Wednesday (30/09/2015). The main sentiment driving the strengthening rupiah is the release of the Economic Policy Package Volume II which responded positively by the market participants. Economic Policy Package Volume II has been shunted by the government on Tuesday (09/29/2015) at around 16:30 pm at the Presidential Palace, Jakarta. The package focuses on sectors of industry, finance, and export. In the Economic Policy Package Volume I, the government prefers amount. There are hundreds of rules to be deregulated in the package that eventually the government focus more on the numbers and not the action that must be done. In other words, in the Economic Policy Package Volume I prefer the quantity that is actually quite an important substance poorly communicated to market participants. "So eventually the policies adopted, under the direction of Mr. President, we do not need a lot, but the important thing is kicking," said Nasution at a press conference Economic Policy Package Volume II at the presidential palace, Jakarta, Tuesday (29/09/2015).

In Volume II of Economic Policy Package, the government prefers quality or in other words services favor. "So c epat for investment. In this package, permits for industrial investment no longer takes a long time, "he added. Previously, Nasution has asserted that the Economic Policy Package Volume II is not as much an economic policy package Volume I were first announced at the beginning of this month. This is so the policies issued in this package focus on the problem to be resolved by the government. Economic Policy Package Volume II will get a positive response for market players, business and industrial sectors. "The name is the situation is like this, so do not ever (pessimistic). That's all people are more likely right, look left, look right first, and it would like you say, he always had a reason to talk like this is so, "he said. (ILH / Gdn)

Pebrianto Eko Wicaksono, 30 Sep 2015:
BI Optimistic Rupiah Gains in 2016
Bank Indonesia (BI) Optimistic of the rupiah against the US dollar (US) to bounce back in 2016. This was caused by the improvement of economic conditions in the future. BI deputy governor, Perry Warjiyo said, certainty about interest rate hikes by the US central bank or the Federal Reserve (Fed) has started to clear in 2016, thereby affecting the strengthening of the rupiah. "The rupiah exchange rate against the US dollar will strengthen in 2016. One uncertainty regarding interest rates is obvious. Factors of uncertainty is reduced, "Perry said in the Office of Bank Indonesia, Wednesday (09/30/2015).

Perry added, kepasian will also dampen economic turmoil, so that economic activity back on track. "Economic activity in the future will be better, positive factors will be dominant," said Perry. Besides the positive impact of the policy conducted by the government this time will be felt, investing foreign capital investment (PMA) will arrive so that the investment will increase. "The three policy relaxation, deregulation, FDI will be a big plus next year. This becomes three factors movement of the exchange rate strengthened in next year, "said Perry. As is known, the BI rate fell 15.12 percent from the level of 12 440 rupiah per US dollar (US) on 31 December 2014 to 14 657 per US dollar. (Pew / Ahm)
The parties affected by significant changes in the rupiah currency:
With the decline of the rupiah against the US dollar, there will be parties directly affected, one party gains and the other party to bear the loss.

The beneficiaries:
First, depositors in the Dollars. Second, the exporters. Third, entrepreneurs engaged in tourism. Fourth, the freelance workers because they are paid in dollars while spending the rupiah currency. Fifth, the salary of migrant workers abroad is the same thing with freelancers.
While parties bear the loss; First, the importers, who rely on raw materials from abroad with the dollar price. Second, borrowers who have a debt to the value of the dollar. Third, the offender businesses that sell electronic goods, automotive parts and industrial products imported raw materials. Fourth, the impact on interest rates. The weakening of the rupiah will have an impact on interest rate hikes. Higher interest rates will inhibit the growth of credit. The weakening rupiah will trigger a high risk of non-performing loans (non-performing loans / NPL). Fifth, they will travel or study abroad, because of increased costs.
The burden of the companies that have debt denominated in USD, while the rupiah weakened continue
Companies that have debt denominated in USD will require foreign exchange transactions it is strongly associated with world market conditions in which an event in one country affect the global market conditions at that time. Unstable market conditions may pose a significant risk to the value of a liability or claims in foreign currency which will be due within a certain time period in the future, so that at maturity requires the preparation of a reserve currency USD. This will be exacerbated if the joint needs USD is done, then there is a great demand in certain periods and usually occurs at the end of the year. Assuming the calculations every increase of Rp 500, - USD rate will increase 4% the obligation to pay the loan principal with the USD exchange rate increased sharply would increase the burden of the company.

Minimize losses due to exchange rate changes.
It's natural that corporate managers seek to avoid greater losses because the fall of the rupiah against the US dollar, while the exchange rate of USD soared due to factors both domestic and global factors. The biggest issue on the rising USD rate is the Fed will raise interest rates. But according to some analysts; there are several factors that caused the rupiah still depreciate even though the Fed does not raise interest rates, among others, (1) there has been no positive developments of the problem China's economic slowdown, pembangan Asian market and developing countries today is less conducive (2) The current withdrawal of foreign funds from Indonesia is considered to be too large, and still continuing (3) Bank Indonesia has a very narrow space to act in the middle of the dilemma of national economic slowdown and the depreciation of the rupiah and foreign exchange inventories depleted. Bank Indonesia decision last week to leave interest rates remain at 7.5 per cent is one of the indicators (4) most of the foreign debt Indonesian public sector is long-term debt and only about 25% of private sector external debt is short-term loans. At the same time, a number of companies will be threatened default if depression Rupiah continues, due to high exposure and no in-hedging.
Thus, to minimize losses due to exchange rate changes, the company has debts in foreign currencies especially USD must be hedged. Surely this would add to the burden on companies to pay a premium hedging, but by doing additional hedging in front so that the load can be taken into account in anticipation of an early and risks can be minimized.

5. Conclusion

The business in Indonesia is closely related to world market conditions in which an event in one country affect the global market conditions at that time. Unstable market conditions may pose a significant risk to the value of a liability or claims in foreign currency which will be due within a certain time period in the future. To cover the risk of the future of the businesses that have foreign exchange transaction value large enough to do hedging or hedge against liabilities.
Implementation of additional hedging will impact the company's expense, but this is one of anticipation to avoid greater losses. Some hedging instrument can be selected and as the manager of the company must a kanmelilih most profitable and adapted to the conditions of their respective companies.
References

Analysis Of Consumer Protection Rules Effectiveness (Studies SMS Spam At PT. Indosat, Tbk)

Adiza Fatin Haikal¹, Helni Mutiarsih Jumhur²
Prodi S1 Manajemen Bisnis Telekomunikasi dan Informatika, Fakultas Ekonomi dan Bisnis
¹adizafatin@gmail.com, ²helni.mutiarsih@gmail.com

Abstract

This study aimed to determine the effectiveness of the consumer protection rules, and analyze the effectiveness of consumer protection rules in PT Indosat, Tbk. This study involved only independent variable alone. The independent variable used in this research was the theory of the effectiveness of the rules of Soerjono Soekanto (2008: 8) where to find effective or not a rule or law can be known through five (5) factors that influence it, namely: (1) Factors own law, which in in this study will be limited as the legislation and internal regulations such as rules of directors, the director's decision and ISO; (2) Factors law enforcement, namely the parties to form and apply the law; (3) Factor means or facilities to support the rule of law; (4) community factors, namely the environment in which the law is applicable or applied; and (5) the cultural factor, ie as a result of work, creativity and taste that are based on human initiative in social life. The method used in this research was descriptive analysis. Descriptive analysis showed that consumer protection regulations in PT. Indosat, Tbk has reached effectiveness because it has an average of 86.23% and are included in the category of "Very Good" in the continuum line.

Keywords: Effectiveness of regulations Soerjono Soekanto

1. Introduction

1.1 Background

In the era of technological and information development today requires everyone to continue to use gadget or sophisticated telecommunications tools as its medium in a variety of daily activities, such as assistance in homework, coursework or officework, business or to find out the latest news related to the current situation at the time. It supports the increase of mobile phone users each year in Indonesia. Minister of Communication and Information in 2014, Tifatul Sembiring said that mobile phone users in Indonesia in 2014 has reached 270 million users and it is not impossible if that number will continue to grow each year because the needs of to communicate and obtain information is very high along with the progress of technology and information today (source: www.ugm.ac.id accessed on March 21, 2015). However, with the increase of mobile phone users do not necessarily make minimal complaints from cell phone users are, in fact many persons who use it as a means to get multiple benefits.

The Ministry of Communications and Information Technology has recapitulated and record yields quantitative 10 customer complaints of telecommunications services in Indonesia, including Telkomsel, Indosat, XL, 3, Axis, Smart, Fren, Flexi, Esia, until Ceria submitted by a number of citizens from the date January 2, 2010 to March 31, 2010 (source: www.viva.co.id accessed on February 10, 2015) and from 10 complaints, spam messages or commonly known as text spam was one of the highest complaint. Then in the following year, the Indonesian Telecommunications Regulatory Body in 2011 released a list of customer complaints against the service provider. From May to October 2011, ITRB through ITRB call center had received around 4,750 complaints of customers (source: www.tekno.kompas.com accessed on 1 April 2015) which describe the following:
1. Spam Text, for example, cutting credit, and can not unsubscribe from content provider services reached 57 percent.
2. Dispute, such as advertising rates that did not match many terms and conditions that apply, but it was not known to the customer. Rapporteur on this case reached 21 percent.
3. Quality of service, for example, not able to make a call, texting, or a slow or missing connection. Rapporteur on this case reached 14 percent.
4. Fraud, for example a transfer request credit or content. Rapporteur of this case reached 6 percent.
5. Others reached 2 percent.

From the above facts from the year 2010 to the year 2011 showed that spam text has always been a top ranking by customers who complained of telecommunications services in Indonesia. This fact should be taken into evaluation for telecommunications companies because if it is left unchecked and complaints occur more and more there will be a tendency to underestimate the attitude of telecommunications users on telecommunications services quality. Another consequence is the potential for legal action of one or a group of users of telecommunications services who are not satisfied with a certain quality of telecommunications services to the law enforcement officers.

Wasis Sulaiman as Head of Indosat Central Java Area PT. Indosat, Tbk at October 2011 through obyektif.com stated that customer complaints related to unwanted texts in premium text service related complaints has been decreased. In the first quarter / 2011, customer complaints reached 35,000, the second quarter / 2011 reached 25,000, the third quarter / 2011 took 15,000, in the fourth quarter / 2011 nationally there were only 1,200 customer complaints. Then successively the Indonesian Consumers Foundation in 2013 and 2014 released a number of complaints on 2 telecommunications service providers, namely Telkomsel and Indosat (source: www.industry.bisnis.com accessed on June 18, 2015) were described below:

<table>
<thead>
<tr>
<th>Operator</th>
<th>Number of Complaints in 2013</th>
<th>Number of Complaints in 2014</th>
</tr>
</thead>
<tbody>
<tr>
<td>Telkomsel</td>
<td>33 Complaints</td>
<td>40 Complaints</td>
</tr>
<tr>
<td>Indosat</td>
<td>28 Complaints</td>
<td>27 Complaints</td>
</tr>
</tbody>
</table>

Source: Result of Processed Author’s Data (Juni, 2015)

It can be seen from a phenomenon that had been described above, PT.Indosat, Tbk is a telecommunications service provider that act quickly to minimize customer complaints problem and have done well for a good consumer protection, it was evidenced by the decline in the rate of customer complaints either reported directly to the Indosat parties and reported to the Indonesian Consumers Foundation.

Of the accomplishments that have been made by Indosat, the authors chose PT.Indosat, Tbk as the research object because according to the author, Indosat is a telecommunications services company that take serious of tackling the problems that customers suffered as well as really serious in protecting its consumers.

Based on this background, the authors raised the title ANALYSIS OF CONSUMER PROTECTION RULES EFFECTIVENESS (STUDIES SMS SPAM AT PT. INDOSAT, Tbk)

1.2 Problem Formulation
1. How is the effectiveness of consumer protection rules in the PT. Indosat, Tbk?
2. How does the analysis of the consumer protection rules effectiveness in the PT. Indosat, Tbk?

1.3 Research Purposes
1. Knowing the effectiveness of consumer protection rules in the PT. Indosat, Tbk
2. Knowing the analysis of the consumer protection rules effectiveness in the PT. Indosat, Tbk
2. Basic theory / Material and Methodology / design

2.1 Basic Theory

2.1.1 Telecommunication Regulation

Telecommunications regulation according to Budhijanto (2010: 35) was a body of rules, laws, norms and procedures of government economic stance for the companies in the telecom sector has been prevalent through the world industrialization for more than two decades. Telecommunication regulation has emerged as an important issue with the existence of competition in the telecommunications sector. With the competition, it became clear that the rules needed to ensure that competition is working effectively. Telecommunication Regulation in Indonesia is regulated by the Law and Government regulations. The role of government is more focused on coaching which includes the determination of policy, regulation, supervision and control by involving the community.

2.1.2 Consumer Protection

In the law on consumer protection, the definition of Consumer Protection is all efforts that ensure legal certainty to provide protection to consumers. Judhariksawan (2005: 176) in his book Introduction to the Telecommunications Law stated that in order to implement consumer protection, public telecommunications operator is obliged to provide compensation to the user if it is proved that due to negligence of the users suffer a loss on the use of networks or services.

2.1.2 Effectivity

Effectiveness according to Subkhi & Jauhar (2013: 247) was a relation between output and purpose. This means that the effectiveness is a measure of how much the output level, the policies and procedures of the organization achieve the goals set. Effectiveness needs to be known to determine whether the activity or series of activities have been carried out is useful and beneficial for the parties related to those activities.

2.1.2.1 Factors of Regulatory Effectiveness

According to Soerjono Soekanto (2008: 8), to determined whether the law or regulation is effective or not, it can be known through 5 influencing factors, namely: (1) It’s own law, which in this study would be limited as the laws and internal regulations companies such as regulation of directors, the director's decision and ISO; (2) Law enforcement, the parties that establish and implement the law; (3) Tools or facilities that support the rule of law; (4) Community, namely the environment in which the law is applicable or applied; and (5) Culture, ie as a result of works, creativity and taste that are based on human initiative in social life.

1.1.4 Implementation of Short Message Service (Texting/SMS)

Based on the Regulation of the Minister of Communication and Information Technology service delivery, the short message is the provision of telecommunications services such as sending or receiving short text messages via telecommunications networks. When sending a short message service to many destinations, the consumer should not be sending a message that is contrary to the public interest, decency, security and public order. Furthermore, the short message service sender to multiple destinations (Broadcast) shall provide facilities to the message recipient to refuse sending the next message. After the message recipient refused delivery the next message, the short message service sender to multiple destinations (Broadcast) are prohibited from sending future messages.

1.1.5 Implementation of Premium Messaging Services

According to the Regulation of the Minister of Communication and Information Technology service delivery, premium messaging services is the implementation of SMS or MMS organized through a subscription or unsubscription mechanism, with rates higher than SMS or MMS implementation rate. In general, "Premium SMS” has two main
characteristics, namely: (a) SMS premium on demand, which means any person (the consumer) will get the service, every time a consumer sends an SMS to operators and content providers. So the SMS premium on demand service will be active when the consumer sends his/her SMS to the system. SMS Premium on demand service is generally used for the poll, general information, and sweepstakes; (b) SMS premium subscription, means any person (the consumer) must register the card number on the mobile operator and content provider system by typing a few characters or cancellation of the registration key. Such as, "REG", "UNREG", "ON" and "OFF".

2.2 Methodology/Design

This type of research in this study was descriptive. According to Sekaran (2011: 158) Descriptive study was conducted to know and be able to explain the characteristics of the studied variables in a situation.

3. Discussion

3.1 Characteristic of Respondents

Respondents characteristics by gender were dominated by women that equal to 57.14% and the number of employees amounted to 42.86%. Based on the latest education dominated by bachelor amounted to 62.86% and Master at 37.14%. Based on the length of work dominated by the majority of respondents have been working for more than 10 years with a percentage of 68.57%, followed by long working 7-10 years with a percentage of 22.86, while the rest have been working for 4-6 years with the percentage of 8.57%.

3.2 Result of Descriptive Analysis

Based on descriptive analysis, results were obtained as follow.

<table>
<thead>
<tr>
<th>Variable</th>
<th>Average (%)</th>
<th>Conclusion</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regulation Effectiveness (X)</td>
<td>86.23%</td>
<td>Very Good</td>
</tr>
</tbody>
</table>

Based on the table above, PT. Indosat, Tbk had reached effectiveness because the average acquisition value was included in the category of "Very Good". It has been answered problem formulation 1 and 2.

4. Conclusion

4.1 Conclusion

Based on the results of research and analysis that had been done, obtained some conclusions that are expected to provide answers to the formulation of the problem in this study, namely:

1. Overall it can be concluded that the Consumer Protection Regulation in PT. Indosat, Tbk had reached Effectiveness. It can be seen from the respondents to the variable effectiveness of regulation where the average total percentage of all replies amounted to 86.23%. The acquisition included in the category of "Very Good" on a continuum line. That is, the majority of respondents believe that consumer protection regulations in PT. Indosat, Tbk has been effective or achieve effectiveness.

2. Results of the respondents’ response indicated that all indicators of the factors that affect achievement of regulatory effectiveness has a high percentage, it is reinforced by the phenomenon on the background of the research as well as the form of consumer protection by PT. Indosat, Tbk with forming ICITY Forum and spam text blocking activation features for consumers so that it can be concluded that consumer protection regulations in PT. Indosat, Tbk has gone well and should be continued so that telecommunications services can continue to increase.
4.2 Recommendation

4.2.1 Recommendation for PT. Indosat, Tbk

PT. Indosat, Tbk is expected to continue to improve consumer protection regulations. In addition, it would be better if PT. Indosat, Tbk spread information regarding the procedures for the use of spam text blocking feature evenly, for example as a broadcast message to all users of the freeway, so it's not just users who are members of the ICITY Forum or active user that open Indosat official website who knows spam text blocking feature. In addition, the existence of ICITY Forum in Indosat consumers community, should be used to further promote ICITY Forum to consumers because members who contribute actively in this new forum about 11,500 people while the number of consumers of PT. Indosat, Tbk are about 58.5 million people. That way, if at least some consumers have contributed in this forum certainly the complaints that have so far can be decreased drastically because every consumer can find out a solution to do if there is a problem in service.

4.2.2 Recommendation for Next Research

The purpose of this study was limited only to determine the effectiveness of the consumer protection regulations that have been applied in PT. Indosat, Tbk, so that the respondent was simply PT.Indosat, Tbk employees. For further research, it is advisable to seek the effective implementation of consumer protection from the consumer point of view so that the research respondent would be the consumer of PT.Indosat, Tbk. Of it will be known whether the effectiveness of consumer protection that is applied to the consumer would be as effective as what the employees thought or not.

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