

TRIKONOMIKA
Economic Journal

Volume 14, No. 2, December 2015

EDITOR IN CHIEF

Ellen Rusliati

MANAGING EDITOR

Mulyaningrum

EDITORIAL BOARDS

Atang Hermawan, University of Pasundan

Juanim, University of Pasundan

Horas Djulius, University of Pasundan

Ina Ratnamiasih, University of Pasundan

Atty Tri Juniarti, University of Pasundan

LAYOUTER

Diki Achmad

Cahya Novriyanti

WEBSITE/IT

Irvan Fansuri

Rafi Alfian

PUBLISHER

Books and Journals Publishers

Faculty of Economics, University of Pasundan

in Cooperation with ISEI Bandung

Trikonomika published first in 2000, an economic journal articles presenting research results and the latest conceptual ideas that include Economics, Accounting and Management. Trikonomika published twice a year that is June and December. Start from Volume 14, No. 2, December 2015 published in English.

Editorial Address: Jl. Tamansari No. 6-8 Bandung - 40116. Tel. 022-4233646, Fax. 022-4208363 Website: jurnal.fe.unpas.ac.id, E-mail: trikonomika@jurnal.unpas.ac.id

Printing: Books and Journals Publisher Faculty of Economics, University of Pasundan
For subscription and purchase information can contact the editors.

REVIEWERS ACKNOWLEDGEMENT

Thanks and appreciation to the experts who have been reviews Trikonomika Journal Volume 14, No. 2 December 2015. The following is a list of names participating partners:

- Dian Indiyati, Jenderal Achmad Yani University, Faculty of Economics, Indonesia, Scopus ID: 57188970429
 - Jaja Suteja, Faculty of Economics, *Universitas Pasundan*, Bandung, Indonesia, Scopus ID: 57190028247
 - Azhar Affandi, *Universitas Pasundan*, Bandung, Indonesia, Scopus ID: 57189332798
 - Sidik Priadana, Pasundan University, Bandung, Indonesia, Scopus ID: 57189323821
 - Horas Djulius, Faculty of Economics, University of Pasundan
-
-

Table of Content

Trikonomika, Volume 14, No. 2, December 2015

Mimicry Marketing Strategy on Marketing Performance of Small and Medium Enterprise <i>Suliyanto</i>	96-103
Staffing and Job Stress on Motivation of Employees in Al Ihsan General Hospital <i>Ina Ratnamasih, Putra Mochamad Lazwar</i>	104-110
Job Satisfaction and Job Performance in PT XYZ <i>Cindy Valianawaty, Eddy M. Sutanto</i>	111-118
Determination of Export Price by Incoterms 2010 (Study in PT X Karawang) <i>Rima Sundari, Edi Supardi</i>	119-128
Stress Role and Dysfunctional Behavior on The Performance of Internal Auditor <i>Rieke Sri Rizki Asti Karini</i>	129-137
Efficiency Measurement of Maintenance Costs on Customer Service Process PT Indonesia Connets Plus West Java <i>Ika Rizky Setyaningrum, Palti Marulitua Sitorus</i>	138-142

DISCLAIMER

1. Isi naskah di luar tanggung jawab redaksi dan penerbit Jurnal Trikonomika FE Unpas Bandung.
2. Redaksi berhak untuk tidak menayangkan tulisan yang tidak sesuai dengan isi/topik terkait, atau tulisan yang mengandung unsur-unsur plagiarisme, ataupun yang bersifat *spam/junk*, polemik SARA, fitnah, hasutan dan/atau yang dirasa akan dapat merugikan kredibilitas orang/pihak/institusi tertentu.
3. Jika diperlukan proses edit, maka akan dilakukan oleh redaksi tanpa mengubah arti/tujuan tulisan yang bersangkutan.

Mimicry Marketing Strategy on Marketing Performance of Small and Medium Enterprise

Suliyanto

Fakulty of Economic and Business Jenderal Soedirman University
suli_yanto@yahoo.com

Abstract

The background of this research is the failure of the marketing orientation concept and the unprepared consumers to accept the societal marketing concept. There needs orientation phase that are between the marketing orientation phase and societal marketing phase. The orientation phase is Adaptive Marketing Orientation (AMO). One of the applications of adaptive marketing orientation is Mimicry Marketing Strategy (MMS). The purpose of this study is to analyze the effect of MMS to competitors, MMS to consumers, MMS to suppliers, MMS to intermediaries on the quality of relationship with partners and innovation as well as to analyze the influence of the quality of relationship with partners and innovation to the marketing performance. Samples are 100 SMEs in Banyumas; data analysis tool used is Path Analysis. The results of this study found that the effect of MMS to consumers and MMS to competitors have positive effect on innovation and the quality of relationship with partners, while MMS to suppliers, and MMS to intermediaries have no positive effect on innovation and the quality of relationship with partners, and the quality of relationship with partners and innovations have positive effect toward marketing performance.

Keywords: Mimicry Marketing Strategy, Innovation, Quality of Relationship with Partners, Marketing Performance, Small and Medium Enterprises

INTRODUCTION

As the business environment changes rapidly, the marketing orientation concept views that consumers prefer products that suit the needs and desires of consumers; it is not enough to achieve superior marketing performance. It is evident from some of the results of previous studies, namely Pelham (1997) suggests that market orientation is not a positive influence on growth in sales and market share; Deshpande et al., (2000) suggests that market orientation has no effect on the growth and market share, while research conducted by Harris (2001), also concludes that the market orientation has no influence on sales growth measured by both subjective and objective measurements. The amount of research that failed to prove the effect of market orientation on performance marketing shows that, the ability to create products that fit the needs and desires of consumers is not enough to achieve superior performance under conditions of intense competition and very dynamic business environment.

Based on the failure of the marketing concept, it then appears the societal marketing concept developed by Kotler in 1976. The societal marketing orientation views that consumers prefer products that can meet the needs,

the desires of consumers and also are able to provide the expected satisfaction more effective and efficient than competitors in a way to maintain and improve the welfare of consumers and the public at large. One of the application forms of societal marketing concept is green marketing, the strategy of mainstreaming environmental considered into all dimensions of marketing activities of the company (Crane, 2000). Although public attention to environmental issues continues to increase, the green marketing strategy as one of the applications of societal marketing has not been able to be the top choice of consumers in Indonesia, even in developed countries. Some researchers also stated that green marketing is not able to increase the competitive advantage (Straughan & Roberts, 1998; Vlosky et. al., 1999). According to Peattie (1999) green marketing is simply seen as a rhetorical course than substance.

Based on the failure of a marketing orientation and unprepared application of social marketing orientation, it is necessary to know that the orientation phase is between stages of marketing orientation and societal marketing orientation, that is Adaptive Marketing Orientation (AMO). The orientation viewing the consumers to prefer products can meet the needs and desires of consumers, and are marketed in a manner

consistent with the character of consumers and in accordance with the environmental conditions. This is because consumers not only have different perception of the product, price, distribution channels and promotion but also face different environmental conditions that need a marketing approach that is also different.

Under conditions of a very dynamic environment, where the intensity of the increasingly fierce competition, market and technology turbulence are very quick, the marketing strategy of adaptive traditional relationship marketing is not enough to be relied on to win the competition, so it needs a more personalized and comprehensive adaptive marketing strategy, not just to adjust to the market and competitors.

This more personalized and comprehensive adaptive marketing strategy is called Mimicry Marketing Strategy (MMS), the way to win the competition and the market by adjusting behavior physically and well behaved to the micro environment (customers, competitors, suppliers, intermediaries) and to the macro environment (the intensity of competition, market and technology turbulence). This strategy is different from the adaptive sales concept that was first developed by Spiro and Weitz (1990) which was later developed by Franke and Park (2006); Jaramillo et al., (2007), Roman, and Iacobucci (2010). Mimicry Marketing Strategy (MMS) is not only adapting to sales approach on consumer, but also the placement oneself in the position of competitors, suppliers and intermediaries as well as adapting to the intensity of competition, markets and technology turbulence.

The relationship between the concept of Mimicry Marketing Strategy (MMS), the innovation, the quality of relationship with partners and marketing performance is based on the results described below. Innovation is the mechanism of the company to adapt to the dynamic environment. Ussahawanitchakit (2007) states that the company which is more innovative in the face of competitive environment will have better business performance. This can happen due to the innovation. The organization itself can move forward therefore it can seize the existing opportunities faster or be able to overcome the problem of the organization better. In the end, the organization can work more efficient and effective than its competitors. Innovation is very important in the organization, as stated by Chandra and Neelankavil (2008) who stated that innovation is the best activity. It creates a core value and a competitive weapon for companies, while O'Cass and Ngo (2011) stated that innovation is an important issue of company performance by developing new products.

In a highly dynamic environment, innovation has a very important role to improve marketing performance. There has been a lot of research showing clearly that innovation has a positive impact on competitive advantage and organizational performance. Chen et al., (2009) stated that innovation has a positive effect

on competitive advantage. This research was supported by Noorani (2014) who stated that the innovation of the company gives influence to the achievement of competitive advantage. While Aydin et al., (2007) stated that the product innovation by improving the image and reputation of the products will improve performance. Whereas Hoonsopon and Ruenrom (2012) stated that product innovation has a positive effect on company performance. Yeh and Chen (2007) also stated that the higher the level of innovation results in higher organization performance.

According Sya'roni and Sudirham (2012), innovation can be measured to company's ability indicators for the creation of new products and processes, product development, process improvement and adding creative touches with duplicate or guiding production factors as well as new methods.

Relation with partners is a form of relationship marketing. Relationship marketing can be defined as marketing activities that are directed to a strong and sustainable relationships on every individual involved (Wu and Lu, 2012). Relationship marketing is a marketing concept that is oriented in the fabric of a harmonious relationship in long term with all stakeholders (Baumard et al., 2013; Grönroos, 2011). Relationship marketing can be a business-to-business relationship that is the relationship between the company and suppliers, companies with distributor, with similar companies, between whole salers and retailers, as it has been investigated by (Johnson et al., 2012; Rauyruen and Miller, 2007; Ryding, 2010) and can be either business-to-customer relationship as it has been investigated by Adjeidan Clark 2010 and Mascarenhas et al., 2007. This is in line with the opinion of Gounaris (2005); Slevitch and Oh (2010), which describes the relationship between these networks which can involve consumers, manufacturers, suppliers, intermediaries and other stakeholders.

Several studies have shown that relationship marketing positively affect competitive advantage and company performance. Research conducted by Ngugi et al., (2010) stated that the relational ability with dimension of human relational between employees, suppliers and customers is used by them (the companies) to create value in the eyes of customers and improve their position, while Sin et al., (2006) stated that relationship management has a positive effect on performance marketing. Tsai et al., 2010; Hitt et al., 2003, explained that the cooperation relations between these companies will create economic value for the company. Ndubisi (2007) states that the marketing relationship will increase consumer loyalty, while research Grisseman et al., 2013 found the influence of the orientation of customer relationship beyond the influence of innovation and innovative behavior on the performance of financial and non-financial of companies. Wu and Lu, 2012 states implementation

of customer relationship management positively affect the relationship marketing and also on company performance.

Dimensions used to measure the relationship marketing by Ndubisi (2007) is a sense of trust, commitment, communication and the ability to handle conflict, whereas Sin et al., (2006) developed six dimensions of the concept of relationship management. All six dimensions comprising: trust, bonding, communication, share value, empathy, and reciprocity.

Performance marketing is part of the organization performance. Organizational performance can be seen from the marketing, financial and human resource performance. Measurement of marketing performance is very important for the marketing performance of organizations because it can be used as information for decision makers of all marketing activities that have been performed (Verhoef et al., 2010), while according Saekoo et al., (2012) states that marketing performance is key to the success of a business as a result of the marketing strategies used for customer, market, and financial benefits for the organization.

Performance by Avlonitis and Salavou (2007) can be grouped into two: the financial performance and marketing performance perceptual. Marketing performance perceptual is marketing performance measured based on the perception of sales growth: the growth of employees and the company's market share compared with its competitors.

Some researchers measure performance by using several dimensions. Davis et al., (2010) stated that to measure marketing performance can also be used by using the company's profit ability and business growth in a given period. Gama, (2011) measures marketing performance by using the dimension of market share, service quality, customer satisfaction, customer loyalty and brand equity. Chang et al., (2012) measures marketing performance with four perspectives, namely: financial perspective, customer perspective, internal process perspective and the perspective of learning and innovation. While Saekoo et al., (2012) measures marketing performance by using dimension of sales, growth in market share and market development.

Yıldız and Caracas (2012) says that the criteria in determining marketing performance can be measured by two approaches, namely objectively and subjectively. Performance measured in this study is either by determining the qualitative criteria, (eg customer satisfaction overall business performance) or quantitative criteria (eg, profits, sales).

In general, the Small and Medium Enterprises (SMEs) have a marketing problem. It stated by Urata (2000) that the problems faced by SMEs can be grouped into two: financial and non-financial problems, one of the problems of non-financial is a marketing problem. Kuncoro (2006) also stated that the problems of SMEs

can be grouped into two: internal issues and external issues, one of the internal problems in SMEs is marketing. The low marketing performance on SMEs and the failure of a marketing orientation and unprepared consumers in receiving societal marketing orientation, the adaptive marketing strategy needs to be tested by applying it both on the micro environment (customers, competitors, suppliers, intermediaries) and the macro environment (the intensity of competition, markets and technologies turbulence), the strategy is Mimicry Marketing Strategy (MMS) on SMEs.

METHOD

Based on the results of previous research, hypothesis can be formulated as followed:

Hypothesis 1a; 1b; 1c; and 1d:

- a) MMS towards consumers,
- b) MMS towards competitors,
- c) MMS towards suppliers and
- d) MMS towards intermediaries have positive effect on innovation.

Hypothesis 2a; 2b; 2c; and 2d:

- a) MMS towards consumers,
- b) MMS towards competitors,
- c) MMS towards suppliers, and
- d) MMS towards intermediaries have positive effect on the quality of relationship with partner.

Hypothesis 3a; and 3b:

- a) Innovation, and
- b) The quality of relationship with partner have positive effect on marketing performance.

This study is a survey research. Researchers do not provide treatment to the subjects studied, while based on the time dimension, this study is a cross-section research for data collection is done only once at a time (Suliyanto, 2006). The population in this study is SMEs in Banyumas. It is because the marketing performance of SMEs in Banyumas has yet improved (Suliyanto 2009). The measurement of sample is determined by using the Slovin formula and obtained a sample size of 100 SMEs. With a relatively homogeneous population characteristic, the technique of sampling has been done randomly. The data used in this study are primary data which was obtained directly from the source of research (Cooper and Schindler, 2006). For all variables studied, the authors make a statement by using a Likert scale of 7, where 1 is strongly disagree to the statement to number 7 for the value of strongly agree. The validity test instrument is obtained by using the product moment correlation, while reliability test is obtained by using Cronbach alpha. To test the hypothesis, path analysis is used. Measurement indicators in this study can be found in Appendix 1.

RESULTS

Based on the results of the survey obtained, a description of the characteristics of respondents can be seen as Table 1. Based on the gender of respondents, this research consisted of 56% of male respondents and 44% of women respondents.

Table 1. Respondent based on Gender

Gender	Total Respondent (%)
Man	56
Woman	44
Total	100

Table 2. Respondent based on Age Group

Age Group	Total Respondent (%)	Average Business Age (Year)
23-30	19	5,29
31-35	8	7,33
36-40	16	8,14
41-45	13	13,43
46-50	22	12,48
>50	22	17,08
Total	100	11,09

Based on Table 2 is known that SMEs in Banyumas vary from age group, although it is still dominated by the age of 46 years old and above. However, there is a tendency of entrepreneur from a younger age group ranging from 23-30 years old who start to dive in to the business world, especially the SME sector.

Seeing the age of their business, SMEs in Banyumas had an average age of 11.09 years of business. And if it is related to the average age of the business, it is directly proportional to the age group of respondent. The older the respondent is, the longer the average age of its business. From these data, it is also showed that the age of the respondent in opening a business for the first time was approximately at the age of 32.

Table 3. Respondent based on Level of Education

Level of Education	Total Respondent (%)
Elementary School	19
Junior High School	12
Senior High School	62
Diploma/Bachelor	17
Total	100

Based on Table 3, it can be seen that the average SMEs in Banyumas are senior high school graduates. There are also elementary school graduates. Similarly, college graduates (Diploma/Bachelor) are still not in the role of SMEs in Banyumas.

The validity testis used to measure the indicator validity in a research questionnaire. The validity test

of this research is using product moment correlation formula by comparing the value of r_{count} r_{table} at the 95% confidence level.

Validity test performed on a sample of 30 respondents, therefore $df = 30 - 2 = 28$ with a one-sided test. In the table of product moment, r_{table} is obtained by 0.374. Based on the calculation results, it can be seen that the entire value of $r_{count} > r_{table}$ and a positive value or significance level ($1 \text{ tip} < 0.05$), therefore it can be concluded that all indicators of variables of mimicry towards consumers, mimicry towards competitors, mimicry towards suppliers, mimicry towards intermediaries, innovation, quality and performance relationship marketing are declared valid and can be used as a research instrument.

Reliability testing in this study was measured by a statistical test of Cronbach's Alpha by testing as many as 30 questionnaires. Questionnaires declared reliable if Cronbach's Alpha > 0.600 . Reliability test was conducted on the variables of mimicry towards consumers, mimicry towards competitors, mimicry towards suppliers, mimicry towards intermediaries, innovation, quality of relationships and marketing performance.

Table 4. Questionnaire Reliability Testing Results

Variable	Cronbach's Alpha	r_{table}	Explanation
Mimicry towards Consumers	0.934	0.600	Reliable
Mimicry towards Competitors	0.898	0.600	Reliable
Mimicry towards Suppliers	0.871	0.600	Reliable
Mimicry towards Intermediaries	0.915	0.600	Reliable
Innovation	0.927	0.600	Reliable
Quality of Relationship	0.926	0.600	Reliable
Marketing Performance	0.955	0.600	Reliable

Based on Table 4 of questionnaire reliability testing, it is shown that Cronbach's Alpha variable of mimicry towards consumers, mimicry towards competitors, mimicry towards suppliers, mimicry towards intermediaries, innovation, quality of relationships and marketing performance is (more than) > 0.600 , therefore it can be concluded that any indicators or questions on all variables used otherwise reliable and can be used as a research instrument.

Based on the first research path analysis model, that is the influence of Mimicry towards Consumer, Mimicry

Table 5: First Research Path Analysis Model Results

Independent Variable	Path Coefficient	t Statistic	Sig.	Conclusion
Mimicry towards Consumers	0.322	2.331	0.022	Significant
Mimicry towards Competitors	0.244	2.076	0.040	Significant
Mimicry towards Suppliers	0.199	1.623	0.108	Insignificant
Mimicry towards Intermediaries	0.071	1.623	0.557	Insignificant
Dependent Variable: Innovation				
R ²	0.594			
F _{count}	38.767			

towards Competitors, Mimicry towards Suppliers, Mimicry towards Intermediaries on Innovation, the results are as Table 5.

Based on the output of the first research model, it can form the equation of the influence of Mimicry towards Consumers, Mimicry towards Competitors, Mimicry towards Suppliers, Mimicry towards Intermediaries on Innovation. The equation is as followed:

$$Y_1 = 0.322X_1 + 0.244X_2 + 0.199X_3 + 0.071X_4 + 0.637e$$

In the sub-structure of the first research, we concluded that mimicry towards consumer, and mimicry towards competitors effect on innovation, however mimicry towards suppliers and mimicry towards intermediary have no effect on innovation. This can be explained that if SMEs make adjustments to the consumer and the competitors, it will encourage innovation. Meanwhile, there is no significant relationship between mimicry towards suppliers and intermediaries to innovation because the intensity of the relationship between SMEs with suppliers and intermediaries have a low level of intensity and routine therefore it can also encourage innovation.

Based on the second research path analysis model that is the influence of Mimicry towards Consumers, Mimicry towards Competitors, Mimicry towards Suppliers, Mimicry towards Intermediaries on the Quality of Relationship with Partners, it can form a result as described Table 6.

Based on the output of the second research model, it can form the equation of the influence of Mimicry towards Consumers, Mimicry towards Competitors, Mimicry towards Suppliers, Mimicry towards Intermediaries on the Quality of Relationship with Partners. The equation is as followed:

$$Y_2 = 0.491X_1 + 0.452X_2 + 0.009X_3 + 0.018X_4 + 0.401e$$

Table 6: Second Research Path Analysis Model Results

Independent Variable	Path Coefficient	t Statistic	Sig.	Conclusion
Mimicry towards Consumers	0.491	5.643	0.000	Significant
Mimicry towards Competitors	0.452	6.129	0.000	Significant
Mimicry towards Suppliers	0.009	0.113	0.910	Insignificant
Mimicry towards Intermediaries	0.018	0.236	0.814	Insignificant
Dependent Variable: Quality of Relationship with Partners				
R ²	0.839			
F _{count}	138.531			

In the sub-structure of the second research, it can be concluded that mimicry towards consumer, and mimicry towards competitors affect relationship with partners, but the mimicry towards suppliers and mimicry towards intermediaries does not affect the relationship with partners. This can be explained that if SMEs make adjustments to the consumer and the competitors, it will be as a whole will improve the quality of relationship with partners. This is because most of the relationship with a partner is relationship with suppliers and competitors, where as no significant relationship between mimicry towards suppliers and intermediaries on the quality of relationship with partners. It is because the intensity of the relationship between SMEs with suppliers and intermediaries have low rank of intensity therefore the increasing adjustment with suppliers and intermediaries cannot improve the overall quality of relationship with the partner.

Path analysis results obtained can be described in the path diagram in Figure 1.

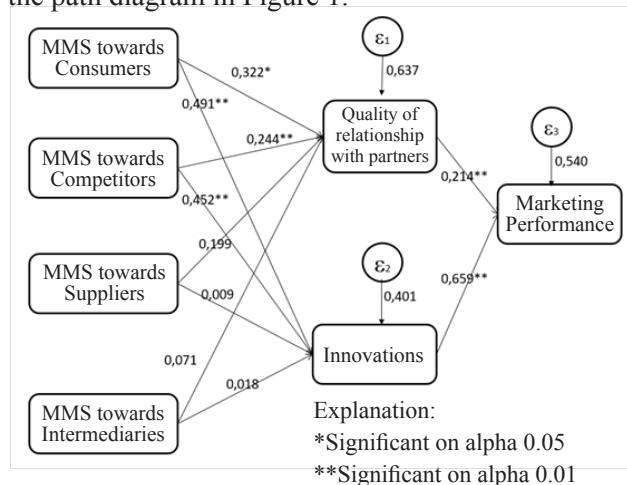


Figure 1: Full Model Path Diagram Analysis on Research Variables Result

Based on the analysis by using the path diagram, it can be formulated several alternative marketing performance improvements on SMEs as follows:

- Alternative 1: MMS towards Consumer ⇔ Quality of Relationship with Partner ⇔ Marketing Performance.
- Alternative 2: MMS towards Consumer ⇔ Innovation ⇔ Marketing Performance.
- Alternative 3: MMS towards Competitor ⇔ Quality of Relationship with Partner ⇔ Marketing Performance.
- Alternative 4: MMS towards Competitor ⇔ Innovation ⇔ Marketing Performance.

CONCLUSION

Based on the research and data analysis on SME marketing performance improvement with Mimicry Marketing Strategy (MMS) approach, it can be obtained several conclusions including the following:

1. Mimicry towards consumer factor and mimicry towards competitor factor have positive effect on innovation, while mimicry towards supplier factor and mimicry towards intermediary factor have no effect on innovation.
2. Mimicry towards consumer factor and mimicry towards competitor factor have positive effect on the quality of relationship with partners, while mimicry towards supplier factor and mimicry towards intermediary factor does not affect the quality of the relationship with the partner.
3. The quality relationship with partners factor and innovation factor have positive effect on marketing performance.

Based on the conclusions above, it can be recommended that in improving marketing performance for SMEs in Banyumas, they should be able to apply Mimicry Marketing Strategy (MMS) to consumers, and Mimicry Marketing Strategy (MMS) to competitors. How to improve mimicry towards consumers is to appropriately analyze the character of consumers, appropriately analyze the condition of the consumer, emotionally put oneself in the position of consumers, constantly experience on various marketing approaches, use a different marketing approach for each character of consumers, and use a different marketing approach in every condition of different consumer. Meanwhile, this is done to improve mimicry towards competitors by appropriately analyzing the character of competitors, appropriately analyzing the condition of the competitor, emotionally putting oneself in the position of competitors, conducting an experiment to create a market demand that has not been or is not even considered by competitors and do a co-creation with competitors to serve the same customer. For further research, it could develop this research by developing a

research model by adding a mediating variable between innovation and the quality of relationship with partners with marketing performance, as well as the need to add environment variables such as the intensity of competition, the turbulence of technology, the changing tastes of the market as a moderating variable between innovation and quality relationships with partners and marketing performance.

BIBLIOGRPHY

- Adjei, M. T., & Clark, M. N. 2010. Relationship marketing in A B2C context: The moderating role of personality traits. *Journal of Retailing and Consumer Services*, 17(1), 73-79
- Avlonitis, G. J., & Salavou, H. E. 2007. Entrepreneurial orientation of SMEs, product innovativeness, and performance. *Journal of Business Research*, 60(5), 566-575
- Aydin, S., Cetin, A. T., & Ozer, G. 2007. The relationship between marketing and product development process and their effects on firm performance. *Academy of Marketing Studies Journal*, 11(1), 53.
- Baumard, N., André, J. B., & Sperber, D. 2013. A mutualistic approach to morality: The evolution of fairness by partner choice. *Behavioral and Brain Sciences*, 36(01), 59-78
- Chandra, M., & Neelankavil, J. P. 2008. Product development and innovation for developing countries: potential and challenges. *Journal of Management Development*, 27(10), 1017-1025.
- Chang, S. H., Chen, C. H., & Ho, Y. C. 2012. A study of marketing performance evaluation system for notebook distributors. *International Journal of Business and Management*, 7(13), 85.
- Chen, Y. S., Lin, M. J. J., & Chang, C. H. 2009. The positive effects of relationship learning and absorptive capacity on innovation performance and competitive advantage in industrial markets. *Industrial Marketing Management*, 38(2), 152-158.
- Cooper, Donald R. and Schindler, Pamela S., 2006. *Bussines Research Methods*, 9th edition. McGraw-Hill International Edition
- Crane, A. 2000. Facing the backlash: green marketing and strategic reorientation in the 1990s. *Journal of Strategic Marketing*, 8(3), 277-296.
- Davis, Patrick M. Kreiser and Justin 2010. Entrepreneurial Orientation and Firm Performance : The Unique Impact of Innovativeness, Proactiveness, and Risk-taking. *Journal of Small Business and Entrepreneurship*, 23 (1), 39-35.
- Deshpande, R., Farley, J.W and Webster, F.E. 2000. Triad Lessons: Generalizing Results On High Performance Firms In Five Business-Business Markets. *International Journal of Research in Marketing*, 17.(4), 353-62.
- Franke, G. R., & Park, J.-E. 2006. Salesperson adaptive

- selling behavior and customer orientation: a meta-analysis. *Journal of Marketing Research*, 43(3), 693–702
- Gama, A. P. d. 2011. An expanded model of marketing performance. *Marketing Intelligence & Planning* 29 (7):643-661
- Gounaris, S. P. 2005. Trust and commitment influences on customer retention: insights from business-to-business services. *Journal of Business research*, 58(2), 126-140
- Grissemann, U., Plank, A., & Brunner-Sperdin, A. 2013. Enhancing business performance of hotels: The role of innovation and customer orientation. *International Journal of Hospitality Management*, 33, 347-356.
- Grönroos, C. 2011. A service perspective on business relationships: The value creation, interaction and marketing interface. *Industrial marketing management*, 40(2), 240-247
- Harris, L.C and Ogbonna, E 2001. Strategic Human Resource Management, Market Orientation, and Organizational Performance. *Journal of Business Research*, 51(2), 157-66
- Hitt, M. A., Ireland, R. D., & Hoskisson, R. E. 2012. *Strategic management cases: competitiveness and globalization*. Cengage Learning.
- Hoonsoon, D., & Ruenrom, G. 2012. The impact of organizational capabilities on the development of radical and incremental product innovation and product innovation performance. *Journal of Managerial Issues*, 250-276.
- Jaramillo, F., Locander, W. B., Spector, P. E., & Harris, E. G. 2007. Getting the job done: the moderating role of initiative on the relationship between intrinsic motivation and adaptive selling. *Journal of Personal Selling & Sales Management*, 27(1), 59–74.
- Johnson, D. S., Clark, B. H., & Barczak, G. 2012. Customer relationship management processes: How faithful are business-to-business firms to customer profitability?. *Industrial Marketing Management*, 41(7), 1094-1105.
- Killa, M. F. 2014. Effect of Entrepreneurial Innovativeness Orientation, Product Innovation, and Value Co-Creation on Marketing Performance. *Journal of Research in Marketing*, 2(3), 198-204.
- Kuncoro, Mudrajat. 2006 *Usaha Kecil di Indonesia: Profil, Masalah dan Strategi Pemberdayaan*. www.mudrajad.com/upload/jurnal_usaha-kecil-indonesia.pdf
- Mascarenhas, O. A., Kesavan, R., & Bernacchi, M. 2006. Lasting customer loyalty: a total customer experience approach. *Journal of Consumer Marketing*, 23(7), 397-405.
- Ndubisi, Nelson, O. 2007. Relationship Marketing and Customer Loyalty. *Marketing Intelligence and Planning*, 25(10), 98-106.
- Ngugi, I. K., Johnsen, R. E., & Erdélyi, P. 2010. Relational capabilities for value co-creation and innovation in SMEs. *Journal of Small Business and Enterprise Development*, 17(2), 260-278.
- Noorani, I. 2014. Service innovation and competitive advantage. *European Journal of Business and Innovation Research*, 2(1), 12-38.
- O’Cass, A., & Ngo, L. V. 2011. Examining the firm’s value creation process: a managerial perspective of the firm’s value offering strategy and performance. *British Journal of Management*, 22(4), 646-671.
- Peattie, K. 1999. Trappings versus substance in the greening of marketing planning. *Journal of Strategic Marketing*, 7(2), 131-148.
- Pelham A.M 1997. Mediating Influences on the Relationship Between Market Orientation and Profitability in Small Industrial Firms. *Journal of Business Research*. 45(1), 33-46
- Rauyruen, P., & Miller, K. E. 2007. Relationship quality as a predictor of B2B customer loyalty. *Journal of business research*, 60(1), 21-31.
- Román, S., & Iacobucci, D. 2010. Antecedents and consequences of adaptive selling confidence and behavior: a dyadic analysis of salespeople and their customers. *Journal of the Academy of Marketing Science*, 38(3), 363-382.
- Ryding, D. 2010. The impact of new technologies on customer satisfaction and business to business customer relationships: Evidence from the soft drinks industry. *Journal of Retailing and Consumer Services*, 17(3), 224-228.
- Saeko, A. N., & Chuntarung & Thoumrungrroje, P. 2012. The Impact of Integrated Marketing Strategy on Marketing Performance: An Empirical Evidence From Exporting Business in Thailand. *International Journal of Business Strategy*, 12(4), 56-73.
- Sin, L. Y., Alan, C. B., Chan, H., Heung, V. C., & Yim, F. H. 2006. The effects of relationship marketing orientation on business performance in the hotel industry. *Journal of Hospitality & Tourism Research*, 30(4), 407-426.
- Slevitch, L., & Oh, H. 2010. Asymmetric relationship between attribute performance and customer satisfaction: A new perspective. *International Journal of Hospitality Management*, 29(4), 559-569.
- Spiro, R and Weitz, B. 1990. Adaptive Selling: Conceptualization Measurement and Nomological Validity. *Journal of Marketing Research*, 27 (February), 61-69.
- Straughan, R. D., & Roberts, J. A. 1999. Environmental segmentation alternatives: a look at green consumer behavior in the new millennium. *Journal of consumer marketing*, 16(6), 558-575.
- Suliyanto. 2006. *Metode Riset Bisnis*. Penerbit Andi. Yogyakarta.
- Suliyanto. 2009. *Orientasi Pasaran dan Kinerja Pemasaran*. Lembah Manah. Yogyakarta.
- Sya’roni, D. A. W., & Sudirham, J. 2012. *Kreativitas dan*

- Inovasi Penentu Kompetensi Pelaku Usaha Kecil. *Jurnal Manajemen Teknologi*, 11(01).
- Tsai, H., Cheung, C., & Lo, A. 2010. An exploratory study of the relationship between customer-based casino brand equity and firm performance. *International journal of hospitality management*, 29(4), 754-757.
- Urata, Shujoro. 2000. Policy Recommendation for SME Promotion in the Republic of Indonesia, JICA Senior Advisor to Coordination Minister of Economy, Finance and Industri. Jakarta
- Ussahawannitchakit, P. 2007. Innovation Capability and Export Performance: An Empirical Study of Textile Business in Thailand. *International Journal Business Strategy*, 7(1), 1- 9
- Verhoef, P. C., Venkatesan, R., McAlister, L., Malthouse, E. C., Krafft, M., & Ganesan, S. 2010. CRM in data-rich multichannel retailing environments: a review and future research directions. *Journal of Interactive Marketing*, 24(2), 121-137.
- Vlosky, Richard P., Ozanne, Lucie K. and Fontenot, Renee J. 1999. A conceptual model of US consumer willingness-to-pay for environmentally certified wood products. *Journal of Consumer Marketing*, 16(2), 122-136
- Wu, S. I., & Lu, C. L. 2012. The relationship between CRM, RM, and business performance: A study of the hotel industry in Taiwan. *International Journal of Hospitality Management*, 31(1), 276-285.
- Yeh-Yun Lin, C., & Yi-Ching Chen, M. 2007. Does innovation lead to performance? An empirical study of SMEs in Taiwan. *Management Research News*, 30(2), 115-132.
- Yıldız, S., dan A. Karakaş. 2012. Defining Methods and Criteria for Measuring Business Performance: A Comparative Research Between the Literature in Turkey and Foreign. *Procedia - Social and Behavioral Sciences* 58:1091-1102.
- b. Being able to appropriately analyze the condition of competitor.
 - c. Being able to emotionally put oneself in the position of competitor.
 - d. Always perform an experiment to create a market demand that has not been or is not even considered by competitors.
 - e. Being able to do a co-creation with a competitor to serve the same customer.
3. Capabilities of Mimicry towards Supplier
 - a. Being able to appropriately analyze the character of supplier.
 - b. Being able to analyze the conditions of the supplier (finance, production capacity, experience of the supplier).
 - c. Being able to emotionally put oneself in the position of the supplier.
 - d. Being able to create dependency on the supplier company (self-important for suppliers).
 - e. Being able to strengthen relationships with supplier by maintaining the commitment and willing to share information about new products, promotional programs, the addition of employees, and so that is not confidential.
 4. Indicators of Mimicry towards Intermediary
 - a. Being able to appropriately analyze the character of intermediary.
 - b. Being able to analyze the condition of intermediary (financial, sales capacity, experience of the intermediary).
 - c. Being able to emotionally put oneself in the position of intermediary.
 - d. Being able to create dependency intermediary on the company (they are important for intermediaries).
 - e. Being able to use different marketing approach for each character of intermediaries.
 - f. Being able to use different marketing approaches in any conditions of different intermediaries.
 5. Innovation Indicators
 - a. Always experimenting.
 - b. Number of new products produced.
 - c. Number of new services produced.
 - d. Number of new production processes introduced.
 6. Relationship Quality with Partners Indicators
 - a. Trust business partners of the company
 - b. Commitment to business partners
 - c. The ability to handle conflicts with business partners.
 - d. The desire to establish a long term relationship.
 7. Marketing Performance
 - a. Achievement of sales targets.
 - b. The increase in sales volume.
 - c. The increase in market share.
 - d. Comparison of volume of sales to competitors.

APPENDIX

1. Indicators of Mimicry towards Consumer
 - a. Being able to appropriately analyze the character of consumer.
 - b. Being able to appropriately analyze the condition of consumer.
 - c. Being able to emotionally put oneself in the position of consumer.
 - d. Always do a trial on a variety of marketing approaches.
 - e. Being able to use different marketing approach for each character of consumer.
 - f. Being able to use different marketing approach in every condition of different consumer.
2. Indicators of Mimicry towards Competitor
 - a. Being able to appropriately analyze the character of competitor.

Staffing and Job Stress on Motivation of Employees in Al Ihsan General Hospital

Ina Ratnamiasih

Faculty of Economic, University of Pasundan
inaratnamiasih@gmail.com

Putra Mochamad Lazwar

Faculty of Economic, University of Pasundan

Abstract

Motivation has a very important role for the employees of the hospital in order to provide excellent service to the community. The importance of motivation, one of which is associated with the appropriate placement of human resources. This is done with the hope if the employee works in the right place and at the right position, then job motivation will increase. Based on the hypothesis, motivation of employee influenced job stress and heavy work environment can have an impact on employee stress. This research was conducted at Al Ihsan Hospital with a population of 75 employees. The data were obtained using a questionnaire and interview techniques. Data analysis is using structural equation modeling with the help of PLS analysis tools. The results showed that staffing and job stress have a significant effect on job motivation.

Keywords: Staffing, job stress, motivation of employee

INTRODUCTION

The organization's progress is determined by the performance and effectiveness of employee works. Therefore, every organization expects their employees to be able to carry out their duties effectively. All that can be achieved if the employees have a strong motivation to come forward and always try to give their best performance in their job. Motivation also plays an important role in achieving an organization's objectives.

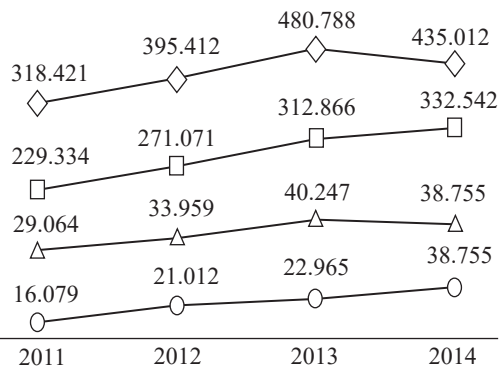
As a non-profit institution, hospitals are increasingly required to improve quality services. Since the hospital holds the status of Public Service Agency in 2010, the number of visits and examinations in almost all medical supporting installations increased. Al Ihsan Hospital is inseparable from the problems in the field of human resources. Al Ihsan Hospital is a health-care facility for the community in conducting services includes outpatient services, emergency care, inpatient care and other medical support services. Al Ihsan Hospital is required to improve services to the public in line with the discourse of the West Java Provincial Government that makes Al Ihsan Hospital as the main referral hospital in West Java in the next few years.

Al Ihsan Hospital is located in Bandung Regency. People who use the health service of Al Ihsan Hospital are not only the people of Bandung regency it self, but there are also people from the bordering regions

near Bandung Regency. Al Ihsan Hospital has become a very important role, especially in fulfill the health services for the people of West Java Province. Aware of this, the current Al Ihsan Hospital is conducting various improvements and enhancement both in quality and quantity of services. Associated with problems in human resources, one of the factors to be considered are employee motivation factors as medical support in five units of the installation that are:

- 1) Laboratory Installation Unit,
- 2) Radiology Unit,
- 3) Pharmacy Installation Unit,
- 4) Medical Rehabilitation Installation Unit,
- 5) Medical Records Unit.

There are many theories about motivation, one of which is the need theory of McClelland. Observations and preliminary interview conducted with some of the employees stating that the problems arising in relation to medical support employee motivation is most of the employees are likely still in the need for affiliation (Naff) motivation. Need of affiliation make employees tends to eliminate the atmosphere that could potentially cause competition or rather choose a cooperative situation than a competitive one. The need for cooperation and coordination is required in terms of serving the visit and examination of patients in the medical support installation unit.



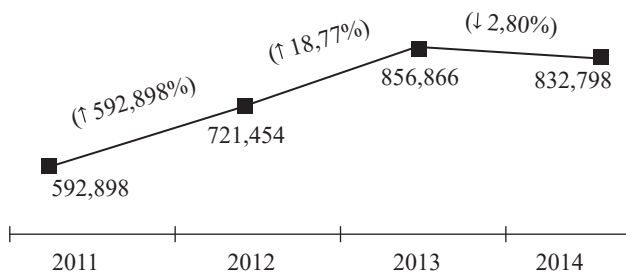
Source: Al Ihsan Hospital Service Report (2011-2014)

Figure 1. Visit Percentage and Unit Inspection

Notes:

- Medical Rehabilitation
- △ Radiology
- Pharmacy
- ◇ Laboratory

Figure 1. shows that each installation has increased visits and examinations annually. Significant improvement occurred in the Medical Rehabilitation Installation Unit in 2012 which became 21,012 patients (number of visits in 2011 was 16,079 patients), which means an increase of 30.68%. This condition is indicated as a result of the implementation status of the hospital into a Public Service Agency hospital by the Government aimed at improving public services, making it easier for people to perform medical tests at Al Ihsan Hospital. Although in 2014 the Laboratory Installation Unit and Radiology Unit decreased respectively by 9.52% and 3.71%, the decline was deemed not significant.



Source: Al Ihsan Hospital Service Report (2011-2014)

Figure 2. Percentages of Total Visits in 5 Installations

There are a significant increase of the percentage of total number of visits and inspections of medical support installation occurred in 2012 to 721,454 patients (total number in 2011 was 592,898 patients), an increase of 21.68%. But in 2014 showed a decrease in the number of visits and services by 2.80% to 832,798 patients (total number in 2013 was 856,866 patients). With a total number of 832,798 patients in 2014, the number of visits per day was able to reach 2,282 patients (Figure 2).

Every increase in the number of visits and inspections directly affects the amount of work that increasing, making the quantity of the workload of each

employee growing. It is hard because every employee must ensure that the quality of service received by the public. Ideally, every increase in the quantity of work must be adjusted by the number of employees in each unit of the installation, so that the performance of employees to service quality is maintained properly.

With 75 employees and 2,282 patients per day, then 1 medical support employees in 5 installation units serve an average of 30 patients per day, or a ratio of 1:30. While the ideal amount of an employee of medical support to serve patients every day are 20 patients, or a ratio of 1:20. This clearly indicates that the average medical support staffs in 5 installation units get excessive workloads. Although during this time, Al Ihsan Hospital apply the policy of hiring freelance employee in all existing installation units, but only to help the work of regular employees and contract workers. The quite heavy workload is still felt both by permanent and contract employees. With the addition of a quite heavy workload, it is concerned that motivation of employee is lowered due to not being able to manage themselves well in doing their job.

Consideration factors in the staffing of an employee in the field and the specific task whether the initial placement, transfer, and promotion are very important concern for the organization. However, in its application, careful consideration in staffing is a very difficult process and proportionally has less attention from management. The difficulty of finding the human resources that have particular qualifications for the post and the accuracy of placing each position in the medical supporting installation unit are the obstacles faced by the management of Al Ihsan Hospital. Often the conditions to occupy a position or fill vacant positions are not being met for their professionalism strict regulations governing the placement of an employee at the hospital. There are several factors that indicated a problem in medical support staffing in Al Ihsan Hospital, that are:

- 1) Difficulty in finding the human resources that meet the occupational requirements,
- 2) The number of workers are still lacking,
- 3) The system scheduling/ shift of employee is not optimal due to the lack of number of employees. The accuracy and adequacy of placing an employee in the right position is one important factor in the effort to evoke the passion, motivation and morale of employees.

Another variable that indicates cause low motivation of employee is job stress. Job stress provides an important role in maintaining and increasing employee motivation. Job stress is defined as the pressure felt by employees for work tasks that they cannot fulfilled. Stress arises when an employee cannot fulfill what the job demands. There are some factors trigger job stress may be indicated happen to the employees of medical support in Al Ihsan Hospital, that are: 1) The workload is quite heavy, which is caused by an increase

in the number of visits and inspections conducted in installation units of medical support; 2) The dual role, which often involve the employees such as participation in the composition of event committees organized by the hospital. Employees demanded the addition number of employees to cope with the excess workload. In addition, the employees demanded an increase in employee welfare because the workload is quite heavy and the absence of additional headcount.

METHOD

Research related to motivation to work has been done both in profit and non-profit organizations. Motivation of employee shows as an important factor because employees as a unique resource. Motivation theory discusses the urge for employee to work based on the process of motivation and what are the factors that can create job motivation (Mathis & Jackson, 2006). One theory to explain the factors of motivation is the McClelland's theory of needs. This theory focuses on three needs that are need for power, need for achievement, and need for affiliation.

Need for achievement is a strong incentive to succeed. This impulse directs individuals to fight harder in obtaining personal achievement rather than awarded. This then caused them to do something that is more efficient than before. Need for power is a desire to have an influence, become influential and controlling other people. Such individuals become more responsible, striving to influence other people, happy to be placed in competitive situations and tend to be more concerned with the effect obtained than effective performance. Then the need for affiliation is the need to acquire good social relationships in the work environment. This requirement is characterized by having a high motive for friendship, prefers cooperative situation and want relationships that involve a high level of mutual understanding.

Robbins & Coulter (2007) suggests other theories about the factors that affect job motivation expressed by F. Herzberg. According to his theory, motivation of employee can be caused by intrinsic (internal) factors and extrinsic (external) factors. Intrinsic factor comes from within, such as job satisfaction, self capacity, up to the stress of work which may arise as a result of not being able to control themselves. Extrinsic factor is the quality that exists outside themselves, such as employee placement process.

Staffing should be based on the accuracy and adequacy of employees, but it also must be based on job description and job specification which has been determined and guided by the principle of "the right man on the right place" (Shah *et al.*, 2011). The principle should be implemented consistently so that employees can work in accordance with the capabilities

and skills of each. With proper placement, morale, mental work, job performance, and job motivation will achieve optimal results. As proposed by Martin (2011) and Sahin & Sahingoz (2013) that proper staffing is a motivation that leads to enthusiastic high morale for employees in completing the work. So, the proper placement is the key to obtaining optimal work of each employee in addition to morale, creativity, and initiative will flourish. Martin (2011) found that when employees don't placed in the right position, they tend to feel uncomfortable and then quit their job. On the other side, the study of Chen *et al.* (2010), Hegney *et al.* (2003), Sanali *et al.* (2013), and Pooja (2013) state that the heavy workload of nurses have caused the motivation and performance of employees decreased dramatically.

Job stress experienced by employees can be affected by factors that originated in the work and outside of work. If this job stress leads to negative and destructive stress, it will have negative effect on motivation of employee (Sanali *et al.*, 2013). This is consistent with the views expressed by Jacobs *et al.* (2013) who argued relationship between job motivation and job stress is the stress that is too low or too high will result in a lack of motivation in the work. For a manager, pressures that are given to employees must be observed so the stress caused is still in the stage of reasonableness.

The statement was supported by a number of previous studies have been done on the effect of job stress on job motivation. Research conducted by Kouloubandi *et al.* (2012) and Olaniyi (2013) which states that job stress has a significant influence on employee motivation. Job stress really affects a decrease in job motivation, which in turn can decrease performance of employee. Based on some previous research, it can be described the relationship between staffing, job stress, and motivation of employees as in Figure 3.

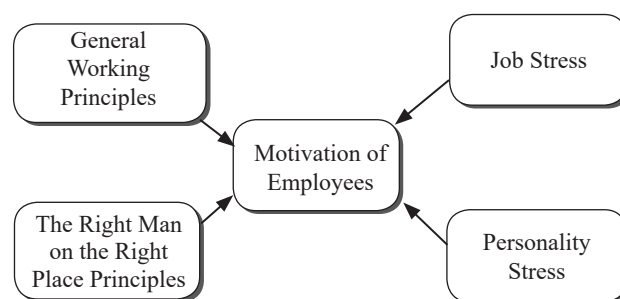


Figure 3. Research Frameworks

This study uses quantitative methods. The population in this study is all permanent and contract employees at five medical support installation unit. The population in this study amounted to 75. Table 1 is presented the distribution of respondents and the percentage is based on each installation unit.

Tabel 1. Characteristic of Medical Support Employees

No.	Instalation	Employee Status		Sum	Percentage
		Permanent	Contract		
1	Laboratory	7	5	12	16%
2	Radiology	6	2	8	10.7%
3	Pharmacy	22	15	37	49.3%
4	Medic Rehabilitation	3	1	4	5.3%
5	Medical Record	5	9	14	18.7%
Total				75	100%

Source: Al Ihsan Hospital in 2014

The determination of the respondents were selected using non probability sampling technique that is a sampling technique that does not provide opportunities or equal opportunity for each element or member of the population to be selected into the sample with a census. Data analysis using SEM with data processing tools using PLS technique to determine the contribution of each construct and dimensions.

Tabel 2. Correlation Coefficient

	ME	GWP	RMRP	JS	PS
ME	1	0	0	0	0
GWP	0.552393	1	0	0	0
RMRP	0.571256	0.579196	1	0	0
JS	0.586776	0.380365	0.270336	1	0
PS	-0.42729	-0.19439	-0.10715	-0.36038	1

RESULTS

Discriminant validity is known by looking at the score of cross loading of each item compared with a score of cross loading on the entire construct (Hair *et al.*, 2006). Item is valid if it has a score above 0.6 (Hair *et al.*, 2006). In Table 2. it can be seen that the construct on each latent variable is motivation of Employee (ME), General Working Principles (GWP), The Right Man on the Right Place Principles (RMRP), Job Stress (JS), and Personality Stress (PS) has a high correlation with other constructs. The results of validity test can be seen in Table 3. where all the items are valid except x1, x2, x13, x14, and x29.

Convergent validity was tested with regard to the AVE. When the AVE is not less than 0.5, then the construct is valid. On the other hand, with regard to the value of reliability are greater than 0.6. This indicates the existence of consistency internally. Cronbach's alpha and composite reliability was used to assess the reliability of the construct. The overall result of measurement reliability and internal consistency can

Tabel 3. Cross Loading Value

Item	ME	GWP	RMRP	JS	PS
X1	0.293766	0.446995	0.178883	0.129851	-0.17897
X2	0.190471	0.397412	0.161712	0.098324	-0.23736
X3	0.387662	0.811088	0.306899	0.304499	-0.17313
X4	0.384663	0.791306	0.353714	0.293565	-0.13869
X5	0.498377	0.782278	0.523664	0.392412	-0.23097
X6	0.430000	0.681996	0.469769	0.215909	-0.08417
X7	0.320299	0.341254	0.700385	0.016729	-0.03589
X8	0.452497	0.478864	0.742809	0.253362	-0.00559
X9	0.435702	0.417866	0.710905	0.276349	-0.10308
X10	0.361312	0.355372	0.632865	0.156469	-0.16276
X11	0.329351	0.688958	0.315352	0.346962	-0.07895
X12	0.360905	0.593730	0.511391	0.172907	-0.06342
X13	0.102678	0.445604	0.229031	0.006687	0.144014
X14	0.285181	0.389286	0.394099	0.238405	-0.18465
X15	0.20183	0.552473	0.29331	0.11003	0.124225
X16	-0.32662	-0.20132	-0.21649	-0.36491	0.610781
X17	-0.40121	-0.23801	-0.05443	-0.55666	0.731154
X18	-0.38319	-0.1689	-0.16335	-0.19214	0.782546
X19	-0.41702	-0.18492	-0.14714	-0.32408	0.869493
X20	-0.32284	-0.08622	-0.14429	-0.19579	0.863503
X21	-0.36396	-0.21152	-0.05382	-0.22846	0.881776
X22	-0.30838	-0.13428	-0.08710	-0.23455	0.694931
X23	-0.24984	-0.10452	0.046769	-0.25016	0.828891
X24	-0.28984	-0.10085	-0.05484	-0.23844	0.767749
X25	-0.25742	-0.06103	0.017334	-0.19183	0.799356
X26	-0.13916	-0.02761	0.146131	-0.14975	0.660700
X29	-0.04587	0.01374	0.204099	0.058701	0.642458
X30	0.578567	0.378491	0.284412	0.996863	-0.30663
X31	0.802906	0.493205	0.414488	0.686042	-0.40694
X32	0.800763	0.418001	0.507203	0.445453	-0.33706
X33	0.741083	0.409097	0.36499	0.612811	-0.44867
X34	0.820773	0.341008	0.459636	0.466239	-0.37093
X35	0.847063	0.456238	0.461138	0.458031	-0.53725
X36	0.838654	0.480713	0.446348	0.392207	-0.42133
X37	0.818494	0.44369	0.429974	0.393977	-0.41417
X38	0.753253	0.574985	0.451957	0.305478	-0.26319
X39	0.816395	0.320702	0.535354	0.420614	-0.22853
X40	0.722156	0.461659	0.475275	0.405258	-0.16989
X41	0.701059	0.338196	0.419064	0.301349	-0.06959
X42	0.613287	0.384129	0.369139	0.467802	-0.13383

be seen in Table 3. From the Table 2, it can be seen that job stress caused of personal otherwise most reliable when considering the composite reliability, but is not reliable when referring to the value of Cronbach's alpha.

Figure 4 shows the path coefficient of staffing and job stress on motivation of employee at Al Ihsan Hospital. The results for the overall hypothesis test can be seen in Table 4 that staffing and job stress effect on motivation of employees are 59.7%.

DISCUSSION

The effect of staffing and job stress on the motivation of employees working in the medical support of Al Ihsan Hospital are 59.7%. Staffing showed that the right man on the right job to have the greatest impact on motivation of employees, by 35.4%, while the subsequent influence comes from job stress because of personal business that is equal to 34.2%. The influence of stress from task demand due to personal is positive whereas the effect of job stress because of work to be negative. This indicates that employee stress caused by the bad influence of work, whereas the stress or pressure because of problems outside of work actually have a positive impact on employee motivation.

There are many studies that prove that the ability of medical personnel to provide quality services will decrease when employees feel frustrated and angry (Bickford, 2005). This will further impact on employee turnover (Jacobs *et al.*, 2013 and Martin, 2011). The results of this study support previous research which states that medical personnel will refuse to work better if the workplace environment is not supportive. The results of this study indicate that the excessive workload and job stress has a negative impact on motivation of employees. The research by Sanali *et al.* (2013) showed that the improper placement of employees and patients ratio unbalanced causes nurses to not feel motivated so the performance become problematic. Conditions such as these contribute to the lack of services to patients. From these results, it can be seen that the employees need a quieter working environment with staffing into account the balance between the ability of employees to the demands of the job. In addition, the compensation also becomes their concern (Jacobs *et al.*, 2013).

CONCLUSION

Motivation of employees have important role to produce the best services to the patients. Staffing especially HR placement that are based on the principle of the right man on the right job, play an important role to enhance motivation of employees. Similarly, the stress of work, stress from work plays poorly on job motivation. The results showed that hospitals need to pay attention to both dimensions. In addition, the hospital needs to pay attention to aspects of the provision

of fair remuneration and decent as well as aspects of the reward for employees who excel. Al Ihsan Hospital also needs to consider the workload as a source of stress that can lead to employees working through how to make a proper calculation of the ratio between the number of employees by the total number of visits and examination of patients in each of the medical support installation unit to reduce the workload. The aspects that accompany the accuracy and adequacy in staffing and quantify sources of work stress will affect the increase of job motivation.

REFERENCES

- Bickford, Melanie. 2005. Stress in the Workplace: A General Overview of the Causes, the Effects, and the Solutions, *Canadian Mental Health Association*, (August): 1-5.
- Chen, Tien-Hui, Kun-Hsu Wu, Wei-Jen Lin, Wen-I Horna & Chich-Jen Shieh. 2010. Incorporating Workload and Performance Levels into Work Situation Analysis of Employees with Application to a Taiwanese Hotel Chain. *American Journal of Applied Sciences*, 7(5): 692-697.
- Hair, Joseph F. Jr., William C. Black, Barry J. Babin & Rolph E. Anderson. 2014. *Multivariate Data Analysis* (7th edition). New Jersey: Pearson Education.
- Hegney, Desley, Ashley Plank & Victoria Parker. 2003. Nursing Workloads: the Results of a Study of Queensland Nurses. *Journal of Nursing Management*, 11(5): 307-314.
- Jacobs, Sally, Karen Hassell & Sheena Johnson. 2013. Managing Workplace Stress to Enhance Safer Practice in Community Pharmacy: A Scoping Study. *Pharmacy Research UK*, 1-139.
- Kouloubandi, Abdollah, Manouchehr Jofreh & Fatemeh Sadat Mahdavi. 2012. Analysis The Relationship Between Job Stress, Intrinsic Motivation & Employees Creativity In Islamic Republic Of Iran Railways Organization. *Interdisciplinary Journal of Contemporary Research In Business*, 4(8): 39-53.
- Martin, Michael Joseph. 2011. Influence of Human Resource, Practices on Employee Intention to Quit, Dissertation submitted to the faculty of Virginia Polytechnic Institute and State University in partial fulfillment of the requirements for the degree of, Doctor of Philosophy In Agricultural and Extension Education, July 15, 2011, https://theses.lib.vt.edu/theses/available/etd-07272011-150612/unrestricted/Martin_MJ_D_2011.pdf
- Mathis, Robert L & John H. Jackson. 2006. *Human Resources Management* (edisi ke-10). Jakarta: Salemba Empat.
- Olaniyi, Adebimpe Adebola. 2013. Effects of Job Stress and Motivation on Performance of Employees in Hotel Industry (Hotels at Dublin Airport),

BA (HONS) in Human Resources Management, Submitted to National College Of Ireland, 1-89. <http://trap.ncirl.ie/910/1/aolaniyi.pdf>. [Online].

Pooja, Roy Dasgupta. 2013. Volatility of Workload on Employee Performance and Significance of Motivation: IT Sector. *Science Journal of Business and Management*, 1(1): 1-7.

Robbins, Stephen P. & Mary Coulter. 2007. *Manajemen*. Jakarta: Erlangga.

Sahin, Hande & Semra Akar Sahingoz. 2013. The Relationship between Personnel Workload and Work Satisfaction within Accommodation and

Nutrition Establishments. *American International Journal of Social Science*, 2(3): 10-18.

Sanali, Syukri, Arsiyah Bahron, Oscar Dousin. 2013. Job Rotation Practices, Stress and Motivation: An Empirical Study among Administrative and Diplomatic Officers (ADO) in Sabah, Malaysia. *International Journal of Research in Management & Technology (IJRMT)*, 3(6): 160-166.

Shah, Syed Saad Hussain et al. 2011. Workload And Performance Of Employees, *Interdisciplinary Journal Of Contemporary Research In Business*, 3(5): 256.

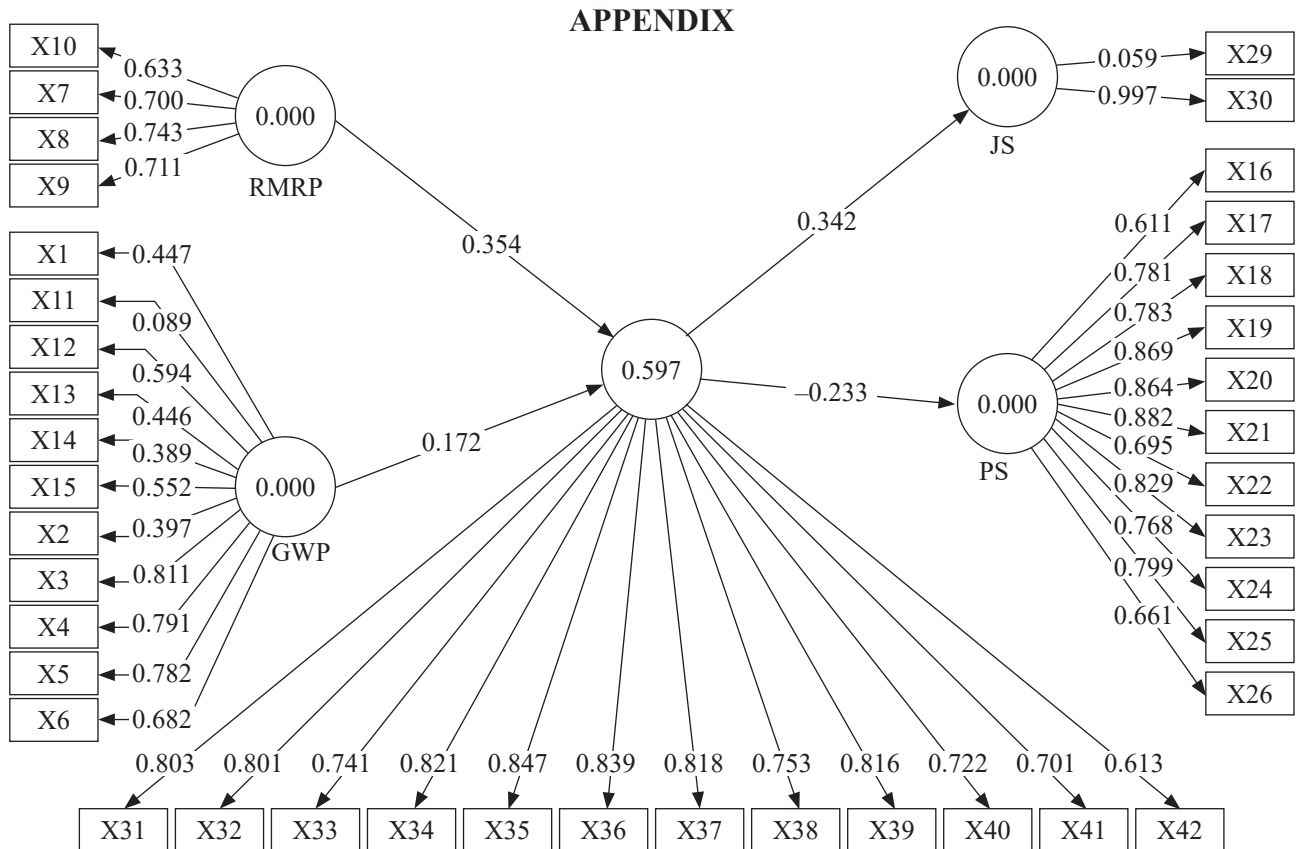


Figure 4. Path Coefficient

Tabel 4. AVE Value, Reliability, Cronbachs Alpha

Dimension	AVE	Composite Reliability	R Square	Cronbachs Alpha	Communality	Redundancy
MK	0.601879	0.947396	0.59736	0.939149	0.601879	0.095899
PKU	0.381942	0.864325		0.83174	0.381942	
PRMRP	0.487052	0.791038		0.649794	0.487052	
SKHP	0.498591	0.526309		0.241804	0.498591	
SKP	0.603102	0.942901		0.933009	0.603102	

Table 5. Results of Hypotheses Testing

	Hypotheses	Path Coefficient	T-value	Description
H1	Staffing → general principles on staffing	0,172	1,930	There is a positive effect of the staffing - general dimensions - on job motivation
H2	Staffing → the right man on the right place on staffing	0,354	4,880	There is a positive effect of the placement - right man on the right place dimension- on job motivation
H3	Job stress because of task demand → employee motivation	-0,233	3,746	There is a negative effect of job stress on job motivation
H4	job stress because of personal → employee motivation	0,342	3,644	There is a positive effect of job stress on job motivation

Job Satisfaction and Job Performance in PT XYZ

Cindy Valianawaty

Department of Management, Faculty of Economics,
Petra Christian University
cindy_10054@yahoo.com

Eddy M. Sutanto

Department of Management, Faculty of Economics,
Petra Christian University

Abstract

This study was aimed to describe the measurements levels of job satisfaction and job performance, as well as to examine the positive effects on job satisfaction of employees performance in PT XYZ. This study used a quantitative approach, primary data which was obtained from the questionnaires to 60 employees, and secondary data from the company record, literature and previous research. The conclusion was, first, that each of individual employees had different job satisfaction. Second, the job performance was individual. Third, job satisfaction was high, working condition indicator as the highest and social service indicator as the lowest. Fourth, job performance was high, quality of work indicator as the highest, as well as cooperative and dependability indicator as the lowest. Fifth, the job satisfaction had no positive effect on job performance in PT XYZ.

Keywords: job satisfaction, job performance

INTRODUCTION

In the current era of globalization, the issue of human resources is still in the spotlight and power for companies to remain afloat. Human resources have a major role in every activity of the company, although it is supported by the infrastructure and redundant financial resources. Without the support of reliable human resources, the company still cannot establish properly, which then only can cause inaccuracies in the company.

With this important role, human resources should be carefully managed. Between the employee and the company, there is a tendency that they should have a relationship of mutual need. Companies need qualified and productive employees. Employees need companies to be able to meet their needs. As the two parties need each other, it is necessary to create a harmonious relationship between them.

The effort of the company's management is necessary to continue to maintain and improve employee's job satisfaction. Employees need a satisfaction during their time of working, both in terms of material and morale. Work is perfectly needed as a definition the fulfillment of one personal satisfaction. When employees do not

get satisfaction from the work, morale will fall and job dissatisfaction emerges, so that it's difficult for manager to get worker's cooperation. In order to establish a good job satisfaction, managers should give employees a clear job description to achieve job satisfaction.

Employees have the protection of the Government stated in *UU nomor 13 tahun 2003* on Labour. This law provides labor protection to ensure the basic rights of workers/laborers and ensure similarity, opportunity and non-discrimination in order to realize worker's families' welfare, regarding to developmental progress of the business world. The Law (UU) also covers wages, and employee benefits. Job satisfaction is the important variable to achieve by organizations (Chen, Zhao & Liu, 2012). Unsatisfactory made inefficiency and ineffectively organizations (Hooi, 2007; Vrinda & Jacob, 2015).

Job satisfaction itself has a definition that is difficult to define on simplest term. For employees, job satisfaction appears when the perceived benefits of work could exceed the marginal costs that have been incurred, which employee considered adequate. According to Hasibuan (2007), job satisfaction is described as an emotional attitude of fun and loves for one's job. In line with this, Noe et al. (2008) defined job satisfaction

as a pleasant feeling of the result of the perception that his work has met the important values of work. Job satisfaction is essentially individualistic. Each individual has a level of satisfaction varies according to the system value that has prevailed on. This is due to the differences in each individual. The higher the assessment of an activity considered appropriate to the individual's desire is, the higher the satisfaction with the activity.

Many factors can affect employees' job satisfaction. In this case, according to Minnesota Satisfaction Questionnaire (MSQ), there are 20 aspects of job satisfaction which are related to each other, such as ability utilization, achievement, activity, advancement, authority, company policies, compensation, co-worker, creativity, independence, moral values, recognition, responsibility, security, social service, social status, HR supervision, technical supervision, variety, and working condition. Employees' job satisfaction must be created as good as possible in order to increase better morale, dedication, passion, and discipline on employees. This attitude is reflected by morale, discipline, and job performance.

Employee's performance is most important for managers beside employee's job satisfaction (Kelidbari, Dizgah & Yusefi, 2011). Manager must have analyze factors made high performance for organization (Abbas and Yaqoob, 2009). Wu and Lee (2011). Employee performance is defined as the employee's overall performance meets the expected quality, and the achievement of tasks based on policies and time in accordance with the provisions of the organization. In line with this, Keller (2006) stated that the way in which employees achieve the set goals of the organization and interpersonal behavior linking them with organizational norms can be termed as the employee's performance.

According to Handoko (2012), performance is the last measure of employees' success to do the job. Basically, performance is individualistic because each employee has a different ability level in doing his job, by relying on a combination of ability, effort, and opportunity gained. According to Parvin and Kabir (2011), a good leader must be a good teacher and should know how to encourage employees to improve the job performance in the workplace, and to increase the knowledge of the employees. Leaders in the company should allow their employees to reach their full potential, in this case an evaluation in the form of performance assessment.

The performance assessment is expected to help the leader to monitor the job performance both individually and as a whole group. Determination of assessment criteria should be clear and objective, therefore the assessment made has accurate results in any work activities that are assessed. Gomes (2003) described that in conducting research on a performance based on specific behavior (judgment performance evaluation),

there are 8 dimensions that need to be brought up, such as quality of work, quantity of work, job knowledge, creativity, cooperative, initiative, dependability, and personal quality.

PT XYZ is a family company located in Surabaya. This company has been established for 45 years and is engaged in food distribution. The company has 60 employees in its headquarters. It has to fulfill labor standards in accordance with *UU nomor 13* on Labour, where the company provided salary in accordance with the standards above the minimum wage for employees. The company should also provide benefits that every employee required in accordance with the standards. However, salaries and allowances are not the only necessary factors determining employees' job satisfaction. There are many other necessary factors that could be the question in determining the satisfaction, especially in the current unstable economic situation during this period of time. Therefore, employees should become more intensive to do the best out of the company they work for, and so the leaders do: in improving employees' performance at work.

Based on those facts explained before, there are problems related to the facts themselves. The first one is how is the level of satisfaction and the performance of employees in the company. This problem is still in question and requires further study because it also becomes the background of this research. The second problem is how to analyze and measure the level of employees' job satisfaction and performance. The last problem tends to show that does job satisfaction have positive influence on job performance in PT XYZ.

METHODS

Companies are expected to see any basic needs required by each employee. It is very important for the progress and improvement of productivity. The purpose of this study is to measure, test, and describe the level of satisfaction and job performance, as well as test and describe the positive effects arising from job satisfaction to job performance in PT XYZ.

The data collected in this study consists of primary data and secondary data. Primary data was obtained from the questionnaire on job satisfaction and job performance. Data taken from the questionnaire is the identity of respondents (occupation, sex, age, religion, place of origin, last education, time they had been working on), as well as the answers of the indicators of job satisfaction and job performance. Secondary data was collected from the archives of PT XYZ in the form of organizational structure, employees' job descriptions, employees' data, and other supporting data obtained from the company. In addition, secondary data was also obtained from the literature and the results of previous research.

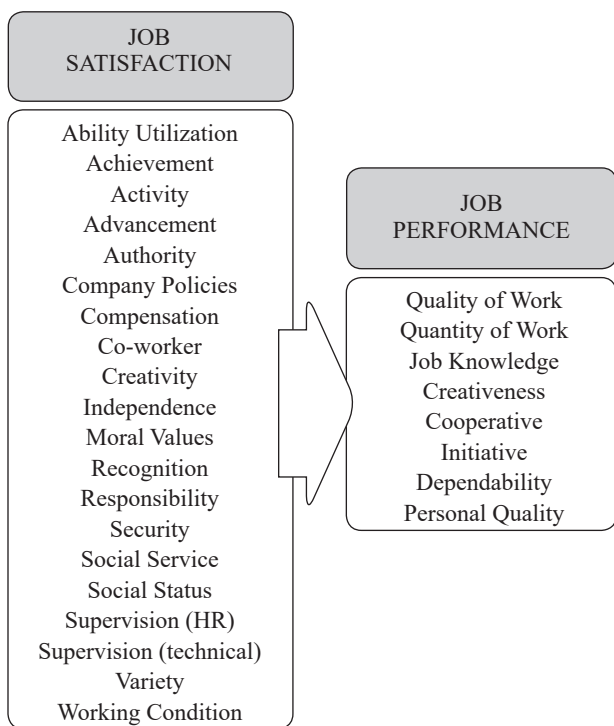


Figure 1. Research Framework

This research was conducted at PT XYZ located in Surabaya. Data collection technique in this study was conducted by the division of the questionnaire. Questionnaires were distributed as measurements using the rating scale with a Likert-type scale.

The determination of sample for this study is with the distribution of questionnaires. Job satisfaction questionnaire filling was distributed to the entire population of employees at PT XYZ, as many as 60 employees in six departments. Job performance questionnaire filling was distributed to nine managers of 6 departments; these managers will discuss/review the employee one by one of different departments. Manager's performance questionnaire filling will be reviewed by the owner.

Data analysis techniques in the study were carried out by first identifying the identity of the respondents. Identifying the respondent's identity was divided into the information about occupation, sex, age, religion, place of origin, recent education and time they had been working on. The type of this research is quantitative research. The data analysis used for this research is SPSS for Windows Ver. 19.0. Data analysis technique is done by measuring the appropriateness of the data used. These measurements are using analysis of validity and reliability, as well as normality and heteroscedasticity test.

Validity analysis is useful to measure whether the questionnaires are valid or not. Reliability analysis is useful for measuring reliability of data that was used. Normality test is useful for measuring whether the distribution of data is normal or not. Heteroscedasticity test is useful for measuring whether the data used

homogeneous or not. This study uses job satisfaction as the independent variables with the symbol X, and job performance as the dependent variable with the symbol Y. The method of data analysis for both variables X and Y in this study is using simple linear regression analysis to test hypothesis using t test.

RESULTS

PT XYZ is a family company that is engaged in the distribution of food ingredients and beverages. The company is now managed by the third generation and has been established for more than 45 years. In the beginning of establishment, PT XYZ started with a small retail store located in the heart of Chinatown in Surabaya, which then in 1977 switched the business from small retail businesses to suppliers of food and drink, until finally in 1992 the company restructured to PT (*perseroan terbatas*/incorporated company). The company has a mission that is supported by the company's vision, namely to become a favorite (most preferred) supplier to supply foodstuffs and beverages in Indonesia.

The respondents who had completed questionnaires are identified by occupation, sex, age, religion, place of origin, recent education and time they had been working. Employees in XYZ consist of 60 people who had 9 managers from six departments: with the percentage of male employees is 36.7% and 63.3% of female employees. Employees at the company are divided into age as much as 75.0% of 20-35 years, and older than 35 years as much as 25.0%, with employees working longer than 5 years of 26.7%, 6-15 years amounting to 60.0%, and over 15 years of 13.3%. A total of 78.3% of employees are employees who are originated from Surabaya, and as much as 31.7% of Christian.

Table 1. Employees Position Distribution in PT XYZ

Position	Job Satisfaction		Job Performance	
	Unsatisfactory	Satisfactory	Low	High
Accounting	0%	11,7%	1,7%	10,0%
Export Import	0%	6,7%	0%	6,7%
Finance	0%	13,3%	1,7%	11,7%
HRD	1,7%	3,3%	1,7%	3,3%
IT	0%	6,7%	0%	6,7%
Sales	1,7%	55,0%	0%	56,7%

Table 2. Employees Gender Distribution in PT XYZ

Gender	Job Satisfaction		Job Performance	
	Unsatisfactory	Satisfactory	Low	High
Man	0%	36,7%	1,7%	35,0%
Woman	3,3%	60,0%	3,3%	60,0%

Table 3. Employees Age Distribution in XYZ

Age	Job Satisfaction		Job Performance	
	Unsatisfactory	Satisfactory	Low	High
20-35 y.o	3,3%	71,7%	5,0%	70,0%
>35 y.o	0%	25,0%	0%	25,0%

Table 4. Employees Religion Distribution in PT XYZ

Religion	Job Satisfaction		Job Performance	
	Unsatisfactory	Satisfactory	Low	High
Buddha	0%	15,0%	1,7%	13,3%
Islam	3,3%	21,7%	1,7%	23,3%
Catholic	0%	28,3%	0%	28,3%
Christian	0%	31,7%	1,7%	30,0%

Table 5. Employees Origin Distribution in PT XYZ

Place Of Origin	Job Satisfaction		Job Performance	
	Unsatisfactory	Satisfactory	Low	High
Banyuwangi	0%	1,7%	1,7%	0%
Jember	0%	1,7%	0%	1,7%
Jombang	1,7%	1,7%	0%	3,3%
Kupang	0%	1,7%	0%	1,7%
Madiun	0%	5,0%	0%	5,0%
Magelang	0%	1,7%	0%	1,7%
Malang	0%	3,3%	0%	3,3%
Mojokerto	0%	1,7%	1,7%	0%
Surabaya	1,7%	76,7%	1,7%	76,7%
Tuban	0%	1,7%	0%	1,7%

Table 6. Employees Last Education Distribution in PT XYZ

Last Education	Job Satisfaction		Job Performance	
	Unsatisfactory	Satisfactory	Low	High
Senior High School	0%	11,7%	0%	11,7%
Bachelor	0%	71,7%	5,0%	66,7%
Diploma	3,3%	13,3%	0%	16,7%

Table 7. Employees Work Time Span Distribution in PT XYZ

Time Span	Job Satisfaction		Job Performance	
	Unsatisfactory	Satisfactory	Low	High
<5 years	1,7%	25,0%	1,7%	25,0%
6-15 years	1,7%	58,3%	3,3%	56,7%
>15 years	0%	13,3%	0%	13,3%

Employees have last educated of Bachelor degree as about 71.7%.

Validity test is done by comparing the rcount with rtable (Priyatno, 2010). Value of rcount is the correlation result of respondents' questionnaire answers in each

statements using using SPSS analysis. Value of r table is 0.254, with a significance of 5% and the number of samples of 60. The calculation results of validity test stated that the indicators of job satisfaction and performance are valid. It means that these indicators have a positive value and the value r count > r table.

Table 8. Descriptive Statistic of Job Satisfaction

Indicator	Mean	Explanation
Ability Utilization	4,02	High
Achievement	3,90	High
Activity	4,03	High
Advancement	3,68	High
Authority	3,78	High
Company Policies	3,70	High
Compensation	3,70	High
Co-Worker	3,90	High
Creativity	3,88	High
Independence	3,80	High
Moral Values	3,90	High
Recognition	3,77	High
Responsibility	3,95	High
Security	3,97	High
Social Service	3,45	High
Social Status	3,57	High
Supervision (HR)	3,78	High
Supervision (Technical)	3,88	High
Variety	3,75	High
Working Condition	4,05	High
Total		3,82

Table 9. Descriptive Statistic of Job Performance

Indicator	Mean	Explanation
Indicator 1	3,83	High
Indicator 2	3,97	High
Indicator 3	3,85	High
Indicator 4	3,88	High
Indicator 5	3,62	High
Indicator 6	3,78	High
Indicator 7	3,65	High
Indicator 8	3,60	High
Indicator 9	3,80	High
Indicator 10	3,88	High
Indicator 11	3,80	High
Indicator 12	3,90	High
Indicator 13	3,60	High
Indicator 14	3,85	High
Indicator 15	3,92	High
Total		3,8

Normal P-P Plot of Regression Standardized Residual

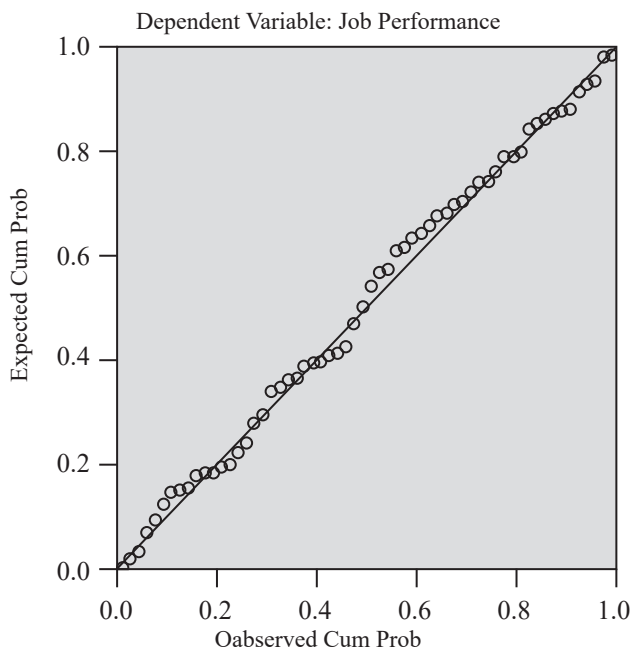


Figure 2. Normality Test Result

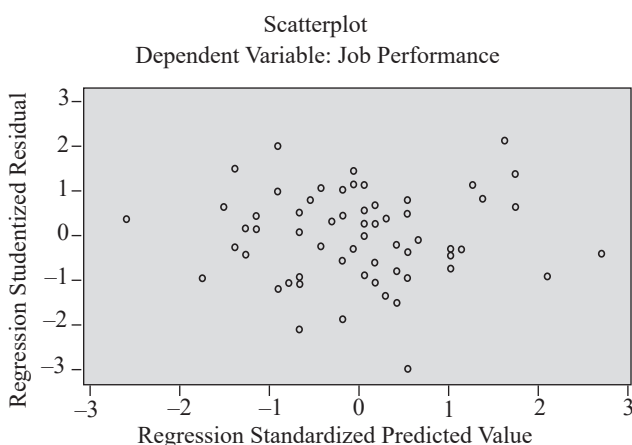


Figure 3. Heteroscedasticity test Result

Reliability test in this study indicate that the instrument of measuring job satisfaction and job performance has been reliable with a good level of reliability, which means the value of Cronbach's Alpha on job satisfaction and job performance is greater than 0.6.

In regression model, normality test aims to test the dependent variable and independent variables whether they have a normal distribution or not (Ghozali, 2011). Results from SPSS showed normal probability plot graph which both has some points spread around the diagonal line and distribution which follow the diagonal line direction. The results of this graph meet the assumptions of normality, therefore it can be stated that dependent variable and independent variables have normal data distribution.

Heteroscedasticity test aims to test whether the data in regression model will inequality occur residual

differences from one observation to another. A good regression model stated that heteroscedasticity will not happen, as seen from the distribution graph plot. The results of this study shows the scatter plot graph which the distribution of plots data seems to spread or does not collect in one corner/section. Based on that assumption, it can be concluded that this research data is homogeneous.

Descriptive statistic of job satisfaction was performed based on 20 indicators that have been set by MSQ. The average of job satisfaction showed a high yield of 3.82. Working condition, activity, and ability utilization are the highest three indicators. Social service, social status, and advancement are the three lowest indicators.

Descriptive statistic of job performance was done based on eight indicators. The average of performance showed a high yield that is 3.8. It means that the vast majority of employees stated by the supervisors (employees by managers, and managers by the owner) according to their performance is high. The calculation result shows the highest average yield of job performance contained in the statement of employees who do their job deftly, is based on indicator of work quality. Indicators that have the lowest average value of job performance contained in the two statements stating that employees can work well in groups and employees' action are the indicators of cooperation and dependability.

Analysis of simple linear regression is a linear relationship between the independent variable (X) to the dependent variable (Y). This analysis is a tool to determine the direction of the relationship between variable X with variable Y whether positive or negative, and to predict the value of variable Y when variable X value increases or decreases. Research of this analysis was conducted between X of job satisfaction and job performance as Y.

The simple linear regression model in this study is $Y = 4,371 + (-0.151) X$ or $Y = 4.371 - 0,151X$. Based on simple linear regression models that already exist, it can be seen that the variables of job satisfaction (X) has a negative effect on job performance (Y). If the job satisfaction variable (X) increases, job performance variable (Y) will be decreased by 0.151%. If the job satisfaction variable (X) decreases, then the job performance variable (Y) will increase by 0.151%. The conclusion is that job satisfaction variable (X) does not have a positive effect on job performance (Y).

Testing the hypothesis (t test) indicates that H_0 is accepted, seen from the results tcount of -1.033, with the calculation of $-t_{table} \leq t_{count} \leq t_{table}$ then generate $t_{count} \leq t_{table}$ with $-1.033 \leq 2.002$. The conclusion obtained is that job satisfaction variable partially did not affect job performance at PT XYZ.

The calculation results for the significance value of 0.306 also show that H_0 , as seen from the results

of significance value of 0.306, with the calculated significance value of 0.05, generate 0.306 more than 0.05. The conclusion obtained is that job satisfaction variables did not affect the job performance at PT XYZ.

DISCUSSION

Job satisfaction is a positive emotional state and the evaluation result of a person's work experience as well as the employees associated with work situations or jobs. Job satisfactions studied in this research are ability utilization, achievement, activity, advancement, authority, company policies, compensation, co-worker, creativity, independence, moral values, recognition, responsibility, security, social service, social status, HR supervision, technical supervision, variety and working condition.

Employee satisfaction is an important issue that needs to be considered in conjunction with employee productivity, and dissatisfaction which are often associated with the level of demand and high job complaints. Workers who are less noticed by the organization can lead to dissatisfaction on the employee, and with a high level of dissatisfaction in employees, it is easy for employees to encourage and conduct sabotage. This dissatisfaction is often posed in the form of frequent demonstrations. As a high turnover rate, it is often not done in the office. These employees are reluctant to learn the job description, have low motivation, tired and bored, and do not care about the environment.

Job satisfaction is an evaluation that describes someone of being happy or unhappy or a sense of satisfaction or dissatisfaction on doing the work. Job satisfaction as a generalization attitude towards work is based on several variety aspects of work, with a reminder that the level of job satisfaction experienced by each person will vary according to each individual's perception.

Job satisfaction of each employee is different to another. The questionnaire results showed that for Human Resource Department (HRD), a staff will feel very satisfied when a staff has been successful in doing his job and able to always be involved in the work, and able to have the freedom of using their own interests. In contrast to what HRD staff mentioned, E finance staff did not feel satisfaction when successfully perform the work, but the staff will be satisfied when E finance can always be involved in the work and have the freedom to use their own interests. This distinction proves that not all employees have the same sense of satisfaction and dissatisfaction at work. The feelings and needs of different employee bring a different sense of satisfaction and dissatisfaction.

The results of the questionnaire that have fulfilled by the employees mentioned that the highest job satisfaction is a satisfaction with all aspects of the work environment faced, by 4.05. The results show the

social service indicator is the lowest; this indicator saw job satisfaction of opportunities to help others. These results show that as many as 26 employees of PT XYZ mention social service indicator is unsatisfactory.

Based on the questionnaire results, it can be concluded that job satisfaction among employees at PT XYZ is not the same and have different points of satisfaction. Each employee has the points of his own in terms of job satisfaction. Other conclusions are most of the employees of PT XYZ see working condition indicator as the most satisfying indicator.

The remaining discussion is the job performance, in which is the result of work for a certain period of time and its emphasis on the results of work completed by the employee in a specific time period. Job performance is a thing as a determinant of the extent to which a person carried out his responsibilities and duties. According to Hasibuan (2007), the performance is the result of work achieved in executing the tasks assigned to them based on skills, experience, sincerity and time. Another suggestion by Suyadi Prawirosentono (2008) said that the performance is the result of work that can be achieved by a person or group of people in the organization, in accordance to authority and responsibility of each in an effort to achieve the goals of the organization in question legally, not breaking the law and in accordance with moral and ethic.

Performance is a combination of three important factors, namely the ability and interest of a worker/employee, the ability and acceptance of the explanation of the delegation of tasks and roles, and the rate of worker motivation (Hasibuan, 2007). If the performance of each individual or employee is good, it is expected that the company's performance will go well too. Therefore, it is said that the performance is individualic, as each individual employee has different ability levels to do a task. Owner of PT XYZ has said that the performance of each employee depends on the ability of each individual. No doubt that this will require effort from the company in order to improve the performance of its employees. PT XYZ is said that by this 2014 had an increase in productivity and low turnover; the owner said that the year 2014 the overall performance of employees has grown quite well and have experienced increases.

The result of questionnaire mentions that the total average value of job performance statement is higher at 3.8. The indicator is highest on quality of work, which is 3.97 with a statement that the employee can deftly do his job. HR Manager confirmed that most of the employees of PT XYZ are always eager to work so that no time is wasted. When indicator of quality of work results are the highest, not the case with the cooperation and depend ability indicators, the results of the questionnaire mentioned that the average value of each is 3.6. It is concluded that employees lack awareness in working with others and lack of awareness that can be trusted in terms of attendance and job description.

The questionnaire results can be concluded that the performance at PT XYZ among employees is not the same and vary depending on the capabilities of each employee. Each employee has their own skill level in the work. Other conclusions were that the indicator of quality of work is the indicator of the highest performance ratings for most employees of XYZ.

The questionnaire results showed that between job satisfaction and performance proved to have no positive effect (on each other). These results showed no influence of job satisfaction on job performance that is testing the hypothesis H0, which means job satisfaction variable has no positive influence on job performance. This can occur due to the influence of the employees who are in the comfort zone, where employees in the comfort zone makes them feel a sense of satisfaction and comfortable, until they no longer pay attention to performance and result in reduced job performance. In addition, it can be due to the placement of employees in each post does not match the capabilities of its employees. Employee feels satisfied, but with their presence in the post which is not in accordance cause imbalances in their performance.

The results supported by previous studies in Crossman & Zaki (2006) which state that there is no significant relation between job satisfaction and job performance. As well as Margitama Branita Sandhini (2010) in the discussion of influence of job satisfaction, organizational commitment and job performance on infention of employee turnover at PT. Intraco Adhitama Surabaya, and according Packard & Motowidlo (in Al-Ahmadi, 2009) who studied factors affecting performance of hospital nurses in Riyadh Region, Saudi Arabia, they also get the results that job satisfaction is not related to job performance, this is because the transition due the dramatic reorganization that ultimately makes the employee come under heavy pressure during this time period.

CONCLUSIONS

Based on the results of research and discussion that has been done on PT XYZ, it can be proposed that: (1) Job satisfaction comes from within each individual employee, so it is different between employees. Each individual employee will feel different satisfaction between one individual to another (2) Each employee has different levels of ability to do a task. Performance depends on the combination that exists between all ability, effort, and opportunity gained. (3) The average yield value of job satisfaction statement shows high average in total. The highest average rating of job satisfaction is indicator of working condition. The lowest average value is indicator of social service. (4) The average yield value statement job performance shows high average in total. The highest average rating of job performance is indicator of quality of work, with

a statement of the employee doing his job deftly. The lowest average value of job performance is indicator of cooperative and dependability, with a statement of the employee may be working well in a team, and awareness of the actions of employees bears the risk of his work. (5) Job satisfaction does not have a positive influence on job performance in PT XYZ.

Based on the results of the research and discussion that has been done on PT XYZ, many advices and suggestions are given that may be useful as an input and evaluation to assist the development of the company further, among others (1) The leader should collect data on job satisfaction on employees on a regular basis, therefore they can exactly see statistical data and be able to correct the deficiencies experienced by the company (2) Companies need to review the position of each employee, as well as the need to provide an updated information about the company to its employees and a challenge to make employees feel more challenged and can further improve their performance (3) Enhance effective communication with all employees, through gathering, weekly or monthly morning report meetings. It is needed for socialization among employees. (4) The Company needs to socialize about career opportunities and promotions, as well as the opportunity for employees to receive education and training by taking into account the achievement, responsibility, development of individual potential and the possibility of growing.

REFERENCES

- Abbas, Q., & Yaqoob, S. 2009. Effect of Leadership Development on Employee Performance in Pakistan. *Pakistan Economic and Social Review*, 47(2), 269-292.
- Al-Ahmadi, H. 2009. Factors Affecting Performance of Hospital Nurses in Riyadh Region, Saudi Arabia, *International Journal of Health Care Quality Assurance*, 22 (1). 40-54.
- Chen, X. H., Zhao, K., Liu, X., & Dash Wu, D. 2012. Improving Employees Job Satisfaction and Innovation Performance Using Conflict Management. *International Journal of Conflict Management*, 23 (2), 151-172.
- Crossman and Abou-Zaki 2006. Job Satisfaction and Employee Performance of Lebanese Banking Staff, *Journal of Managerial Psychology*, 18(4). 368-376.
- Ghozali, I. 2011. *Aplikasi Analisis Multivariate dengan Program IBM SPSS 19-5/E*.
- Gomes, J. F., de Weerd-Nederhof, P. C., Pearson, A. W., & Cunha, M. P. 2003. Is more always better? An exploration of the differential effects of functional integration on performance in new product development. *Technovation*, 23(3), 185-191.
- Handoko, M. L., Frances, S., van Ballegoij, J. J., Schalij, I.,

- Bogaards, S. J., Postmus, P. E., & Vonk-Noordegraaf, A. 2012. Bisoprolol delays progression towards right heart failure in experimental pulmonary hypertension. *Circulation: Heart Failure*, 5(1), 97-105.
- Hasibuan, M. S. P. 2007. *Manajemen Sumber Daya Manusia*. Jakarta : PT Bumi Aksara.
- Hooi, Lai Wan. 2007. Human Capital Development Policies: Enhancing Employees Satisfaction. *Journal of European Industrial Training*, 31(4), 297-322.
- Kan, Chen. 2006. Factors Affecting Job Satisfaction of Public Sector Employees in Taiwan. *UMI Microform, by Pro Quest Information and Learning Company*, 1(1). 4.
- Keller, R. T. 2006. Transformational Leadership, Initiating Structure and Substitutes for Leadership: A Longitudinal Study of Research and Development Project Team Performance. *Journal of Applied Psychology*, 91(1), 202-210
- Kelidbari, H. R., Dizgah, M. R., & Yusefi, A. 2011. The Relationship Between Organization Commitment and Job Performance of Employees of Guilan Province Social Security Organization. *Interdisciplinary Journal of Contemporary Research in Business*, 3(6), 555.
- Margitama, Branita Sandhini. 2010. *Pengaruh Kepuasan Kerja, Komitmen Organisasi dan Kinerja Karyawan terhadap Turnover Intention Karyawan pada PT. Intraco Adhitama di Surabaya*. Surabaya: UPN Veteran Jatim.
- Minnesota Satisfaction Questionnaire. (n.d.). Retrieved April 23, 2014, from <http://www.psych.umn.edu/psylabs/vpr/msqinf.htm>
- Parvin, M. M., & Kabir, M. N. 2011. Factors affecting employee job satisfaction of pharmaceutical sector. *Australian Journal of Business and Management Research*, 1(9), 113.
- Priyatno, D. 2010. *Paham analisa statistik data dengan SPSS*.
- Ravizza, T., Gagliardi, B., Noé, F., Boer, K., Aronica, E., & Vezzani, A. 2008. Innate and adaptive immunity during epileptogenesis and spontaneous seizures: evidence from experimental models and human temporal lobe epilepsy. *Neurobiology of disease*, 29(1), 142-160.
- Suyadi, I. (2008). *Pengaruh kepemimpinan, infrastruktur, pembelajaran organisatoris terhadap teknologi, pelayanan, pasar dan merk dalam strategi ecommerce di Indonesia*.
UU Republik Indonesia No. 13 Tahun 2003 Tentang Ketenagakerjaan.
- Vrinda, N. N., & Jacob, N. A. 2015. The Impact Of Job Satisfaction On Job Performance. *International Journal in Commerce, IT & Social Sciences (IJCISS)* Vol, 2.
- Wu, M. C., Lee, S., Cai, T., Li, Y., Boehnke, M., & Lin, X. 2011. Rare-variant association testing for sequencing data with the sequence kernel association test. *The American Journal of Human Genetics*, 89(1), 82-93.

Determination of Export Price by Incoterms 2010 (Study in PT X Karawang)

Rima Sundari

Politeknik Pos Indonesia
rimasundari@rocketmail.com

Edi Supardi

Politeknik Pos Indonesia

Abstract

Determination of export price will give influences to company's profit, image, and the competitiveness in the customers perspectives. Determination of export price must be based on the applied international standards which refer to the International Commercial Terms or Incoterms. Incoterms always updated to follow developments of international trading therefore any Incoterms changes that occur will affect the determination. The calculation of export price based on Incoterms is calculated based on cost of goods production, benefits, cost of packaging, loading costs, transportation, taxes and fees and the cost of transportation insurance. The results showed that most often-used Incoterms by company in gradation are FOB, CFR and CIF. Lastly, the higher use of Incoterms class by company has positive influence to increase corporate profit.

Keywords: Determination of export price, Incoterms, profit

INTRODUCTION

PT. X is a manufacturing company whose main activities are in the production of rubber material parts. Its main activity is to purchase raw materials from local and import, including design types of parts that would be created to produce and finished goods.

PT. X performs the sale of small-part production of spare parts within the country (domestic). Most of the production is to export them abroad, such as to Japan, America, Europe and most of the Asias. For export sales, the highest price is FOB, CFR, and CIF.

Incoterms is an acronym for International Commercial TERMS. These terms were developed by the International Chamber of Commerce (ICC) (Roberto Bergami, 2012).

Inc terms are recognized by UNCITRAL as a global standard for interpreting the terms in foreign trade and provide internationally accepted rules specifying (Lazar, 2011).

Incoterms is a codification of international regulations for the uniformity of the interpretation of the contract clauses in international trade (Suyono, 2003)

Based on the three definitions above, it can be concluded that Incoterms stands for International Commercial Terms or the "Terms" in "International" "Commercial" Trade, i.e. a codification of international regulations for the uniformity of contract interpretation

in international trade that includes the rights and obligations of cost, risk, insurance and where the handover of goods between the seller and buyers.

In the following customer request, PT. X applies the calculation of export price based on the terms of the latest incoterm i.e. Incoterms 2010, according to the basis of the interest to calculation analysis of export selling price based on Incoterms 2010. In this research, the discussion will further focus on how the determination of export price is calculated or specified by the company and the type of the use of most profitable Incoterm for exporters.

The formulation of the problem in this research is how the determination of the selling price of exports by Incoterms 2010 in the company and its effects on corporate profits.

METHOD

The type of research used in this research is a case study – research about the status of the subject of the research regarding a specific phase or typical of the entire personalitas, therefore it will be able to provide a detailed description about the background, the attributes and the characters that become peculiar in a case, either individual or in general.

PT. X is an exporter applying the calculation of the export selling price by various incoterms. There

are eleven incoterms types which three of them are most used, that are FOB, C&F and CIF. Incoterms FOB is a type of one of the most used by PT. X, same with other exporters in Indonesia in general, therefore it can also represent cases of incoterms determination by Indonesian exporters in general.

The data source in this research is a secondary data: data that has been processed further and presented by either collector party or other parties existing in the company, in the form of export price data in PT. X.

In this research, data collection method carried out by the author is a field survey method. The survey is completely done by observing directly the company which is also research subject. In the form of documentation technique, field survey is a technique of data collection by checking or seeing directly the documents, notes, and the books used by the company. In this research, the data obtained in the form of export is cost data in the accounting section. Supporting documents were also obtained as well as the background of the specific incoterm established from the marketing export section including Quotation, Sales Contract, Invoice, Insurance, COO and other documents that become the background of overseas importer or buyer assigning specific Incoterm.

“Export is a step by step that must be taken by exporters from promoting for their merchandise to the buyer, asking price offer, create a contract selling exports, send goods sold to the buyer to receive payment from the buyer” (Amir M.S, 2008).

Price is the amount of money (plus some products if possible) that is needed to get a number of a combination of products and its service (Swastha, 2009).

Based on the definition, price is also able to be understood as a value as a value in the form of money that must be spent by the buyer to get the product and services that included with the product.

In the export transaction, there are some components that make up the market price (Amir M.S, 2008). These components are in the following:

1. The procurement cost, including: a) The costs of production consisting of Material Cost, Labor Cost and General Overhead Cost, b) The value of Purchase Goods.
2. Management cost: a) Packaging Cost consisting of Packaging Material, Packing Fee and the Cost of Printing/marketing /trade marks, b) Fee of departing from warehouse to the warehouse door, c) Fee of loading goods from warehouse door to the transportation or into container, d) Transport cost from warehouse until the deposition to the side of the ship or terminal or container dock, e) Fee of loading goods from the dock to the ships, f) Fee of renting a warehouse, container, shipping charges, fee of the port loading and disassemble, g) And others.
3. The gleanings of the country, including: a) Pajak

Ekspor and Pajak Ekspor Tambahan (PE/PET), b) Goods Duty, c) Value Added Tax.

4. Third Party Services, including: a) Cost of transportation services, b) Provision and bank rate, c) Insurance Premium, d) Cost of surveyor, e) Cost of quality certification, f) Cost of certificate of origin, g) Cost of health certification, h) Cost of quarantine certification, i) Cost of certification of weights, j) Other certification costs.

In addition to the calculation, first of all we need to add profit or gain of export goods that we sell. Second step to calculate the profit is to input the calculation of the incoterms as the selling price of the export goods.

Swastha (2009) share determination method into two i.e. : 1) Cost-plus pricing method sets the selling price for one unit of goods which is the same with the amount of the cost per unit plus a number of to close the desired profit (called margin) on the unit. The formula is Total Cost + Margins = Selling Price, 2) Mark-up referral method sets the selling price for one unit of goods based on the purchase price plus the profit, generally used by the non manufacturer/producer merchants. Purchase Price + Mark Up = Selling Price.

According to the profit determination (Amir M.S, 2008) establishes two types of profit determination, i.e: 1) Progressive Method is a determination method of export profit which first calculate the amount of goods cost, add the approximate percentage of profit as the basis of determination of the selling price that the exporters will offer to buyers (importers). Generally used to determine the price of export commodities with high competitiveness. Cost of Goods + Profit = Selling Price, 2) The traditional or retrograde method is a method used for certain commodities such as rubber, coffee, and others where the profit in the countdown due to the selling price has been determined by the international commodity exchange controlled by importers. Selling Price – Price = Profit.

Based on Amir M.S’s notation (2008) there are four ways to determine selling price of export i.e.:

1. Cost + Mark-Up is selling price determined on the basis of cost plus profit.
2. Current market price is selling price determined on the basis of the willingness of the buyer in accordance with the applicable international prices in international commodity exchange.
3. Susidized Price is selling price for export based on the cost of reduced subsidies. The subsidies could be the elimination of overhead, the return of ex import raw material import duty, or import tariff entering the destination country such as Generalized Systems of Preference (GSP).
4. Dumping is selling price determined lower than the selling price of a commodity that is the same for the domestic market.

Incoterms is a codification of international regulations for the uniformity of the interpretation of contract clauses in international trade.

Incoterms contains a set of conditions clauses of delivery of goods in international trade that basically set 3 things, i.e. cost, risk, and responsibility. Cost in exports is the cost that must be borne by each party (seller and buyers) in order to deliver goods until it reaches its agreed destination. Seller must know the cost to which point the delivery of goods is sent. Likewise, buyers should also know the cost to which point in the delivery of goods is sent. Risk is the possibility of losses arising from the delivery process of exports. This risk can be any damaged, lost, degradation, or cost that may arise outside the cost that has been agreed. Responsibility is arrangement task (e.g., permissions export document, import document) arising in the process of delivery of goods (Astuti Purnamawati, 2013).

In the international transaction mechanism, the use of terms on Incoterms stated clearly in the trade contract (Astuti Purnamawati, 2013). The terms and conditions listed in the Incoterms can be used for:

1. Completing the international transaction in the form of tangible goods, not including discounted rates of intangible goods (e.g., computer software transaction, services, etc).
2. Showing the obligations of each of the parties involved in the trade contract related to: a) The time of delivery of goods, b) Organizing the formality of international trade, c) The determination of the type and conditions of transportation of goods to the destination, d) Shipping requirements and evidence of delivery, e) Distribution of load (costs, collections) in between parties that transact.
3. Setting the requirements for transportation and delivery of goods in brief. The type of transportation used to send exported goods can be in the form of land transportation (train or truck), air transportation and water transportation (sea and river).

Incoterms will avoid the possibility of misunderstandings between the parties involved in the export import as a result of the difference in transaction practices in the state between seller and buyer's country. (Astuti Purnamawati, 2013). Incoterms 2010 issued in English as the official language and 31 other languages as official translations. In incoterms 2010, there are only 11 simplified terms from 13 term Incoterms 2000 by adding 2 new terms and replace 4 old terms. The new term in incoterms 2010 are Delivered At Terminal (DAT) and Delivery At Place (DAP). Those which have been replaced are Delivered At Frontier (DAF), Delivered Ex Ship (DES), Delivered Ex Quay (DEQ), Delivered Duty Unpaid (DDU) (Susilo, 2013).

Incoterms 2010 is divided into 2 categories based on delivery method, i.e. 7 terms applies in general and 4 terms applies specifically for delivery through

sea transportation. As a review, the 13 terms in the Incoterms 2000 i.e.:

1. EXW (place name): Ex Works, the seller determines where he/ she should be taking of goods.
2. FCA (place name): Free Carrier, the seller is only responsible to arrange the export permission and deliver the goods to the party carried in the place that has been determined.
3. FAS (departure port name): Free Alongside Ship, the seller is responsible until the goods are located in the port of departure and ready at the side of the ship to load. It only applies to water transportation.
4. FOB (departure port name): Free On Board, the seller is responsible to arrange export permission to load goods in the ship that is ready to go. Only applies to water transportation.
5. CFR (destination port name): Cost and Freight, the seller bears the cost until ship with loaded goods arrived at the destination harbor, but the responsibility of only until the time when the ship departs from the port of departure. It only applies to water transportation.
6. CIF (destination port name): Cost, Insurance and Freight, like CFR with an addition, the seller is obligated to pay for the insurance of goods sent. Only applies to water transportation.
7. CPT (destination place name): Carriage Paid To, the seller bear the cost until the goods arrive at the destination, but the responsibility of only until the time of goods delivered to the transporter.
8. CIP (destination place name): Carriage and Insurance Paid to, like CPT with an addition, the seller is obligated to pay for the insurance of goods sent.
9. DAF (place name): Delivered At Frontier, the seller arrange export permissions and responsible until the goods arrive at the border of the destination country. Customs and import permission to become the responsibility of the buying party.
10. DES (destination port name): Delivered Ex Ship, the seller is responsible to the ship with loaded goods arrived at the destination harbor and ready to disassembled. The import permission became the responsibility of the buying party. It only applies to water transportation.
11. DEQ (destination port name): Delivered Ex Quay, the seller is responsible to the ship with loaded goods arrived at the destination harbor and the goods has been disassembled and stored in the dock. The import permit became the responsibility of the buying party. It only applies to water transportation.
12. DDU (place name purpose): Delivered Duty Unpaid, the seller is responsible for transporting goods up to the destination, but not including the cost of insurance and other costs that may arise as the cost of imports, customs and tax from the country of the buying party. The import permit became the

responsibility of the buying party.

13. DDP (destination place name): Delivered Duty Paid, the seller is responsible for transporting goods up to the destination, including the cost of insurance and all other fees that might appear as the cost of imports, customs and tax from the country of the buying party. The import permit also became the responsibility of the seller.

As has been described previously, from 11 category in the Incoterms 2010, there are only two new categories i.e. DAT and DAP. Following are the explanations:

Delivered at the Terminal (DAT)

- This terms can be used for the delivery of goods done by using the multimoda transport.
- Seller delivered goods to buyers in the terminal at the time of goods arrive at the destination port or destination place.
- The terminal is including the pier, warehouse, Container Yard (CY), railway station or terminal in the airport.
- Both sides (seller and buyers) agreed that the desired terminal is the place where the transition from the seller risk to the buyer.
- When the seller means to bear all the cost and risk from the terminal to other certain point, alternative DAP and DDP can be used.

Delivered at Place (DAP)

- This terms can be used for delivering goods. It can be done by using the the multimoda transport.
- Seller delivered goods to buyers in the terminal by the time of goods arrive or ready to disassemble at the destination.
- Both sides (seller and buyers) are recommended to determine as descriptive as possible the point where the agreed destination, because at this time the risk will switch from the seller to the buyer.
- When the seller means to bear all costs and risks to the goods expenditures, pay taxes, etc., it can be considered as use Delivered Duty Paid (DDP).

Incoterms have been grouped into 4 categories:

First : (“E” Terms-Ex work), seller delivered goods to the place by their own.

Second : (“F” Terms, FCA, FAS, and FOB), seller delivered goods to the place appointed by the buyers.

Third : (“C” Terms), seller sign the transportation contract without bearing the risk of loss or damage of goods or additional charges occurred after shipping (CFR, CIF, CPT and CIP).

Fourth : (“D” Terms), seller bear the cost and risk that requiring or arising in the transport of goods to the destination country (DAF, DES, DEQ, DDU, and DDP).

In the international transaction, delivering goods by using the Incoterms is basically related to the responsibility for goods that are traded. In the process

Table 1. Incoterms 2010

GROUP E	EXW	<i>Ex Works</i>
GROUP F	FCA	<i>Free Carrier</i>
MAIN CARRIAGE UNPAID WAGES	FAS	<i>Free Alongside Ship</i>
	FOB	<i>Free On Board</i>
	CFR	<i>Cost And Freight</i>
GROUP C	CIF	<i>Cost Insurance and freight</i>
MAIN CARRIAGE PAID	CPT	<i>Carriage Paid To</i>
	CIP	<i>Carriage and Insurance Paid To</i>
	DAF	<i>Delivered At Frontier</i>
GROUP D	DES	<i>Delivered Ex Ship</i>
ARRIVAL	DEQ	<i>Delivered Ex Quay</i>
	DDU	<i>Delivered Duty Unpaid wages</i>
	DDP	<i>Delivered Duty Paid</i>

of delivering goods from the seller (exporters) until into the hands of the buyers (importers), there are 11 obligations (Astuti Purnamawati, 2013).

1. Preparing the land transportation in the seller’s country to the main transportation
2. Arranging the export formality in the seller’s country
3. Paying taxes and levies from others in the seller’s country
4. Loading to main transportation in the seller’s country
5. Paying for the cost of the main transportation
6. Arranging and paying for transportation insurance
7. Disassembling goods from main transportation in the buyer country
8. Arranging the formality of imports in the buyer country
9. Paying taxes and fees collected in the buyer country
10. Preparing the land transportation in the buyer’s country
11. Bearing the cost and other risk in buyer’s country.

Ex Works (EXW) represents the obligation of the seller at a minimum, where the obligation of the seller is limited to deliver goods in the warehouse of the seller (Lazar, 2011).

Free Carrier (FCA) means that the seller delivers goods to the carrier or another person nominated by the buyer at the seller or other place designated (Lazar, 2011). It means the seller is required to send goods into the transporter or someone who insist that has been determined by the buyers.

The terms of delivery of goods of FCA can be used for the type of land, air and multimoda transportation. The terms of FCA is not used in the delivery of goods exports using water transportation. Multimoda transportation

is carry using some kind of transportation (e.g. trucks, containers, then train). Transport means everyone in the transportation contract, who is responsible to carry or guarantee to carry, better to use the train through the highway transportation, or with a combination of transportation. If the buyers point people other than the main carrier to receive the goods, the seller is considered to have been fulfilled its obligations after the seller delivered goods to the person appointed by the buyer earlier. Writing the delivery of goods with FCA in trade contract: FCA (the contents of the name of the place of the handover in the seller country) Incoterms®2010 (Astuti Purnamawati, 2013).

Carriage Paid To (CPT) means the seller delivered goods to the company noted that the main itself, so that all costs required to carry to the destination that has been determined over the responsibility of the buyer. After the delivery of goods by the seller to the buyer, all costs, collections and risk that arise in the journey toward the buyer becomes the responsibility of the buyer (Astuti Purnamawati, 2013).

Carrier means that everyone who is responsible for transportation contract do or guarantee the implementation of transport with trains, road, Air, Sea, the river or a combination of transportation.

Organizing the export formality on the terms CPT done by the seller. This handover conditions can be used on the air transportation, on land and use some kind of transportation (various) required until the goods to escort purpose (multimoda transport). Writing how the delivery of goods with CPT in trade contract: CPT (the contents of the name of the place of the handover in the buyer country) Incoterms®2010.

Carriage and Insurance Paid To (CIP) means the seller delivered goods to the transport company that they pointed themselves, so that all costs required to carry to the destination that has been determined and insurance against the risk of delivery of goods to the destination over the responsibility of the buyer. After the transfer of goods by the seller to the buyer, all costs, collections and risk that arise in the journey toward the buyer becomes the responsibility of the buyer (Astuti Purnamawati, 2013).

The handover of CIP conditions require the seller to pay for the cost of insurance against the risk of goods. But usually the risk insured is only a minimum. If the buyer wants the wider, then the cost of insurance becomes the responsibility of the buyer.

Carrier means that everyone who is responsible for transportation contract do or guarantee the implementation of transport with trains, road, Air, Sea, rivers or a combination of transportation.

If the handover of goods using some kind of transportation, then all risks to the sent items are given to the first transportation company. The handover of CIP conditions require the seller to arrange the export formality. CIP conditions can be used for transportation

air, land and transportation of various vehicle (multimoda transport). Writing the delivery of goods with CIP in trade contract: CIP (the contents of the name of the place of the handover in the buyer country) Incoterms®2010.

Delivered at the Terminal (DAT) means the seller has an obligation to deliver goods in the terminal that has been specified in the arrival port. The terminal in this case is including the port, warehouse, container yard (CY), train terminal or a terminal in the airport. All costs, collections and risk that arise, except customs and import tax and other costs in the destination port due to the delivery of goods to disassemble to be handed over to the terminal that has been specified in the destination port are the responsibility of the seller. The Buyer obligated to bear the customs and tax and other levies and will bear the consequences if fail to arrange the formality of imports on time (Astuti Purnamawati, 2013).

Customs and import tax and administrate the import formality can only done by the seller on the agreement both sides. But this needs to be clearly defined in the trade contract. DAT conditions of the handover used for any transportation. Writing the delivery of goods with DAT in trade contract: DAT (the contents of the name of the terminal where the handover of goods in the arrival port) Incoterms®2010.

Delivered at Place (DAP) means the seller has an obligation to deliver goods in the place that has been determined in the buyer country on the condition of the items ready to disassemble. All costs, collections and risk that arise, except customs and import tax and other costs after the goods delivered in the place that has been determined to become the responsibility of the seller. The seller is only responsible for delivering the goods to the place which has been agreed in the buyer country in the condition of goods which has not been disassembled. Thus, delivering goods with DAT, buyers obligated to bear the customs and tax and other levies and will bear the consequences if fail to arrange the formality of imports on time (Astuti Purnamawati, 2013).

Customs and import tax and administrate the import formality can only be agreed by the seller. But this needs to be clearly defined in the trade contract. Writing the delivery of goods with DAP in trade contract: DAP (the contents of the name of the place of delivery of goods in the buyer country) Incoterms®2010.

Delivery Duty Paid (DDP) means delivery of goods is done by the seller at the place that has been determined by the parties related. All costs, collections, and the risk of goods during the journey to the destination is the responsibility of the seller. Obligations of the seller only delivering goods to the place that has been mentioned and goods still on top of transportation. The Buyer obligated to bear the costs of goods disassemble from transportation (Astuti Purnamawati, 2013).

DDP conditions can be used for any transportation,

land transportation, air transportation, sea transportation, rivers transportation or use many transportations (various). Conditions of delivery of goods using DDP is the reverse conditions with the delivery of goods using EXW. On the conditions of DDP describes the responsibility on the buyer and EXW terms describes the minimum responsibility on the seller.

An example of the use of the Delivery Duty Paid terms delivery of goods in trade contract written DDP Cairo Incoterms®2010. This means that the seller has an obligation to deliver goods to the buyer in the city of Cairo (Egypt) as the point of delivery of goods.

Free Alongside Ship (FAS) means the seller delivered goods in the side of the ships for the port of departure. The seller has an obligation to arrange the export formality (on incoterm before incoterms 2000, which arrange the formality of exports is the buyer) and bear all costs and fees generated from the delivery of goods to the side of the transporter ship. The risk of damage to the goods and the cost that arise after the handover is the responsibility of the buyer (Astuti Purnamawati, 2013).

In terms of FAS, it is possible for everyone to arrange the formality of exports, including importers. If it is the agreement between the seller and buyer, it must be asserted in export trade contract. The handover conditions only applies to the delivery of goods exports using the ships through the sea and the river only.

In general, distribution of the responsibility on the handover of goods exported using the terms of FAS is that the seller is responsible for providing land transportation in the exporters country (drive to destination country/state borders transportation; and arrange the export formality in country). Buyer (importers) is responsible for other taxes and fees in the exporters country; exporters loading to main transportation; main transportation cost; transportation insurance; charges of disassemble from main transportation; import formalities in the exporters country and other taxes and fees in the importer country; land transportation in importer country; and other cost and risk in importer country.

An example of the use of the Free Alongside Ship terms delivery of goods written on the trade contract are the FAS Tanjung Mas Incoterms 2010. This statement means that the seller delivered goods to the buyer in Tanjung Mas. Tanjung Mas port is a departure port to the buyer country.

Free On Board (FOB) means delivery of goods by the seller to the transport ship in the port of departure (port of shipment). The seller has an obligation to bear the costs, collections, and the risk of delivery of goods to the ship that is determined by the buyer. Organizing the formality of exports to the handover using FOB done by the seller (Astuti Purnamawati, 2013).

With the FOB terms, the seller is responsible for providing land transportation in the exporters country (driving to destination country/state borders

transportation; arranging the export formality in exporters country; paying other taxes and fees in the exporters country; and loading of goods to main transportation). Buyer (importers) is responsible for main transportation cost; transportation insurance; disassembling charges from main transportation; importing formality in the exporters country and other taxes and fees in the importer country; land transportation in importer country; and other cost and risk in importer country.

An example of the use of the Free On Board terms delivery of goods written on the trade contract is FOB Tanjung Mas Mas Incoterms®2010. This statement means that the seller delivered goods to the buyer at the top of the ship that docked Tanjung Mas port. Tanjung Mas port is a departure port to the buyer country. The cost of the warehouse to save the goods while waiting for the transport ship to arrive becomes the responsibility of the seller.

Cost and Freight (CFR) means the seller delivered goods to pass through the fence of the ship at the port of departure. The seller has an obligation to bear all costs and collections after the goods out of the fence of the ship at the port of departure. But the risk of damage, lost, and other risk, over sent goods has become the responsibility of the buyer (Astuti Purnamawati, 2013).

With the CFR terms, the seller is responsible for providing land transportation in the exporters country (drive to destination country/state borders transportation; arrange the export formality in exporters country; paying taxes and fees in other exporters country; loading goods into main transportation; main transportation costs; and disassembling cost from main transportation. Buyer (importers) is responsible for transportation insurance; formality imports in the exporters country and other taxes and fees in the importer country; land transportation in importer country; and other cost and risk in importer country. Conditions of the handover with CFR can only be used for sea and river transportation only.

An example of the use of the Cost and Freight terms writtern in trade contract is CFR Karachi Incoterms®2010. This means that the seller has an obligation to deliver goods to the port of Karachi as the port of goods arrival (Port of Destination). The handover of exports in this way often also shortened by C&F.

Cost, Insurance, and Freight (CIF) means the seller has an obligation to deliver goods to pass through the ship fence at the port of departure. The parties involved in the transaction agreed to redirect the risk of damage, loss, and the risk of another over the goods that are sent to the third party, i.e. the insurance company. Thus, in the conditions of delivery of goods using CIF, seller obliged to bear all costs, collections after the goods out of the ship fence at the port of departure, including the cost of insurance against the risk of delivery of goods (Astuti Purnamawati, 2013).

With the CIF terms, the seller is responsible

for providing land transportation in the exporters country (driving to destination country/state borders transportation; arranging the export formality in exporters country; paying taxes and fees in other exporters country; loading goods into main transportation; the cost of the main transportation; transportation insurance cost; and teardown of main transportation). Buyer (importers) is responsible for the formality of imports in the exporters country and other taxes and fees in the importer country; land transportation in importer country; and other cost and risk in importer country. Conditions of the handover with CIF can only be used for sea and river transportation only.

An example of the use of the Cost, Insurance, and Freight terms delivery of goods in trade contract is written as CIF Shanghai Incoterms 2010. This means that the seller has an obligation to deliver goods to the port of Shanghai as the port of goods arrival (Port of Destination).

The explanation of each type of incoterm can be seen in the Figure 1.

The Calculation of the Selling Price Based on Incoterm 2010, to easily understand the calculation of selling price based on the following incoterms, the following is an illustration example of the terms, especially for CIP terms. Point assumption is CIP warehousing area in the port of destination. In this CIP terms, the costs become the responsibility of exporters (seller) which include (Surono, 2012): a) Export Packing, costs of export packaging, b) Export Clearance, license and other authorizations (cost of export formality, export permits and forms of formal obligation from the government), c) Inland Freight, (land transportation costs from sellers' location to the port/ terminal), d) Loading Charges and Terminal Charges, (loading costs including the cost of goods in the departure port handling), e) Freight, (the costs of goods transportation trip, often from the port of departure to the destination port), f) Insurance, (premium insurance; main transportation in the minimum amount of cover, except in other agreement), g) Destination Arrival Charges, (costs of ship handling at the arrival port, but not including the cost of disassemble).

Then the responsibility of the seller will cover the cost of: h) Unloading Charges, (disassemble goods cost from the main transporter means), i) Import Customs Interior, (cost settlement of formality of import customs, such as PPJK services, import license arrangement, and others), j) Duty and taxes, (collections of import duties and taxes in order to import), k) Delivery to destination, (the cost of land transporting until they came to the destination place of importers).

Attached to the explanation of the responsibility for costs for the seller versus buyer in Figure 2.

The thesis statement of this research is that the basic structure in the company currently covers the cost of production, management costs and third party

services, while the company does not count the cost of the levy of the State due to the VAT export is 0%, because the company always include PEB in exports and the export is done in the name of the company itself (PT.X), therefore the cost outline and profit forming are as followed:

1. The cost of the container deport i.e.: cost that covers the administration costs and Lift On (raise) container from depot to top trucks,
2. Material Cost,
3. Labor Cost,
4. General Overhead Cost,
5. Packaging Material,
6. The cost of label print,
7. The cost of Stuffing: cost to move and arrange the goods from the warehouse to the loading location,
8. The cost of Loading i.e.: loading costs from the warehouse into the Containers,
9. Transportation/Trucking cost from Karawang to port,
10. The cost of Customs Clearance i.e. the cost of export permission settlement process into the port,
11. The cost of the Port : fees occurred in the port including the cost of the cumulation (Storage) and lift off (dropping the container from the truck to the floor port),
12. THC cost (Terminal Handling Charge) cost load from the port to the ship,
13. The cost of B/L Fee i.e. : the cost of issuing the bill of landing document,
14. The cost of making the Certificate of Origin document,
15. The cost of Surveyor i.e. the cost required to get the inspection certificate/Certificate of Inspection,
16. The cost of Ocean Freight i.e. : the cost of shipping from the port of load Jakarta, Indonesia to the destination port in Japan,
17. Insurance Premium, i.e. : the cost of closing of the vehicle insurance premium export goods,
18. Bank Rate. It is set at 12% per year, where an average of one-time cycle from the beginning of the production of raw material purchase until the payment is by 3 months and applies to the three types of incoterms the company used currently i.e. FOB, CFR and CIF, due to the method of payment using L/C (Letter of Credit), therefore PT. X as exporters will get the payment immediately after the document is handed over to the banks,
19. Profit, i.e.: the benefits expected by the company, method used by the company is currently a progressive method, with the base of the determination of net profit 15 percent of the total cost of that issued. Basis of calculation are as follows:
 - a. Incoterm FOB : profit 15% multiplied by the amount of the cost of 1 to 15 plus the bank rate,
 - b. Incoterm CFR : profit 15% multiplied by the amount of the cost of 1 to 16 plus the bank rate,

- c. Incoterm CIF : profit 15% multiplied by the amount of the cost of 1 to 17 plus the bank rate,

The following is the calculations with the type and number of prices of goods which are most common types of goods X sent in the 1X20' Containers (or 20 feet container). Because the data is the company's secret, the calculation can only be displayed in the form of a percentage as in Table 2.

Based on the previous information, we can see that the differences in calculating the costs that occur between incoterms FOB and CFR are located on the cost of Ocean Freight, i.e. the cost of Ocean Freight does not enter into the calculation of FOB, while the cost difference between FOB and CIF is located on the cost of Ocean Freight and Insurance Premium that is not included into the calculation of the FOB. Finally the difference between Incoterm CFR and CIF is located on the implementation of the premium insurance where in the incoterm CFR, premium insurance is not included into the calculation, while in CIF, it's included into the calculation.

In percentage terms, data showed more complex incoterms used affect the decline of percentage in small amount for each of the cost structure from number 1 to 15, as an example of the material costs decline from 48.96% FOB, become 47.34% CFR and 47.29 percent CIF. This happens due to the addition of the cost of Ocean Freight and premium insurance.

The determination of incoterm type used more dominated and determined by buyer unless the type of class D incoterm i.e. DAP and DDP is a type of incoterm which avoided or not preferred by PT X, based on the following reasons :

1. The lower class Incoterms that in the life of the class E "Ex-works", will affect the less risk and working capital that must be issued by PT X, but on one side, PT. X cannot sell with international prices because the price is Ex-Works local prices and PT X could not get additional benefits from logistic dealing services and PT X only has a low bar gaining power, as buyers generally know the market. Therefore, buyers can compare the selling price of PT X with the selling price of similar industry in Indonesia and is able to switch if there is a difference in the price although small. Only one weakness of this method, i.e. importer must arrange all shipping and permissions in Indonesia, which they must pointed certain party that understand the problem of rules and delivery in Indoneisa, including the permissions to arrange exports in Indonesia, so this method is not preferred by importer.
2. Incoterms class F, especially Incoterms FOB is one of the most used and most preferred by the importers with the same reason with class E, but importer have advantages that can receive goods when located above the ship, this means of goods already in place

with international jurisdiction, where the importer does not need to arrange the export permission and local transportation in the jurisdiction of Indonesia which they cannot understand plus the price is still local.

3. Incoterms class C is the most preferred by PT X, because besides it can sell goods with higher prices (international standards), PT X can also reach benefit from logistic dealing services until the destination port.
4. Incoterms Class D is avoided by PT X and the buyer. For PT X, sales by Incoterms D especially DDP allow to obtain greater than the selling price in the buyer country, but PT X does not have the understanding of the process of applying import, tax and shipping in the buyers country. On the contrary, for buyers, although small risk, this type is not preferred due to the selling price of imposed PT X (exporters) will be high, so that the benefits of the buyers will be reduced.

Table 3. Comparison of the level of operating profit for each type of Incoterms company

No	Description of Fees	FOB%	CFR%	CIF%
19	profit	13.04%	13.04%	13.04%

Source : Data processed

The profit comparisons on each Incoterms used in percentage are shown in Table 3. It is the same of 13.04%, but the currency value will be different and is not suitable because in CIF Incoterms, 13.04% will be multiplied by the numbers that is larger compared with the CFR and FOB. Greater multiplier factor numbers appears due to the more complex incoterms the company used will affect the more significant costs used, the bigger the cost used will affect the greater the profit is used because the profit wearing progressive method.

On the other hand, more complex Incoterms used will be in relation to the straight way with the greater effort or resource that is used as an example if companies use incoterms CIF. Therefore, the company must have an understanding of the problem of shipping and insurance. If the company is not able to cover an understanding under its company or does not complete the document resulted in the payment disruption by the bank, it would possibly give influence because of its late delivering goods and reduce the company's credibility, both for buyer or importer.

CONCLUSION

Based on the analysis and the discussion done previously, it can be concluded that:

1. Export price in PT X is determined by buyer, therefore the most Incoterms used is the most appropriate for buyers that is FOB Incoterms gradation from the lowest class to the highest is E, F, C and D

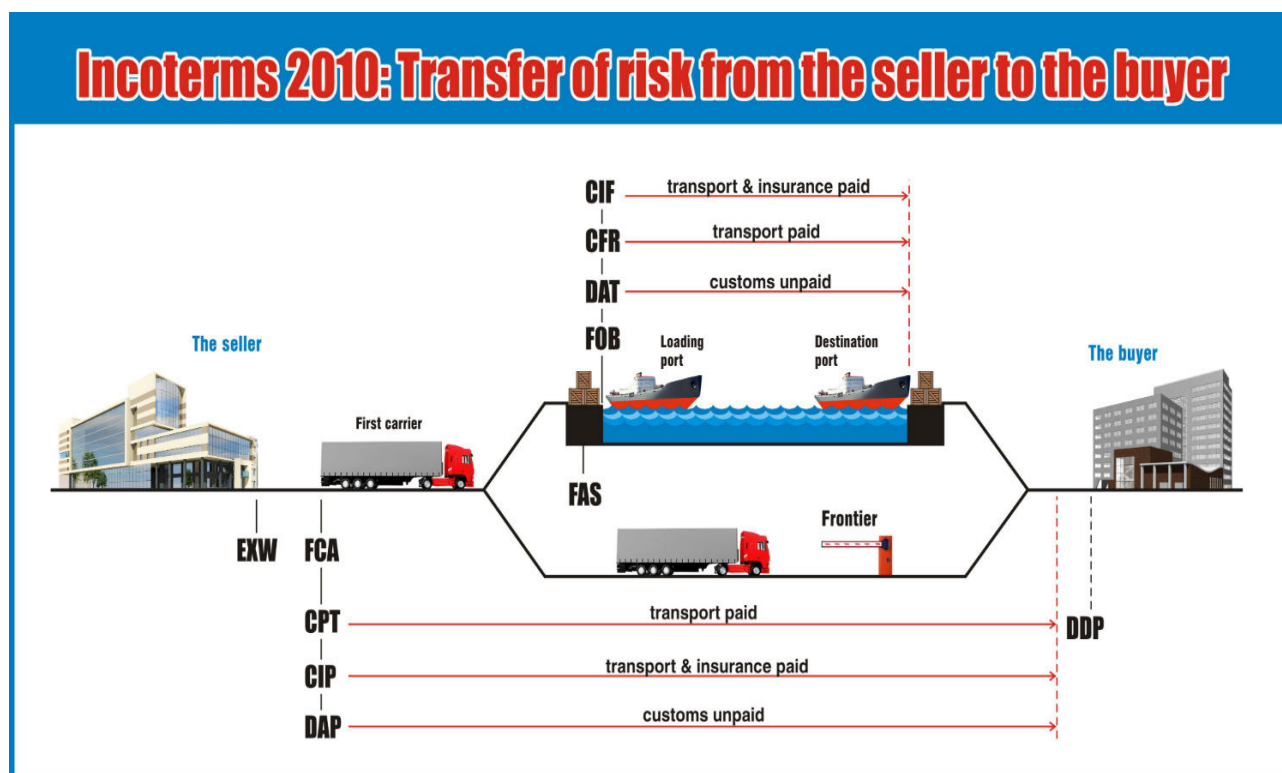
2. Incoterms Class C for PT X is able to provide greater advantages compared with the Incoterms Class F, or in other words the higher grade Incoterms used will have a positive effect on the benefits of PT X and vice versa.

REFERENCES

Astuti Purnamawati, S. F. 2013. *Dasar-dasar Ekspor Impor*. Yogyakarta. UPP STIM
 Amir M.S. 2008. *Handbook of Export-Import Business*. Jakarta. PPM.
 International Chamber of Commerce. History of the Incoterms rules. 2010a [cit. 2010-05-04]. Retrieved from: http://www.iccwbo.org/incoterms_history.
 International Chamber of Commerce. Incoterms 2010. 2010b. Paris, France: ICC Services Publications, ISBN 9284200806.

International Chamber of Commerce. ICC Uniform Customs and Practice for Documentary Credits, 2007 revision. 2006. Paris, France: ICC Services Publications Department. ISBN 928421257X.
 Lazar, A. 2011. The Incoterms Rules and their importance. *Judicial Tribune*, 144.
 Roberto Bergami, D. 2012. Incoterms 2010 : The Newest Revision of Delivery Terms. *Acta Univ. Bohem*, 34.
 Suroono, 2012, *Mengenal Incoterms 2010: Instrumen Pengaturan Swasta yang Menjadi Rujukan Para Praktisi Perdagangan Internasional*, Widyaaiswara Pusdiklat Bea dan Cukai, Jakarta.
 Susilo, Andi. 2013. *Shipping: Panduan Pintar Ekspor Impor*. Jakarta. Transmedia.
 Suyono, C. R. 2003. *Shipping*. Jakarta: PPM.
 Swastha, B. (2009). *Manajemen Pemasaran 2*. Yogyakarta. Adityamedia.

APPENDIX



Source : (Incoterms 2010 Rules)

Figure 1. The point of the handover of goods and transfer of risk in Incoterms 2010

INCOTERMS SERVICES	EXW	FCA	CPT	CIP	DAT	DAP	DDP	FAS	FOB	CFR	CIF
	Ex Works	Free Carrier	Carriage Paid to	Carriage Insurance Paid to	Delivered at Terminal	Delivered at Place	Delivered Duty Paid	Free Alongside Ship	Free Onboard Vessel	Cost & Freight	Cost Insurance & Freight
	Name Place of Delivery	Named Place of Delivery	Named Place of Destination	Named Port of Destination	Named Terminal at Port or Place of Destination	Named Place of Destination	Named Place of Destination	Named Port of Shipment	Named Port of Shipment	Named Port of Destination	Named Port of Destination
Mode of Transport	All Modes	All Modes	All Modes	All Modes	All Modes	All Modes	All Modes	Ocean Transport	Ocean Transport	Ocean Transport	Ocean Transport
	Who Pays	Who Pays	Who Pays	Who Pays	Who Pays	Who Pays	Who Pays	Who Pays	Who Pays	Who Pays	Who Pays
Export Packing	Seller	Seller	Seller	Seller	Seller	Seller	Seller	Seller	Seller	Seller	Seller
Export Clearance, Licences and other Authorization	Buyer	Seller	Seller	Seller	Seller	Seller	Seller	Seller	Seller	Seller	Seller
Container/Vehicle Loading	Buyer	Seller	Seller	Seller	Seller	Seller	Seller	Seller	Seller	Seller	Seller
Inland Freight	Buyer	*Seller/Buyer	Seller	Seller	Seller	Seller	Seller	Seller	Seller	Seller	Seller
Main Carrier Loading	Buyer	Buyer	Seller	Seller	Seller	Seller	Seller	Buyer	Seller	Seller	Seller
Origin Terminal Charges	Buyer	Buyer	Seller	Seller	Seller	Seller	Seller	Buyer	Seller	Seller	Seller
Insurance	No Obligation	No Obligation	No Obligation	Seller	No Obligation	No Obligation	No Obligation	No Obligation	No Obligation	No Obligation	Seller
Freight	Buyer	Buyer	Seller	Seller	Seller	Seller	Seller	Buyer	Buyer	Seller	Seller
Destination Arrival Charges	Buyer	Buyer	Seller	Seller	Seller	Seller	Seller	Buyer	Buyer	Buyer	Buyer
Main Carrier Unloading	Buyer	Buyer	Buyer	Buyer	Seller	Seller	Seller	Buyer	Buyer	Buyer	Buyer
Import Customs Clearance	Buyer	Buyer	Buyer	Buyer	Buyer	Buyer	Seller	Buyer	Buyer	Buyer	Buyer
Duty & Taxes	Buyer	Buyer	Buyer	Buyer	Buyer	Buyer	Seller	Buyer	Buyer	Buyer	Buyer
Delivery to Destination	Buyer	Buyer	Buyer	Buyer	Buyer	Seller	Seller	Buyer	Buyer	Buyer	Buyer
Seller/Buyer	* There are actually two FCA terms: FCA Seller's Premises where the seller is responsible only for loading the goods and not responsible for inland freight; and FCA Named Place (Intermational Carrier) where the seller is responsible for inland freight.										
No Obligation	Neither the Seller or the Buyer have an obligation to secure cargo insurance however upon request, the Buyer or Seller must provide information necessary to obtain insurance by the requesting party.										
* INCOTERM RULES ARE NOT LAW AND WILL NOT RESOLVE ALL PROBLEMS IN TRADE. ABOVE DEFINITIONS ARE TO BE USED AS A GUIDELINE ONLY.											

Source : Global Services.Inc., 2012

Figure 2. The outline of the responsibility of the cost in the Incoterms 2010

Table 2. Determination of PT X export price based on Incoterms 2010

No	Cost Description	FOB (%)	CFR (%)	CIF (%)
1	Cost of the Container Deport	0.26%	0.25%	0.25%
2	Material Cost	48.96%	47.34%	47.29%
3	Labor Cost	19.58%	18.94%	18.91%
4	Overhead Cost	10.82%	10.47%	10.45%
5	Packaging Material	0.64%	0.62%	0.62%
6	Cost of Label Print	0.14%	0.14%	0.14%
7	Cost of Stuffing	0.13%	0.12%	0.12%
8	Cost of Loading	0.22%	0.21%	0.21%
9	Transportation Cost	0.90%	0.87%	0.87%
10	Cost of Customs Clearance	0.09%	0.09%	0.09%
11	Cost of the Port	1.39%	1.35%	1.34\$
12	Terminal Handling Charge	0.52%	0.51%	0.51%
13	Cost of B/L Fee	0.15%	0.14%	0.14%
14	Cost of Making Certificate of Origin	0.06%	0.06%	0.06%
15	Cost of Surveyor	0.54%	0.52%	0.52%
16	Cost of Ocean Freight	0.00%	2.79%	2.79%
17	Insurance Premium	0.00%	0.00%	0.10%
18	Bank Rate	2.53%	2.53%	2.53%
19	Profit	13.04%	13.04%	13.04\$
20	Export price	100.00%	100.00%	100.00%

Source : Data processed

Stress Role and Dysfunctional Behavior on The Performance of Internal Auditor

Rieke Sri Rizki Asti Karini
 STIEPAR YAPARI AKTRIPA Bandung
 www.rsrak17@yahoo.com

Abstract

This study intends to show the relationship of stress role including role conflict and role ambiguity with dysfunctional behavior, and its effect on the performance of internal auditors at BO of BJB Bank. The research design is explanatory survey, with a population of internal auditors (internal controls) throughout BO of BJB Bank which is also a sample. The type of data is cross-section with a collection of questionnaires. The method used is path analysis. The analysis showed: 1) role conflict and role ambiguity did not have a positive effect on the dysfunctional behavior of internal auditor; 2) role conflict and role ambiguity did not adversely affect the performance of the internal auditor; and 5) dysfunctional behavior did not negatively affects the performance of the internal auditor. The reason is that the internal auditors have adequate skills and knowledge in every BO of BJB Bank, so they can control the condition of stress role experienced in low levels. Stressful conditions can serve as constructive stress that brings a positive impact that suppress the emergence of dysfunctional behavior and make stress as a spur to improve their performance.

Keywords: stress role, role conflict, role ambiguity, dysfunctional behavior, and internal auditor performance.

INTRODUCTION

Banking in West Java plays an important role in determining national economic life, based on the buffer zone of the capital city of Jakarta. The average share or the bank role in the area of West Java towards national banks is amounted to 7.49% during the period in 2014 (Table 1).

Table 1. Market Share West Java Banking

No	Main Indicator of Banking	National	West Java	
		Total	Total	Percentage
1	Total Assets	Rp 5.6151,7 trillion	Rp 420.8 trillion	7,49 %
2	Depositors' Funds	Rp 4.009,818 trillion	Rp 332,5 trillion	0,8 %
3	Loans	Rp 3.707.916 trillion	Rp 305,2 trillion	0,08 %

Source: (Bank Indonesia, 2015: processed)

This potential market segment should be used as a driver for banks in West Java to develop their business. In particular, business development is pursued by *PT. Bank Pembangunan Daerah Jawa Barat dan Banten, Tbk*, or better known as BJB Bank.

“PT. Bank Pembangunan Daerah Jawa Barat dan

Banten, Tbk. known as BJB bank, is a commercial bank that is owned by the Provincial Government of West Java, Banten Provincial Government, municipality/ regency in West Java and Banten, and the public (BJB Bank Annual Report 2014, 2015: 37).

Until December 31, 2014, BJB bank already has 62 branch offices (BO), 312 Subsidiary Branch Office (SBO), 318 Cash Office, 133 Payment Points, 11 Cash Car Itinerants and 1,191 ATMs of BJB (Annual Report BJB 2014, 2015: 48) spread in the region of West Java, Banten, Jakarta, Sumatra, Kalimantan, Sulawesi and Bali. BJB’s management realized the need for a strategy to confront the intense market competition between banks in different regions since the implementation of regional autonomy which has an impact on performance. It is meant to improve the BJB bank’s performance through improving the effectiveness of the internal auditor’s role in the Branch Office. Efforts which are made to carry out one of the five management policy in 2014, which is also to improve the internal audit’s role as a strategic business partner for the management and the whole range of bank and risk-based audit planning (BJB bank’s Annual Report 2014, 2015: 89).

The stabilization of management control and the ensure implementation of the principles of prudence in the management of PT Bank Jabar and meets the

Regulation of Bank Indonesia No. 1/6/PBI/99 dated September 20, 1999 on the assignment of Compliance Director and the application of the Internal Audit Standards for Commercial Banks, Bank Indonesia Regulation No. 13/2/PBI/2011 dated January 12, 2011 on the Implementation of Commercial Bank Compliance Function.

Based on Bank Indonesia Regulation Number 8/14/2006 concerning Amendment to Bank Indonesia Regulation No. 04.08.2006 on the Implementation of Good Corporate Governance for Banks, BJB bank has implemented a restructuring. The new organizational structure as shown in the BJB Bank Directors' Decree No. 667/SK/DIR-PS/2013 dated October 29, 2013 approved by the Decree of the Board of Commissioners BJB Bank No. 001/SK/DK/2014 dated January 22, 2014 has established the Internal Audit Division in the command line of Managing Director and Audit Committee (BJB bank Annual Report 2014, 2015: 462).

The task of the Audit Committee is supervising the bank's internal control system, so that banks can be managed with the principles of transparency, accountability, accountability, independence.

"BOC has established an Audit Committee. The Audit Committee is fittings of BOC whose function is to supervise the effectiveness of internal control systems, internal audit, financial reporting process, so that the Bank can be managed based on the principles of transparency, accountability, responsibility, independence (Annual Report BJB 2014, 2015: 400).

Internal auditors in BJB bank have a role with regard to internal audit. According to Buchanan and Huczynsky (2007: 276), "role is defined as a position that has expectations evolving from established norms". Basically, the role is a position that is expected to be executed in accordance with the norms that have been established.

This condition causes the internal auditor in the BJB bank required to provide the best services to stakeholders in accordance with the conditions and policies that have been outlined. Based on BJB bank Annual Report 2014 (2015: 404) stated that:

"In accordance with the guidelines for its work, the Audit Committee reviewed the financial statements and other financial information for the benefit of stakeholders, examining the achievement, effectiveness, and objectivity of the whole process of internal and external audits, evaluates the Bank's policies relating to compliance with regulations and legislation applied, and provide improvement recommendations of internal control system"

In addition, the BJB bank Annual Report 2014 (2015: 467) explained that:

"*Satuan Kerja Audit Intern* (SKAI) is a business partner of all work units which function is to provide assurance and consulting independent and objective in making added value recommendations and improve

the operations of the organization. SKAI assist the organization in achieving its objectives by evaluating and improving the effectiveness of risk management, internal control and governance processes".

Internal auditors who are listed as members of *Satuan Kerja Audit Intern* (SKAI) in BO of BJB bank sometimes faced some conflicts of interest, both between individuals and departments within the company's work environment. Various pressures and conflicts faced by the internal auditor because the limited amount of disproportionate to the scope of work for which they are responsible. The total of internal auditors in BO of BJB bank is as much as 2-3 personnels, including 1 Head of the SKAI and 1 or 2 Members of SKAI. This condition affects its function in a careful monitoring of the process of transactions in each work unit. The number of units in each BO of BJB bank consists of three units, namely credit, supervision, and loan salvage, and units of funds and services. Each BJB bank oversees Subsidiary Branch Office (SBO) or Cash Unit (CU) and some have Payment Point.

Various pressures and conflicts experienced by the internal auditor in BO of BJB bank will raise the stress role. According to Gregson, Wendell and Aono (2014:23) that:

"Stress role defined as a condition of where a natural individual of role conflict and of role ambiguity. Role conflict defined as a situation where there are unsuitable between expectation by what conducted by some side of activity from a work. While role ambiguity defined as a situation which individual executing a role in its work experience of lacking of information concerning activity which to must implementation of result of which expected from conducted work it".

In general, it indicates that the condition of experienced stress role of internal auditors is due to less optimal follow up on the results of the internal audit report provided to a unit at BO of BJB bank. Stress role conditions are exacerbated by the frequent occurrence of imbalances between the roles of internal auditors with working unit personnels in BO of BJB bank.

Stress role conditions which are in stress and in conflict will result in the emergence of dysfunctional behavior. According to Mondy, Sharplin and Premeaux (2009:489), the role conflict and role ambiguity at work leads to such a dysfunctional work-related behaviors as tension, job dissatisfaction, propensity to leave the organization and lowered commitment. Dysfunctional behavior can affect the performance of individuals and groups in carrying out its role in the organization. This is consistent with the statement of Gibson, Ivancevich and Donnelly Jr. (2009: 299) that dysfunctional conflict can have a negative impact on the performance of individuals, groups and organization. A variety of dysfunctional behavior can be demonstrated by their low morale, indiscipline work, job dissatisfaction, low organizational commitment, poor quality of work, the

tendency to leave the organization and low work ethic.

With the dysfunctional behavior caused by stress role, the stress role is basically one of the factors that could affect the performance of individuals and groups in carrying out its role in the organization. This is consistent with the statement of Barney and Griffin (2012:702) who stated that the stress experienced by individuals has direct consequences for organizations. Too much stress can lower employee performance. Home Office (HO) Management of BJB bank realizes the effects of stress role can affect the performance of internal auditors at the present time or in the future. In correlation with this, the management of Bank Jabar uses the service of Earns & Young Consulting affiliated with the Public Auditor Office Purwanto Suherman & Surja as external consultants by the decision of the RUPS of BJB bank dated March 26, 2014 and published in accordance with Letter of Directors No. 154/DIR-CS/2014 in the context of the examination on a test basis. It is proved as evidence supporting the amounts and disclosures in the financial statements 470 (BJB bank's Annual report 2014, 2015:470).

Based on a variety of phenomena and ideas described above, this study has two main central themes, (1) the effect of role conflict and role ambiguity to dysfunctional behavior, and (2) the effect of role conflict, role ambiguity and dysfunctional behavior on the performance of the internal auditor. Identifications of this study are: (1) Is stress role that includes role conflict and role ambiguity simultaneously and partially have positive effect on the internal auditor's dysfunctional behavior. Also (2) Is stress role that includes role conflict and role ambiguity and dysfunctional behaviors simultaneously and partially have negative effect on the performance of internal auditor.

METHOD

The object of the research consisted of three variables, namely: (1) an independent variable (X), the stress role consisting of two subvariables that are role conflict (X_1) and role ambiguity (X_2), (2) an intervening variable (Y), the dysfunctional behavior of internal auditor, and (3) the dependent variable (Z), the performance of the internal auditor.

The research design is explanatory survey with the population of internal auditor (Head of SKAI or KIC/*Kontrol Internal Cabang*) throughout BO of BJB bank in 2014. Every member of the population has an equal chance of being used as a sample, because everything is homogeneous. Random nature of the respondents assumed to have been represented by the random nature of the return of the questionnaire, so that all respondents who returned the questionnaire are considered to form a sample.

Operationalization of research variables as Table 2. Data used is cross-section, with primary data through

questionnaires, interviews and observation. Secondary data were obtained through documentation. Indicators are measured by ordinal scale based of Likert scale. Testing methods of data are:

- a. Validity testing with the Pearson Product Moment Correlation technique. This testing can obtain the information about the value of validity (r) which shows the data included in the category of positive/negative valid/invalid.
- b. Reliability testing with split testing techniques (split-half) Spearman Brown (r tot) that displays the entire item in question tested included in the category of positive/negative and reliable/unreliable.

Path analysis was used by first converting ordinal data into interval through a method of successive intervals.

The designs of statistical hypotheses tested consist of:

- 1) H_{01} : $P_{yx_1} = P_{yx_2} = 0$: Stress roles which include role conflict and role ambiguity simultaneously have no effect on the internal auditor's dysfunctional behavior.

H_{a1} : At least one $P_{yx_i} \neq 0$, where: $i = 1, 2$. Stress role which include role conflict and role ambiguity simultaneously affect the dysfunctional behavior of internal auditors.

- 2) H_{02} : $P_{yx_i} \leq 0$, where: $i = 1, 2$. Stress role which include role conflict and role ambiguity partially have no positive effect on the internal auditor's dysfunctional behavior.

H_{a2} : $P_{yx_i} > 0$, where: $i = 1, 2$. Stress role which include role conflict and role ambiguity partially have a positive effect on the internal auditor's dysfunctional behavior.

- 3) H_{03} : $P_{zx_1} = P_{zx_2} = P_{zy} = 0$: Stress roles which include role conflict and role ambiguity and dysfunctional behaviors simultaneously have no effect on the performance of the internal auditor.

H_{a3} : At least one $P_{zx_i} \neq 0$ atau $P_{zy} \neq 0$, where: $i = 1, 2$. Stress role which include role conflict and role ambiguity and dysfunctional behaviors simultaneously affect the performance of the internal auditor.

H_{a3} : At least one $P_{zx_i} \neq 0$ atau $P_{zy} \neq 0$, where: $i = 1, 2$.

- 4) H_{04} : $P_{zx_i} \leq 0$ or $P_{zy} \leq 0$, where: $i = 1, 2$. Stress role which include role conflict and role ambiguity and partially dysfunctional behavior does not negatively affect the performance of the internal auditor.

H_{a4} : $P_{zx_i} > 0$ or $P_{zy} > 0$, where: $i = 1, 2$. Stress role which include role conflict and role ambiguity and dysfunctional behavior partially negatively affect the performance of the internal auditor.

RESULT

Submission of a research questionnaire to the

respondents was carried out for about two months beginning in early January 2015 until the beginning of April 2015 (Table 3).

The author conducted tabulation of data by giving a score based on the Likert scale techniques. The test showed result data using "Pathcel Microsoft Excel-Windows 2000".

The result of the calculation to the correlation coefficient between the variables X_1 , X_2 with a variable Y (Table 4) and the variable X_1 , X_2 , Y, Z (Table 5).

The result of the calculation to the correlation coefficient between the exogenous variables arranged in inverse correlation matrix (Table 6 & 7).

The results of calculations for path coefficients (Table 8 & 9).

The path coefficient which shows the relationship between variables (Figure 2 & 3).

Based on the simultaneous test results Table 12, it indicated that the value of $F_{\text{count}} = 0.4995$ is smaller than the $F_{\text{table}} = 3.3690$ at the significant level of 95% ($\alpha = 5\%$) and 2/26 degree of freedom ($df = 2:29-2-1$). Therefore, in accordance with the conditions of the test criteria, if $F_{\text{count}} < F_{\text{table}}$ then H_{01} is accepted or H_{a1} rejected, it means that a "stress role which include role conflict (X_1) and role ambiguity (X_2) simultaneously does not affect the internal auditor's dysfunctional behavior (Y).

The total value of the coefficient of determination ($R^2_{YX_1X_2}$) or the closeness of the relationship is by 3.70%, which means that the internal auditor's dysfunctional behavior (Y) is by 3.70% affected simultaneously by role conflict (X_1) and role ambiguity (X_2). Referring to the total value of the coefficient of determination ($R^2_{YX_1X_2}$) or the closeness of the relationship by 3.70%, it can be concluded that the variables X_1 and X_2 have a degree of effect of "slight, a lost negligible relationship" to variable Y.

Based on the simultaneous test results Table 13, it indicates that the value of $F_{\text{count}} = 3.8395$ is greater than the $F_{\text{table}} = 2.9912$ at the significant level of 95% ($\alpha = 5\%$) and 3/25 degree of freedom ($df = 3:29-3-1$). Therefore, in accordance with the conditions of the test criteria, if $F_{\text{count}} > F_{\text{table}}$ then H_{a1} is accepted or H_{01} is rejected, it means that "stress role which include role conflict (X_1) and role ambiguity (X_2) as well as the internal auditor's dysfunctional behavior (Y) simultaneously affect the performance of the internal auditor (Z).

The total value of the coefficient of determination ($R^2_{ZX_1X_2Y}$) or the closeness of the relationship amounted to 31.54%, which means that the performance of the internal auditor (Z) by 31.54% affect simultaneously by role conflict (X_1), role ambiguity (X_2) and internal auditor's dysfunctional behavior (Y). Refers to the total value of the coefficient of determination ($R^2_{ZX_1X_2Y}$) or the closeness of the relationship by 31.54%, it can be concluded that the variables X_1 , X_2 and Y have a degree

of effect of "low correlation" to the variable Z.

Based on the partial test results Table 14 shown that the value of $t_{\text{count}} = 0.9637$ is smaller than $t_{\text{table}} = 1.7056$ at the significant level of 95% ($\alpha = 5\%$) and 26 degree of freedom ($df = 29-2-1$). Therefore, in accordance with the conditions of the test criteria, if $t_{\text{count}} < t_{\text{table}}$ then H_{02} is accepted or H_{a2} is rejected, it means that role conflict (X_1) has no positive effect on the dysfunctional behavior of internal auditor (Y). The results of testing are to determine the effect of variable X_1 directly and indirectly to variable Y (Table 15).

Referring to the Table 15, it indicated that the direct effect of the variable X_1 to variable Y is of 3.48% and an indirect effect of variable X_1 through variable X_2 to variable Y is at - 0.14%. Based on the test results of direct and indirect effect, the total effect of variable X_1 to variable Y is by 3.34%. It can be concluded that the variable X_1 has a degree of effect of "slight, a lost negligible relationship" to variable Y.

Based on the partial test results Table 16 shown that the value of $t_{\text{count}} = 0.3638$ is smaller than $t_{\text{table}} = 1.7056$ at the significant level of 95% ($\alpha = 5\%$) and 26 degree of freedom ($df = 29-2-1$). Therefore, in accordance with the conditions of the test criteria, if $t_{\text{count}} < t_{\text{table}}$ then H_{02} is accepted or H_{a2} is rejected, it means that role ambiguity (X_2) has no positive effect on the dysfunctional behavior of internal auditor (Y). The results of testing are to determine the effect of variable X_2 directly and indirectly to variable Y (Table 17).

Referring to the test results Table 17, it indicated that the direct effect of variable X_2 on variable Y is at 0.50% and the indirect effect of variable X_2 through variable X_1 to variable Y is -0.14%. Based on the test results of direct and indirect effect, then the total effect of variable X_2 to variable Y is 0.36%. It can be concluded that the X_2 has a degree of effect of "slight, a lost negligible relationship" to variable Y.

Based on the partial test results Table 18 shown that the value of $t_{\text{count}} = -0.4739$ is greater than $t_{\text{table}} = -1.7081$ at a significant level of 95% ($\alpha = 5\%$) and 25 degree of freedom ($df = 29-3-1$). Therefore, in accordance with the conditions of the test criteria, if $t_{\text{count}} > t_{\text{table}}$ then H_{04} is accepted or H_{a4} is rejected, it means that role conflict (X_1) should not negatively affect the performance of internal auditor (Z).

Referring to Table 19, it indicated that the direct effect of the variable X_1 to variable Z is 0.64%, the indirect effect of variable X_1 through variable X_2 to variable Z is 0.43% and the indirect effect of variables X_1 variable through variable Y to variable Z is at -0.23%. Based on the test results of direct and indirect effect, the total effect of the variable X_1 to variable Z is by 0.84%. It can be concluded that the variable X_1 has a degree of effect of "slight, a lost negligible relationship" to variable Z.

Based on Table 20, it was shown that the value of $t_{\text{count}} = 3.1136$ is greater than $t_{\text{table}} = -1.7081$ at a

significant level of 95% ($\alpha = 5\%$) and 25 degree of freedom ($df = 29-3-1$). Therefore, in accordance with the conditions of the test criteria if $t_{count} > t_{table}$ then H_{o4} is accepted or H_{a4} is rejected, it means that role ambiguity (X_2) does not negatively affect the performance of internal auditor (Z).

Referring to Table 21, it indicated that the direct effect of variable X_2 to variable Z is 26.97%, the indirect effect of variable X_2 through variable X_1 to variable Z is 0.43% and the indirect effect of variable X_2 through variable Y to variable Z is 0.43%. Based on the test results of direct and indirect effect, the total effect of X_2 to variable Z is at 27.84% (positive). It can be concluded that the variable X_2 has a degree of effect of "low correlation" to variable Z .

The partial test results of variable Y to variable Z are as followed:

Based on Table 22, it was shown that the value of $t_{count} = 0.9681$ is greater than $t_{table} = -1.7081$ at a significant level of 95% ($\alpha = 5\%$) and 25 degree of freedom ($df = 29-3-1$). Therefore, in accordance with the conditions of the test criteria, if $t_{count} > t_{table}$ then H_{o4} is accepted or H_{a4} is rejected. It means that "dysfunctional behavior (Y) does not negatively affect the performance of the internal auditor (Z)". The results of testing are to determine the effect of variable Y directly and indirectly to variable Z , as followed:

Referring to Table 23, it indicated that the direct effect of variable Y towards variable Z is 2.66%, the indirect effect of variable Y through variable X_1 towards variable Z is at -0.23%, and the indirect effect of variable Y through variable X_2 towards variable Z is 0.43%. Based on the test results of direct and indirect effect, the total effect of the variable Y towards variable Z is 2.86% (positive). It can be concluded that the variable Y has a degree of effect of slight, a lost negligible relationship towards the variable Z .

The results of testing showed that these hypotheses as a whole are in accordance with the simultaneous and partial testings Table 24 & 25.

CONCLUSIONS

The results of data analysis and hypothesis testing showed several things, including: 1) role conflict has "no positive effect" on the dysfunctional behavior of internal auditors; 2) role ambiguity has "no positive effect" on the dysfunctional behavior of internal auditors; 3) role conflict has "no negative effect" on the performance of internal auditor; 4) role ambiguity has "no negative effect" on the performance of internal auditor; and 5) dysfunctional behavior has "no negative effect" on the performance of internal auditor.

These are because the internal auditors have already had adequate skills and knowledge for their role in every BO of BJB bank, so they can control the stress role conditions experienced in low level. Thus, the

stress condition can be used as a constructive stress to have a positive impact that suppress the emergence of dysfunctional behavior and can make stress as a driving force to improve its performance.

Rationality and various scientific conditions revealed that, based on one of several studies, the theory used in this study that in some cases, stress may actually result in a positive impact on individual performance and organizational goals. Thus, the internal auditor in the case of BO of BJB bank that is the subject of this study is one of several cases which prove that the condition of stress can contribute to enhance individual performance and achievement of corporate goals.

The usefulness of the results of this research effort could provide two main benefits, namely for the internal auditor in BO of BJB bank that is the subject of research, for more effective performance and to encourage the achievement of objectives in the future; and for other researchers who have one mission and vision to develop Economics, in particular science associated with Internal Auditor Behavioral Auditing.

REFERENCES

- Arens, Alvin A and James K Loebbecke. 2003. *Auditing: An Integrated Approach*. New Jersey Prentice Hall Inc..
- Bamber, E Michael, Doud Snowball and Richard M Tubbs. 1989. "Audit Structure and Its Relation to Role Conflict and Role Ambiguity: An Empirical Investigation". *The Accounting Review*. Vol LXIV. No 2. April. Pp 285 – 299.
- Bank Indonesia, 1999. *Peraturan Bank Indonesia Nomor 1/6/PBI/1999 tanggal 20 September 1999 tentang Penugasan Direktur Kepatuhan (Compliance Director) dan Penerapan Standar Pelaksanaan Fungsi Audit Intern Bank Umum*.
- Bank Indonesia, 2006. *Peraturan Bank Indonesia Nomor 8/4/PBI/2006 tanggal 30 Januari 2006 tentang Pelaksanaan Good Governance bagi bank umum*.
- Bank Indonesia, 2006. *Peraturan Bank Indonesia Nomor 8/14/PBI/2006 tanggal 5 Oktober 2006 tentang Perubahan Peraturan Bank Indonesia Nomor 8/4/PBI/2006 tanggal 30 Januari 2006*.
- Bank Indonesia, 2011. *Peraturan Bank Indonesia Nomor 13/2/PBI/2011 tanggal 12 Januari 2011 tentang Pelaksanaan Fungsi Kepatuhan Bank Umum*.
- Bank Jabar, 2009. *Surat Keputusan Direksi PT. Bank Jabar No. 657/SK/DIR-DAI/2009 tanggal 30 Juni 2009 tentang Piagam Internal Audit Charter PT Bank Jabar Banten*.
- Bank Jabar, 2013. *Surat Keputusan Direksi PT. Bank Jabar No. 667/SK/DIR-PS/2013 tanggal 29 Oktober 2013 tentang Struktur Organisasi PT Bank Pembangunan Daerah Jawa Barat dan Banten, Tbk Divisi Audit Internal berada dalam garis komando Direktur Utama dan Garis Koordinasi Komite Audit*.

- Bank Jabar, 2013. *Surat Keputusan Komisaris bank bjb No. 001/SK/DK/2014 tanggal 22 Januari 2014 tentang Struktur Organisasi PT Bank Pembangunan Daerah Jawa Barat dan Banten, Tbk Divisi Audit Internal berada dalam garis komando Direktur Utama dan Garis Koordinasi Komite Audit.*
- Bank Indonesia. 2015. *Kajian Ekonomi dan Keuangan Regional Provinsi Jawa Barat Triwulan IV 2014.* Bandung. Bank Indonesia.
- Bank Indonesia. 2015. *Laporan Perekonomian Indonesia 2014.* Jakarta. Bank Indonesia
- Bank Jabar. 2015. *Laporan Tahunan bjb 2014.* Bandung. Kantor Pusat bank bjb.
- Barney, Jay B. and Ricky W Griffin. 1992. *The Management of Organizations: Strategy, Structure and Behavior.* Boston. Houghton Mifflin Co.
- Barlow, Stephen. 1995. *The Business Approach to Internal Auditing.* Johannesburg. Juta & Co. Ltd..
- Buchanan, David and Andrzej Huczynsky. 1997. *Organizational Behaviour: An Introduction Text.* New Delhi. Prentice Hall.
- Chambers, Andrew D. 1981. *Internal Auditing: Theory and Practice.* London. Pitman Publishing.
- Davis, Keith and John J Newstrom. 1995. *Human Behaviour at Work: Organizational Behaviour.* Mc Graw Hill.
- Fogarty Timothy J., Jagdip Singh, Gary K. Rhoads and Ronald K. Moore. 2000. "Antecedents and Consequences of Burnout in Accounting: Beyond the Role Stress Model". *Behavioral Research in Accounting.* Vol 12. Printed in USA. Pp 31 – 67.
- Frederick, Robert L. 1999. *Internal Auditing.* London. Pitman Publishing.
- George, Jennifer W, and Jones, Gareth R. 2002. *Understanding and Managing Organizational Behavior.* New Jersey. USA. Pearson Education, Inc. Upper saddle River.
- Gibson, James L, John M Ivancevich and James H Donnelly Jr. 1999. *Organizations: Behaviour, Structure, Processess.* USA. Richard D Irwin Inc.
- Gregson, Terry, John Wendell and June Aono. 1994. "Role Ambiguity, Role Conflict, and Perceived Environmental Uncertainty: Are the Scales Measuring Separate Constructs for Accountants?". *Behavioral Research in Accounting.* Vol 6. Printed in USA. Pp 144 – 159.
- Guilford, J.P. 1956. *Foundamental Statistics in Psychology and Education.* New York. McGraw-Hill Inc.
- Hay's, William L. 1969. *Quantification in Psychology.* New Delhi. Prentice Hall.
- Hiro Tugiman. 2000. *Pengaruh Peran Auditor Internal Serta Faktor-Faktor Pendukungnya Terhadap Peningkatan Pengendalian Intern dan Kinerja Perusahaan.* Disertasi. Pascasarjana Universitas Padjadjaran. Bandung.
- Hellriege, Don. Slocumi, John W and Woodman, Richard W. 2002. *Organizational Behavior.* Ohio. South-Western College Publishing Cincinnati.
- HS Hadibroto. 1993. *Peranan Fungsi Pengawasan Dalam Manajemen.* Forum Komunikasi Satuan Pengawasan Intern BUMN dan BUMD. Medan.
- Ikatan Akuntan Indonesia. 2002. *Standar Profesional Akuntan Publik.* Yogyakarta. Bagian Penerbitan Sekolah Tinggi Ilmu Ekonomi YKPN.
- Indriantoro dan Bambang Supomo. 1999. *Metodologi Penelitian Bisnis: Untuk Akuntansi dan Manajemen.* Yogyakarta. BPFE.
- Kell, Walter G, William C, Bayutan and Richard E. 1996. *Modern Auditing.* Singapore. John Willey and Son.
- Kelley, T and Margheim. 1990. *The Impact of Time Budget Pressure, Personality and Leadership variables On Dysfunctional auditor Behavior Auditor.* "Auditing: A Journal of practice and Theory. Spring. Pp 21-42.
- Kinicki, Angelo. Kreitner, Robert. 2003. *Organizational behaviour: Key Concepts, Skills and Best Practice.* New York. Mc Graw Hill, Co, Inc.
- Krogstrad Cs. 1999. "Where We're Going: How the New Definition of internal Auditing Impact the Profession's Evolution". *Journal Institute of Internal Auditors.* October. Vol LVI:V. Pp 27-33.
- Luthan, Fred. 2002. *Organizational Behaviour.* Singapore. Mc Graw Hill Book Co.
- Mallone, F and Robins, Robin W. 1996. "Factors Associated With the Incidence of Reduced Audit Quality Behaviors." *Auditing: A Journal of practice and Theory.* Fall.. Pp 49-64.
- Masri Singarimbun dan Sofyan Effendi. 1995. *Metode Penelitian Survei.* Jakarta. LP3ES.
- Messier, William F. 2003. *Auditing and Assurance Services.* New York. McGraw-Hill/ Irwin Inc.
- Moeller, Robert, and Witt, N Herbett. 1999. *Modern Internal Auditing.* New York. Ronald Press Publication.
- Mondy R W, A Sharplin, Shane R. Premeaux, and Judith Gordon. 1999. *Management and Organizational Behaviour.* Allyn & Bacon.
- Moorhead, Gregory and Ricky W Griffin. 1995. *Organizational Behavior – Managing People and Organization.* Houghton Mifflin Co.
- Mueller, Daniel J. 1986. *Measuring Social Attitude: A Handbook for Researchers and Practioners.* New York. Teacher College Press.
- Nirwana S K Sitepu. 1994. *Analisis Jalur (Path Analysis).* Unit Pelayanan Universitas Padjadjaran Bandung. *Statistika Jurusan Statistika FMIPA.*
- Nurmadi H Sumarta. 2000. "Evaluasi Kinerja Perusahaan Perbankan yang terdaftar di Bursa Efek Jakarta dan Thailand". *Perspektif: Jurnal Ilmu Ekonomi, Manajemen dan Akuntansi.* Vol 5, No 2. Desember. Hal 49 – 60.
- Pei, Buck K W and Frederick G. Davis. 1989. "The

Impact of Organizational Structure an Internal Auditor Organizational Professional Conflict and Role Stress: An Exploration of Linkages”. *Journal of Practice and Theory*. Vol 8, No 2. Spring. Pp 101 – 113.

Pierce, Jon L, and gardner, Donald G with Dunham, Randall B. 2002. *Management Organization Behavior: An Integrated Perspective*. New York. McGraw-Hill/ Irwin Inc.

Rebele, James E and Ronald E Michaels. 1990. “Independent Auditors’s Role Stress: Antecedent, Outcome and Moderating Variables”. *Behavioral Research in Accounting*. Vol 2. Printed in USA. Pp 124 – 153.

Robbins, Stephen P. 1998. *Organizational Behavior: Concepts, Controversies and Applications*. New Jersey. Prentice-Hall International, Inc. Upper Saddle River.

Sawyer, B Lawrence, Dittenhofer A Mortimer. 1996. *Internal Auditing*. Florida. The Institute of Internal Auditors.

Schemerhorn, John R. 1999. *Management for Productivity*. Singapore. John Wiley & Son, Inc.

James G, Hunt and Richard N Osborn. 2001. *Managing*

Organizational Behaviour. Singapore. John Wiley & Son, Inc.

Sugiyono. 2001. *Metode Penelitian Bisnis*. Bandung. CV Alfabeta.

The Institute of Chartered Accountant in England & Wales. 1994. *Internal Control Guidance for Directors on Combined Code*. London.

The Institute of Internal Auditors. 1995. *Standards For The Professional Practice of Internal Auditing*. Florida.

Tjukria P. Tawaf. 1999. *Audit Intern Bank: Suatu Penelaahan serta Petunjuk Pelaksanaannya Mengacu pada SPFAIB*. Buku Satu. Jakarta. Salemba Empat.

Wayne, Holmes. 1999. *Internal Auditing*. Behavioral Accounting. Ohio. South-Western Publishing Co. Cincinnati.

Wood, William; Wallace, Zeffane; Schermerhorn, John R; Hunt, James G, and Osborn, Richard N 2001. *Organizational Behavior: A Global Perspective*. Australia. John Wiley & Sons.

YPIA. 1999. *Manajemen Internal Audit. Makalah Ilmiah*. Jakarta.

Ziegenfuss. 2000. “Measuring Performance”. *Journal Institute of Internal Auditors*. February. Vol LVII:1.

APPENDIX

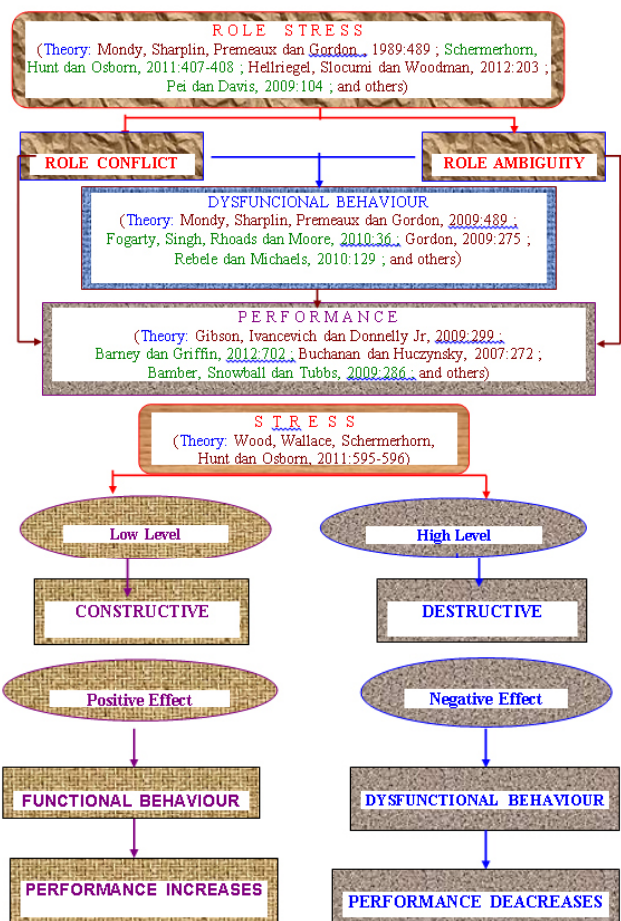
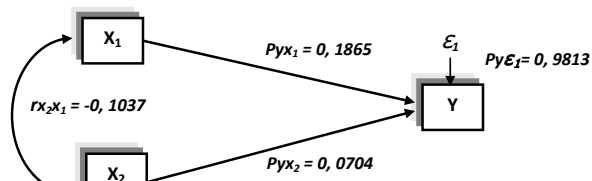
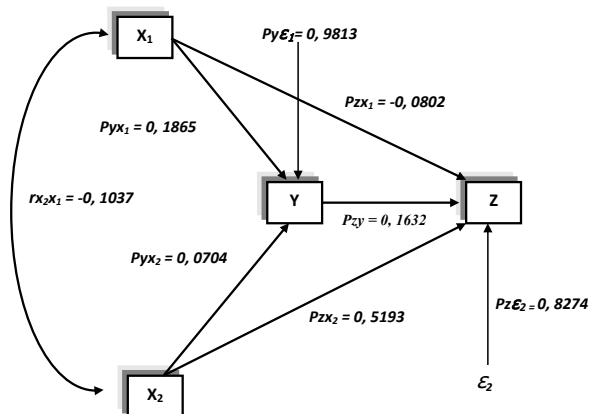


Figure 1. Research Paradigm



Description:
 X_1 = Role Conflict
 X_2 = Role Ambiguity
 Y = Dysfunctional Behavior of Internal Auditor
 Figure 2. Path Coefficient for Sub Structure 1



Description:
 X_1 = Role Conflict,
 X_2 = Role Ambiguity
 Y = Dysfunctional Behavior of Internal Auditor
 Z = Internal Auditor’s Performance
 Figure 3. Path Coefficient for Sub Structure 2

Variable	Sub Variable	Dimension	Indicator	Scale
Stress role (X)	Role Conflict (X ₁)	The discrepancy between the demands of the role with the knowledge and skills of internal auditors. Source: Gregson, Wendell & Aono (2014: 23).	a. The role of internal auditor. b. The demands towards the role of the internal auditor. c. Capabilities and sufficient knowledge as internal auditor. d. Deviations behavior of internal auditors.	Ordinal
	Role Ambiguity (X ₂)	The lack of clarity about the functions, powers and responsibilities expected of internal auditors. Source: Gregson, Wendell & Aono (2014: 23)	a. Functions, authorities and responsibilities of internal auditors. b. A person's / group's expectation about the role of auditors.	Ordinal
Dysfunctional Behavior of Internal Auditor (Y)		a. The components of attitude: Cognitive, Affective, and Conative b. Work motivation Source: Rebele & Michaels (2010: 126-127)	a. Low morale b. Job indiscipline c. Job dissatisfaction d. Low organizational commitment e. Low quality of work f. Tendency to leave organization g. Work motivation	Ordinal
Internal Auditor Performance (Z)		Norms of internal audit by: <i>Standar Pelaksanaan Fungsi Audit Intern Bank²</i> (SPFAIB) Source: SPFAIB (2009)	a. Independency b. Profession capability c. Audit scope d. Audit conducting e. Audit reporting f. Audit follow-up g. Audit of management unit	Ordinal

Table 3. Questionnaire

Questionnaire Submission Techniques	Total Research Questionnaires	
	Submitted	Received Back
Directly	30 Copies	18 Copies
Indirectly (via PT Pos)	32 Copies	11 Copies
Total	62 Copies	29 Copies

Table 4. Correlation Matrix Sub Structure 1

Variable	X ₁	X ₂	Y
X ₁	1.0000	-0.1037	0.1792
X ₂	-0.1037	1.0000	0.0511
Y	0.1792	0.0511	1.0000

Table 5. Correlation Matrix Sub Structure 2

Variable	X ₁	X ₂	Y	Z
X ₁	1.0000	-0.1037	0.1792	-0.1049
X ₂	-0.1037	1.0000	0.0511	0.5360
Y	0.1792	0.0511	1.0000	0.1754
Z	-0.1049	0.5360	0.1754	1.0000

Table 6. Inverse Correlation Matrix Sub Structure 1

Variabel	X ₁	X ₂
X ₁	1.0109	0.1048
X ₂	0.1048	1.0109

Table 7. Inverse Correlation Matrix Sub Structure 2

Variabel	X ₁	X ₂	Y
X ₁	1.0470	0.1185	-0.1936
X ₂	0.1185	1.0160	-0.0731
Y	-0.1936	-0.0731	1.0384

Table 8. Path Coefficients Sub Structure 1

Path coefficient X ₁ towards Y	pY.X ₁	0.1865
Path coefficient X ₂ towards Y	pY.X ₂	0.0704

Table 9. Path Coefficients Sub Structure 2

Path coefficient X ₁ towards Z	pZ.X ₁	-0.0802
Path coefficient X ₂ towards Z	pZ.X ₂	0.5193
Path coefficient Y towards Z	pZ.Y	0.1632

Table 10. Total Coefficient Sub Structure 1

Multiple Coefficient of Determination	R ² _{Y.X₁X₂}	0.0370
Multiple Correlation Coefficient	R _{Y.X₁X₂}	0.1924
Coefficient of Determination of other var.on Y	P ² _{Y.X₁}	0.9630
Correlation Coefficient of other var. on Y	P _{Y.X₁}	0.9813

Table 11. Total Coefficient Sub Structure 2

Multiple Coefficient of Determination	$R^2_{Z.X_1X_2Y}$	0.3154
Multiple Correlation Coefficient	$R_{Z.X_1X_2Y}$	0.5616
Coefficient of Determination of other var.on Y	$p^2_{Z.X_2}$	0.6846
Correlation Coefficient of other var. on Y	$p_{Z.X_2}$	0.8274

Table 12. Simultaneous test sub structure 1

Simultaneous test					p-value
F	0.4995	<	F0.05;2;26	3.3690	0.6125
Decision	Non-significant at the 5% error level				
Conclusion	There is not any significant path coefficients or X_1 and X_2 do not simultaneously affect the Y				

Table 13. Simultaneous test Sub Structure 2

Simultaneous test					p-value
F	3.8395	<	F0.05;3;25	2.9912	0.0217
Decision	Significant at the 5% error level				
Conclusion	At a minimum there is a significant path coefficients or X_1 , X_2 , and Y affect simultaneously to Z				

Table 14. Partial test Sub Structure 1

Partial test					p-value
$t_{Y.X_1}$	0.9637	<	$t_{0.05;26}$	1.7056	0.1720
Decision	Non-significant at the 5% error level				
Conclusion	X_1 has no positive effect on Y				

Table 15. Direct & Indirect effect X_1, X_2 to Y

	Direct Effect	Indirect Effect, through :			Total Effect				
		X_1	X_2	Sub Total					
X_1	3.48%	+	-	-0.14%	-	-0.14%	-	3.34%	+

Table 16. Partial test Sub Structure 2

Partial test					p-value
$t_{Y.X_2}$	0.3638	<	$t_{0.05;26}$	1.7056	0.3595
Decision	Non-significant at the 5% error level				
Conclusion	Conclusion X_2 has no positive effect on Y				

Table 17. Direct & Indirect effect X_1, X_2 to Y

	Direct Effect	Indirect Effect,through:			Total Effect			
		X_1	X_2	SubTotal				
X_2	0.50%	+	-0.14%	-	-0.14%	-	0.36%	+

Table 18. Partial test X_1 to Y

Partial test					p-value
$t_{Z.X_1}$	-0.4739	>	$-t_{0.05;25}$	-1.7081	0.3198
Decision	Non-significant at the 5% error level				
Conclusion	X_1 does not negatively affect Z				

Table 19. Direct & Indirect effect X_1, X_2 to Y

	Direct Effect	Indirect effect, through :				Total Effect					
		X_1	X_2	Y	SubTotal						
X_1	0.64%	-	-	0.43%	-	-0.23%	+	0.20%	-	0.84%	-

Table 20. Partial test X_2 to Z

Partial test					p-value
$t_{Z.X_2}$	3.1136	>	$-t_{0.05;25}$	-1.7081	0.9977
Decision	Non-significant at the 5% error level				
Conclusion	X_2 does not negatively affect Z				

Table 21. Direct & Indirect effect X_1, X_2 to Y

	Direct Effect	Indirect effect, through :				Total Effect					
		X_1	X_2	Y	SubTotal						
X_2	16.97%	+	0.43%	+	-	-0.43%	+	0.87%	-	27.84%	-

Table 22. Partial test Y to Z

Partial test					p-value
$t_{Z.Y}$	0.9681	>	$-t_{0.05;25}$	-1.7081	0.8289
Decision	Non-significant at the 5% error level				
Conclusion	Y does not negatively affect Z				

Table 23. Direct & Indirect effect X_1, X_2 to Z

	Direct Effect	Indirect effect, through :				Total Effect					
		X_1	X_2	Y	SubTotal						
X_1	2.66%	+	-0.23%	-	0.43%	+	-	0.20%	-	2.86%	-

Table 24. Total Effect Sub Structure 1

	Direct Effect	Indirect Effect, through:			Total Effect					
		X_1	X_2	Sub Total						
X_1	3.48%	+	-	-0.14%	-	-0.14%	-	3.34%	+	
X_2	0.50%	+	-0.14%	-	-	-0.14%	-	0.36%	+	
Total Effect of variable X_1 and X_2 towards Y									3.70%	+
Effect of other variable X_1 towards Y									96.30%	+
Total									100.00%	+

Table 25. Total Effect Sub Structure 2

	Direct Effect	Indirect Effect, through:				Total Effect					
		X_1	X_2	Y	Sub Total						
X_1	0.64%	-	-	0.43%	-	-0.23%	+	0.20%	-	0.84%	-
X_2	26.97%	+	0.43%	+	-	0.43%	+	0.87%	+	27.84%	+
Y	2.66%	+	-0.23%	-	0.43%	+	-	0.20%	+	2.86%	-
Total Effect of variable X_1 and X_2 towards Z									31.54%	-	
Effect of other variable X_2 towards Z									68.46%	-	
Total									100.00%	-	

Efficiency Measurement of Maintenance Costs on Customer Service Process PT Indonesia Comnets Plus West Java

Ika Rizky Setyaningrum

Bachelor of Science in Management Business Technology and Informatics
Telkom University

ikarizkys@telkomuniversity.ac.id

Palti Marulitua Sitorus

Bachelor of Science in Management Business Technology and Informatics
Telkom University

Abstract

Information technology is growing rapidly. The problems arising in the conjunction magnitude of information technology devices are how to manage, maintain, and calculate the amount of required investments. The purposes of this study are to measure preventive and corrective cost optimization maintenance which determines the most optimal performance for alternative maintenance activity. The case studies in this research is PT Indonesia Comnets Plus (ICON +) West Java focusing on how the process of customer service telecommunication maintenance. Analysis techniques used are descriptive and optimization analysis. The level of corrective maintenance costs are known through services damage probability, average cost of service damage in the period of 2011-2014, and corrective cost analysis formula. To determine the level of preventive maintenance costs, it requires the calculation of damage probability screened estimated monthly service and then calculating the total cost of preventive maintenance. The analysis requires amount of damage and cost of protecting canceling services. The result, general implementation of maintenance services has been running well, but not optimal. Period of preventive maintenance services can be optimized with an average of 12-month treatment.

Keywords: maintenance, maintenance cost, preventive maintenance, corrective maintenance.

INTRODUCTION

Information technology is developing very rapidly. All the elements in carrying out life, organizations, companies and others cannot be separated from the role of information technology (Suroso, 2014). Implementation of information technology needs necessary care and maintenance in network and devices infrastructure. It aims to facilitate the identification and numbering of IT infrastructure, assist the development of preventive of any infrastructure plan, facilitate the monitoring of the infrastructure condition, and maintain all infrastructures including physical infrastructure so that the condition can be properly maintained (Agustin, 2012).

Competition in the telecommunications industry is increasingly stringent, so that companies operating in this industry need to have a strategy and competitive advantages to be competitive. ICON+ believes that the growth of the national telecommunications will remain

high with the potential of over 10% per year, so the need for network connectivity to support mobile business data, internet and information technology services will continue to increase (Management PT. ICON+).

The results of the failure of maintenance can be damaging, causing discomfort, generate waste, and costly in terms of human or material (Heizer, 2010). Construction company is more oriented to customer satisfaction so that the basic things that must be considered by the company is ready to use machine for customer service at any time (Subakir, 2010). Through the method of optimization of maintenance, reliability and availability of assets will increase at a low cost (Kabib 2009).

To minimize disturbance, PT. ICON+ Regional West Java is applying maintenance business. However, the company certainly requires measurement of the efficiency of the maintenance costs of the company's customer service. Through the implementation of

optimal maintenance on equipment and facilities services, the possibility of damage can be minimized or avoided altogether.

METHODS

Maintenance is a merger of any act or activity undertaken to maintain, or restore a device, machine, building on acceptable conditions (Margono, 2006). Maintenance is all activities involved in maintaining the system so that the equipment still works (Heizer, 2010). Maintenance is performed at predetermined time intervals, or to other criteria outlined, and is intended to reduce the likelihood of the other parts not meeting the acceptable conditions (Corder, 1996).

Maintenance is done to repair a section (including adjustment and repair) which has been stalled to meet an acceptable condition (Corder, 1996). Efficiency is the actual output as a percentage of the effective capacity that actually has been achieved (Heizer, 2011). Efficient is emphasizing the achievement of target and pressing the use of inputs to a minimum on the company's business processes (Kosasih, 2009).

Maintenance and Budget Relationship, the balance of the cost of maintenance repair and preventative maintenance cost are very necessary to look out for an operations manager. The operations manager should be able to take a decision, when he took the decision to make improvements, namely at the point of achieving optimal maintenance cost curve of Maarif (2013).

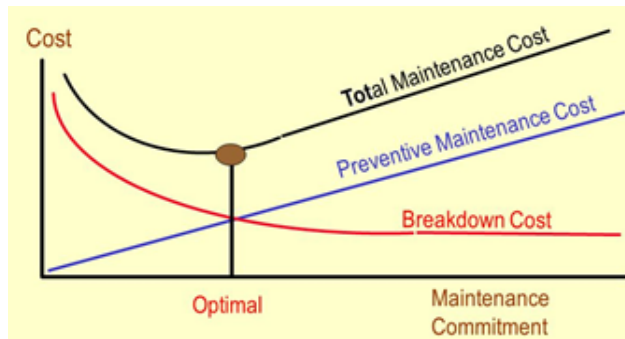


Figure 1. Maintenance costs

Operational variable

The variables used in this research are:

1. Action = The amount of damage is expected for n months
2. N = The number of the machine
3. Pn = The probability of machine damage in n months
4. N = The period of damage/month
5. TCr = The monthly corrective maintenance costs
6. C2 = The average cost each damage
7. Pi = The probability of damaging
8. i = The month of n

Optimizing analysis (Handoko, 2000):

The amount of damage expected
During n months

$$= N \sum_{i=1}^n Pn + B(n-1)P1 + B(n-2)P2 + \dots + B(n-i)Pi$$

Monthly corrective maintenance costs

$$= \frac{NC2}{\sum_{i=1}^i Pi}$$

The population in this study is the data of customer service maintenance process at PT. ICON+. This study used a non-probability sampling techniques (Cooper, 2006), i.e. arbitrary and subjective sampling. Every member of the population does not have the opportunity to be included in the sample. The type of sampling used in this study was a systematic sampling. In this study used the maintenance data from 2011 to 2014.

RESULTS

Analysis discussed on the optimization of the maintenance time period that is the most optimal reviewed from minimum maintenance costs. The steps in the optimization analysis are as followed:

1) Determine the estimation of total damages, Knowing the probability of damage occurrence in the machine operated (Pn) must be made in determining an estimated amount of engine damage. The probability of occurrence of machine damage can be found by dividing the number of engine failure occurring in a given month with the amount of damage that occurred in the year.

From the calculation of probability of machine damage (Pn) during 2011-2014, can be known by the number of engine damage cumulative probability of engine failure that occurred for each period. Here can be seen the number of cumulative probability of engine damage for the period 2011-2014 in Table 1:

Table 1. Probability Service Interruption Year 2011-2014

Month	2011	2012	2013	2014
1	0,093	0,074	0,078	0,64
2	0,111	0,119	0,094	0,60
3	0,094	0,131	0,072	0,084
4	0,096	0,064	0,083	0,088
5	0,048	0,097	0,075	0,061
6	0,070	0,083	0,075	0,072
7	0,067	0,101	0,087	0,069
8	0,099	0,044	0,052	0,083
9	0,086	0,031	0,087	0,089
10	0,072	0,081	0,116	0,089
11	0,089	0,072	0,074	0,131
12	0,074	0,096	0,107	0,112

Source: ICON+ (2015)

After knowing the probability of service interruptions occurrence, it can be calculated that the expectation of service disruption with the formula each month (Handoko, 2000: 162):

$$Action = N \sum_i^n Pn + B(n-1)P1 + B(n-2)P2 + \dots + B(n-i)Pi$$

The results of the calculation of the formula can be seen in the table 2, as followed:

Table 2. The Amount of Estimated Service Damage (Bn)

Month	2011	2012	2013	2014
1	0,834	0,662	0,701	0,575
2	1,914	1,786	1,600	1,152
3	2,956	3,122	2,390	1,976
4	4,116	4,020	3,324	2,901
5	4,954	5,312	4,271	3,653
6	6,036	6,570	5,294	4,557
7	7,152	8,094	Some 6,500	5,507
8	8,644	9,270	7,488	6,645
9	10,145	10,408	8,859	7,918
10	11,679	12,112	10,594	9,294
11	13,484	13,742	12,124	11,156
12	15,313	15,761	14,073	13,022

Source: ICON+ (2015)

2) Calculate the Monthly Corrective Maintenance Costs, the first method is to determine and find the average cost of corrective maintenance of each damages. The average fee per damage for four consecutive years is Rp 1,916,535.69, Rp 2,208,531.60, Rp 1,725,118.02 and Rp 805,116.87.

After finding out the average damage cost, it can be calculated that the corrective maintenance costs amount each month are as followed:

$$TCr = \frac{NC2}{\sum_{i=1}^i Pi}$$

The results of the calculation of the monthly corrective maintenance cost are as followed:

Table 3. Monthly Corrective Maintenance costs

Year	Monthly Corrective Maintenance Cost
2011	4.280.711,50
2012	5.064.609,74
2013	3.600.962,02
2014	1.579.545,43

Source: ICON+ (2015)

The data in Table 3 can further be used to calculate the costs of minimum maintenance.

3) Determine optimal period, Optimal time period is the period of time that provides the minimum cost results. Steps should be taken to determine the optimal period are:

A) Dividing the estimated amount of machine damage

(Bn) at month maintenance period.

B) Taking a result of Bn per month multiplied by the average cost of corrective every month, in order to obtain corrective costs per month.

C) Dividing the cost of preventive maintenance of each machine with maintenance-month period or preventive maintenance fees each month.

D) Summarizing the corrective costs and preventive maintenance cost per month in order to obtain the total maintenance costs.

Most optimal alternative period for each machine in 2011 is 12 months, in 2012 the optimal period is 12 months, in 2013 the optimal period is 12 months, and in 2014 with a 12 month period. Therefore, the most optimal alternative maintenance period from 2011 to 2014 is every 12 months.

The overall average period obtained from the average preventive maintenance period of 2011 to 2014 which has a minimum cost is explained as followed.

Table 4. Preventive Maintenance Period with Minimum Cost

Year	Preventive Period	Total Cost each month
2011	12 Month	43.829.674,06
2012	12 Month	47.629.080,64
2013	12 Month	49.837.384,78
2014	12 Month	52.465.456,85
total	48 Month	193.761.596,30
Average	12 Month	48.440.399,08

Source: ICON+ (2015)

Table 4 shows that the average period of preventive maintenance services that generates minimum charge is 12 months with an average maintenance costs per month to Rp 48.0440.399,08. The amount is much smaller than the average cost of maintenance that has been done by the company of Rp 60,718,907.20. Thus, the period of preventive maintenance services PT. ICON+ West Java Regional has not been optimal.

4) Determine the efficiency maintenance engineering, the efficiency of engine maintenance can be discovered by comparing the level of corrective maintenance cost with preventive cost. Once the results are known, it can show the type of maintenance which has the smallest level of costs.

Table 5. Comparison of Average Maintenance Costs Each Month Period of 2011-2014

Year	Preventive Cost	Corrective Cost	The Difference
2011	43.829.674,06	4.280.711,50	39.548.962,56
2012	47.629.080,64	5.064.609,74	42.564.470,90
2013	49.837.384,78	3.600.962,02	46.236.422,76
2014	52.465.456,85	1.579.545,43	50.885.911,41
Total	193.761.596,33	14.525.828,70	179.235.767,63
Average	48.440.399,08	3.631.457,17	44.808.941,91

Source: ICON+ (2015)

Table 5 shows a comparison of the average per month between the cost of preventive maintenance and corrective maintenance cost during the period of 2011 to 2014. When the PT. ICON + West Java Regional implement a preventive maintenance system, the cost is Rp 48,440,399.08. Meanwhile, the system of corrective maintenance costs is Rp 3,631,457.17 and the total cost of maintenance is Rp 52,071,856.26. The number is smaller compared to the costs incurred by the company so far by Rp 105,169,634.85 for corrective maintenance and, Rp 60,718,907.17 for preventive maintenance with a total maintenance cost of Rp 165,888,542.02. This shows that the maintenance the company applied has not been efficient.

DISCUSSION

The results obtained from the analysis of the research result on the maintenance of customer service process PT. Indonesia Comnets Plus West Java Regional, we obtained the discussion as followed:

1. Implementation of the maintenance of the customer service process in PT. ICON + West Java is using the preventive maintenance and corrective maintenance systems. Preventive maintenance of the company includes tidying up cable in crossroad points and providing housekeeping at the Point of Presence (POP) backbone. Meanwhile, corrective maintenance of the company includes improvements through the NOC system in PT. ICON + Center and repair directly in the field or the user's location.

2. Costs arising from maintenance services include:

A. Preventive Maintenance Costs

The cost of preventive maintenance includes:

- a. Cost of Human Resources: (i) Coordinator, (ii) FOT Technicians, (iii) FOC Technicians, (iv) Administrator Office, (v) Driver.
- b. Fiber Optic Cable (FOC) Tools: (i) Car Rent (gas included), (ii) Optical Power Meter (OPM) Rent, (iii) Fiber Identifier Rent, (iv) Laptop Rent, (v) Portable Global Positioning System, (vi) 5.5 KVA Generator Rent, (vii) Other Work Tools.
- c. Fiber Optic Transmission (FOT) Tools: (i) Bert Test Rent, (ii) Nokia Terminal Service Rent.
- d. Office Management: (i) Office Stationary and Barrack

The amount of preventive maintenance costs incurred during the period of four years beginning in 2011-2014 is Rp 2,914,507,545.00 with an average per month of Rp 60,718,907.00.

B. Corrective Maintenance Costs

- a. Cost of Human Resources: (i) Coordinator, (ii) Jointer, (iii) Jointer Assistant, (iv) FOT Technicians, (v) FOC Technicians, (vi) Patrol Technician, (vii) Administrator Office, (viii) Driver.

- b. Fiber Optic Cable (FOC) Tools: (i) Car Rent (including fuel), (ii) Patrol Vehicle Rent (including fuel), (iii) Optical Time Domain Reflectometer (OTDR) Rent, (iv) Splicer Rent, (v) Optical Power Meter (OPM) Rent, (vi) Fiber Identifier Rent, (vii) Laptop Rent, (viii) Global Positioning System (GPS) Portable, (ix) Handy Talkie, (x) 5.5 KVA Generator Rental, (xi) Other Work Tools.
- c. Fiber Optic Transmission (FOT) Tools: (i) Rent Bert Test, (ii) Nokia Terminal Service Rent.
- d. Office Management: (i) Office Stationary and Barrack

The amount of corrective maintenance costs incurred during the period of four years throughout 2011-2014 is Rp 5,048,142,473.00 with an average per month of Rp 105,169,635.00.

3. The corrective maintenance system of the company can be optimal when the probability of damage to the service on average each year is 14.542. The average cost of corrective maintenance is Rp 3,631,457.17, which is lower than the cost incurred by the company which is Rp 105,169,635.00. Meanwhile, preventive maintenance system can be optimized if it is implemented with an average time of each service by 12 months with an average maintenance costs per period amounted to Rp 48,440,399.08.

CONCLUSION

The conclusions that can be drawn from the research result and analysis conducted in PT. Indonesia Comnets Plus (ICON +) West Java Regional are as followed:

1. PT. Indonesia Comnets Plus West Java Regional introduced a system of preventive and corrective maintenance services. Because they operate in the field of telecommunication networks and services, there are nine services with three types of damage in the maintenance system. Costs incurred in preventive and corrective maintenance are cost of human resources, fiber optic cable, fiber optic transmission devices, and office management. Maintenance costs incurred by the company on average each month is Rp 60,718,907.00 for preventive maintenance and Rp 105,169,635.00 for corrective maintenance.

2. The period of maintenance for the nine such services is divided into three levels. The first level is super backbone which should be maintained every two months. The second level is the backbone level which should be maintained every six months. And the third level is the distribution maintenance every year. The amount of the average cost of maintenance per month is Rp 60,718,907.00 for preventive maintenance and corrective maintenance of Rp 105,169,635.00 with the total maintenance cost of Rp 165,888,542.00 which indicates that the policy of maintenance period of the company is still not optimal because it is higher than

the results of analysis which is Rp 48,440,399.08 for preventive maintenance and corrective maintenance for Rp 3,631,457.17 with the total cost of maintenance of Rp 52,071,856.26.

Based on the conclusions, we suggest the company to: 1) Consider the implementation of a policy of maintenance services running in more detail such as scheduled maintenance, the costs incurred, the extent of damage, repair, and maintenance cost aspects. Reconsider the policy application of maintenance services in order to obtain a more efficient maintenance system derived from the analysis of maintenance cost data on average each month of Rp 48,440,399.08 for preventive maintenance, Rp 3,631,457.17 for corrective maintenance, and the total cost of maintenance of USD 52,071,856.26. 2) Reconsider the policy application of maintenance services by implementing preventive maintenance period every 12 months or a year to save on maintenance costs incurred by the company. Implement a preventive maintenance policy in an optimal and cost efficient maintenance and improvements to the operation of the machine by technicians who really understand the conditions of service in accordance to the direction of the optimal maintenance policy.

REFERENCES

- Agustin, Luci Dwi dan A. Holil Noor Ali. 2012. *Tata Kelola Infrastruktur TI dan Non TI di Jurusan Sistem Informasi ITS. Jurnal Teknik*, Vol 1, No 1, 1-6.
- Cooper, Donald R. dan Pamela S. Schindler. 2006. *Metode Riset Bisnis Volume 1 (Edisi Kesembilan)*. New York: McGraw-Hill.
- Corder, Antony. 1996. *Teknik Manajemen Pemeliharaan*. Jakarta: Erlangga.
- Handoko, T Hani. 2000. *Dasar-dasar Manajemen Produksi dan Operasi*. Yogyakarta: BPFE.
- Heizer, Jay dan Barry Render. 2011. *Manajemen Operasi Buku Kedua (Edisi Sembilan)*. Jakarta: Salemba Empat.
- Kabib, Masruki. 2009. *Optimasi Perawatan di Industri Manufaktur. Teknik Mesin*.
- Kosasih, Sobarsa. 2009. *Manajemen Operasi*. Jakarta: Mitra Wacana Media.
- Ma'arif, Mohamad Syamsul & Hendri Tandjung. 2003. *Manajemen Operasi*. Jakarta: PT. Grasindo.
- Manajemen PT. ICON+. 2014. *Laporan Tahunan Perusahaan Tahun 2013*. Jakarta: PT. ICON+.
- Margono. 2006. *Manajemen Pemeliharaan dan Perawatan Mesin. Jurnal Teknik Mesin, Volume 4*, 42-48.
- Subakir. 2010. *Pengaruh Biaya Pemeliharaan Mesin Terhadap Peningkatan Pendapatan Jasa PT. Triperkasa Aminindah Surabaya. Akuntansi*.
- Suroso, Arif Imam. 2014. *Pengembangan Sistem Informasi dengan Menggunakan Pendekatan In dan Outsourcing di Perusahaan. Sistem Informasi Manajemen*.