ANALYSIS AND DESIGN OF ACCOUNTING INFORMATION SYSTEM IN PT. SME'S PRODUCTION PROCESS

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ABSTRACT
SME Company is a manufacturing company which deals in producing medicine herb. The company is facing problem in their production system process : couldn't determine how much production cost which incurred in each department, production cost report can't be produce automatically, the lack of supervision on stock of finished goods and raw material, no journal entries, and double jobs that took place in the company. The methods used are data collection method by using literature study, company's survey and conducting direct interviews. For the analysis and design is done with OOAD which will be drawn using UML notation and for the cost calculation will be done with each department calculation method and cost of inventory method will be done with weighted average method. There is a high expectation that with this production process accounting information system can help the company to do every activity of the production process.

Keyword: *Analysis, design, system, information, accounting*

INTRODUCTION

Production an activity within a company is a very complex activity, because of all the company resources will be used to produce an output which worth more. PT. SEM is a manufacturing company engaged in the production of herbal medicines and this company's production process has not been good in infrastructure and hasn't had integrated production process.

The Company also cannot calculate how much the production costs incurred for each department and the production cost reporting is d not done automatically, the lack of supervision on stock of finished goods and raw materials in the warehouse and there is no journal making.

Objectives that wished to be achieved in this research is to design a computerized system and integrated of information system production inter-departmental between mixing department, encapsulation department and packaging department in order to assist companies in preparing the data, in the process of recording the cost of production, obtain information related to the production process and calculate the cost of production automatically calculated.

General Guidelines

The method used is a qualitative method that commonly known as the field studies and literature study. Literature study includes the use of several books as a source to be used as a reference while field studies are done through surveys, observe how the system is running and doing interviews and analyzing survey findings.

Analysis and design method is using OOAD (object-oriented analysis and design) which consists of collection of general guidelines that are used to perform analysis and design. Object oriented analysis and design reflects the four main perspectives on a system and its context, the problem-domain analysis, application-domain analysis, architectural design, and component design.[1]

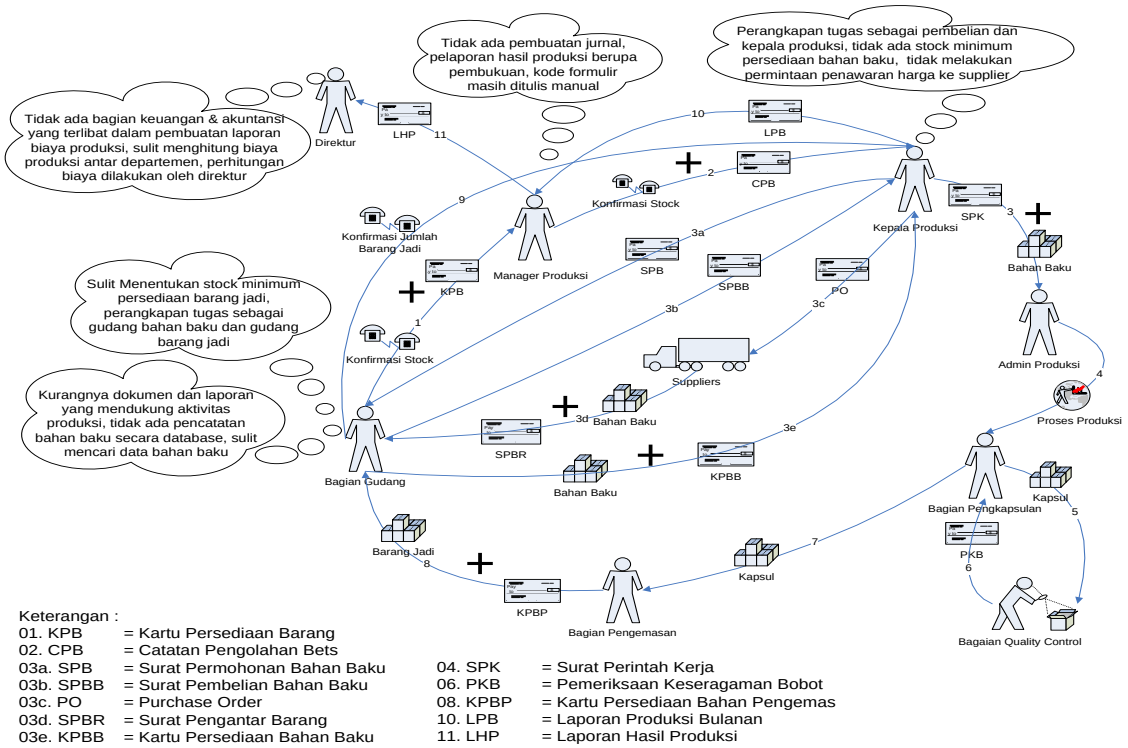
Method of calculating the cost of the production process (process costing) using the calculation of weighted average cost (weighted average method) which basically combining the cost calculation method of the weighted average cost of beginning inventory with current period costs, to calculate the cost per unit. Essentially, the cost is only one average unit costs are calculated and charged either on the unit which transferred out and the units remain in ending inventory. [2]

[1] Menurut Mathiassen, et., al (2000, p12)
[2] Menurut Hansen Mowen yang diterjemahkan oleh Deny Arnos Kwary (2009, p310)

1. Current running system

In this text will be explained about some of the analytical methods that are used to obtain the expected results. Therefore there will be an analysis of current running system on the company, making the proposed system in calculating the cost of production and design of the system. Explanation of this can be seen in the sub chapters as follows.

System that runs on the company can be seen at pictures in rich picture below.



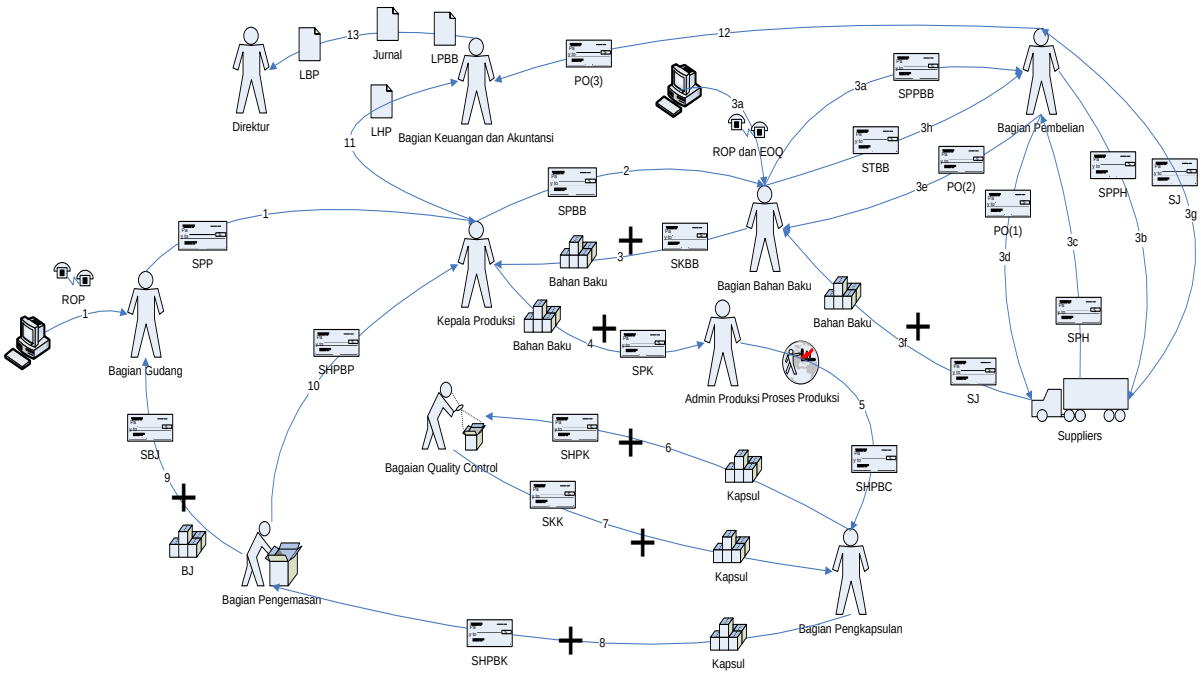
Picture 3.1 - Rich Picture of PT. SEM's Current Running System

After conducting surveys, interviews and evaluation of the company's current production processes, procedures and organizational structure, can be concluded that there are some problems identified in the current system. The problems that are found:

1. There are a lot of cases where the same person is doing 2 or more different jobs, such as production doubles as the head of the purchasing department; the warehouse serves as the warehouse of finished goods and raw materials, calculation of production costs and selling expenses made by the director.
2. Inventory control of raw materials and finished goods of the company are still very weak so that the company experienced difficulty in determining the minimum stock of raw materials and finished goods and sometimes the stock of finished goods and raw material in the warehouse is too much.
3. The absence of a formal document that is used to make requests for quotation to suppliers and the lack of supporting documents in the reporting of production activity.
4. The absence of serial number on every document and difficult to perform automatically the calculation of production costs between mixing department , encapsulation department, packing department and there has been no report of integrated production costs.
5. The process of recording raw materials and calculation of production costs are still using regular books entry and have not used database system.

2. Proposed Analysis and Design System

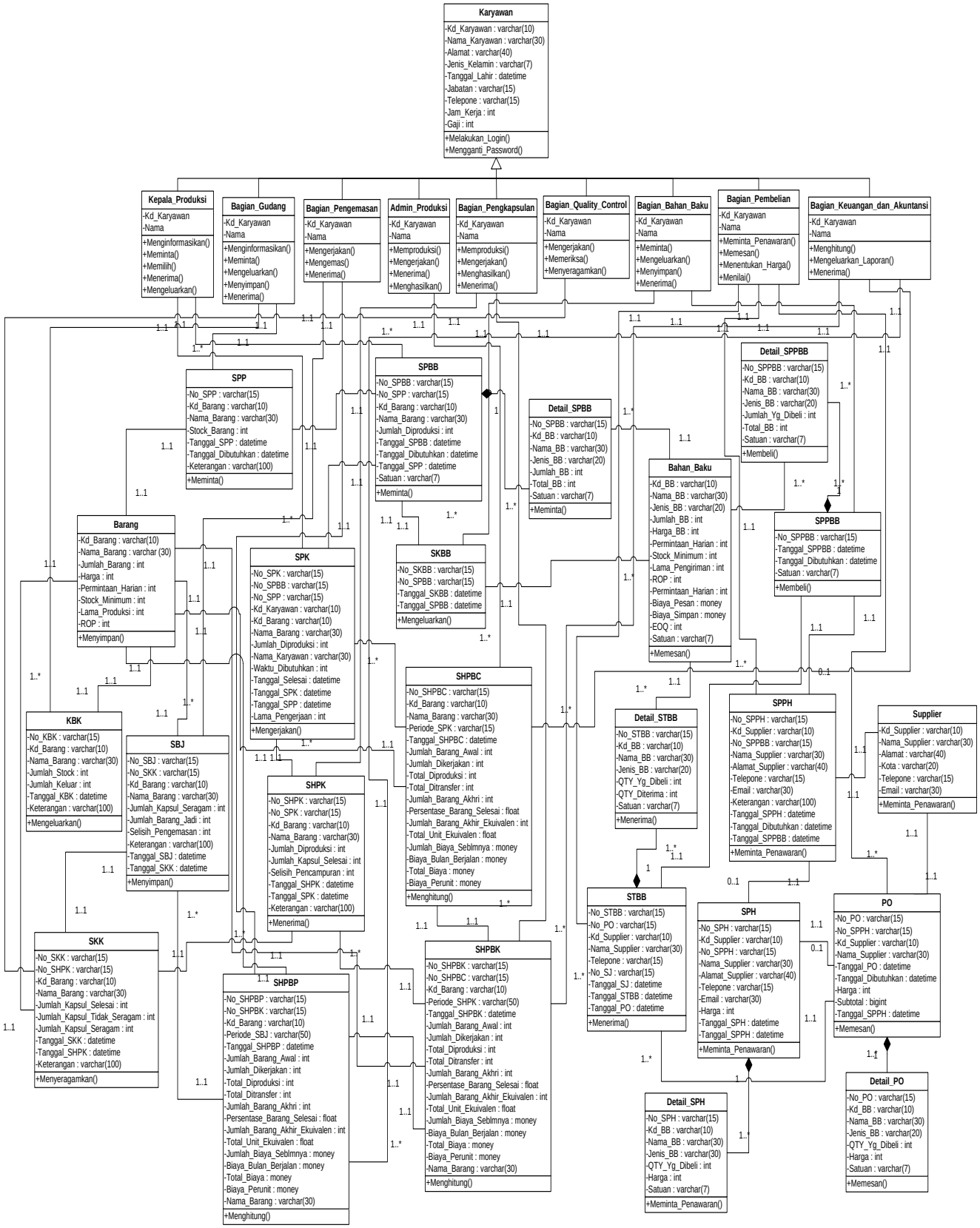
Considering at some of the problems that occur in the current system so it can be identified the need for information to solve problems that occur on the current system and by proposing a draft of the proposed system. The designs of the proposed system are as follows.



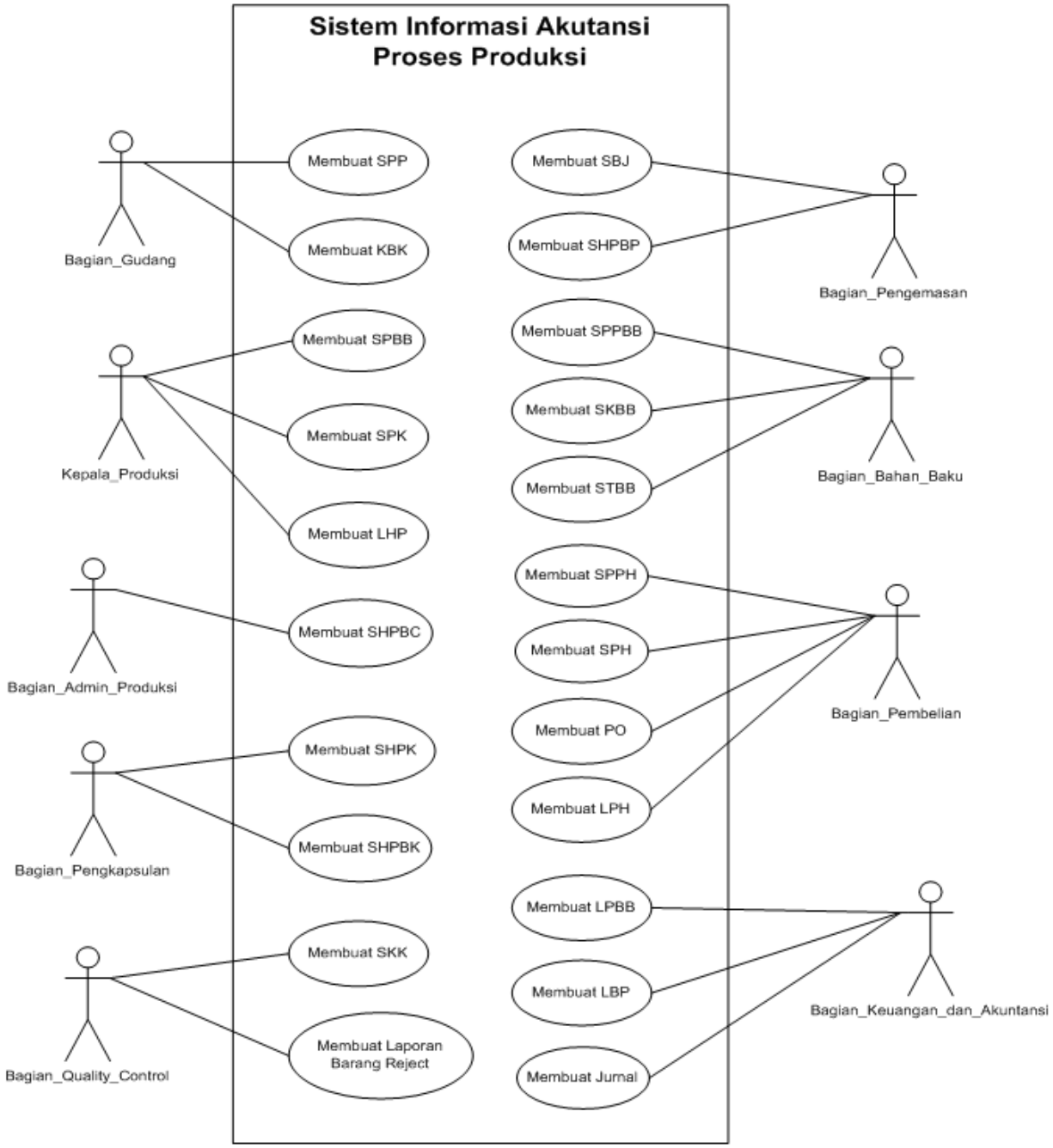
Keterangan :

01. SPP = Surat Permintaan Produksi
02. SPBB = Surat Permintaan Bahan Baku
03. SKBB = Surat Keluar Bahan Baku
03a. SPPBB = Surat Permintaan Pembelian Bahan Baku
03b. SPPH = Surat Permintaan Penawaran Harga
03c. SPH = Surat Penawaran Harga
03d. PO = Purchased Order
03f. SJ = Surat Jalan
03h. STBB = Surat Terima Bahan Baku
04. SPK = Surat Perintah Kerja
05. SHPBC = Surat Hasil Perhitungan Biaya Pencampuran
06. SHPK = Surat Hasil Produksi Kapsul
07. SKK = Surat Keseragaman Kapsul
08. SHPBK = Surat Hasil Perhitungan Biaya Pengkapsulan
09. SBJ = Surat Barang Jadi
10. SHPBP = Surat Hasil Perhitungan Biaya Pengemasan
11. LHP = Laporan Hasil Produksi
13. LPBB = Laporan Pembelian Bahan Baku
13. LBP = Laporan Biaya Produksi

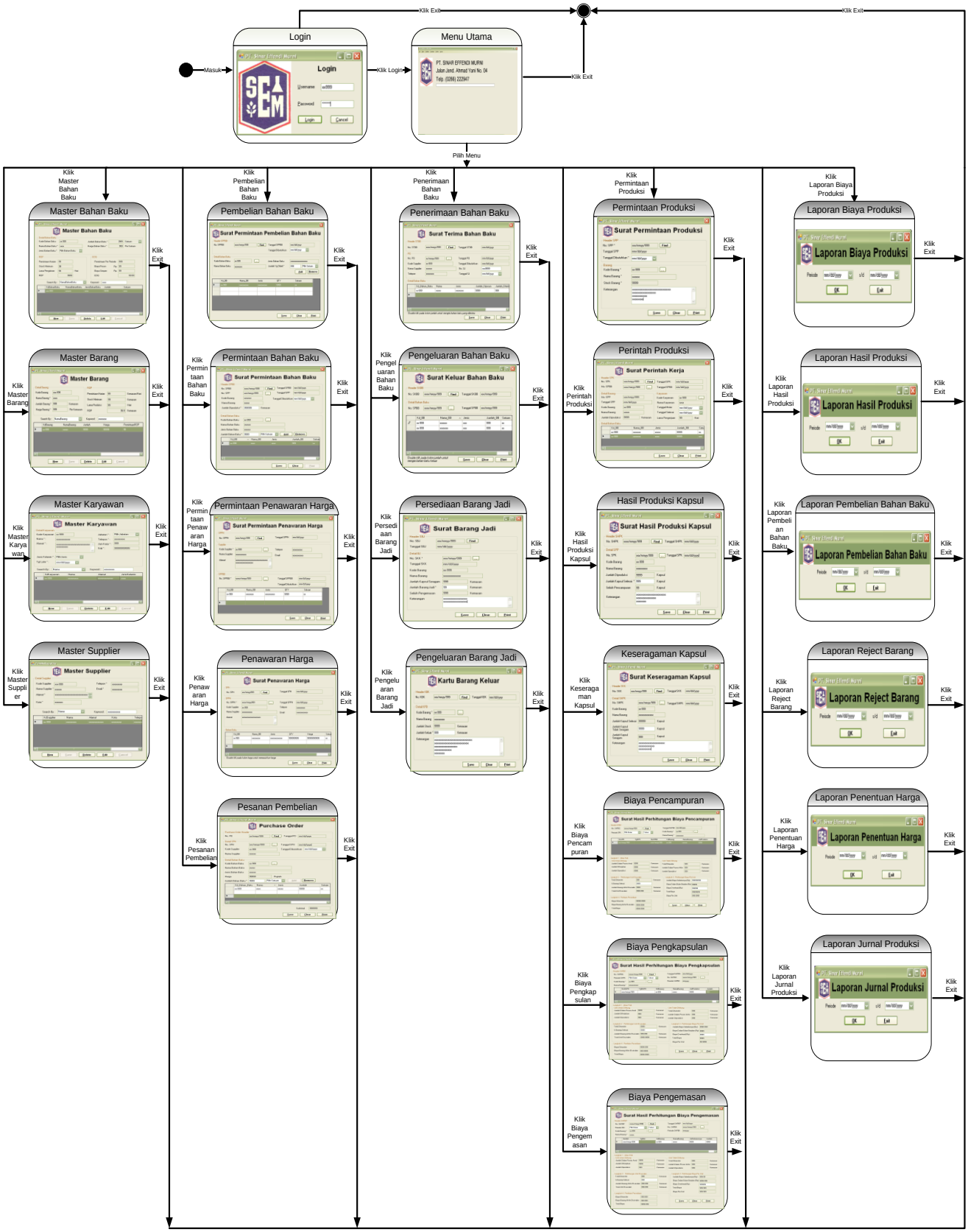
Picture 4.1 – Proposed Rich Picture of PT. SEM



Picture 4.2 – Class Diagram



Picture 4.3 – Use case Diagram



Picture 4.4 – Navigation Diagram

3. Conclusion

From the analysis and design of accounting information systems of production processes that have been conducted, can be concluded that with the company's production process accounting information system can be calculated the cost of production per department and the company can automatically find out how much costs have been incurred at the time of production in each department. By the production process accounting information systems, all the needs of each department will be integrated. This system will also assist in overseeing the company's minimum stock of raw materials and goods in the warehouse by providing the remainder stock minimum and could assist in the presentation of data and recording processes, such as the stock of goods records, raw material stock records, purchase of raw materials records and the making of manufacturing reports. The system is designed using the database as data storage, and this system will make restrictions on access among employees by using a password for each user associated with the system, so that data confidentiality can be maintained.

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A STUDY OF ACCOUNTANTS REQUIRED SKILLS TO HAVE EFFICIENT PARTICIPATION IN THE IMPLEMENTATION OF XBRL

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Abstract
The role of the accountants in a business environment has been evolving over the years. Accountants need to have the implementation and maintenance skills of XBRL (extensible business reporting language) which is revolutionizing business reporting around the world, in the organization. The present study encompasses two aspects. First, it addresses the role of the accountant during the implementation and maintenance phase. Second, it finds the characteristics and skills of accountants that can help them in a successful implementation and maintenance of XBRL. In order to collect the data a questionnaire has been used. To analyze data 2 statistical methods, Regression and Pearson correlation have been used .the results of the study confirm that there is a significant relationship between the participation of accountants and successful implementation of XBRL.

Keywords*: XBRL, Accountant, participation and implementation*.

The Research Topic

The role of accountants in workplaces has gradually developed and in addition to traditional knowledge of accounting, it is necessary to have special skills. For instance, knowledge skills of drawing information systems, developing and implying of systems. Accountants who have these skills have better situations to help managers in competing, problems and new technology.

New developments in workplace environments, such as eliminating roles and laws, specialization and globalization have led to a rise of competition and a conversion of large companies to multinational ones. These changes of workplaces show that the companies should find new strategies to success and remain stable. Logically, information technology has introduced to the companies necessary instruments in order to find efficient and practical solutions to those changes. Besides, they are forces to use those technologies in competition. The prime example is XBRL (Arab Mazar Yazdi, 2008).

XBRL is a language for the electronic communication of business and financial data which is revolutionizing business reporting around the world. It provides major benefits in the preparation, analysis and communication of business information. It offers cost savings, greater efficiency and improved accuracy and reliability to all those involved in supplying or using financial data (Neal, 2007) it has suggested that XBRL is very likely to have an impact on corporations, financial reporting, users of financial reports and auditing (Amelia, 2011).

XBRL will provide the ability to access data electronically and continuously will improve the timeliness of the financial information (Bovee et al. 2002; Bonson, 2009). As the timeliness improves, the efficiency of the decision making process is improved (Dipiazza and Eccles, 2002). And XBRL has been used to automate and integrate changing financial information from multiple sources as it has said about XBRL applications (Marshall et al, 2010; Burnett et al, 2006; Bovee et al, 2005).

According to The Futurist, XBRL is one of seven cutting-edge technologies that will have a big impact on business and revolutionize corporate performance (The Futurist, 2003). Research has been done about the importance of XBRL for business for example by (Pinsker, 2003; Rezaee et al, 2002; DiPiazza and Eccles 2002; Bovee et al, 2002 and Bonson, 2009) its usefulness confirmed but it has not been used very much (Wen ming, 2007) so that this study is going to examine the accountants required skills to have efficient participation in the implementation of XBRL.

Literature Review

Extensible Business Reporting Language (XBRL) is an XML based specification that uses accepted financial reporting standards and practices to export financial reports across all software and technologies, including the internet (Junsi, 2007). XBRL allows your company to make better-informed decisions and to leverage the capabilities of the internet to facilitate the exchange of financial information (Navision became part of Microsoft Business Solution, 2002).

First introduced in the late 1990s, XBRL has loomed on the horizon for nearly a decade. But it's finally becoming evident that the technology is about to take center stage, and the long-anticipated XBRL revolution will soon be upon us. Many regulators and standards organizations, including the Securities and Exchange Commission are now adopting XBRL (Shared Services, Outsourcing and Enterprise Solutions, 2002).

Keys of its Benefits are: Technical independence –XBRL makes the distribution of financial information simpler and more dependable**;** Single source– XBRL optimizes the preparation of financial information in various formats**;** Leverages the power of the Internet (Navision became part of Microsoft Business Solution, 2002).

As the founding chairman of XBRL International describes it, "The effect that XBRL will have on the business community will be more significant than the transition from paper and pencil analysis of financial information to the use of electronic spreadsheets (Shared Services, Outsourcing and Enterprise Solutions, 2002). Because of XBRL importance, it is important to know what factors impact on its usage among accountants, so this has been conducted by current article.

Research methodology

Population

This research has been examined required skills of accountants to implementing XBRL.

Sample

Sample of this research will be 155 of accountants in Iran. They have been contacted electronically and aids and importance of research has been explained.

Research tool

A questionnaire has been developed and distributed to a sample of the research, accountants in Iran,. The questionnaire has been distributed electronically.

Data analysis

SPSS 18 has been used to analyze data, and the answers to the questionnaire have been analyzed with the statistical methods: Pearson Correlation and Regression.

In order to determine the number of relationship between success of implementing XBRL systems and accountants' participation has been used 2 methods of Pearson Correlation and Regression. Results of table1 show Pearson correlation data which the relation between those variables is direct and significant (P<0.01). In the other word, a rise of accountants' participation, similarly implementing XBRL systems would increase and diversely.

Table 1: The relationship between success of XBRL implementation and accountants' participation in implementing

Variable	Accountants' participation in implementing XBRL	Significance level	Number
success of XBRL implementation	0.624**	0.000	155

P<0.05* p<0.01**

The table 2 illustrates that slope of a regression line is significant (P<0.05).

Table 2: accountants' participation in implementing XBRL

Model	non Standardized coefficients		Standardized coefficients	T	significance
	sample slope B	Standard error slope line	population slope		
Intercept	1.72	0.34	-	6.24	0.000
slope of a regression line	0.61	0.7	0.624	9.03	0.000

As it shows in table3, there is not a significant relation between skills of knowledge sharing and accountants' acceptance in implementing XBRL. It means that increase or decrease of skills of knowledge sharing does not relate to accountants' acceptance in implementing XBRL.

Table 3: Relationship between skills of knowledge sharing and accountants' acceptance in implementing XBRL

Model	non Standardized coefficients		Standardized coefficients	T	significance
	sample slope B	Standard error slope line	population slope		
Intercept	5.23	0.121	-	51.32	0.000
slope of a regression line	0.071	0.068	0.099	1.13	0.38

To determine the number of relationship between skills of knowledge sharing and accountants' acceptance has been used Regression, which in table 4, shows the relation between them is direct and significant. In the other word, a rise of accountants' participation, similarly implementing XBRL systems would increase and diversely.

Table 4: Relationship between skills of knowledge sharing and accountants' acceptance in storage of XBRL

Model	non Standardized coefficients		Standardized coefficients	T	significance
	sample slope B	Standard error slope line	population slope		
Intercept	5.70	0.113	-	54.57	0.000
slope of a regression line	0.662	0.098	0.543	7.04	0.000

The relation between technical skills and accountants' acceptance in implementing XBRL has been assessed by Regression, which in table 5, shows the relation between them is direct and significant ($P<0.05$). In the other word, a rise of accountants' participation, similarly implementing XBRL systems would increase and diversely.

Table 5: Relationship between technical skills and accountants' acceptance in implementing XBRL

Model	non Standardized coefficients		Standardized coefficients	T	significance
	sample slope B	Standard error slope line	population slope		
Intercept	5.70	0.113	-	54.57	0.000
slope of a regression line	0.663	0.102	0.546	7.05	0.000

To assess the relation between technical skills and accountants' acceptance in storage of XBRL has been used Regression, which in table 6, shows the relation between them is direct and significant (P<0.05). In the other word, a rise of technical skills, similarly accountants' acceptance in storage of XBRL would increase and diversely.

Table 6: Relationship between technical skills and accountants' acceptance in storage of XBRL

Model	non Standardized coefficients		Standardized coefficients	T	significance
	sample slope B	Standard error slope line	population slope		
Intercept	6.99	0.178	-	42.01	0.000
slope of a regression line	0.96	0.97	0.660	10.11	0.000

Regarding to table7, there is no relation between trade skills and accountants' acceptance in implementing XBRL base on result of regression analysis.

Table 7: Relationship between trade skills and accountants' acceptance in implementing XBRL

Model	non Standardized coefficients		Standardized coefficients	T	significance
	sample slope B	Standard error slope line	population slope		
Intercept	5.412	0.174	-	32.3	0.000
slope of a regression line	0.008	0.17	0.005	0.011	0.998

According to table8, there is no relation between trade skills and accountants' acceptance in storage of XBRL base on result of regression analysis.

Table 8: Relationship between trade skills and accountants' acceptance in storage of XBRL

Model	non Standardized coefficients		Standardized coefficients	T	significance
	sample slope B	Standard error slope line	population slope		
Intercept	5.297	0.123	-	44.892	0.000
slope of a regression line	0.136	0.091	0.16	1.634	0.141

Discussion and Result

In the future, it is expected many companies to integrate XBRL and their automated accounting information systems, to provide this situation, accountants should have an important and practical role, due to this issue This article has investigated required skills and role of accountants to practically implement XBRL, which results clearly show that the accountants have key roles in implementing and storage of XBRL systems. Previous research has justified that role of accountants have changed with developing information technology (Rodney, 2006). and also some studies state significant role of XBRL in business (Pinsker, 2003; Rezaee et al, 2002; DiPiazza and Eccles 2002; Bovee et al, 2002 and Bonson, 2009).

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REPURCHASE INTENTION TOWARDS GREEN PRODUCTS AND ITS IMPACT ON THE SUSTAINABILITY OF GREEN BUSINESS

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ABSTRACT
As the world's consumption increase dramatically, unfortunately, the environment become threatening as the use of natural resources unwisely by human. Regarding to this fact, green companies now have a greater responsibility to satisfy customer and to contribute on environment conservation. Though it is not an easy task for green business to fulfill these requirements, they should stay on track in order to sustain in a fierce competition. Green companies then should learn the customers repurchase intention on green products due to the reason that this behavior may determine the sustainability of green business. This qualitative study aims to find the motives of green buying and to identify both the drivers and barriers of repurchase intention toward green products. This study enriches literatures in green marketing and other relevant areas. It also provides green business an insight of factors to consider.

Keywords**:** *green business, green product, green consumer, repurchase intention, sustainability*

Introduction

The world's production and consumption and the environment preservation should not mutually exclusive. This ideal concept is still in an ongoing process for years until now when the earth is calling for us to save. The facts prove that the increasing and changing of production and consumption in number and patterns, unfortunately, had led to the exploitation on natural resources. This irresponsible action has emerge environmental degradation include global warming, depletion of ozone layer and energy crisis. Since the world began to realize that the environmental degradation is an unavoidable problem and therefore it had endangered the human life, environmental preservation became a pivotal issue in politic, social and business for decades. In the 1970S, green movement raised the world awareness of the environment, caused not only changes the production process, but also consumer behavior which becomes more environmental-oriented than before. This great action triggers companies to attempt to produce products in more efficient processes, to minimize the use of dangerous-environment ingredients and to manage their waste wisely as well. Companies must count these environmental actions while make their best to satisfy customers. It seems that the responsibility of a business is become complex. As response to this new task, some of opinions say that being green for a business is not easy, but some of them mention that being green is not that difficult. Companies which take the environmental issue into their business, so called as green companies, then attempt to produce green products to fulfill the consumers needs toward environmental-friendly products.

Green business and green consumer interact in the green market. The next question rises is that will the green market sustain, or is it only a temporary trend then it will diminish in the future? Considering that green consumer is the green business target, the simple-but-logic answer lies on the statement that the sustainability of green market, therefore, is highly depends on how consumer response to green products which the green firms offer. Since the consumer become more aware of environment they will more consider to buy green products than conventional ones and intent to buy them continuously. Or in other word, no green buying no green business; no repeat buying then the green business must be ready to fail in the competition. This is the reason for this study to focus more on the repurchase intention than on the actual buying.

Now, decades after the first green movement raised, the green issue is not only a more sounding issue by the business, both from producer and consumer view, but also a much interesting topic to discuss in many fields. This study approach this issue from marketing perspective mainly focused on customer behavior which is repurchase intention toward green products. Besides, although green issue is not new in Indonesia, however, to the best of the author's knowledge, a few studies had been conducted to investigate green consumers from this point of view. Drawn from depth-interviews on 20 green

consumers, this study revealed the motives of green buying and also the drivers and barriers of repurchase intention toward green products. The implication may give significant contributions to green marketing both in theory and practice.

LITERATURE REVIEW

1. Green Strategy for Green Business and Its Sustainability

Responding to the rise of environmental awareness among customers, companies must concern of strategies regarding this issue. Though some people mention that being green for companies is not easy, the other green experts optimist that actually the firms have many ways to be the greener. From marketing perspective, green marketing is now considered as one of the major strategies in modern business (Chen & Chai, 2000). This strategy focuses more on the efforts of corporate for being green and its marketing action, mainly related to competitors. The definitions of green marketing are varies, but the main point is that green marketing means a set of activities taken by firm that concern about environment in producing goods or services and intended to deliver satisfaction to customers. Based on this definition, green business then is a firm that implements green marketing. Green business must deal with both environment concern and customers satisfaction simultaneously.

The two major green strategies discussed in this paper might be a good guidance for them to follow in order to become the green ones and to sustain in a strong competition. The first is 'The Green Marketing Strategy Matrix'. This strategy has two dimensions which are the substantially of green market segments and differentiability on greenness. Based on these dimensions, in order for 'being green', companies then should consider one of the four strategies: Lean Green, Defensive Green, Shaded Green, and Extreme Green (Ginsberg & Bloom, 2001; Bloom, 2005). The four choices may illustrated as a green continuum which the Lean Green as the least green to the Extreme Green as the most green. They are different based on the two dimensions, but it could be summarized that it reflects their willingness and capabilities to become the greener. The second is 'Green Strategy' which focuses on the efforts of firms for being green related to the considering of stakeholders (Cronin, Smith, Gleim, Ramirez, & Martinez, 2011). There are three main types of green strategies: Green Innovation, Greening the Organization and Green Alliances. In sum, these strategies involve the innovation and the independency of a business to perform the green management. Without underestimating the importance of these strategies, this paper does not discuss them in details due to the focus of study which is on customer behavior.

Choosing the right green strategy is not a single action which green companies must do. The other critical task is understanding consumer perception on firm strategy towards environmental concern. It is not only useful in the formation of the overall perception about green products but also in the reflection of firm reputation on environmental issues and social responsibility. In turn, this consumer perception will influence their intention to purchase green products (D'Souza, Taghian, Lamb, & Peretiatkos, 2006).

2. Green Consumers and Green Products

The emergence of green consumers may be traced-back from the history of green consumerism. Green consumerism is a multifacet concept, which includes preservation of the environment, minimization of pollution, responsible use of nonrenewable resources and animal welfare and species preservation (McEachern, & McClean, 2002). Green consumers have a strong belief that current environment conditions are deteriorating and reflect serious problems of the world. Linking to green business, green consumerism is a stimulation to increase of environmental-friendly products that in turn, act as the driver for the greening industry (Fotopoulos, & Krystallis, 2002). Green consumers had been a much interesting subject of marketing research since the first green movement was declared in 1970S. The studies linked green consumers with willingness to pay (Massanel, Crooke, Reinhardt, & Vasishth, 2009); ethical behavior (Chan, Wong, & Leung, 2008); environmental concern (McEachern & McClean, 2002); Heiskanen (2005); Kim & Choi (2007); Evans *et al.* (2007),; Baker & Ozaki (2008); Lin & Ho (2010); consumer decision making (Vindigni, Janssen, & Jager, 2002); consumption (Connoly & Prothero, 2008).

One of manifestations of the environment awareness of green consumers is buying or consuming green products which they believe they are environmental-friendly products that have minimum dangerous effects on environment. Though sometimes customers confuse with the definitions of green product, according to Shamdani, Lin, & Richmond (1993) as cited in Mostafa (2007), green products are broadly defined as products that will not pollute the earth or deplore natural resources, and can be recycled or conserved. Thus,

the green consumers are consumers who deliberate the environmental concerns of a product. Based on this, therefore, they prefer to purchase environmental friendly products when given the opportunity to do so.

3. Repurchase Intention

In this study, repurchase intention towards green products is defined as the intention of green consumers to buy the same or different kinds of green products in future. As the consequence, there will be an increasing amount of green products bought by consumers. Though repurchase intention may not be the single factor contribute to the sustainability of green products, but it seems logic that higher the repurchase intention of green products, higher the amount of green product bought by customer. Thus, the sustainability of green business may be guaranteed. This is the explanation of the impact of repurchase intention toward green products on the green business sustainability.

METHODOLOGY

This research was exploratory in nature because, to the best of the author's knowledge, no qualitative study has been conducted to investigate consumers repurchase intention towards green products in Indonesia.

1. Participants

A total of 20 qualitative in-depth interviews were conducted. It was small in size, but this study ascertained it might give full information regarding the focus that was repurchase intention toward green products. Sample was selected with the criteria that participants are consumers who ever bought, at least once, any kinds of green products. This study defined them as green consumers.

2. Data Collection and Interpretation

During the interview, they were asked whether they will intend to repurchase green products in future. A written guide-line used in interview in order to minimize the missing of important information needed in this study. Each inter-view lasted approximately in 30-40 minutes. They were asked about all variables studied in this research, included their motives to buy green products, drivers and barriers of their intention to repurchase green products. Besides, they were also asked whether they will repurchase green products in the future and the possibilities to recommend green products to others. All interviews were audio-taped and then transcribed. The most challenging task in this qualitative study was coding and categorizing the respondents' comments to obtain answers to fulfill the aim of this study.

FINDINGS

1. Consumers' Demographic Characteristics and Preferences on Green Products

Of 20 respondents, 17 are females and 3 are males. The ages ranging from 16 to 30 years old, the income per month ranged from less than Rp 499.999 to Rp 2.999.999. Most of them were students and 4 of them were workers as lecturers and staff. In regard to education, most of them were students in university, 1 held bachelor degree and 2 held master degree. In regard to marital status, 10 participants were single, 11 in relationships, 1 were married with no children, and 1 was married with 1 child. Seven respondents mentioned that their latest green buying was one month before they were interviewed.

From the interviews, respondents mentioned various kinds of green products they bought. Female participants mentioned some green products: green bag, recycled plastic bag, books, paper bag, body soap, lipstick, body lotion, feminine napkin, shirt, natural-material bag, photo frame, vase, organic fruit, organic vegetable, and degradable water jar. Male participants mentioned recycled bag, recycled paper, face cleanser, shirt, table decoration, organic rice, organic vegetable, dish soap, and doormat. This finding indicated the range of green products choices is now expanding. Green consumers become easier to find and buy green products in many store than past years. When the participants were asked about how they obtained information on green products, most of them mentioned friends, and the rest were family members, magazine, internet, scientific article, school, supermarket, product label and green movement which is Greenpeace.

2. Motives of Green Buying

The coding process resulted in a final set of 3 categories which represent motives of green buying (Table 1). Results showed that motives of green buying were varied among participants.

3. Drivers of Repurchase Intention towards Green Products

The second aim of this study is to find drivers and barriers of repurchase intention towards green products. To achieve these aims, all participants were asked to tell their reasons why they want or do not want to repurchase green products. During the interview, each of participants mentioned at least one reason. These reasons were then identified as drivers or barriers. Table 2 summarizes the drivers. Qualitative data analysis resulted in 5 categories of drivers of repurchase intention toward green products: (1) value for money, (2) product attributes, (3) personal factors, (4) consumer knowledge, (5) environmental concern. Even though green products related to environmental issue, this study revealed that among the drivers, environmental-concern was not proved as the main driver for participants' repurchase intention towards green product, but the design of green product. This may be due to the most participants were students which highly concern of design.

Tabel 1. Qualitative Responses Regarding to the Motives of Green Buying

Categories and subcategories	Qualitative Comment
Health concern	
Self-health	"I buy green feminine napkin because I am sure that it is healthier and safer for me". "I believe that green cosmetics are made from natural ingredients, it then has minimum side effects". "I proved that organic foods are more hygiene, nutritious, and more delicious". "My skin is sensitive. But I have the solution when I used this body soap. It is the best for my skin".
Care about other's health	"I do not want my child eats too much food with monosodium glutamate, but it is difficult to eliminate this substance in our daily food if we buy foods from restaurants and the likes. Buying organic food help me to reduce the consumption of this dangerous substance".
Environmental concern	
Self-concern	"Every time I shop, I always get plastic bags. There are so many plastic bags in my room. Then I realize that I must reduce the number and I must use or ask degradable plastic bags when shopping".
Altruism	"I think we must being green right now. The weather is getting hot, logging is wilder. What can bequeath to our next generation?" "I want to contribute, though a little, to slow the global warming and greening the earth".
Product Design	
Unique	"I buy this natural-material bag because I think the design is cute". "I was attracted to buy the photo frame because it is unique".
Fashionable	"I wear my natural-material bag because it is a trend and fashionable". "I never worry not being fashionable because I can find a stylish green bag easily than before".

4. Barriers of Repurchase Intention towards Green Products

The details of the qualitative results of the barriers are provided in Table 3. The barriers were categorized into four: (1) price, (2) product characteristics, (3) product distribution, (4) lack of information. It was found that product distribution was the main barrier that was 41.67% (sum of product scarcity and limited product variety) and price was on the second place with 32%. The least important barrier was product characteristic with the subcategory not durable of green products which was only 8.33%.

In addition, during the interview, participants also asked what green products they will buy in next purchase. Results indicated that 3 participants will repurchase green bags, 2 participants will repurchase soap, 5 participants will repurchase organic foods, 6 participants will repurchase green products but not specific, and every 1 participant mentioned cosmetics, organic fruits, organic vegetables, organic rice, eco-friendly gasoline, natural-material bag, recycled paper, shirt, cosmetics, feminine napkin. Regarding to whom

participants may recommend green products, most of them mentioned friends (62.07%), family members (46.59%), colleague (6.90%) and roommates (3.45%).

Table 2. Qualitative Responses Regarding to the Drivers of Repurchase Intention towards Green Products

Categories and Subcategories	Percentage*	Qualitative Comment
Value for money		
Evaluation of cost and benefits	35.32%	"Organic food is more expensive than non-organic food. And of course also for the other green products. But I keep buying organic food and cosmetics because I think it's worth it." "I spend more money to buy green products for my family. But I don't mind."
Product attributes		
Design	36.60%	"The design of this bag is attractive. I love it." "Now I can buy green bags in beautiful designs". "I buy this natural-material bag because I think it's unique." "Green products are designed in a more creative style. That's why I buy this vase." "Green product is as beautiful as non-green products. So, I do not worry of being not fashionable if I wear this shirt." "Because the design is better now, teenagers may wear a green product such as this shirt."
Raw material used	2.44%	"I bought a shirt which was made of organic cotton, it was so comfortable and I will buy the other ones."
Taste	9.76%	"When I tasted organic vegetable I cooked, I think it was more crunchy." "Once I cooked organic spinach, I found that it was sweeter than non-organic vegetables and I love it."
Informative Labeling	2.44%	"I usually read the label, and if it is a green product, I will buy it."
Personal factors		
Trust in product quality	2.44%	"I have no doubt that green product has a higher quality."
Trust in natural ingredients contained in green products	2.44%	"I believe that green products were produced with selected natural ingredients which are safer for us."
Healthy life as a habit	2.44%	"My parents teach me to life healthy. I buy degradable water jar because I used to."
Consumer knowledge		
Benefits of green products	7.32%	"I get the information from internet about green product and the benefit of consuming it. I believe it and try for being green." "Although it is still difficult to differentiate between the green and not green, I try to consume the green ones because I believe in the benefits."
Environmental concern		
Concern on environment issues	19.20%	"Global warming is our problem. I think I must do something. I buy green bags, and I hope there are more people buy them, too." "Let's being green for our life, and of course, for our next generation." "I have a principle that green life is important. I want to make this planet green."

Willingness to contribute on environmental preservation	9.76%	"If I could slow the global warming with buying degradable bags, then why not?" "I love to buy recycled stuffs because it is my way to take action for the environment preservation."

*Totals more than 100% due to multiple mentions

Table 3. Qualitative Responses Regarding to the Barriers of Repurchase Intention towards Green Products

Categories and Subcategories	Percentage*	Qualitative Comment
Price Premium price	32.00%	"I think most people know that green products are expensive than the non-green products." "I want to buy this cosmetic next time, but I have to consider the price."
Product Characteristic Not durable	8.33%	"I use recycled papers daily. But it is easier to wreck." "I use this degradable plastic bag three times and I can not use it anymore. It's broken."
Product Distribution Product scarcity	37.50%	"I can not find this feminine napkin in many stores." "There are only few stores sell green bag." "This cosmetic only sold in a certain shopping centre, sometimes it is too much cost to get there." "I can not find green shirt in other stores."
Limited product variety	4.17%	"Well, I always interested in recycled paper and I want to buy something new, but it is difficult for me to find them here."
Lack of Information Lack of information of the definition of green products	8.33%	"Though I buy many green products for my family, I still need to know exactly what green product is." "I am sure that green bag I buy is green product, but I wish there is a clear explanation about green products."
Unavailable instruction of usage and care	4.17%	"I buy this natural-material bag, but I can not find the instruction about how to clean it." "I wish there is a manual on how to wash this bag properly."
Uninformative label	12.50%	"I am difficult to recognize green products quickly because I have to read the label one by one." "I am not sure what part of label mentions the green side of the product."

*Totals more than 100% due to multiple mentions

Conclusions and Implications

Green consumer is the market of green business since they play significant roles in the sustainability of green business. No matter how good the green products produced by the green business, they will just abandoned in market if consumers do not intent to buy. In order to achieve its sustainability, green business better need to understand the motives of green buying, drivers and barriers of repurchase intention towards green products. This study sought to examine not only the motives of green buying but also drivers and barriers of repurchase intention towards green products. There were 3 motives in green buying: (1) health concern, (2) environmental concern, (3) product design. This qualitative study identified 6 drivers of repurchase intention towards green products: (1) value for money, (2) product attributes, (3) personal factors, (4) consumer knowledge and (5) environmental concern. An interesting result was that even though green product is highly related to environmental issue, product design was proved as the most important driver for participants to repurchase green products. This might be due to the most participants were

students who highly concern of design. This finding encourages green business to innovate creative design for its green products due to the importance of this element for green consumers. Among the four of the barriers, distribution was found as the main barriers then were followed by price, lacked of information and product characteristics, respectively. Based on this fact, green companies should then improve its supply system in order to inject the market with various green products which are easily found by customers.

Limitations and Suggestion

Most of participants in this study were students. Though they are representative as a future green consumer, future research may expand the group of sample in order to capture the depth of motives, drivers and barriers. The categories and subcategories found in this qualitative study may develop and adopted in quantitative research.

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PECKING ORDER THEORY AND TRADE-OFF THEORY OF CAPITAL STRUCTURE: EVIDENCE FROM INDONESIAN STOCK EXCHANGE

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Absract
Numerous empirical studies in the finance field have tested many theories for firms' capital structure. The pecking order theory and the trade-off theory of capital structure is among the most influential theories of firms' capital structure. The trade-off theory predicts optimal capital structure, while the pecking order theory does not predict an optimal capital structure. Base on pecking order theory, the order of financial sources used was the source of internal funds from profits, short-term securities, debt, preferred stock and common stock last. The main objective of this study is to econometrically test whether the listed companies in Indonesian Stock Exchange follow the pecking order theory or the trade-off theory. Samples in this study are public companies listed during 2009-2010. The research questions are tested by running regression models. The empirical result of this study shows that the pecking order theory is not supported, while the trade-off theory is supported. This suggests that the capital strucure of listed companies in Indonesian Stock Exchange financed base on optimal capital structure, not by the order financial resources.

Keywords: *Capital Structure, Pecking Order Theory, Trade-Off Theory*

INTRODUCTION

Numerous empirical studies in finance have tested many theories for firms' capital structure. The pecking order theory and the trade-off theory of capital structure is among the most influential theories of firms' capital structure. According to Myers (1984), firms finance their activities with retained earning when feasible. If the return earning are inadequate, then debt is used. Only in extreme cases will firms use new equity finance. Thus, the order of financial sources used was the source of internal funds from profits, short-term securities, debt, preferred stock and common stock last. Pecking order theory predicts that the issuance of equity (common stock) is the last alternative sources of funding. The trade-off theory, based on research on taxes (Modigliani and Miller, 1963) and bankruptcy and financial distress costs (Warner, 1977) and the insights from the agency literature (Jensen and Meckling, 1976), suggests that firms have a unique optimal capital structure that balances between the tax advantage of debt financing (i.e. debt tax shields), the costs of financial distress and the agency benefits and costs of debt (see Bradley et al., 1984; Leary and Roberts, 2005; Strebulaev, 2007). Then the trade-off theory predicts optimal capital structure, while the pecking order theory developed by Myers (1984) does not predict an optimal capital structure but the order of financial sources.

Most of the empirical studies of those theories had focused on U.S. firms and other developed country. While most existing studies focus on developed countries, it is interesting and important to assess the validity of the dominant theories of capital structure in Indonesia. Indonesian Stock Exchange is characterized, among other things, by the domination of large shareholders (Gunarsih, 2003), unlike another country that the main agency problems that occurred is between managers and company owners (shareholders). Thus the structure of corporate governance in Indonesia is different from other countries, such as the United States. Ownership structure of listed companies in Indonesia is concentrated on a few owners while the ownership structure in the United States is spreading to many owners with a relatively small proportion of ownership. In the concentrated ownership structure, the main agency problem is the majority holder with minority, while in the spread ownership, the main agency problem is between managers with the owner.

In this paper, we study the pecking order theory and trade-off theory of capital structure of publicly traded Indonesian companies with two reasons. First, the structure of corporate governance in Indonesia is different from other countries. Second, there are mixed results of empirical study in both theories. Some of them are supported but some others are not supported.

PECKING ORDER THEORY

A large body of recent empirical research on capital structure focuses on testing the validity of the trade-off and pecking order theories, but the empirical results are not consistent yet. Some of empirical research are supported but some are not. Syam-Sunder and Myers (1999) find strong support for pecking order theory, while Frank and Goyal (2003) document weak evidence for the pecking order theory.

Pecking order theory (Myers and Majluf (1984) and Myers (1984)) and the extension of this theory (Lucas and McDonald, 1990) studied based on the asymmetric information between managers and investors. Managers have more information about the true value of the enterprise and enterprise risk compared to outside investors. According to Myers (1984), firms finance their activities with retained earning when feasible. If the return earning are inadequate, then debt is used. Only in extreme cases will firms use new equity finance. Thus, the order of financial sources used was the source of internal funds from profits, short-term securities, debt, preferred stock and common stock last. Pecking order theory predicts that the issuance of equity (common stock) is the last alternative sources of funding.

As described by Myers (1984), the pecking order theory suggests that firms first prefer internal sources of finance, and they adjust their target dividend payout ratio to their investment opportunities. If the firms seek external finance, due to generous dividend policies, unpredictable fluctuations in profitability or investment opportunities, firms will choose debt (as the safest instrument), and then hybrid securities such as convertible bonds, and then equity as a last resort. The pecking order theory generally explains why firms might rationally let cash flows determine leverage. This suggests that firms turn to debt funds under pressure of an internal funds shortage.

Tsuji (2011) has surveyed the international evidence of the capital structure issues, particularly focusing on the pecking order theory of corporate financing. The result of the survey, both empirical and survey evidence are often different and contradictory. The mixed results of the survey are as in table 1.

Table 1. Survey results of pecking order theory

U.S.	
Lee and Gentry (1995)	supported
Shenoy and Koch (1996)	supported
Helwege and Liang (1996)	did not follow
Graham and Harvey (2001)	supported
Fama and French (2002)	unclear
Frank and Goyal (2003)	in contrast large corporation showed some aspects
Fama and French (2005)	more than half samples violated
Kisgen (2006)	credit rating statistically significant
Bharath et al. (2009)	partially explained
Leary and Roberts (2010)	never able classify more than half US corporation
Manso et al. (2010)	performance-sensitive debt (PSD) consistent
de Jong et al. (2011)	generally better descriptin
EUROPEAN COUNTRY	
Gaud et al. (2007)	capital structure policies in European corporations could not be explained by this theory
Watson and Wilson (2002)	consistent for small and medium size corporation
Tucker and Stoja (2011)	old economy corporation followed. New economy corporation preferred equity to debt when external financing was required.
de Haan and Hinloopen (2003)	partly supported
Gaud et al. (2007)	could not explained capital strucure
Delcoure (2007)	could not explained capital strucure

Hogan and Hutson (2005)	contradiction
ASIA-PACIFIC	
Suchard and Singh (2006)	supported
Chakraborty(2010)	explained Indian companies' financial decisions
Lin et al. (2008)	optimistic chief executive officers (CEOs) exhibited a stronger relation
ACROSS COUNTRIES	
Brounen et al. (2006) UK, the Netherlands, Germany, and France	presence
Beck et al. (2008) 48 countries	held across countires

An important survey of Myers (2003, pp.235 in Tusji, 2011) documented the pecking order theory of corporate financing as following citations ((1) − (4)): (1) Firms prefer internal to external finance. (Information asymmetries are assumed relevant only for external financing); (2) Dividends are "sticky", so that dividend cuts are not used to finance capital expenditure, and changes in cash requirements are not soaked up in short-run dividend changes. Changes in free cash flow (operating cash flow less investment) show up as changes in external financing; (3) If external funds are required for capital investment, firms will issue the safest security first, that is, debt before equity. As the requirement for external financing increase, the firm will work down the pecking order, from safe to riskier debt and finally to equity as a last resort, when the firm is sufficiently threatened by financial distress. If internally, generated cash flow exceeds capital investment, the firm works up the pecking order. Excess cash is used to pay down debt rather than repurchasing and retiring equity; and (4) The firm's debt ratio therefore reflects its cumulative requirement for external financing.

TRADE-OFF THEORY

The trade-off theory, based on research on taxes (Modigliani and Miller, 1963) and bankruptcy and financial distress costs (Warner, 1977) and the insights from the agency literature (Jensen and Meckling, 1976), suggests that firms have a unique optimal capital structure that balances between the tax advantage of debt financing (i.e. debt tax shields), the costs of financial distress and the agency benefits and costs of debt. Then the trade-off theory predicts optimal capital structure.

Optimal capital structure is a combination of funding sources which consist of debt and stock that will yield the highest value of the firm. One indication of the high value of the company is the high stock prices. Thus, the optimal capital structure is a capital structure that generates the highest stock price. Another indication of an optimal capital structure is lowest cost of capital weighted (Weighted Average Cost of Capital - WACC). WACC is the combination cost of debt and capital stock that calculated by weighted average. According to Myers (1984), a firm that follows the trade-off theory sets a target debt-to-value ratio and then gradually moves towards the target. The target is determined by balancing debt tax shields against costs of bankruptcy.

One of the capital structure theories is Modigliani and Miller (MM). MM explained that the companies that use debt will have higher firm value than firms that do not use debt. The higher the debt of the company (higher the ratio of debt to assets), the higher the value indicated by the value of company stock (Figure 1 on the line MM Result). But in reality, the continuous increase in debt will not increase firm value because it increases the risk of the company. The high debt will allow the risk of default (the default). If this happens then it will lower the value of the company. Actual conditions (Figure 1 actual line) are the firm value will increase with the increase in debt (leverage) companies. Increased leverage will increase the value companies until a certain level (Figure 1 second dotted line). Increased levels of leverage after the rule will reduce the value of the company as a result of the increased risk of corporate debt.

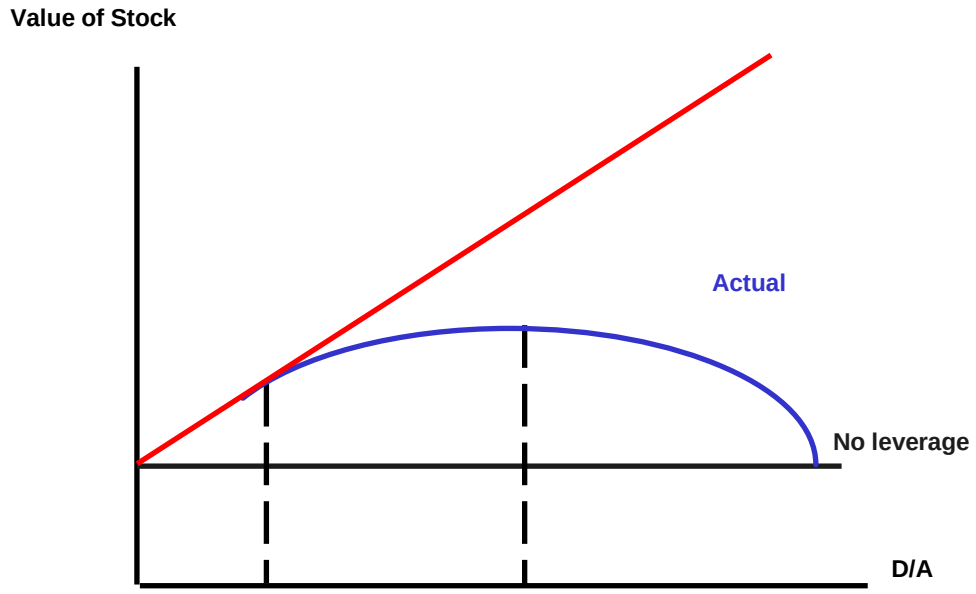

Figure 1. The value of shares and Leverage

As in pecking order theories empirical research, the results of empirical research in trade-off theory are mixed. Fama and French (2002) concluded that the many shared predictions of the trade-off theory tended to do well in their tests, however, when shared predictions were confirmed, attributing theory was unclear. Frank and Goyal (2003) identified one inconsistency regarding the trade-off theory (i.e., the negative linkage between leverage and profitability). Tucker and Stoja (2011) suggested that the trade-off theory could explain certain aspects of UK companies' capital structure policies, neither supplied a satisfactory general explanation of their real-world behaviors.

RESEARCH METHOD

A. Sample selection

Samples in this study are public companies, listed in the Indonesian Stock Exchange years 2009-2010. The samples are selected using purposive sampling, base on the following criteria:

a. Listed in the Indonesian Stock Exchange between 2009-2010
b. The financial statement data are available for the reporting year 2009-2010
c. The sample firms publish audited financial statements using reporting period ended on December 31.

B. Model

The pecking order theory tested using model as Shyam-Sunder and Myers (1999) and Cotei and Farhat (2008). Shyam-Sunder and Myers (1999) developed a model of the pecking order theory, where if the company needs funds from external parties, it will use debt rather than equity. Equity will only be used in very urgent, that is if the costs of financial distress due to be so high and the company's debt capacity has been exceeded. The first step is to solve equation (1). Equation (1) is used to test equation (2), (3), and (3). Each model with an explanation of the variables is described as follows.

$$\Delta LTD_t + \Delta STD_t + \Delta EQ_t = Div_t + I_t + \Delta WC_t - C_t = Fin_t \qquad (1)$$

Where:

Δ : Change of variables from time $_{t-1}$ to $_t$
LTD_t : Long-term debt time $_t$
STD_t : Short-term debt time $_t$
EQ_t : Equities time $_t$
Div_t : Cash dividend time $_t$
I_t : Investment time $_t$

WC_t : Working Capital time $_t$
C_t : Cash time $_t$
Fin_t : Deficit / Surplus of Finance time $_t$

$\Delta TD_t = \alpha_0 + \alpha_1 Fin_t + \phi_t$ (2)

Base on the Shyam-Sunder and Myers (1999) and Cotei and Farhat (2008) total financing debt is separated into long-term debt and short-term debt as follows.

$TD_t = LTD_t + STD_t$
$\Delta LTD_t = \delta_0 + \delta_1 Fin_t + v_t$ (3)
$\Delta STD_t = \gamma_0 + \gamma_1 Fin_t + \xi_t$ (4)

The simplest form of the pecking order model is the prediction that α_0 is zero and α_1 close to 1.
$\delta_0 + \gamma_0 = \alpha_0$; $\delta_1 + \gamma_1 = \alpha_1$ (constant)
ϕ_t ; v_t ; ξ_t error terms

The test of trade-off theory in this study conducted by the method of partial adjustment process (used also by Fama and French, 2002; Flannery and Rangan, 2006) as follows:

$$D_{it} = \delta\, D_{it}{}^{*} + (1 - \delta) D_{it-1} + e_{it}$$

Where:
D_{it} = actual debt ratio
$\delta\, D_{it}{}^{*}$ = target debt ratio
e_{it} = error term which e_{it} ~ IDD (0, σe ^ 2)
δ = the speed of adjustment

Econometric specification of the target debt ratio is:

$$D_{it}{}^{*} = \sum_{k=1}^{n} \beta_k \times_{kit} + u_i + \lambda_t + e_{it}$$

Where :
β_k = coefficient
$\times_{kit}$ = k-th factor for the company i know t
u_i = the specific influence of the companies that do not depend on time
λ_t = the specific influence of the time that is independent of the company

If equation (5) substituted into equation (4), then obtained:

$$D_{it} = \delta \left(\sum_{k=1}^{n} \beta_k \times_{kit} + u_i + \lambda_t + e_{it} \right) + (1 - \delta) D_{it-1} + e_{it}$$

$$D_{it} = (1 - \delta) D_{it-1} + \sum_{k=1}^{n} \beta_k \times_{kit} + u_i + \lambda_t + e_{it}$$

Where:
u_i = constant equation of time series
λ_t = constant cross section equation

Furthermore, to simplify the above equation, then we let φ_0 = (1 - δ); φ_k= δ β_k ; ϑ_i= δ u_i ; ϑ_t= δ λ_t; and ε_{it} = δe_{it}, the equation becomes:

$$D_{it} = \varphi_0 D_{it-1} + \sum_{k=1}^{n} \varphi_k \times_{kit} + \vartheta_i + \vartheta_t + \varepsilon_{it}$$

According to Dang (2006), the determinant factor of the target debt ratio, are as follows:

a. Collateral Value of Assets (CVAS), ratio between Tangible Fixed Assets ratio and the Total Assets, both are the book values.

b. Non-Debt Tax Shield (NDTS), measured by the depreciation divided by Total Assets.
c. Profitability (PRFT), measured bu Profit to Total Assets ratio or Total Equity. This study used Return on Assets.
d. Growth (GRTH), measured by the change of Total Assets or Total Sales. This study used the change in Total Assets is to calculate the average growth rate of assets.
e. Size (SIZE), measured by Ln of Total Assets or Ln of Total Sales. Tthis study used the Ln of Total Assets.

RESULTS AND DISCUSSIONS

This section describes the research finding, consists of descriptive, pecking order theory testing and trade-off theory testing.

A. Descriptive Statistics

Descriptive statistics of variables are as in table 2 and table 3 with minimun and maximum value, mean and standard deviation.

Table 2. Descriptive Statistics of Pecking Order Theory Testing

Variable	Minimal	Maximal	Mean	Std.Deviation
CF (cash flow)	-7,155,464	4,367,252	-41089.533981	1558730.3515502
DIV (dividend)	0.0000	11.381	2296.155340	1949.4504543
C (net cash flow)	-1.3044E11	4.4724E12	7.165906E10	4.7581338E11
E (equity)	-5.7583E10	3.3792E12	1.120433E11	4.3085753E11
D (debt)	-8.l2864E11	1.0939E12	5.968288E10	2.2235432E11
DL (long term debt)	1,848	9.6014E11	3.602083E10	1.3464464E11
DS (short term debt)	8,740	9.7890E11	9.196623E10	2.1238639E11
DEF (deficit cash flow)	-6.9873E11	4.1678E12	1.717262E11	5.8200594E11

Table 3. Descriptive Statistics of Trade-Off Theory Testing

Variable	Minimal	Maximal	Mean	Std.Deviation
DEBT (debt)	34,612	1.2557E13	3.250385E11	1.4180761E12
EQUITY (equity)	31,965	1.2800E13	5.479079E11	1.6037184E12
FA (fixed assets)	81,634	1.7056E13	4.255828E11	1.9168259E12
TA (total asset)	791,575	3.0379E13	1.283002E12	3.7942159E12
DEP (depresiation)	6,756	7.1077E12	2.172806E11	9.4982971E11
LB (earning afrer tax)	11,009	6.2342E12	1.379530E11	6.8487728E11
D_DR (debt ratio)	-0.1306	0.0610	-0.009198	0.0214504
CVAS (Collateral Value of Assets)	0.0078	3.6151	0.304370	0.4137063
NDTS (Non-debt Tax Shield)	0.0001	0.8964	0.175719	0.1859034
PRFT (Profitability	-0.1003	0.3677	0.078164	0.0728428
GRTH Growth)	-60.8576	0.9610	0.082448	0.6733810
SIZE (Size)	5.8985	13.4826	10.061658	2.0743027
DD_DR (Debt Ratio(t-2))	0.0000	0.1306	0.017116	0.0215290

B. Pecking Order Theory Testing

Table 4 presents the results of pecking order testing as in model (2), (3) and (4). The regression results show that all of the three models are statistically significant at the 1% level with F value of 159.536; 17.119; and 32.539 respectively for model (2), (3) and (4). R square and adjusted R square are high only in model (2).

As described in model testing, the simplest form of the pecking order model is the prediction that α_0 is zero and α_1 close to 1. The constant values of model (2), (3) and (4) are 8.344E9, 2.090E10 and 6.103E10 repectively but the t values statistically significant at the 1% level only in model (4). These suggest that α_0 for model (2) and (3) are zero, while model (4) is not zero. The t values of coefficient Fin (α_1) of model (2), (3) and (4) are all statistically significant at the 1% level and the coefficients are 0.299, 0.088 and 0.180 respectively. Those coefficients do not close to 1. Because of all models haven't α_0 zero and α_1 doesn't close to 1 then the pecking order is not supported. The results are consistent for model (2), (3) and

(4). The result of this study is supported Fama and French (2002), Frank and Goyal (2003) and Flannery and Rangan (2006) that are not supported the pecking order model.

Table 4. Pecking Order Theory Testing

The second, third and forth colomns are regression results of model (2), (3) and (4) respectively. *** significant at α1%

	Model (2) D (delta total debt)	Model (3) DL (delta long term debt)	Model (4) DS (delta short term debt)
Constant	8.344E9	2.090E10	6.103E10
t value ($\propto_0$)	0.584	1.625	3.199***
Fin ($\propto_1$)DEF	0.299	0.088	0.180
t value	12.631***	4.137***	5.704***
F value	159.536***	17.119***	32.539***
Sig.	0.000	0.000	0.000
R^2	0.612	0.145	0.244
Adjusted R^2	0.608	0.136	0.236
N	103	103	103

C. Trade-Off Theory Testing

Table 5 presents the results of Trade-Off Theory testing. The regression results show the model is statistically significant at the 1% level with F value of 247.133 and R square 0.755.

Table 5. Pecking Order Theory Testing

*** significant at α1%; ** significant at α5%

	Coefficients	t value	Sig.
Constant	0.001	0.215	0.830
DD_DR	0.015	0.567	0.572
CVAS	1.586	25.970***	0.000
NDTS	0.024	0.894	0.373
PRFT	0.064	2.436**	0.017
GRTH	0.753	1.383***	0.000
SIZE	0.014	-0.514	0.608
F Value	247.133***		
R Square	0.755		
Adjusted R Square	0.753		

Unfortunately, independent variables are not all statistically significant, described as follows. The coefficient of speed adjustment is +0.015 but not statistically significant. This suggests that the speed adjustment doesn't influence Debt Ratio. Coefficinet of Collateral Value of Assets +1.586 and statistically significant at α1%. This suggets that the higher the Collateral Value of Assets, the higher the Debt Ratio. The coefficient of Non-debt Tax Shield is + 0.024 but not statistically significant. The coefficient of Profitability is +0.064 and statistically significant at α5%. This suggests that the higher the Profitability the higher the Debt Ratio. The coefficient of Growth +0.753 and statistically significant at α1%. This suggets that the higher the growth the higher the Debt Ratio. The coefficient of Size is +0.014 but not statistically significant.

Trade-Off Theory in this study as in Fama and French (2002) is suported if α = 0 and coefficient δ ≥ 1. The regression result show that φ_0 is 0.015. From the equation in research method, φ_0 = (1 - δ), where δ shows the speed adjustment of debt ratio target debt ratio. Since δ = 100% - 1,5% or the speed adjustment is 98.5% within 2 years, then Trade-Off Theory as in Fama and French (2002) is supported. This result also consistent with Dang (2006) in English and Darminto (2011) in Indonesia.

CONCLUSION

This study presents an analysis of the Pecking Order Theory (POT) and Trade-Off Theory (TOT) of capital structure. POT explains that the order of financial sources used by the company was the source of internal funds from profits, short-term securities, debt, preferred stock and common stock last. POT predicts that the issuance of equity (common stock) is the last alternative sources of funding while TOT predicts optimal capital structure. Samples in this study are companies listed in the IDX during 2009-2010. The research questions are tested by running regression models as in Shyam-Sunder and Myers (1999) and Cotei and Farhat (2008) and Fama and French (2002).

The result of the first test (POT) shows that α_0 is not zero and α_1 doesn't close to 1. This suggests that POT is not supported. The results are consistent for model (2), (3) and (4). The result of the second tets shows that even α_0 is zero but α_1 doesn't close to 1. This suggests that the POT is not supported. The result of this study is supported Fama and French (2002), Frank and Goyal (2003) and Flannery and Rangan (2006) that are not supproted the pecking order model. The result of the second test (TOT) shows that δ as the speed adjustment of debt ratio target debt ratio is 98.5% within 2 years, then Trade-Off Theory as in Fama and French (2002) is supported. This result also consistent with Dang (2006) in English and Darminto (2011) in Indonesia. This suggests that the capital strucure of listed companies in Indonesian Stock Exchange financed base on optimal capital structure, not by the order financial resources.

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THE EFFECT OF COMPETENCY AND INDEPENDENCY OF AUDITOR ON QUALITY OF AUDIT

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Abstract
This study verifies the influence of auditor competency and independency on the quality of audits generated. Auditor competency refers to the capability of an auditor to discover and report the violence of any financial report. Meanwhile auditor independency constitutes the strong auditor position against company. This research involved auditors working for Public Accountants Office in DIY and Central Java. The result shows that auditor competency and independency influence the quality of audits generated.

Keywords: *Auditor Competency, Auditor Independency, Audit Quality*

BACKGROUND

Audit quality is in “fashion” nowadays. People question the quality of audited financial statements. Many cases show that companies whose financial terms were declared qualified fall into bankruptcy. Enron case in the U.S. and also the case of Telkom in Indonesia is an example of the poor quality of the audit. In Telkom case, KAP Eddy Pianto was not recognized by the Stock Exchange Committee (SEC). There must be reasons for SEC does not acknowledge the existence of KAP Eddy Pianto.

Quality of audit was determined by the competency and independency of auditor (Christiawan, 2002:6). Audit quality is defined as the probability that the auditor will discover and report the violation of the client's accounting system (De Angelo, 1981:132). Deis and Groux (1992) as revealed by Alim et al. (2007:3) state that the probability to find a violation depends on the independency of the auditor. Independence in this case is the attitude of an impartial auditor or not depends on the client in conducting the examination. If the auditor does not depend on the client, the auditor tends to adhere to applicable standards and ethics, so most likely auditor will also be able to find errors in the process of preparation of financial statements of the client. While competence is the level of expertise of the auditor in performing audit work. If the auditor has a high level of competence, the auditor will have better techniques so that the disclosures of audit results are also better.

Competency and independency of the auditor are related to ethics. Accountants have an obligation to maintain the highest standards of ethical behavior to the organization where they are affiliated, their profession, society and themselves. Accountants hold a responsibility to be competent and to maintain their integrity and objectivity (Nugrahaningsih, 2005:3). Payamta (2002:67) states that based on the IFAC, the requirements of ethics for accountants should be based on fundamental principles that govern their actions or behaviors in performing his profession (Alim et al., 2007).

This study will adopt the research conducted by Alim et al. (2007). Alim’s research (2007) showed that the competency of the auditor influence significantly on the audit quality. The results also showed that auditor independency influenced positively on the audit quality. The current study aims to know the influence of auditor competency and independency on audit quality. Two research questions that will be tested in this study are as follows: (1) is the competency of auditor affects the quality of audit? And (2) is the independency of auditors affects the quality of audit? The main difference in this study with previous study is the respondent. Previous research used respondents from East Java, while the current study takes an object of research in the region of Central Java and DIY. These differences hopefully will help us to make a generalization on the field of accounting.

This research is expected to benefit the auditor in assessing the quality of the audit to satisfy the clients’ expectations. When the auditor knows factors affecting the audit quality, the auditor might improve the quality by altering anything related to auditor competency and independency.

Clients are expected to have the most benefit majority of this research. If the client recognizes the effect of competency and independency on an audit quality, then the client can choose the auditor with such a high competency and independency.

LITERATURE REVIEW

Audit quality, competency and independency

Audit quality is the probability of an auditor discovered and reported on the violence in client's accounting system (De Angelo, 1981:4). De Angelo' research shows that the larger the KAP, the higher the audit quality. Deis and Groux (1992) as revealed by Alim et al (2007:4) studied on the four things that are considered to have a relationship with audit quality: (1) the length of time the auditor in conducting an examination of a company (Tenure), the longer an auditor audit the same client, then the lower audit quality will be generated, (2) the number of clients, the larger the number of clients served, the better the quality audit because the auditors will try to maintain its reputation. (3) the client's financial health, the healthier the financial condition of the client then the higher tendency of clients to suppress the auditor not to follow the standard (4) review by a third party, audit quality will increase if the auditor know that his work will be reviewed by a third party.

Research conducted by Alim et al. (2007) suggests that audit quality is affected by competency and independency. The results of this study also mentioned that the auditor's ethics serves as a moderating variable between audit quality and the auditor independency.

Competence is defined as the personal aspects of a worker who allows him to achieve superior performance. Personal aspects include the nature, motives, system values, attitudes, knowledge and skill competencies which will direct behavior to level of performance (LOMA in Lasmahadi Dictionary, 2002). According to Susanto (2000:5), competency is the underlying characteristics of individuals to achieve superior performance. Competency is also the knowledge, skills and abilities related to the job and the skills needed for non-routine tasks. Definition of competency in the field of audit measured by experience (Mayangsari, 2003:6). Ashton (1991) as quoted by Alim et al. (2007) explained that competency is not just experience. Other considerations were required in making a good decision. Basically humans have a number of other elements in addition to the experience. Schmidt (1998 in Alim, 2007:7) suggests that there is a relationship between the experience of working and performance moderated by long experience and the complexity of the task. Research conducted by Bonner (1990) showed that knowledge of specific tasks can improve the performance of an experienced auditor, although only in determining the analytical risk. This suggests that the good opinion of the auditor will depend on the competency and the audit procedures performed by the auditor (Hogart, 1991 in Alim, 2007).

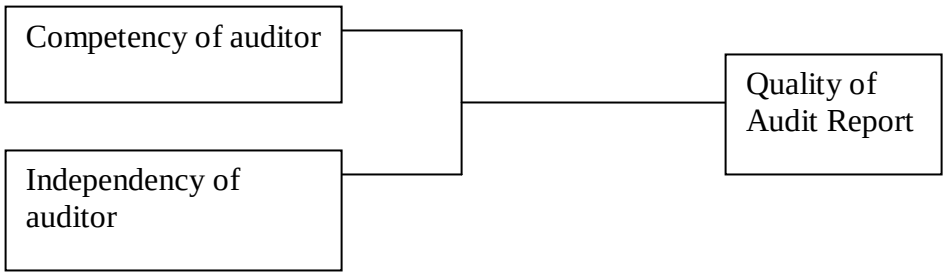
Competency represents the ability of auditor in the audit process. The more competence of an auditor, the better the ability of auditor to perform the audit. Eventually, the audit quality is also better. The CPA Handbook, according to EB Wilcox, defines independency as an essential auditing standard because the opinion of independent accountants aims to increase the credibility of financial statements presented by management. If the accountant is not independent to the client, then his/her opinion will not give you an extra credit. (Mautz and Sharaf, 1993 in Alim et al., 2007:9). The accountant Code of Conduct 1994 mentioned that independency is the attitude expected of a public accountant for not having a personal interest in the execution of his duty, which is opposing the principles of integrity and objectivity.

Research conducted by Lavin (1976) as cited by Alim et al. (2007) showed that the company's bookkeeping or data processing conducted by an auditor will have no effect on the techniques used to audit. In addition, the use of the client's computer in the frame of business relationship did not reduce the independency of the auditor.

Shockley (1981) studied on the four factors that affect the independency of public accountants. He used respondent from accountant firm, banks and financial analysts. Research results indicated that KAP which provides consulting services to the audited management would increase the probability of lowering the independence than those who did not provide such services. Furthermore, KAP level of competition increased the risk of losing the independency of public accountants. A smaller KAP would have a greater risk in losing its independence than that of the larger KAP.
Deis and Giroux (1992) as revealed by Alim (2007) said that in the conflict of interest, the client might compel the auditor to break the professional standard and a healthy financial condition of client can be used as a tool

to pressure the auditor by replacing the auditor. The auditor will find difficulties to face the client pressure. This situation will weaken the auditor independency. Auditor position is also in a dilemma. They try to satisfy the client, but on the other side the auditor can violate the professional standards of their work. Alim et al. (2007) showed that the interaction between the auditor independency and the auditor ethics significantly effect on the audit quality. This study explains further that an independent auditor with such a high independency will behave in accordance with auditor professional ethics. When the auditor follows the audit standards, then audit quality will be better.

RESEARCH FRAMEWORK



The model explains that if the auditor has a high competency, his/her audit quality will be better. Likewise, if an auditor has a high independency, then the audit quality will get better.

RESEARCH METHOD

1. **Object and Research data**
   Object of this study is auditor who worked in public accountant firms (KAP). KAP survey was conducted on the region of Yogyakarta and Central Java. The data in this study is the primary data, namely the perception of auditor independency, competency, and quality of an audit. Data research was collected through a questionnaire distributed to the respondents. Respondents in this study are auditors who worked in public accountant firms. In this case, the criteria for the auditor are that he/she has experienced examining company financial statements.

2. **Operating definition of the Research Variables**
   a. Competency is the ability of auditor to achieve high performance. This study used two dimensions of competency, namely knowledge and experience. (Alim et al, 2007). Questions that measured for this variable are: (1) the number of clients audited, (2) communication with clients, (3) the timeliness of completion of the audit, (4) assistant skills, (5) litigation firm, (6) knowledge of the educational strata and (7) knowledge of training and courses. (Mayangsari, 2003)
   b. The independency of the auditor is the free position of auditor against the client. This study used two-dimension of independency, namely clients' pressure and collaboration. Indicator for this variable are: (1) disclosure of client's fraud, (2) the amount of audit fee (3) facilities from the client (4) replacement of the auditor and (5) the use of non-audit services. (Alim, 2007)
   c. Quality audit is the probability in which an auditor discovered and reported on the existence of a breach in client accounting system (De Angelo, 1981). This variable is measured by indicators developed by Wooten (2003) as revealed by Alim (2007). Questions for this variable are (1) detection of misstatements, (2) compliance with the SPAP, (3) compliance with the SPAP, (4) audit risk (5) the precautionary principle, (6) the control over the work by the supervisor, (7) the attention given by the manager or partner.

3. **Analysis tools**
   a. **Data Quality testing**
      The data in this study are tested in terms of validity and reliability testing. Validity test is done by using item analysis techniques, namely to correlate the score point (X) of the total instrument score (Y), using the formula of Pearson product correlations (product moment) (Suharsimi, 2002:146). Data reliability test using Cronbach alpha coefficient.

b. Hypothesis testing

The hypothesis is tested in this study by regression analysis. Regression analysis is a regression equation model that included variables competency and independency of (x) with audit quality (Y). This data analysis technique use the formulas

$Y = \alpha + \beta_1 X_1 + \beta_2 X_2 + e$ …….…… (1)

Where:

Y = quality of audit
X_1 = competency of auditor
X_2 = independency of auditor
β_1, β_2 = coefficient regression
e = random error

In social studies the tolerable error rate is 5%. Interpretation of the results of regression analyzes carried out by looking at p-value of each coefficient. If the p-value smaller than (≤) 0.05, then the independent variable significantly affects the dependent variable. Whereas if the p-value greater than (≥) 0.05, then the independent variable has no effect on the dependent variable.

Results Analysis

1. Respondents Characteristics

The respondents are the auditors who worked for a public accountant firm, operating in the territory of Yogyakarta and Central Java. Auditors sampled in this study are the auditors who had conducted the audit of financial statements and not the managing partner, meaning that the auditor is the auditor selected as respondents who directly perform the audit field work on the financial statements. The results of questionnaires are listed in the following Table:

Table 1
Questionnaire

No	Criteria	Number	Accumulation	Percentage
1.	Distributed questionnaire		100	100%
2.	Not returned questionnaire	(63)	37	37%
3.	Incomplete questionnaire	(2)	35	35%
4.	Number of sample		35	35%

Based on the above table, the sampling process in accordance with the criteria of the study obtained by 35 auditors or 35%. The number of samples is greater than the minimum requirement of 30%.

2. Descriptive Statistics

Descriptive statistical analysis aimed to determine the characteristics of data such as minimum value, maximum value, average value, how much the data varies (standard deviation). Testing descriptive statistics can be seen in the table below:

Table 2.
Result of descriptive Statistic

Variable	**N**	Actual range	Mean	Standard deviation
Quality of Audit	**35**	17 - 29	**22,14 (3,69)**	4,271
Competency of auditor	**35**	28 - 35	**29,83(4,26)**	2,307
Independency of auditor	**35**	9 - 21	**13,83(2,77)**	2,915

Profile of respondents in the form of information regarding gender, age, position in KAP and the region is one of the assessments to the criteria to be met by the respondent. Overview of the profile of respondents is shown in Table below:

Table 3
Profile of Respondents

Variable		Frequency	%
Gender	Male Female	21 14	60% 40%
Age	< 30 years 30 – 40 years > 40 years	15 11 9	42,86% 31,42% 25,72%
Position	Junior Auditor Senior Auditor Supervisor	16 10 9	45,71% 28,57% 25,72%
Region	DIY JATENG	23 12	65,71% 34,29%

Based on the above table it can be seen that the respondents of this study is the largest was a junior auditor 15 or 45.71%. Respondents were mostly male (60%), average age under 30 years old (42.86%) and located in the DIY (65.71%).

3. Validity and Reliability Test

a. Validity Test

Validity of test results is listed in the table below:

Table 4
Validity test

Variable	Item	Coefficient correlation	Sign. value	
Quality of audit	Kualit1 Kualit2 Kualit3 Kualit4 Kualit5 Kualit6	0,769 0,784 0,715 0.870 0,403 0,427	0,000 0,000 0,000 0,000 0,016 0,011	Valid Valid Valid Valid Not valid Not valid
Competency o auditor	Kompeten1 Kompeten2 Kompeten3 Kompeten4 Kompeten5 Kompeten6 Kompeten7	0,736 0,921 0,911 0,654 0,823 0,624 0,843	0,000 0,000 0,000 0,000 0,000 0,000 0,000	Valid Valid Valid Valid Valid Valid Valid
Independency o auditor	Indep1 Indep2 Indep3 Indep4 Indep5	0,951 0,952 0,952 0,849 0,752	0,000 0,000 0,000 0,000 0,000	Valid Valid Valid Valid Valid

From the above table it can be seen that there are two items of variable quality questions were not valid. In this study the question if an item is declared invalid, it will be seen the results of reliability tests. If the reliability of audit quality variables above 0.6, then the item is not a valid question, can still be used in the analysis. However, if the audit quality variable reliability values below 0.6 then the item in question was not included further analysis (Harsoyono, 1999). Question items were found valid by all the sig. is 0.000.

b. Reliability Test

Reliability is an index number which indicates the consistency of a measuring device for measuring the same phenomenon. This study uses alpha to determine reliability cronbach statement. A reliable instrument can be said to have an alpha value of more than 0.6.

Table 5
Output of reliability test

	Number of item	Cronbach's alpha
Quality of audit	6	0,767
Competency of auditor	7	0,866
Independency of auditor	5	0,934

The above table shows that the value of Cronbach's alpha of 0.767 for audit quality, the competence of 0.866, 0.934 and independence of ethics of 0.950. This means those items otherwise reliable statements. Cronbach's alpha value of 0.767 for audit quality, which means above 0.6, so that all items of the question of the quality audit can be used for further analysis even if there are items that are not valid.

4. Hypothesis Test

Multiple regression analysis is used to determine whether a variable is influenced by other variables, where the variables that affect more than one. Based on multiple regression analysis derived beta values, t-value and sig. as follows:

Table 6
Result of regression

Model	Beta	t-value	Sig.
(Constant)	7,505	-0,968	0,340
Competency of auditor	0,670	2,629	0,013
Independence of auditor	0,699	3,470	0,002

The results of the regression test showed that the value of significance for the two independent variables was tested under 0.05. The variable competence sig value is 0.013. This indicated that the competence significantly affects audit quality. The results of the t test for independence showed that the sig value is 0.002, this means that significantly affect the independence of audit quality.
Testing for the study variables using the F test is intended to determine whether there is a significant effect among all independent variables together on audit quality simultaneously. The test results are shown in Table F below:

Table 7
F test

Model	Sum o Square	df	Mean Square	F	Sig.
Regression	251,543	2	125,772	10,915	0,000
Residual	368,742	32	11,523		
Total	620,268	34			

Based on the above table, the F values is 10.915 and sig. 0.000 which less than 0.05. This means that the variables of competence and independence of the auditors have a significant effect on audit quality. The magnitude of the effect of competence and independence of audit quality together is determined by determinant test (R2). Determinants of test results can be seen in the following table:

Table 8
Result of determinant test

model	R	R square	Adjusted R Square	Std.Error of the Estimate
1	.637[a]	.406	.368	3,395

The above table shows that the value of the determinant (R^2) of 0.406 or 40.6%. This means that the competence and independence of the variables together have an influence 40.6%, while the rest of 59.4% is influenced by variables other than research, such as experience, accountability, and knowledge and task complexity. According Sugiyono (2005) R^2 value below 0.600 is said to be strong enough, so in this study the relationship between competence and independence together are strong enough to quality audit.

Discussion

The result of this study shows that the competence and independence affect significantly the quality of audit work. This result is consistent with Alim et al. (2007), Mayangsari (2003), Widagdo et al. (2002), and Ashton (1991). This suggests that the quality of the audit is influenced by the competence and independence. Competencies consist of two dimensions of knowledge and experience. Auditor as the spearhead of the audit is to be constantly improving knowledge for the application of knowledge to the maximum in practice
Significant effect on the independence of audit quality. These results are consistent with the results of Deis and Groux (1992) as well as research Alim et al. (2007). In maintaining auditor independence should have the ability to collect the information required in audit decision making, and decision-making must also be supported by independence attitude. Independent attitude is inherent in the self-auditor, so that independent attitude becomes an absolute requirement for an auditor position.

Conclusion

The purpose of this study was to determine the effect of competence and independence to audit quality. The test result by multiple linear regression provides empirical evidence that:

1. Competence have a significant and positive impact on audit quality, as indicated by the significance value 0.013 which is smaller than 0.05. These results are consistent with research by Alim et al. (2007), Mayangsari (2003), Widagdo et al. (2002), and Ashton (1991).
2. Competence have a significant and positive impact on audit quality, as indicated by the significance value 0.013 which is smaller than 0.05. These results are consistent with research by Alim et al. (2007), Mayangsari (2003), Widagdo et al. (2002), and Ashton (1991)
3. Test results showed that the hypothesis 1 and hypothesis 2 proposed in this study is acceptable.

Limitations of Research

Several limitations to this study, which may lead to bias or inaccuracy in this study, are:

a. This study uses survey through a questionnaire, researchers not directly involved in the activity of KAP in the organization so that the conclusions drawn based only on data collected through the use of a written instrument.
b. The scope of the study was limited to the Central Java and Yogyakarta, most of them small KAP, KAP and no samples are affiliated with the big four. Therefore, the results may differ when different research samples.

Suggestion

a. We recommend that the next research, researchers directly involved in the activities of KAP in the organization so that the conclusions drawn in accordance with the facts on the ground.
b. We recommend further research on the use of objects and different subjects with different professions such as an object of research companies and internal auditors as subjects of research.

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FINANCIAL AND NON FINANCIAL FACTORS ON GOING-CONCERN OPINION

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Abstract
Company's ability to continue the survival, is a fundamental uncertainty faced in the preparation, and auditing financial statements. Provision of going-concern opinion on these financial statements the company is still being debated. Public Accountant Professional Standards in section 341 states that the auditor is responsible for evaluating whether there is a major doubt on the ability of entities in the continued survival of the appropriate period of time, not more than one year from the date of the financial statements being audited. This research will analyze the financial and non financial factors that affect the provision of going-concern opinion. This research used samples of 63 companies with 315 observations, years 2005-2009. Based on logistic regression analysis showed that the company's financial condition variables, mitigating evidence, and disclosure significantly influence the acceptance of going-concern opinion. Enterprise risk is not significant at propensity of companies going-concern opinion.

Keywords: *financial, disclosure, mitigating evidence, risk*

INTRODUCTION

Provision of going-concern opinion on the company's financial statements are still being debated. Inclusion of a description of the condition of the company in the notes to the financial statements and audit opinion is considered largely a public accountant as a 'warning' to readers of financial statements of financial condition (Purba, 2009: 78). When economic conditions are something that is uncertain, investors expect auditors to provide 'early warning' for the possibility of financial failure of companies investors will be relying on information issued by the auditor for the investment decision. Users of financial statements must be vigilant for possible failure of the company, which caused operational and financial problems, as well as external factors of the company.

However, most management companies, the inclusion of an explanation of the condition of either company in the notes to the financial statements, and audit opinion, it is feared will give a bad image for the company. So that the public accountant worsening the situation by creating pesimisma readers of financial statements. The company will be completely bankrupt because of bad image creation by the external auditors and it is becoming a 'self-fulfilling prophecy' conducted by the auditors.

Going-concern opinion is an auditor's opinion relates to the ability of the entity to continue efforts in a reasonable period of not exceeding one year, after the date the audited financial statements. Issuance of going-concern audit opinion is very useful for users of financial statements to make the right decision in investing that will indirectly affect the company being audited.

This paper empirically examine the financial and non financial factors that affect the issuance of going-concern opinion. Previous research suggests that financial variables, non-financial, and market variables relating to the provision by the auditor's going-concern opinion. There are a number of studies that reveal the factors associated with going-concern opinion, namely Altman and McGouch (1974), Mutchler (1984, 1986), Menon and Schwartz (1987), Dopuch et al. (1987), Koh and Tan (1999), Geiger and Raghunandan (2002), Gosh and Moon (2005), Geiger and Rama (2006), and Haron et al. (2009). Mutchler (1984) examined the perceptions of auditor's going-concern opinion decision. Mutchler conducted a survey to the auditor's going-concern about the criteria by using 10 financial ratios. Two of the ten ratios that are considered most important on going-concern opinion decision is the ratio of cash flow to total debt and current ratio of debt. Furthermore, Mutchler (1986) examined the relationship going-concern opinion with financial statement information by using the six financial ratios.

Menon and Schwartz (1987) examine whether financial variables can be used to predict, whether the company would receive a going-concern opinion. The results indicate that changes in liquidity and operating loss sustained influence decision-making on opinion qualified and nonqualified. Dopuch, et al. (1987) examined the relationship 5 variables and 4 financial market variables to the audit opinion. The results showed that 9 variables tested were significantly different between the companies that received going-concern opinion and the clean opinion. Koh and Tan (1999) tested the ability of neural network to predict the going-concern status by using the six ratios are all significant to the going-concern opinion. Haron et al. (2009) tested the effect of financial conditions, the type of evidence and disclosure of going-concern opinion. Multivariate regression analysis showed that the financial indicators, the type of evidence and disclosure affect the going-concern opinion.

Another factor considered by the auditor is mitigating evidence. Mitigating evidence is information that can reduce the auditor's doubts about the ability of firms going-concern, that such information about the company's plans or actions to overcome the uncertain economic conditions. Mitigating evidence is necessary when identifying the auditors, the auditors found the going-concern doubts about the company. Auditors need to know whether the risk of the company, will create significant doubt or not the company's survival. Significant doubts it will affect the auditor in issuing its opinion.

This study tested the effect of disclosure, corporate risk, mitigating evidence, size and financial variables on the issuance of going-concern opinion. Santosa & Wedari (2007), indicates that the going-concern opinion can be influenced by financial conditions when analyzed using a proxy model Altman and The Springate model, the previous year's audit opinion. Furthermore, this study also tested the effect of disclosure of going-concern opinion, because not many that reveals effects on going-concern opinion in Indonesia. Disclosure of financial statements is very important information for the auditor, for example, disclosure of financial information regarding the consistent use of accounting methods in the preparation of financial statements, corporate policies, cooperation with the companies that have a special relationship the company, as well as events after the balance sheet date in terms of opinion going-concern. Adequate disclosure of financial information was a basic one auditor in giving his opinion on the fairness of financial statements (Junaidi and Hartono, 2010).

THEORY AND HYPOTHESIS

Audit Quality

The quality audit-market valuation is the probability that financial statements contain material errors and the auditor will discover and report material errors (DeAngelo, 1981b). According to Lee et al. (1999) audit quality is the probability that the auditor will not report the report with an unqualified audit for the financial statements contain material misstatements. The quality of audit prescribed by auditing capabilities to reduce noise and bias and improve the purity of the accounting data (Wallace, 1980 in Watkins et al., 2004). Given the actual audit quality is difficult to be observed outside the company, previous research using a variety of sizes that can be observed as a proxy for actual audit quality. Proxies used include discretionary accruals, debt financing costs, restatement of financial statements, auditor litigation, the tendency of going-concern opinion, and fraud. Kneckel and Vanstraelen (2007) use a measure of the tendency issuance of going-concern opinion as a measure of audit quality.

Going-concern in accounting and auditing

An underlying assumption is that the company's accounting process reporting will continue as a going-concern. Auditor's report adds a qualitative dimension to the information. Auditors are intermediaries between providers and users of financial statements report. Within the limits of GAAP, it is a burden the auditor to conclude the fairness of the financial statements. Users entrust independent auditors to mention the situation they are concerned about the impact on the fairness of presentation of financial statements in conformity with GAAP.

In 1988 the Auditing Standards Board (ASB) issued Statement on Auditing Standards (SAS) No.59: The auditor's consideration of an entity's ability to continue as a going-concern, which require auditors to evaluate whether there is substantial doubt about the ability of the client company to continue as a going-concern. SAS asks the auditor to accumulate and evaluate evidence to determine whether the going-concern status is questionable. Consider issuing an auditor going-concern opinion if he finds a reason for doubt the sustainability of a company based on testing. Going-concern audit opinion is an opinion issued by the auditor to ascertain whether the company can maintain its viability (IAI, 2001).

Financial Factors

Auditor's report adds a qualitative dimension to the information. Auditors are intermediaries between providers and users of financial statements report. Within the limits of GAAP, it is a burden the auditor to conclude the fairness of the financial statements. Users entrust independent auditors to declare the situation they are concerned about the impact on the fairness of presentation of financial statements in conformity with GAAP.

Model of bankruptcy and auditors' report have different but similar functions. The model developed to predict. Auditors did not try to make a prediction. An unqualified opinion does not guarantee that a company will continue as a going-concern, and an exception because the problem is not a going-concern prediction liquidation. An opinion expressing doubt a company's ability to continue business continuity based on the uncertainty over the fairness of presentation of financial statements. It is possible for the presentation of financial statements that are based on historical cost for fairly presented when the company faces bankruptcy if the residual value of assets of the company's present value of the realization of assets. Altman and McGouch (1974) found that the model predicts 82% of cases of bankruptcy bankruptcy on the last available financial statements prior to bankruptcy. Opinion indicates the auditor going-concern problems in 44% of cases, based on the financial statements are available prior to bankruptcy. Further studies that use financial indicators to measure the going-concern opinion issued by the auditor is Mutchler (1984, 1986); Menon and Schwartz (1987), Dopuch, et al. (1987), Koh and Tan (1999), Santosa & Wedari 2007), indicates that the going-concern opinion can be influenced by financial conditions when analyzed using the Altman model and the Springate model, and the previous year's audit opinion.

One of the importance of analyzing the financial statements of a company is its usefulness to predict continuity or bankruptcy of the company. Previous studies have indicated that statistical models based on financial ratios have tronger explanatory power than the auditor's judgment (Altman & McGough, 1974; Altman, 1968; Koh & Killough, 1990) on the issue of a going-concern opinion. However, another study found that a statistical model of financial ratios has the same predictive ability as the auditor's judgement (Hopwood, McKeown & Mutchler, 1994). Financial indicators used in this study, using a model approach to Altman (1968):

$$Z = 1.2Z_1 + 1.4Z_2 + 3.3Z_3 + 0.6Z_4 + 0.999Z_5$$

Where:

Z_1 = net working capital/total asset
Z_2 = retained earning / total asset
Z_3 = earnings before interest and taxes / total asset
Z_4 = market value of equity / book value of debt
Z_5 = sales / total asset

Company's financial performance based on the model of bankruptcy Altman method:

1. If the value is smaller Zscore from 1.8 to predict corporate bankruptcy (distress zone)
2. When Zscore value between 1.8 - 2.99 predicted the company does not have to stay healthy financial certainty (gray zone)
3. When Zscore value greater than 2.99 predicted the company is not bankrupt (safe zone)

From these criteria, a company with a low Z score has great potential to receive from the auditor's going-concern opinion, whereas companies with high Zscore potentially not receiving going-concern opinion from the auditors. Therefore, the hypothesis is presented that is:
H01 : financial condition does not affect the issuance of going-concern audit opinion.

Mitigating Evidence

Non-financial information is also necessary to consider the auditor in its audit opinion. When identifying the conditions and events, then the auditor found the going-concern doubts about the ability of the company, the auditor should identify and evaluate management plans to mitigate the effect of these events. It is also stated in SPAP (2001) that if, after considering the conditions or events that have been identified as a whole, the auditor believes that there is great skepticism about the ability of entities in the continued survival of the appropriate period, he must weigh the management plan in the face of adverse impacts of condition or event. Considerations relating to the auditor-management plan may include: plans to sell assets, withdrawal plan debt or debt restructuring, plans to reduce or delay expenditures, and owner plans to raise capital.
If the evidence that can convince the auditors that management plans can reduce the auditor's doubts, then the going-concern opinion is not required. However, if the evidence was not able to convince the auditors,

then the going-concern opinion is required. Research Bruynseels & Willekens (2006) found evidence that the actions to be performed by companies both short and long term, will reduce the possibility of the issuance of going-concern opinion. Furthermore, hypothesis are presented as follows:
$H0_2$: mitigating evidence does not affect the issuance of going-concern audit opinion

Disclosure
Disclosure is conceptually an integral part of financial reporting. Technically, disclosure is the final step in the accounting process is the presentation of information in the form of a full set of financial statements. Disclosure purposes is to provide information to improve understanding of the significance of financial instruments on financial position, performance, and cash flow entities, as well as helpful in assessing the amount, timing, and certainty of future cash flows associated with such instruments (PSAK No. 50, 2009) . Contractual terms and conditions of the financial instrument affect the amount, timing, and certainty of cash receipts and payments in the future by the parties relating to such instruments. If financial instruments are significant, either individually or in groups, against the entity's financial position or results of operations in the future, then all terms and conditions of the instrument disclosed.

Disclosure of financial statements is very important information for the auditor. Adequate disclosure of financial information was a basic one auditor in giving opinion, the financial statements on the fairness of the company (Junaidi and Hartono, 2010). In conjunction with the going-concern opinion, the financial statements should disclose whether there are conditions or events that could cast doubt over the ability of the company going-concern. The existence of such disclosures to make the auditor believes that the company also has a belief that the company's financial condition will be affected by economic conditions, or in other words, the company also has doubts to continue the effort. Companies that make disclosures in accordance with the standards of disclosure likely to receive clean opinion. Furthermore, hypothesis are presented as follows:
$H0_3$: Disclosure does not affect the issuance of going-concern audit opinion

Risk
Enterprise risk is the risk inherent in the company as it moves in the industry with certain risks. Company's risk can be measured by stock investment risk analysis. Investment risks may include loss of stock and the decline in the exchange rate bonds, failed to receive cash dividends and bond coupons, failed to receive back the principal of bonds because the issuer declared bankruptcy, and failed to receive a return of capital for listed companies to go bankrupt or will not sell their shares because the issuer in question have been excluded from listing on the Stock Exchange. Investment risks are grouped into two major groups namely systematic risk and specific risk. Specific risks affecting only a particular stock or sector. Company's risk can be determined from the value of beta. Beta is a measure of return volatility of a security or portfolio return against the market return. Beta measures the volatility of portfolio returns with market return portfolio. Therefore, beta is a measure of systematic risk of a security or portfolio relative to market risk.

Volatility can be defined as the fluctuations of the return-return of a security or portfolio in a given period of time. Beta of a security can be calculated with estimation techniques that use historical data. Beta is calculated based on historical data can then be used to estimate the beta of the future. Historical beta can be calculated using historical data of market data, and accounting data. Beta is calculated by market data referred to by market beta. Market beta can be calculated using regression techniques. Regression techniques to estimate the beta of a security can be done by using the return-return securities as the dependent variable and return-market return as independent variables. Regression equation used to estimate the beta can be based on a single-index model or models or market using the CAPM model. Therefore, by knowing the risk of the company, the auditor can analyze whether the risk will cause a significant doubts or not the company's survival. Significant doubt, will affect the auditor in issuing an opinion. Furthermore, the hypothesis is presented that is:
$H0_4$: company's risk does not affect the issuance of going-concern audit opinion

RESEARCH METHOD

Sample
The sample used in this study is that companies listing on Indonesia Stock Exchange from 2005-2009. Sampling in this study were obtained by the method of purposive sampling, with the following criteria:

manufacturing a listing in the year 2005-2009, published financial statements in the year 2005-2009, actively traded stock company until 2009, and companies publish complete data.

Data

This study uses secondary data. Secondary data was obtained from audited financial statements of manufacturing companies listed on the Stock Exchange in the year 2005-2009 at the corner of the Indonesia Stock Exchange, UTY. The data required in this study are: auditor's opinion, company's working capital, total assets, retained earnings, EBIT, the book value of equity, total debt, sales, notes to the financial statements, daily stock price.

Model

$GC = \alpha + \beta_1 FIN + \beta_2 ME + \beta_3 D + \beta_4 R + \beta_5 TA + \varepsilon$

Where:

GC : going-concern opinion (1: going-concern opinion, and 0= clean opinion

α : constanta

β_1- β_4 : Regression coefficients

FIN : Financial condition of company

ME : Mitigating Evidence

D : Disclosure

R : Risk

TA : Total assets

ε : error

Operational Definition

Dependent variable in this study is the going-concern opinion. This variable is a dummy variable, in this case a variable worth 1 if the company received a going-concern opinion and is 0 when receiving a nongoing concern opinion. Independent variables in this study include the company's financial condition, mitigating evidence, disclosure, and corporate risk, as follows:

Financial condition

Financial condition as measured by Altman's bankruptcy prediction model (1968),. $Z = 1.2Z_1 + 1.4Z_2 + 3.3Z_3 + 0.6Z_4 + 0.999Z_5$

Where :

Z_1 = net working capital/total asset

Z_2 = retained earning / total asset

Z_3 = earnings before interest and taxes / total asset

Z_4 = market value of equity / book value of debt

Z_5 = sales / total asset

Company's financial performance criteria based on the Altman bankruptcy model:

1. if the value is smaller Zscore from 1.8 to predict corporate bankruptcy (distress zone)
2. when Zscore value between 1.8 - 2.99 predicted the company does not have to stay healthy financial certainty (gray zone)
3. when Zscore value greater than 2.99 predicted the company is not bankrupt (safe zone

Mitigating Evidence

Evidence is mitigating a dummy variable, will be worth 1 if the auditor found any plans that will be done by the company to face the economic conditions are mitigating evidence in the audit procedures, and will be worth 0 when the auditors did not find any mitigating evidence.

Disclosure

Disclosure is a dummy variable, will be worth 1 if the company made the disclosure or to disclose the existence of doubts over the ability of corporate management company going-concern, and is 0 if the company did not disclose it.

Risk

Risk as measured by single index model, by the following equation:

$R_i = \alpha + \beta_i R_m + e_i$

Where:

R_i=the return on security i

α = constanta

R_m = the return on market index

β_i = a constant measuring the expected change in the independent variable, R_i, given a change in the independent variable, R_m

Control Variable

Variables used to control the causal relationship in research in order to study the model becomes more complete and better, namely firm size. Firm size will be calculated by using the natural log of total assets.

Hypothesis

Hypothesis were tested using logistic regression analysis. Logistic regression is part of the regression analysis is used when the dependent variable is a dichotomous variable. Dichotomous variable usually consists only of two values that represent the appearance or absence of an event that is usually given a number 0 or 1. Based on the statistical test will be obtained p-value of each independent variable. If the p-value < 5% (α), then the null hypothesis is statistically rejected.

ANALYSIS

Sample

Based on these criteria, obtained a sample of 63 companies as follows:

Table 4.1 Sample

Description	**amount**
Manufacturing companies that consistently publish financia statements from the year 2005-2009	163
Incomplete data	100
Number of samples	63

Company classification

This study analyzed 63 companies listing on the Stock Exchange in 2005 until 2009. Classification results based on the company's audit opinion received from 2005 until 2009 are as follows:

Table 4.2
Classification of samples based on the Auditor's Opinion

Audit opinion	Year					amount
	2005	2006	2007	2008	2009	
Non going concern opinion	34	37	42	48	53	214
Going-concern	29	26	21	15	10	101
Number of firms	63	63	63	63	63	315

Regression model

Based on table 4.3, the value of Cox & Snell R Square of 0.415, and Nagelkerke R Square of 0.586, this means that the dependent variable can be explained by the independent variable of 58.6%.

Table 4.3
Model Summary

-2 Log likelihood	Cox & Snell Square	Nagelkerke Square
224,189[a]	,419	,586

Model Summary

-2 Log likelihood	Cox & Snell Square	Nagelkerke Square
224,189[a]	,419	,586

a. Estimation terminated at iteration number 6 becaus parameter estimates changed by less than ,001.

Based on table 4.4, note that the classification accuracy of the logistic regression model has an estimated value of right and wrong. The accuracy of predictive logistic regression model to predict the factors that affect the going-concern opinion on companies that do not get going-concern opinion (coded 0) of 92.1% with a prediction error of 7.9%. While the prediction accuracy to predict the factors that affect the going-concern opinion on companies that have going-concern opinion (code 1) at 76.2% with a prediction error of 23.8%. Overall, the prediction accuracy of logistic regression model to predict the factors that affect the going-concern opinion on companies that do not get going-concern opinion and the going-concern opinion obtained by 87%.

Table 4.4
Classification Table[a]

Observed			Predicted GC ,00	Predicted GC 1,00	Percentage Correct
Step 1	GC	,00	197	17	92,1
		1,00	24	77	76,2
	Overall Percentage				87,0

a. The cut value is ,500

This study uses logistic regression model to test four hypothesis. Testing the hypothesis with logistic regression can be seen from table 4.5. If the p value of less than 5% (α), the null hypothesis is statistically rejected. Based on analytical results obtained the following results:

Table 4.5
Variables in the Equation

		B	S.E.	Wald	Df	Sig.	Exp(B)
Step 1[a]	FIN	-1,523	,266	32,826	1	,000	,218
	ME	1,886	,463	16,636	1	,000	6,596
	D	1,028	,475	4,679	1	,031	2,795
	R	-,452	,352	1,646	1	,199	,637
	TA	,127	,086	2,202	1	,138	1,136
	Constant	-,250	1,119	,050	1	,823	,779

a. Variable(s) entered on step 1: FIN, ME, D, R, TA.

Hypothesis 1

Table 4.5 shows that the p-value of the financial condition of 0.000 is smaller than 0.05. Therefore statistically the null hypothesis which states that financial conditions do not affect the going-concern opinion is statistically rejected. Company's financial condition variable coefficient is negative which shows that the better financial condition then it is likely the auditors to issue going-concern opinion gets smaller. Conversely the poor financial condition then it is likely the auditor to issue a going-concern opinion increases. The survival of companies in the future is something which is uncertain. Prediction of bankruptcy can be used as a reference for users of financial statements to assess the viability of the company in the future. The auditor's going-concern opinion can also be used as a reference for users of financial statements to assess the viability of the company in the future. The business community recognizes that there is no other independent professionals who can understand the client's business situation as well as auditors, because auditors are responsible for evaluating whether there is substantial doubt on the ability of the continued survival of the entity (going-concern) in sufficient time period, not exceeding one year after audited financial statement date. The results of this analysis support the research conducted Santosa & Wedari (2007) and Haron et al. (2009). They stated

that the auditor will only give opinions going-concern if the company is said to go bankrupt or be difficult to continue their business survival. This means going-concern opinion and the bankruptcy prediction model has a similarity in predicting the survival of a firm and those two things coexist in providing information about business continuity.

Testing Hypothesis 2

Testing hypothesis 2 aims to analyze the mitigating evidence at the going-concern opinion. Table 4.5 shows that the p-value of the mitigating evidence of 0.000 is smaller than 0.05. Therefore statistically the null hypothesis which states that the mitigating evidence does not affect the going-concern opinion is statistically rejected. The auditor would consider whether there is mitigating evidence made by a company. Going-concern opinions tend to be given to companies that provide mitigating evidence.

Testing Hypothesis 3

Table 4.5 shows that the p-value of 0.031 for disclosure is less than 0.05. Therefore statistically the null hypothesis which states that the disclosure does not affect the going-concern opinion is statistically rejected. The results of this analysis support the results of research conducted by Junaidi & Hartono (2010) and Haron et al. (2009), which states that disclosure significantly influence the issuance of going-concern opinion by the auditors.

Testing Hypothesis 4

Testing hypothesis 4 aims to analyze the company's risk in going-concern opinion. Table 4.5 shows that the p-value of 0.199 corporate risk variable is greater than 0.05. Therefore, statistically the hypothesis that risk does not affect the company's going-concern opinion can not be rejected statistically.

Testing Control Variable

Table 4.5 shows that the p-value 0.138 for firm size variable is greater than 0.05. The company's asset growth was not followed by auditees ability to increase its profits so that balance can not reflect the actual state of the company, mainly to stay in their operations. The results of this analysis is different from the research (Santosa & Wedari, 2007; Junaidi & Hartono, 2010) which states that the size effect on the issuance of company going-concern audit opinion.

CONCLUSION

Going-concern opinion is an auditor's opinion, about the ability of the entity to continue efforts in a reasonable period of not exceeding one year after the date the audited financial statements. Issuance of going-concern audit opinion is very useful for users of financial statements to make the right decision in investing that will indirectly affect the company being audited. There are several factors that may affect the issuance of going-concern audit opinion, both financial and non financial factors. Based on logistic regression analysis of test results obtained by empirical evidence that the company's financial condition variables as measured by Altman's model significantly influence the acceptance of going-concern opinion. Furthermore, the obtained empirical evidence that the variable mitigating evidence, disclosure, affect the issuance of going-concern opinion. However, based on the results obtained by the analysis of empirical evidence that the company's risk as measured by beta, no significant effect in the publishing company's going-concern opinion. This research has limitations, both the samples and factors included in the research model. Therefore, further research can expand the observations, and include other factors in the model study.

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KNOWLEDGE MANAGEMENT AND INFORMATION TECHNOLOGY AS A DRIVER OF COMPETITIVE ADVANTAGE IN THE KNOWLEDGE-BASED COMPETITION ERA

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ABSTRACT

Knowledge management became a focus organization's value added to have a competitive advantage. The main issue of competitiveness of knowledge management is not easily imitated, unique, and not easily changed. Potential human knowledge as the company's intellectual capital will become an essential in a company that eventually IQ can determine the success of the organization's strategy. In addition, information technology as well as a driver of efficiency and effectiveness organizations, because the perceived benefits for it, so that attempts to maximize information technology continues to evolve. Information technology has become an integral part and an important infrastructure for organizations in providing value added or competitive advantage.

Keywords: *Knowledge management, Information Technology, Competitive advantage*

INTRODUCTION

Competition is getting tougher and the business environment changes occur continuously, every company is required to maintain and enhance the competitiveness of enterprises. So the company can maintain and enhance the competitiveness must have certain unique advantages which are not easily imitated by competitors or substituted. This has forced the organization to adjust the fundamental changes in business environment and an increasingly complex and turbulent (Mulyadi and Setiawan, 1999). The emergence of the global economic system requires a very dynamic organization to develop the potential of human resources (HR) in adapting to various changes, including rethinking mission, goals and organizational strategies are more flexible in an unpredictable and uncertain.

Managing human resources is not an easy thing or the same as managing any other tangible resources such as raw materials, products, money etc. Human resource management depends on the difference in the level of knowledge. This regard it must anticipate that every individual who works at the company had knowledge of proportion to the duties and responsibilities. Human resource management based on knowledge of its aims to enhance sustainable competitiveness and performance that have a specific focus on the company's asset value, rare, difficult to imitated, and difficult to substitute. The main challenge now is to produce organizational and process knowledge gained from the learning process (Schulz, 2001).

This article discusses the role of knowledge management and information technology as a driver of competitive advantage in the knowledge-based competition era, the discussion begins by described the management of knowledge that includes tacit knowledge and explicit knowledge, the purpose of the application of knowledge management, the importance of knowledge management, knowledge management to enhance the competitiveness of the organization, benefits of knowledge management, and at the end of the presented applications of information technology on knowledge management.

KNOWLEDGE MANAGEMENT

According to Geisler and Nilmini (2009) knowledge management is a set of activities used by an organization or company to identifing, creating, explaining, distributing, and utilizing knowledge. Knowledge management includes the process of knowledge identification, knowledge creation, and facilitate to transformation of implicit knowledge into explicit knowledge that is accessible and can be used to problems solving. The scenario of knowledge management starts from the creating knowledge to be applied, used, and how they influence of life. Knowledge is then 'captured' to be stored, organized and transformed into a form that can be disseminated, and shared.

There are two kinds of knowledge, ie tacit knowledge and explicit knowledge. Tacit knowledge is knowledge stored in people's minds, it is difficult formulated (eg one's expertise), it is important for creativity and innovation, is converted into explicit knowledge to such externalizes owned for years by experts. Tacit knowledge has not been codified or compiled in written. While explicit knowledge is knowledge that can be codified / formulated, confirmed from tacit knowledge to understanding and absorption, e.g. documents, databases, audio-visual material, etc. (Nonaka, 1998, Uriarte, 2008).

PURPOSE OF KNOWLEDGE MANAGEMENT IMPLEMENTATION

Application of Knowledge Management will impact the organization's business processes in terms of:

1. Time and cost savings. Given the source of well-structured knowledge, then the organization will be easy to use that knowledge to other contexts, so that organizations can save time and costs.
2. Increased knowledge assets. Sources of knowledge will provide convenience to each employee to use it, so that the utilization of knowledge in the organization will increase, eventually the process of creativity and innovation will be encouraged more widely and every employee to improve their competence.
3. Adaptability. Organizations will be able to easily adapt to changing business environment occur.
4. Increased productivity. Existing knowledge can be used again to process or product to be developed, so that will increase the productivity of the organization.

Importance of Knowledge Management

Knowledge management should be viewed as an investment in intellectual capital to enhance the ability of companies to get ideas and the best collective work. Knowledge management is an idea to improve the way people work together, share ideas and build on each others' ideas which then act in harmony to something objective. Knowledge management became important because its implementation to benefit the area of operations and services, can improve personal competence, maintain availability of knowledge and innovation and product development. Example of the importance of knowledge management, when the company there is an employee-friendly with appropriate educational qualifications resigns or dies while there is no specific knowledge transfer to other people own it and there is no successor, then the resignation or death of these people can lead the move customers.

Organizations that want to implement knowledge management in organizations need to realize first, that knowledge is in people and not on the system, although the system has data and information that can assist the process of knowledge. Secondly, knowledge creation is a social process, the creation through the interaction between individuals in their daily lives. In business competitions have been innovative organizations and appreciate the knowledge to improve their products and services. According Sykreme, 2003, there are several reasons why the concept of knowledge management from being applied:

1. Globalization and Competition
2. Organizations begin to rely on the knowledge to create strategic advantage. With the knowledge available but scattered or fragmented nature makes organizations often spend their time and resources, or even fail to achieve the highest quality of knowledge and experience available in the organization.
3. Restructuring and Downsizing. Without an effective mechanism in the system using the knowledge of experienced employees in the organization will lose or have to pay again to have had actual knowledge.
4. Share of best practices that have been made. Organizations will save their expenses in a year by taking the knowledge of the best employees and then applied elsewhere in similar situations.
5. Successful innovations. Organizations that implement knowledge management have found that through a network of knowledge, organizations can create new products and services better and faster.

Enhance Knowledge Management for Organizational Competitiveness

The company's most important asset is human resources. To recruit and retain workers and to manage smart people is a very difficult job. Each people in the organization generally have intellectual ability. Organization’s future should be consider that Knowledge Management as an investment in intellectual capital that will ultimately increase the IQ of the company. Intellectual capital is the value that already exists by itself on intellectual property and the knowledge of everyone in the company. The Company is obliged to manage it into a flexible force that any change in conditions. Appropriate capital management will be able to increase the IQ, so the company can have a big impact on firm value.

Shift type of work as a result of the evolution of information technology in the future is largely determined by how we shape and manage the intellectual capital or human capital resources. For it requires a strategy and a knowledge-based mindset. Maholtra (1997) suggested that knowledge management will help the organization to achieve the synergistic combination of data and information processing capacity of information technology with the innovative capacity and creativity of individuals. While Monasco (1996) states that knowledge management is a process that identifies strategies for developing knowledge resources competitively.

Advantages of Knowledge Management

According to Wing (1999) high expectations for improvements to the strategic, tactical, and operational when the company is actively seeking Knowledge Management. Most of the direct benefits obtained by the operational benefits, while the strategic and tactical benefits are indirect and often require a longer period of time to be realized. However, the strategic advantages gained are able to encourage companies to actively implement knowledge management. Here are some of the advantages disclosed Wing (1999):

Strategic advantages

1. Companies will be able to form a competition to determine the product and delivery or services with higher knowledge content than ever before. This can be done by:
   a. Have a knowledgeable workforce who to access to better knowledge applied.
   b. Organizing work to support the application of the best knowledge, so hopefully be able to penetrate the market and competitive market.
2. The organization will be able to develop the expansion of the ability to establish and deliver products and services greater and greater ability to deliver products and services greater and greater ability to deliver products and services in new markets.

Tactical advantage

1. The Company will be able to perform individual and organizational learning is faster because it has the understanding, retention, and use of innovation, new knowledge, and knowledge of other parties as well as from external sources, which can alter the implicit personal knowledge into common knowledge, so that it can be expected will lead to the ability to acquire knowledge-knowledge that is more competitive.
2. Less chance of loss of knowledge of employees, this is because the understanding of routine and operational knowledge effectively by staff and, grouping in the company's knowledge that can be learned easily access and will lead to a higher ability in forming the initial skills and deeper understanding.
3. The knowledgeable staff will have ownership of and access to relevant skills in the form of operational knowledge, writing, and schemes.
4. The employee will gain a greater understanding of how their personal goals can be aligned with corporate objectives.

Operating advantages

1. The employees will have access and be able to apply that knowledge in taking action. This can be achieved through: educating employees about their working principles, to provide assistance to the knowledgeable staff to complement their existing knowledge, training of knowledgeable personnel to operationalize abstract knowledge in order to adjust to the practical conditions they face. The changes are expected to lead to a reduction in operating costs due to reduced error is smaller, the implementation of work processes that are faster, the ability to compensate for unanticipated variations in work assignments and so forth.
2. Operational areas will experience an increase in employment and reduction of operational errors
3. The Company will achieve recovery of greater knowledge.

Application of Information Technology in Knowledge Management

Application of appropriate technology will become the company's strategic decision. Using information technology as an asset strategic in designing and managing organizations can make the organization more responsive, flexible and efficient organization in the position or even offensive. However, this application is not always successful. Errors in the implications and concepts can lead to failure in adopting information technology. Issues related planning and implementation information technology should get serious consideration by management, it is intended to obtain information in a short time.

Development of information technology plays a vital role in the development of knowledge management concepts. The presence of information technology is able to offer a variety of methods, among others:

1. Methods and tools for recording knowledge, including computers, storage media such as flash disc. Storage full-text data allows users browse directories, encyclopedias, statistical data, and financial can be read machine. This is all made easier by the availability of optical storage media.
2. Storing listings (record) method on a variety of activities including computer hardware such as storage media, which includes software to design build, create, and edit the data base, spreadsheet, and similar software.
3. Create index method for documents and information including a variety of techniques and computer-aided manufacturing index files (files) for easy retrieval of documents based on the terms behind the terms or conditions in the file. A large bibliographic data base which facilitates retrieval of qualified reverse document (e.g. by author or subject), is now developing a catalog can be read machine so helps determine the location of the document.
4. Communicating knowledge method include: (a) electronic mail (email) system for transmission of memos and letters document text, (b) facsimile transmission system (facsimile) for long-distance transmission of documents on the basis of a photocopy, this is tantamount to photocopy distance, (c) electronic magazine (e-magazine) as a means of communication and research activities, (d) teleconferencing to meeting long-distance, each participant was in various places, communicate with each other as well as the visible face of each, and (e) data communications network for communicating in the form can be read machine.

Information technology is a technology that emphasizes the use of computers and related technology information source settings (Wilkinson and Cerullo, 1997). Advances in technology affect many aspects of management; structure, tasks and activities within the organization. In many industries, information technology has enabled the organization in transforming large-scale operational aspects of organizations that make up the value chain. Applying technology in products, computer-aided design and manufacturing (CAD / CAM), factory automation and logistics, leading to better performance quality, and significant cost reduction has changed the standard of competition in industries producing goods and services.

Information technology is a strategic weapon, and use of information technology becomes very important (Rockart, 1998). The impact of information technology on organizations, users, and people supporting include improving the efficiency of operations, support strategic initiatives, expand the organizational boundaries, changing work patterns, changing the terms of the ability of individuals within the organization, changing the nature of supervision, improve competitiveness, and seek cultural platform appropriate, Sudibyo (1992).

Conclusion

Knowledge management focus on efforts a person or business organization to add or create value, in order to have a competitive advantage. This can be achieved when a person or company has the knowledge and understanding better than its competitors. Knowledge management as an organizational flow of information between actors requires every individual in the organization for continuous learning. Management of human potential as the company's intellectual capital will become an essential in a company that eventually IQ can determine the success of the organization's strategy.

Rapid advancement of information technology to spur efficiency and effectiveness of the organization, because the perceived benefits to the organization's corpulent, so that attempts to maximize information technology continues to evolve. Information technology has become an integral part and an important infrastructure for the organization or organizations in providing value added or competitive advantage.

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ETHICAL ORIENTATION AND PERSONAL BENEFIT IN INSIDER TRADING

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ABSTRACT

Most of people think insider trading is an unfair activity because the parties that involved have unequal information. In a certain condition, used unequal information in a transaction is a fraud. The BAPEPAM's act have regulated that insider trading is illegal. Nevertheless it is not easy to bring perpetrators to the court because a difficulties to proved that. Insider trading is motivated by self interest or personal benefit. But ethical orientation can mitigate of insider trading because it can mediate personal benefit. By survey administrated to the students, this study want to examine how ethical orientation can prevent insider trading. Using multiple regressions this study found that ethical orientation could not mediate the effect of personal benefit to insider trader trading behavior. So we concluded that it is important to give ethical education as soon as possible to all the people to prevent an unethical behavior like insider trading.

Keywords: Insider trading, personal benefit, ethical orientation

BACKGROUND

Nowadays insider trading is becoming more attractive, because provides much more gain to the perpetrators. Latest scandals of insider trading, founder of Galleon Group, Raj Rajaratnam is arrested by FBI get US$ 70 million by paying insider to get information and trading on stock. For that, he sentenced to prison for 11 years. The other big scandal in insider trading is the resignation of boss a hedge fund Whitman Capital, Doug Whitman, to FBI after he caught up used the leaked information from insider in Wall Street at 12 February 2012. In Indonesia, the latest case is allegations of IDX on the practice of insider trading by PT Petrosea, Tbk. (PTRO) and PT Indika Energy, Tbk. (INDY). IDX notice any irregularities PTRO stock transactions from February 12nd, 2009 are not reasonable. In previous period, transactions are rare and if any transactions is always in a small volume. But from that date, the transaction volume increased significantly.

Some countries have restricted insider trading since insider trading have negative impact for both the small investors and the markets. Illegal insider trading ensures that there is no fair play involved and there is no fair demand and supply of stocks which are detriment to the functioning of a healthy capital market. Illegal insider trading weakens the faith of investors in the investing system and an unchecked insider trading could keep off people from investing capital and this could potentially harm the economy as a whole. Indonesia classifies insider trading as a crime. This is in accordance with Bapepam Act number 8th in 1995 which states that people in the company who has inside information prohibited to purchase or to sale in capital markets. Although the Act have been issued related to the prohibition against insider trading, it is not easy to bring the perpetrators into criminal justice because of the difficulties to prove this crime. The other problem is the implementation of restrictions is extremely expensive because it is get a long time to prove insider trading.

Insider trading is a trading in capital market by someone or parties that are part of the company or insider, by using information that is not published, that only known by the parties to increase their personal benefit through abnormal return. This information may be about price sensitivity and this information is not published yet and material. Insider trading is a wrongdoing or unfair because the parties that involved in a transaction does not have same information. Usage unequal information is fraud. However, transactions

that occur because of unequal information are considered as a wrong only on certain condition, and not always wrong (Strudler and Orts, 1999).

Business ethics researchers have examined personal moral philosophies (Karande et al., 2002) or personal ethical ideologies (Henle et al., 2005) as a factor that has considerable impact upon decisions. In this paper we adopt Henle et al.'s definition of ethical orientation or orientation: "a system of ethics used to make moral judgment, which offer guidelines for judging and resolving behavior that may be ethically questionable. Forsyth (1980) developed Ethics Position Questionnaire (EPQ) to identify someone orientation that could be classified into relativism and idealism. A relativist believes that there are many ways to look at morality and ethical principles. While an idealist considers that there is always be a good consequence of an action, or an idealist consequence of an action, and an idealist would pay attention to others welfare. So that someone ethical orientation (idealistic versus relativist) would affect a decision, for example a decision to conduct insider trading. People who more idealistic will not decide to conduct insider trading and harm the others. However, the results showed that ethical orientation will be influenced by personal benefits from an action. Greenfield et al. (2008) found evidence that ethical orientation mediate relationship between personal benefit to earning management.

The precedence of insider trading is self-interest motivations. Beams et al. (2003) have examined the deterrent variables (certainty, severity of punishment, social stigma, and guilt) and motivational variables (profits, envy and legal justice) of insider trading. Their results indicate that guilt, expectation of benefit and legal justice perception affect the likelihood of insider trading. Several previous studies have examined the ethics of insider trading. Abdolmohammadi and Sultan (2002) used experimental study using a simulated stock trading. P-Score is used as a proxy of ethical reasoning. Their results showed that people with high ethical reasoning will not use inside information to conduct insider trading. Statman (2009) used students in United States, China and Taiwan to examine their perception about fairness of insider trading. By using Paul Bond's Case, 76% of students in China consider that insider trading is ethical to do. McGee (2009) looked at insider trading from the utilitarian and right perspective. Insider trading is judged as ethical or unethical based on their ethical principles.

The purpose of this study is twofold. Our first objective is to examine the impact of an individual's ethical orientations to insider trading decision. Our second objective is to observe whether the presence of a personal benefit affects an individual's ethical orientation within the context of an opportunity to insider trading. This research refers to research conducted by Abdolmohammadi and Sultan (2002) and Beams et al. (2003). Both of these studies did not consider the ethical orientation of the individual as personal factors that can influence decisions taken by someone. Many studies about personal benefit do not gave consistent results yet. Personal benefits can influence ethical orientation and then will influence decision. So this study will examine whether ethical orientation can mediate the relationship between perceptions of personal benefits on insider trading. The framework for the research is presented in Figure 1.

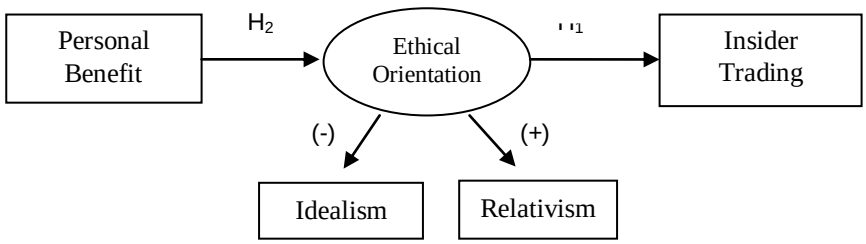

Figure 1. Research Framework

In the reminder of this paper we present further discussions of theory and research supporting the development of our research model and hypotheses, explain our results and discuss our conclusions and possible implications.

Insider Trading Phenomenon

Investing dictionary of Jerry M Rosenberg defined insider trading as follow

> "The practice of participating in transaction based on privileged information, gained by one's position and not available to public, when such transactions affect the price, giving unfair advantage to a trader, it is illegal."

Insider trading is a securities trading by people or parties within company. This trading occurred because important or material information which is owned by insiders, open to the public yet (as private information) and only owned by few people (Werhane, 1989; Abdolmohammadi and Sultan, 2002). Not all of insider trading is an illegal activity. Illegal or not depends on the access to material information. Material information is information that can be utilized by the investor to increase wealth by trading before the information published (Abdolmohammadi and Sultan, 2002). Expected economic benefits or wealth increasing can directly or indirectly, which is a short swing profits.

There are two kinds of insider trader, first is a person who has the trust directly or indirectly from issuer or company and the party who receives inside information (fiduciary position). They are directors and their couple (husband and wife) and their children. Second, insider is the parties who have easy access to company's strategic information, for example corporate executives, bankers, auditors, certain shareholders, financial consultants and the other. Bapepam's Act does not provide rigor restrictions about insider trading, but only provides restrictions to prohibited transaction including insider who have inside information are prohibited to sale or purchase of their company (clause 95th).

Insider trading is a special term that only used in capital market, which was borrowed from unfair stock trading practices in the US which is associated with the usage of proprietary information by company officials who can take advantage. Insider trading is opposed to disclosure principle to create efficiencies in trading. Either illegal or legal, will undermine market efficiency and reduce the function of the free market (Werhane, 1989)

The company will encourage insiders to own shares of company through stock options or through incentives. Nevertheless insider can buy stock by a regular pattern through capital market. But when insider used personal or inside information so he has violate the law. Usually the company tends to withheld some of information. It is led to occurrence of information asymmetry between insider and the public. Some people with their professions may have access to such information and if they used this information to trade, they have borne the risk that should have been considered before (Beams et al., 2003).

Ethical orientations in Insider Trading

Insider trading is perceived as a crime or at least as unethical practices. The ethics of insider trading can be viewed from various aspects or principles, especially from utilitarian and rights principles (McGee, 2009). Based on the utilitarian, an act considered as ethical if an action will give more benefits by considering gain and loss. When the benefit of an action is greater than cost, then an action can be judged as an ethical act. But there are some problems of utilitarianism in judging whether an act ethically (McGee, 2009), they are:

a. It is difficult to measure gains and losses
b. It is difficult to measure the benefit of minorities and also the loss of victim
c. Not easy to compare utility one to others
d. Not observing right of personal

Based on these weaknesses, utilitarian principle is not the best approach to assessing an action. The right principle said that an act is ethic when not violate person's rights. If a person's right is violated then is said to be unethical even if such action will be an advantage (McGee, 2008).

Another argument related to insider trading is about efficiency. An action is considered ethical if it increases efficiency. Insider trading causes inefficient so that insider trading is not an ethical act (Manne, 1966). The market becomes inefficient if the information is not accessible. He stated that should be deployment of information in market so that market becomes efficient. Based on some these arguments, it can be concluded that insider trading is the act that requires a lot of ethical considerations.

Moral philosophy or ethical orientation is a factor that influencing a decision. Ethical orientation is an ethical system that used to make moral judgment to guides when consider and resolve the ethical problems (Karande et al., 2002). Forsyth (1992) states that a person will assess a business practice as ethical and

unethical actions, and then decide whether to do or not to do. So that a person's tendency to act unethically, for example insider trading is influenced by morality, that is ethical orientation or ethical orientation.

Ethical orientation is controlled by idealism and relativism. Idealism refers to how a person believes that desire and consequences will be accepted without violating the moral guidance. Lack of idealistic recognizes that a negative consequence (includes crimes against other people) often accompany positive consequences of moral guidance and there are negative consequences of an action. Relativism implies a rejection of moral rules to guide real behavior. Relativism is an attitude to reject of moral values to guide the behavior of absolute morality. While idealism refers to something that is trusted by individuals with consequences that are owned and wanted not violate moral values. Both concepts are not opposites but rather a separate section (Forsyth, 1992).

Business ethics theories believe that when faced ethical problem, someone will apply ethical guidelines established by the moral philosophies (Fernando et al., 2008). Moral philosophy is the principle or rule that used by individuals to determine whether something is good or bad. Abdolmohammadi and Sultan (2002) conducted an experiment to test whether students who have lower ethical standards would tend to make insider trading. Subjects were included in a trading simulation, students in treatment group can access to inside information. But students in control group did not have same access. All experimental subjects were told that the transaction by using insider information is illegal and unethical. By using P-Score to measure the level of moral reasoning, results showed that individuals who tend to engage in insider trading have a lower ethical reasoning.

Forsyth (1992) states that an idealist would consider ethical decisions based on universal ethical principles, whereas a relativist would make decisions based on personal interests. An idealist who has a personal interest to do insider trading will assume that insider trading is unethical to do and vice versa. Someone who has a personal interest and considers that the law is unfair increasingly would tend to do insider trading. Therefore the hypotheses are follows
H_{1a}: There will be a negative relationship between idealism and insider trading behavior
H_{1b}: There will be a positive relationship between relativism and insider trading behavior

Personal Benefit

As discussed earlier, individual's tendency to conduct insider trading is driven by expected gain or profit to be obtained either directly or indirectly if they trade by using inside information. McGee (2009) states that insider trading is fair if gains to be obtained is greater than losses. He also stated that insider trading is a form of compensation so a company can give low compensation to employees. This is one way to reducing salary expenses that may not harm or burden the company. So by allowing insider trading, it's means allows executive or insider to use inside information for personal gain. However this is contrary to right principle because it is violates individual rights even though not harm a company.

By using accounting students, Beams et al. (2003) examine some factors that motivate and prevent insider trading. The results show that expected gain, cynicism and perception of fairness of law significantly correlate with the intention to trade based on insider information. Their research also shows that a person is more likely to commit insider trading to avoid losses than to obtain benefits that may arise in the future based on the information it holds now. Seyhun (1998) found evidence that insider trading is able to predict profits that will come, and although this practice is prohibited, insider trading proved to be a practice that can provide many advantages.

Statman (2007) said if conflict of interest between private interests and ethical values is occur, as long as the facts show that private interests that would be the first. The opponents of insider trading practices suggest that although overall wealth increased by using inside information, this action still unethical and unfair to others (Snoeyenbos and Smith, 2000). Prospect Theory (Kahneman and Tversky, 1979) stated that to achieve a profit, individuals can see differently. For example, gain is avoiding losses. This theory states that a person would be more likely to avoid losses than to expect to earn profits. Bettis et al. (2000) states that insider can take advantage by using inside information by 4 ways. If the information is good news, insider can earn profits by buying more shares or by withholding to be sold later. If the information is bad news,

insider can earn profits by selling shares to "stupid" investors or by resisting from buying shares although can be bought.

Individuals with a relativistic ethical orientation would tend to view insider trading decisions as acceptable (moral/ethical) based on the specific circumstances. Therefore relativistic individuals who would personally benefit from a decision might be more incline to trading based on inside information than those who would not personally benefit. Forsyth (1980) reported that individuals who were highly relativistic judged a person more favorably who produced a positive outcome (by violating a moral standard) than someone who produced a negative outcome (by following a norm). On the other hand, those who were categorized as highly idealistic were very critical of individuals who violated a moral standard, regardless of whether the person obtained a good or bad outcome (Forsyth, 1980). This suggests that idealistic individuals should tend to reject an opportunity to achieve a personal benefit from an action that might be considered questionable. That is, when presented with an opportunity to achieve personal benefit, relativistic individuals should be more inclined to do so and idealistic individuals should be less inclined. Based on the previous description it can be put forward hypotheses to be tested as follows:
H_2: There will be a positive relationship between personal benefit and ethical orientation

METHODOLOGY

Sample

This study was conducted using 238 business students of a non public university in Yogyakarta from accounting and management department. Business students are expected to have a good understanding of the business environment. They will be candidates for management positions in the future, and as such, are likely to have access to insider information in the future. Before questionnaire were give to respondent, instructor have explain or remind them about insider trading and ensure that all of respondent can imagine and understand how insider trading occurred. Nineteen respondents were removed because they not understand the instruction and have same answer in all of questions. Three respondents were removed because did not answer in all of question, so only 216 usable responses to further analysis.

Measures

a. *Insider trading behavior*
   Insider trading is a transaction conducted by a person within the company to use unpublished material information to the public. This dependent variable is measures by two questions measured subject's likelihood of trading based on insider information which is used by Beams et al. (2003) modified with Abdolmohammadi and Sultan (2002) instrument. The first question was presented in terms of a gain from buying a stock with insider knowledge that the stock price would go up. The second question was framed in terms of avoiding a loss by selling an existing stock based on insider knowledge that the stock price would go down. Subject responded to each question by giving a percentage or probability from 0 to 100%. A response of 0 represented no chance while a response of 100% meant the item was an absolute certainty. A probability scale is used instead of a likert scale to give greater accuracy in the responses (Beams et al., 2003).
b. *Ethical orientation*
   Forsyth's (1980) Ethics Position Questionnaire (EPQ) was used to measure the levels of idealism and relativism. The EPQ follows Forsyth's view that individual differences as predictors of moral judgment may be described most parsimoniously by taking into two basic dimensions of personal moral philosophies, idealism and relativism. The EPQ consists of two scales to measure idealism and relativism, each have ten questions with a nine-point likert scale, 1 indicating strongly disagree and 9 indicating strongly agree. This questionnaire allocates respondents to different ethical groups, by evaluating their responses and averaging their total scores in both segments which loaded greater than 0,500 on all item. Cronbach's alpha statistics for each of ten-item idealism and relativism measures is 0,762 and 0,729 indicate satisfactory internal reliability for ethical orientation scales.
c. *Personal benefit*
   Personal benefits are private benefits that are expected to be received or accrued as a result from insider trading. Personal benefits of this study was measured by two items that the expected gain and avoiding loss that used by Beams et al. (2003) with a probability scale of 0 to 100%..

RESULTS

Descriptive Statistics

Our study used 216 samples to test our research model. Majority of participants were females (68,5%), most of them do not take ethics courses (60.2%) and portfolio courses (59.3%) and a half from respondents is join one or more organization activity in campus. There is no significant different effect of demographic variable to the insider trading. Descriptive statistics for the variables appear in Table 1.

Table 1. Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
IT	216	.00	100.00	55.8171	25.17229
PB	216	12.50	100.00	68.7639	16.39277
IDEAL	216	1.50	8.50	6.4206	1.02019
REL	216	2.10	7.80	5.8434	.91319
Valid N (listwise)	216				

Table 1 show that mean of the subjects intention to conduct insider trading is 55.81 it is means that in both condition, gain and losses, the subject tent to trade their securities based on their inside information. In all condition, subjects expect that is an advantage (68,76) for them when they have inside information either to increasing their wealth or to avoiding the losses. Subjects have high idealism (6,42) and high relativism (5,84).

Regression Analysis

We assess the first two hypotheses based on coefficient regression in multiple regression analysis and present those results in Table 2.

Table 2. Regression Results

Model	Unstandardized Coefficients		Standardized Coefficients	t	sig
	B	Std. Error	Beta		
Constant	53.395	13.344		4.001	0.000
Idealisme	-0.782	1.815	-0.032	-0.413	0.667
Relativisme	1.274	2.027	0.046	0.629	0.530

Hypothesis 1a predicts that an individual with a more idealistic ethical orientation will less likely to engage in insider trading, and coefficients regression is -0.078 and not significant (0.667) and did not supports this hypothesis. Similarly, hypothesis 1b predicts that an individual with a relativistic ethical orientation will be more likely to engage in insider trading, suggesting a positive relationship between relativism and insider trading. The coefficient regression did not support the hypothesis (p=0.530). These interesting findings that when someone makes a decision, especially when face ethical situation is never considering his/her ethical orientation. These results did not support Greenfield et al. (2007) who found that individual with a relativistic (idealistic) ethical orientation were more (less) likely to engage in earning management, and budgetary slack creation (Douglas and Wier, 2000).

Hypothesis 2 predicts that there will be a positive relationship between personal benefit and ethical orientation. The results show that personal benefit has not significant correlation with idealism (p=0.507). But correlation between personal benefit and relativism is significant (p=0.031). These results marginally support hypothesis 2. Practically speaking, this result suggests that the individual who tends to be more idealistic will, in presence of an opportunity to personally benefit from a business decision, tend to move toward a more strongly idealistic position. That is, the idealistic person seems to sense the ethical dilemma inherent in the decision and adopt a stronger conviction to avoid this potential problem. Given the same set circumstances, interest findings, the individual who tends to be more relativistic will apparently tend to favor the positive consequences (personal benefit) that are possible, which tends to strengthen their relativistic positions. These results are generally in line with the findings that Forsyth (1980) reports. It is means that when confronted with other business dilemmas, the people tended to reinforce their ethical orientation.

Indirect Effect of Personal Benefit to Insider Trading

The third aim of this result is to investigate, in presence of a personal benefit, do ethical orientation affect an individual's inclination to participate in insider trading. To test the indirect effects of personal benefit to insider trading behavior we compare the direct and indirect effect personal benefit to insider trading by using path analysis. If indirect effect is greater than direct effect it is mean that ethical orientation can mediates the impact of personal benefit on insider trading. The results of path analysis are presented in table 3.

Table 3. Direct and Indirect Effects

Variables	Direct Effect	Indirect Effect through	
		Idealism	Relativism
Personal Benefit	0.249	-0.001	0.007

This result indicates that there is not indirect effect of personal benefit to insider trading behavior. This result indicates that ethical orientation (idealism and relativism) did not mediate the relationship between personal benefit with insider trading.

When someone has personal benefit, either to get gains or to avoiding losses they did not use their ethical norm to make decisions. They did not consider whether they do something right or wrong, either to idealist or relativist. In this situation, idealist can consider that insider trading is unfair because harm the others based on unequal information they have used. A relativist will more ignore about this ethical problem. This is indicates that personal benefit can effect ethical orientation and can influence how a person makes a decisions. This finding did not consistent with Abdolmohammadi and Sultan (2002) who found that a person who has high ethical reasoning will not use inside information to insider trading. And also did not consistent with Greenfield et al. (2008) who found that ethical orientation is mediate the relationship between personal benefit and earning management.

Sensitivity Analysis

According to the prospect theory, this study use two kinds of personal benefit, expected gains and avoiding losses (Kahneman and Tversky, 1979). Prospect theory suggests that a difference in the responses to the two dependent measure questions may exist. Based on prospect theory, the respondents should be more willing to trade to avoid a loss. A paired t-test was used to test for difference in the responses to the two questions. Table 4 presents the result.

Table 4. Test of Prospect Theory

Prospect Theory	Mean Response				
	Gain Situation	Loss Situation	Difference	t-stat	sig
Mean probability of trading	49.481	61.9861	12.5051	-6.291	0.000

Based on table 4, mean response to the probability of buying a stock after receiving insider information (gain situation) was 49.65 while the mean response to the probability of selling a stock after receiving insider information (loss situation) was 61.99. This difference of 15.34 is in the expected direction and is statistically significant at $p < 0.001$. This finding support prospect theory in that subjects were more inclined to use the insider information to prevent a loss than to achieve an abnormal gain (Beams et al. 2003).

Social Desirability Response Bias

Social desirability response bias states that there is a tendency to bias survey responses to make one's self look socially responsible. Since the dependent measure questions concern an illegal activity, there is a risk to response may contain bias. Therefore respondents may not give their true likelihood of trading based on insider information because this response makes the individual appear to possess a socially undesirable trait. To examine this bias, we used two questions in both gain situations and losses situations that ask the other person based on subjects perceived will do insider trading. If the responses for this two questions significantly higher than the responses to two dependent questions about self intention to do insider trading, it would suggest that this social pressure is biasing the responses.

To test for this bias, a paired t-test was run on the differences between responses for subject intention and the one's peer. The results show at table 3. The mean responses to for buy and sell stock based on insider information was 55.82, while mean responses to one's peer to buying and sell stock based on insider

information was 71.37. The difference of 15.55 was in the expected direction and is significant at p<0.001. The results suggest that responses to the question concerning insider trading are biased downward even though the respondents were anonymous. This result is consistent with the finding of Randall and Fernandes (1991) and Beams et al. (2003).

Table 3. Social Desirability Test

	Subjects	Peer	Difference	t-stat	sig
Mean probability of trading	55.82	71.37	15.55	-9.018	0.000

CONCLUSIONS

This study finds that ethical orientation did not used by someone to make decision when they face ethical dilemmas situations. When they faced ethical situation, and there is personal benefit that will they get, they tend to reinforce their ethical orientation. Ethical orientation did not mediate the effect of personal benefit to insider trading. When someone can predict that there will be personal benefits from insider trading, a person will keep doing insider trading. Ethical orientation that they have not able to influence decisions that they choose. This suggests that understanding of ethics which is owned by the majority of people is still weak. In this case, ethical background should be as guidelines to making decisions, especially when we faced ethical dilemmas that require ethical considerations in more depth. This result shows us that ethical education is very important and should be given as early as possible for all people, especially for students who will be heavily involved with ethical issues.

The results of this study should be interpreted within the context of the following limitation. One such limitation related to the participants used in this study. The undergraduate students from a single university is must be consider when make generalization. While established measurement instruments were used in study is novel. While considerable attention was paid to the issue of validity, further work is needed to refine this instrument. In addition to replication of this study it is need to consider the four stage of Forsyth's ethical orientation.

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THE INFLUENCE OF FINANCIAL PERFORMANCE TO THE CORPORATE SOCIAL RESPONSIBILITY DISCLOSURE

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ABSTRACT

Many ways for companies to make performance improvements, among which are to address the issue of compensation and a comfortable working environment. Therefore, the company expected to make a good compensation system, which system should describe the provision of fair and reasonable compensation for any type of work and the company is able to create a good working environment in order to give the impression of comfortable, pleasant, and reassuring. This research suspect that factors of financial compensation and physical work environment affect employee performance at this small firm. This studies only replication form others situation to prove the accurate of the theory. Methodology use in this research is classic regression using SPSS 16. Samples is all population in small firm (only 38 person). Constructs of three variable are valid and significant. Based on the result of this research. Financial Compensation and physical working environment contribute 44 % of worker performance. It means the construct of variables cannot describe this research well. We should make a lot empirical studies in small firm characteristic behavior especially in Indonesia culture business organization.

Keywords: motivation, financial compensation, work environment

INTRODUCTION

Every Company have responsibility to maximize stakeholders welfare not only stockholder welfare. Stakeholders consist people who are related to the company directly or indirectly. One of them is Society. Company has to involve in achieving society welfare. Corporate Social Responsibility (CSR) is the program to implement it. CSR is not only charity activities, but there are four benefits according to the implantation of CSR, first the existence and sustainability of the company will continue because of the good image from society, second the company will get capital easily, third, company can retain human resources are qualified. Fourth company can improve decision making on critical matters and simplify the managing of risk.

Now CSR can be assumed as an Investment to the future. Many investors will be interested investing in company which is CSR has been implemented. CSR can build a good communication and harmony relationship between company and society around them. Therefore CSR is an interesting topic to be studied because the disclosure of Reasonability Social (CSR) related to the continuity the company.

Annual report of the company includes mandatory disclosure and voluntary disclosure. Voluntary disclosure arises because of the awareness society to the environment around. The success of the company not only depends on profit but also influenced by company awareness on society welfare around.

Disclosure CSR is an important thing to take care continuity of the company. It encourages the research in CSR have been done since long time ago. There are several factor can influence company to report CSR disclosure, among others are corporate governance, Profitability, ownership structure etc. Therefore the researcher will examine financial performance including Profitability, level of leverage and liquidity the number factors to the CSR Disclosure. The result of research will provide information that the financial reporting equipped with disclosure of CSR. It will be useful for stockholder in making decision. The CSR disclosure provides additional information in investment decision and credit decision.

LITERATURE REVIEW

Corporate Social Responsibility

Corporate Social Responsibility (CSR) is a mechanism for an organization to voluntarily integrate social and environmental concerns into its operations and its interaction with stakeholders beyond the organization's responsibilities in law (Darwin, 2004)

Every company has activity of producing goods and services to get an optimum profit. In conducting those activities, the company will greatly affect the environment. In other words, in carrying out its activities the company should have a sense of responsibility towards the environment and society. If it is possible, additional profit for the company itself is also providing welfare to the environment and society.

According to Zimmerer (1996) in Suryana (2001) there is several kind of corporate responsibility, namely:
a. Environmental responsibility
b. Responsibility to employees
c. Responsibility of the customer
d. Responsibility to the investor
e. Responsibility to society
The scope of social responsibility (CSR), are:

a. Basic Responsibility
   Is a responsibility that comes because of the existence of the company. For example: the obligation to pay taxes, obey laws, employment standards and satisfy shareholders.
b. Organizational Responsibility
   Is a corporate responsibility to meet the interests of stakeholders, namely employees, customers, shareholders and society.
c. Societal Responsibility,
   Is the responsibility of explaining the phases when the interactions between business and the community so that companies can grow and develop in a sustainable manner.

Hypothesis

a. Levels of leverage and disclosure of corporate social Responsibility

Leverage ratio is the proportion of total debt to equity shareholders. The ratio is used to provide an overview of the company's capital structure, therefore it can be seen the level of risky not a debt-collection. Schipper (1981) in Marwata (2000) suggested that additional information is needed to dispel doubts bondholders against the fulfillment of their rights as creditors. Therefore, companies which have high leverage ratios have the obligation to conduct a more complete disclosure than company with low leverage ratios.

Schripper (1981) in Marwata (2000) suggested a positive relationship between the level of leverage and the amount of social information. Schripper argued that the additional information needed to dispel doubts bondholders against the fulfillment of their rights as creditors. Na'im and Rakhman (2000) by using a sample of 32 manufacturing companies listed in Jakarta Stock Exchange in 1996 as the study sample concluded that financial leverage has a significant positive impact on the completeness of the disclosure index. On the other hand found no significant relationship between the percentages of public shareholding to the completeness of the disclosure.

Based on studies that have been done, therefore Financial Leverage variable is a variable which consistently has a significant influence on the disclosure of corporate social Responsibility (CSR) in the company's annual report. Based on the above, then the hypothesis of this study can be developed as follows:

H1: Leverage Ratio effect on the level of disclosure of corporate social responsibility.

b. Liquidity and Disclosure of corporate social responsibility

Liquidity associated with the company's ability to meet its financial obligations that must be met. Simanjuntak and Widiastuti (2004) found empirical evidence that the variable leverage, liquidity, profitability, share ownership by public and corporate life, can affect the completeness of the disclosure of financial statements. This study used a sample of 34 manufacturing companies located on the JSE in 2002.

The other research has done by Handayani (2006) result that the size, liquidity, companies have a significant base of voluntary disclosure in annual reports. This research used a sample of 98 companies listed on the JSE in 2004. Suripto (1999) examined the effect of the broad characteristics of the company's voluntary disclosure in annual reports do not prove that the liquidity effect on completeness voluntary disclosure in corporate annual reports.

Last research by Kurnianto (2007) by using a sample of 35 manufacturing companies listed on the JSE in 2005 succeeded in proving that the ROA and size have a significant effect, but failed to prove the leverage and liquidity can affect the completeness of the financial statements.

Based on studies that have been done then the firm size variable is a variable that consistently has a significant influence on corporate social responsibility disclosure incorporate annual reports. Based on the above, then the hypothesis can be developed as follows:

H2: Liquidity affects the disclosure of corporate social responsibility

c. Profitability and corporate social responsibility disclosure

Profitability is the ability company to get profit from the asset employed. Profitable companies tend to implement Corporate Social Responsibility higher than unprofitable companies. It means their CSR disclosure will be more complete. Mardiana (2005) by using a sample of public companies in 2003 concluded that the company's profitability and the type of ownership have a significant influence on the completeness of the financial statements. While the leverage and liquidity does not influence the completeness of the disclosure of financial statements. The research couldn't prove that the issuance of securities and corporate leverage influence on voluntary disclosure in annual reports.

Research on relationship between profitability and corporate social responsibility disclosure showed different and several results. However, Donovan and Gibson (2000) in Sembiring (2006) stated that based on the theory of legitimacy, one of the arguments in the relationship between profitability and completeness social responsibility disclosure is when a company has a high rate of profit, the company assumes no need to report things that can interfere information about the company's financial success. Conversely, when low levels of profitability, they expect the users of the report will read "good news" the company's performance, for example in the social sphere, and investors will still invest in the company. It means profitability has a negative relationship to the level of disclosure of corporate social responsibility. The description above proposed the following research hypothesis:

H3: The profitability of the company affects the disclosure of corporate social responsibility.

RESEARCH METHODOLOGY

Population and Sample

The population in this study is all companies listed on the Indonesia Stock Exchange in 2009, as published in the Indonesian Capital Market Directory (ICMD). Researchers applied four sampling criteria are:

a. The companies that are being sampled are a company that publishes a complete financial statements (including notes to financial statements) and annual reports through the website Indonesia Stock Exchange in 2009.
b. The companies which revealed that social responsibility CSR through its annual report at the 2009 annual report. Companies that have the 2009 annual report that is accessible to the public.
c. Companies with positive earnings after tax.

Measurement of Variables

a. Dependent Variable
Dependent variable used in this study was the disclosure of social responsibility that is symbolized by the CSR. Measurement of the dependent variable is not using the research instrument in the form of a list (check list) of corporate social disclosure, but rather uses the dummy variable. This is because if you use a check list and calculate the index of corporate disclosures made by dividing the number of items disclosed by the company disclosed the expected number of items the company, then the recording will be very much and takes a long time, so it is more effective when using dummy variables. Companies disclose social responsibility will be assigned a value of 1, whereas a value of 0 for firms that do not disclose social responsibility in its annual report.

b. Independent Variable
Measurement of the independent variables of this study is the factors to be tested its influence on company policy in doing the disclosure of social responsibility is as follows:
1). Level of leverage
Variable levels of leverage is measured by using the debt to equity ratio (DER) which is total debt divided by equity.

$$\text{DER} = \frac{Total\ Utang}{Total\ Modal\ Sendiri}$$

2). Variables of liquidity
Liquidity variables measured using the current ratio by dividing current assets by current liabilities. Symbolized by the current ratio (CURRAT).

$$\text{CURRAT} = \frac{Aktiva\ Lancar}{Utang\ Lancar}$$

3). Variable of Profitability
Variable profitability is measured by dividing the earnings after tax (EAT) by total assets. Symbolized by the return on total assets (ROA).

$$\text{ROA} = \frac{Earning\ After\ Tax}{Total\ Aktiva}$$

Data Analysis
Test equipment used to test each hypothesis is to use logistic regression analysis with the help of SPSS for Windows software that is with a significance level (α) and the 5% level of confidence of 95%. This analysis is used to determine the effect of industry type (TI), debt to equity ratio (DER), current ratio (CURRAT), Return on total assets (ROA) on the disclosure of corporate social responsibility (CSR), the analytical model used by the following equation:

$$\text{CSR} = \alpha + \beta_1\ DER + \beta_2\ CURRAT + \beta_3\ ROA + \varepsilon$$

Description:

CSR	= disclosure of social responsibility is measured by the value of a dummy variable for firms that disclose social responsibility, and a value of 0 for firms that do not disclose social responsibility.
α	= Constant
$\beta_{1.....3}$	= regression coefisient
DER	= *Debt to equity ratio*
CURRAT	= *Current ratio*
ROA	= *Return on total assets*
ε	= *residual*

DATA ANALYSIS RESULTS

Sample Description
The number of samples in this study was as many as 156companies. The following description of the study sample:

Table 1. The number of sample

Description	Number
Companies listed on the Stock Exchange in 2009	405
Companies for which data are available on the Indonesian Stock Exchange	(211)
Companies for which data are available on the Indonesian Stock Exchange	194
Companies are experiencing losses	(38)
Total number of samples	156

In this study sample can be seen that companies listed on the Stock Exchange in 2009 as many as 405 companies, of which 211 companies were showing no available data so that data is available only 194 companies. And as many as 38 companies suffered losses. Accordance with criteria established by researchers that the company had positive earnings after tax are included in the study sample. In addition, the company suffered losses have no obligation to make disclosure of corporate social responsibility.

Descriptive Statistics

Descriptive statistical analysis aimed to describe the various characteristics of the data used in research, such as the average of the data, standard deviation and so on. The following table describes the descriptive statistics.

Table 2. Statistic Descriptive

	N	Minimum	Maximum	Mean	Std. Deviation
DER	156	.00390	23.64461	2.9942008	3.73254067
CURRAT	156	.10436	81.63095	2.5076096	6.64627597
ROA	156	.000511	1.048424E1	.11043504	.837017574
Valid N (list wise)	156				

Note: DER : *debt to equity ratio*
CURRAT : *current ratio*
ROA : *return on assets*

From the above calculation results can be seen that the debt to equity ratio (DER) is the ratio of debt to capital has an average of 2.9942008 with a standard deviation of 3.73254067, maximum data and minimum data for 23.64461 0.00390. For the current variable ratio (CURRAT) the ratio of current assets to current liabilities that have an average of 2.5076096 with a standard deviation of 0.10436 6.64627597 data for minimum and maximum data 81.63095. As for the variable return on total assets (ROA) is the ratio of profit after tax to total assets that have an average standard deviation of 0.11043504 to 0.837017574 for a minimum value and maximum value of 0.000511 1.048424.

Testing Research Hypotheses

Test equipment used in this study is to use logistic regression analysis. Researchers used logistic regression because the dependent variable in this study were measured by using a dummy variable, so the researchers chose to use the test equipment to determine the effect of the fourth independent variable is the type of industry (high profile and low profile), the level of leverage (DER), liquidity (CURRAT), and profitability (ROA). By using logistic regression analysis, it is known how much the dependent variable can be predicted by using the independent variables. The test steps are as follows:

a. Assessing the Feasibility of Regression Model

Table 3. Omnibus Tests of Model Coefficients

		Chi-square	df	Sig.
Step 1	Step	70.681	4	.000
	Block	70.681	4	.000
	Model	70.681	4	.000

In Table 3 output omnibus test of model coefficients seen the value of chi-square of 70.681 with a standard deviation of 4, and the significance value of 0.000 is smaller than 0.05, indicating that a statistically significant model was able to predict the value of his observations, because the value of significance below 0.05. The coefficient of determination (Nagelkerke R Square)

Table 4. Test Nagelkerke R Square

Step	-2 Log likelihood	Cox & Snell R Square	Nagelkerke R Square
1	145.581[a]	.364	.486

Parameter estimates changed by less than .001.

The results of calculations obtained by the Nagelkerke R Square of 0.486 means that the variations or differences in the dependent variable is affected by the independent variables for the remaining 48.6% influenced by other variables not included in the research model.

b. Analyze the predictive power of classification models for each group.

Table 5. Classification Table[au]

Observed			Predicted		
			CSR		Percentage Correct
			without CSR	with CSR	
Step 1	CSR	without CSR	2	27	6.9
		with CSR	1	126	99.2
	Overall Percentage				82.1

The cut value is .500
Source: Data processed

From the analysis in Table 4.5 shows that the model prediction is at 82.1% with 6.9% did not disclose corporate social responsibility, and 99.2% said corporate social responsibility have been able to be predicted by the model. That is, the predictive ability of models with variable types of industries, the level of leverage, liquidity, and profitability is statistically predicted by 82.1%.

The test results in Table 5, it can be concluded that the predictive ability of regression model revealed the possibility of corporate social responsibility the company amounted to 99.2%. A total of 126 companies (99.2%) are expected to disclose corporate social responsibility from a total of 127 companies that disclose corporate social responsibility. With the regression model is used there are 2 companies (6.9%) are predicted to not disclose corporate social responsibility from a total of 29 companies did not disclose corporate social responsibility.

c. Testing Hypothesis

In this study, researchers tested three hypotheses, namely:
Testing of hypotheses in the study was conducted using a logistic regression the dependent variable with four independent variables by using the program SPSS for Windows Release 16.00. The following table describes the results if the data was performed using logistic regression.

Tabel 6. Variables in the Equation

		B	S.E.	Wald	Df	Sig.	Exp(B)
STEP 1[a]	DER	.219	.080	7.565	1	.006	1.245
	CURRAT	-.016	.028	.323	1	.570	.984
	ROA	15.841	5.149	9.464	1	.002	7.581E6

a. Variable(s) entered on step 1: TI, DER, CURRAT, and ROA.

Description
DER : *debt to equity ratio*
CURRAT : *current ratio*
ROA : *return on assets*

1) Testing Hypothesis 1
Testing hypothesis 1 in this study aims to determine the effect of leverage on CSR disclosure. The value p-value of the variable level of leverage is equal to 0.006 <0.05, so that in testing this second hypothesis, H2 can be accepted. This means that statistically the level of leverage effect on the disclosure of corporate social responsibility.

2) Testing Hypothesis 2
Testing Hypothesis 2 was conducted to examine whether the liquidity effect on the disclosure of corporate social responsibility. The value p-value of 0.570 for the liquidity variables> 0.05 this means that the variables showed no effect on the liquidity of corporate social responsibility disclosure
.

3) Testing Hypothesis 3
Testing hypothesis 4 was conducted to examine whether the effect on the profitability of CSR disclosure. The value p-value of the variable profitability of 0.002 <0.05 this means that in this test, the H4 can be accepted because of its significance value less than 0.05. This means that, statistically affect the profitability of corporate social responsibility disclosure.

DISCUSSION

The first hypothesis testing results show that the p-value of the variable level of leverage is equal to 0.006. These values were statistically significant because this value is smaller with a probability level of 0.05, so that in testing H2 is accepted. This means that statistically the level of leverage effect on the disclosure of corporate social responsibility. Therefore, the greater the level of leverage, the more and more companies is expressing corporate social responsibility.

The second hypothesis testing results show that the p-value of 0.570 liquidity variables. This value is not statistically significant because the value is much greater than the probability level of 0.05, so in this test H3 was rejected. That is, the greater the degree of liquidity then the level of disclosure to be made smaller.

Cooke (1989) in Suripto (1999) explains that if liquidity is viewed by markets as a measure of performance, the companies that have low liquidity ratios to provide more detailed information to explain the poor performance compared

The fourth hypothesis testing results show that the p-value of 0.002 profitability variables. These values were statistically significant because the value is smaller than the 0.05 probability level, so that in this test H4 can be accepted. This means that the higher level of profitability of the company, the greater the level of disclosure of corporate social responsibility that it provides.

CONCLUSION, LIMITATION AND SUGGESTIONS

1. Conclussion.
This study aims to determine the effect of the level of leverage, liquidity, and profitability on the disclosure of corporate social responsibility of listed companies in Indonesia Stock Exchange (BEI).

Based on the discussion and analysis has been performed, the conclusions from the results of this study are as follows:

a. The results of this study failed to prove the existence of significant influence of the variance of liquidity on the disclosure of corporate social responsibility. This means that projected from the current liquidity ratio (CURRAT) does not affect the disclosure of corporate social responsibility.
b. This study proved that the level of leverage is statistically affecting the disclosure of corporate social responsibility. This is evidenced by the significance of leverage variable rate <0.05 so that the test is received H2. The greater the level of leverage will affect the level of disclosure of corporate social responsibility.
c. From the analysis shows that the profitability effect on the disclosure of corporate social responsibility. This is a H4 supports a finding of evidence that the greater the profitability, the greater the level of disclosure of corporate social responsibility undertaken by the company.

2. Limitation Of Research

This study cannot be separated from the limitations that require improvement and development in subsequent studies. Limitations of this study are:

a. Period of time taken in this study only in 2009, so the condition cannot be generalized to the results of existing research.
b. The variables used in this study only four, namely, the three independent variables: the level of leverage, liquidity, and profitability as well as a dependent variable, corporate social responsibility that is expressed, so that the independent variables are not able to explain corporate social responsibility is expressed.
c. Some companies didn't have complete data.

3. Suggestion for the further research

Based on the limitations of the study, the implications for further research are:
The use of independent variables in the form of leverage, liquidity, and profitability only meet some of the elements that affect the dependent variable, namely the disclosure of corporate social responsibility on companies listed on the Indonesia Stock Exchange. Independent variables in subsequent research can be expanded by adding the independent variables such as board size, firm size, the composition of share ownership.

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MANAGEMENT INVENTORY JUST IN TIME AS PROCESS IMPROVEMENT: CASE STUDY IN PT LIMA TEKNO INDONESIA

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ABSTRACK

Business is under pressure today for creating a high quality product, sending products to customers faster, cutting costs, increasing flexibility to changes and improving its labor through trainings and hand-on experience workshops. The objectives for this research are evaluating and analyzing inventories JIT in PT Lima Tekno Indonesia. Evaluate and analyze production process and quality control JIT in PT Lima Tekno Indonesia. This research was conducted in Kerawang area with the length was 1 year. The research was based on qualitative with case study approach. The result can be seen through how PT LTI can manage its production process QC, manage its inventory for cost efficiency. We will give an advice to PT LTI so PT LTI can arrange its purchases and warehouse

Keywords: Just In Time, Quality, Eficiency

INTRODUCTION

Advance technology from Japan is highly recognized among of it are application robotic technology in Indonesia which demanded newer and highly quality and its impact on efficiency demand. JIT is an inventory method which eliminated inventory, record using backflush costing. Balancing process production robotic and JIT inventory. JIT is rarely used in the industry and it is highly confidential. With that background we did our research about how JIT have been applied to its accounting system even though it is not a pure JIT but it is close to it. Out title is Management Inventory Just In Time As Process Improvement : Case Study in PT Lima Tekno Indonesia. Based on our background have been mentioned so we identified problems as:how its impact to process production and QC in application in PT LTI? And how its impact with JIT Application at PT LTI

There are 3 main objectives need to be reached by this research,which is:

1. Evaluate and analysis inventory JIT at PT Lima Tekno Indonesia.
2. Evaluate and analysis proses production and QC JIT at PT Lima Tekno Indonesia.
3. Evaluate and analysis model costs applied JIT at PT Lima Tekno Indonesia

LITERATURE STUDY

Manufacture environment for traditional factories which have big batch production and high set costs have been changing dramatically within ten to two decades. Competitive market is not determined by national boundaries. Advances technology and communication create global competition. Advance technology make the product life cycle shorter and increase diversify product. Import goods offer higher quality product, cheaper cost as well as more interesting features so create big pressure for domestic factories which have big batch and high set costs for increasing quality and product diversity as the same time also to decrease the cost simultaneously.

There are seven main production problems in industy:

1. Inaccurate forecast

   The main problem for serving customers starting from inaccurate sending the products, many changes from original order and not keeping accounting record orderly. It caused write off inventories and make high cost products and smaller profit margin.

   More accurate forecast for sales, less mistakes in stocking inventories. JIT method consider inventories is a waste. Having appropriate amount of inventories will make the machine capacity run into its

efficiency. Less inventories stock up will reduce warehouses rent expense. Inventories will ready into production by the time the company wants to start production will lessen running the machines earlier

1. Deliver product faster to customers

   Products can reach faster to customers making faster for Return of Investment. This is can be done when the product loss one life-cylce. Making company can earn profits faster and finally, company can create new product.

   Life cycle of product (introduction, growth, maturity, decrease and death) is showing in the Table of the problem life cycle become shorter. Everything has been done to cut costs to change the incline of revenue curve (upper and left) and curve cost (down and right).

Figure 1. Product Life Cycle

New measurement for shorter life cycle:

- The time reach to the market. How fast you can deliver your product to the market?
- The time to produce with certain amount so the company can sell certain amount and can measure the target profit.
- The time to make decision to buy: How fast customer decided to pick the product
- The time to earn profits : How fast you can cover your expenses to get profit?
- The time to respond the changes: How fast can you respond your customer order and how it changes your profit overall. Reduce amount changes(engineering change order changes) as early as possible in the stage of introduction life cycle product.

JIT refuses using inventory as a solution for those problems.Inventory is a waste and caused inefficiency for JIT approach. Making a company cannot compete effectively.Inventories tie up to the resources like low quality,long queque and labor. JIT management offer a solution does not use bulky inventory.

1. Reduce Cost. Profit grows when the costs decrease or revenue increase or combine both.
2. Continous improvement
3. Increase training and education for employees.
4. Increase information system and networking.

Long Term Planning: Key to make forecast and scheduling JIT

Process planning is organized based on the timing: long term, middle term and short term. We use assumption for each category as follow:

Long Term Planning	1-5 years
Middle Term Planning	2-18 months
Short Term Planning	1-60 days

In real world, the period was overlapping depends on its policy. Company prioritized each period differently. Figure 2 showing processes planning.

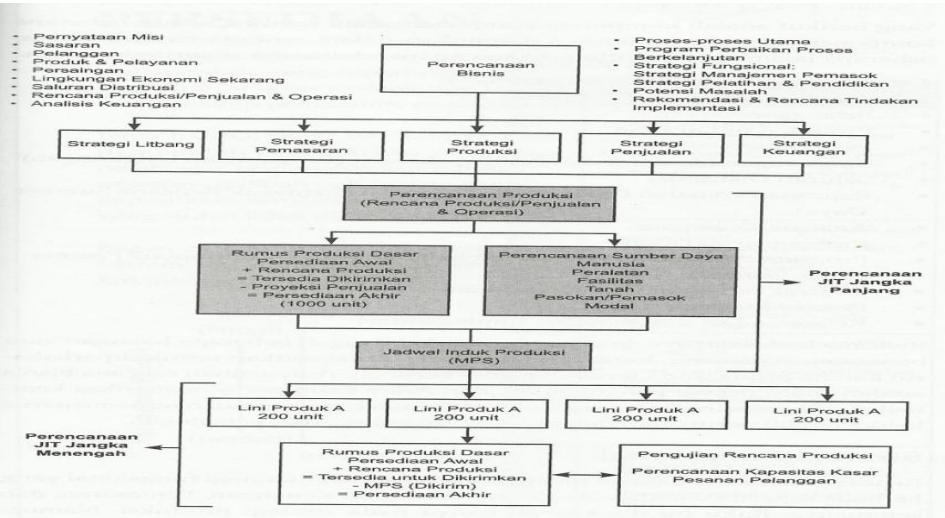

Figure 2. Processes Planning

Business plan is a statement about long term planning supported by resources projected. To make all employee understand the vision of the company, let them know the company long term plan so everybody in the company is in the same direction. Information share to employee are not in detail plans only top management knows the exact detail.

Component of Business Plan

This is a component for business plan. Few are them can be find easily in the real world, some are not used but actually can be considered to be used.

- Mission statement
- Target
- Customer
- Product and services
- Competitor
- Current Economic and Politic
- Distribution channel
- Planning for Resources availability and operation.
- Ratio Analysis
- Main Process
- Continuous Improvement Process
- Strategic training and education
- Potensial problem
- Recommendation and Implementation plan

RESEARCH METHOD

This research was conduct at PT Lima Tekno Indonesia with location in Karawang within one year observation in 2011. The type of the research was qualitative with study case approach. The result from this case study was generalization case pattern from the person/organization observed. The objective from this case study to show the picture in detail for background, personality and character from the person being observed. And finally we can draw a conclusion as a generalization.

RESULT AND DISCUSSION

PT Lima Tekno Indonesia (LTI) produces many types of aquarium,which 99 persen of the product will export to Japan. Here is the address for parent company: 14-15, 1-chome, Imagome, Higashi-Osaka, Osaka 578-0903

Following are the products produced at PT LTI
1. Genoah Shape Series
2. Genoah R Series
3. Genoah 100 Series
4. Genoah Slim Set Series

Quality Control system has been done by professional staffs. Quality Gex with management team consists of six professional staffs to check quality for every job including electricity, steel and glass and four other employees gather and analyze managemen data quality.
Type of activity at PT LTI
1. Activity Cutting
   Cutting activity is consists two jobs which are Glass Cutting and Glass Grending. Glass Cutting responsible using cutting machine and it takes a few second to do a job. Glass Grending is responsible for smoothing glass surface after been cut by the machine. It also takes a few second to do a job. Total staff working in this activity is 9 people but PT LTI will have additional hire during peak season in February and September.
2. Activity Assembly
   Job responsible in this activity is to assembly all cutting the glass into 1(one) unit Finish Goods(aquarium). Using cell system allowing 1 person finish 1 unit in 8 hours. Total unit produced for one person is 800 unit. Total employee is 40 people but the PT LTI will hire additional people during peak season in February and September.
3. Activity Assort
   This activity is consists of two jobs which are finishing aquarium for ready send to customer and packaging. Job for finishing are including filter,air pump, light etc. Job for packaging is the last job in the process production. Below is the factory layout with total 40 employees but the number of workers will increase during peak season in February and September.

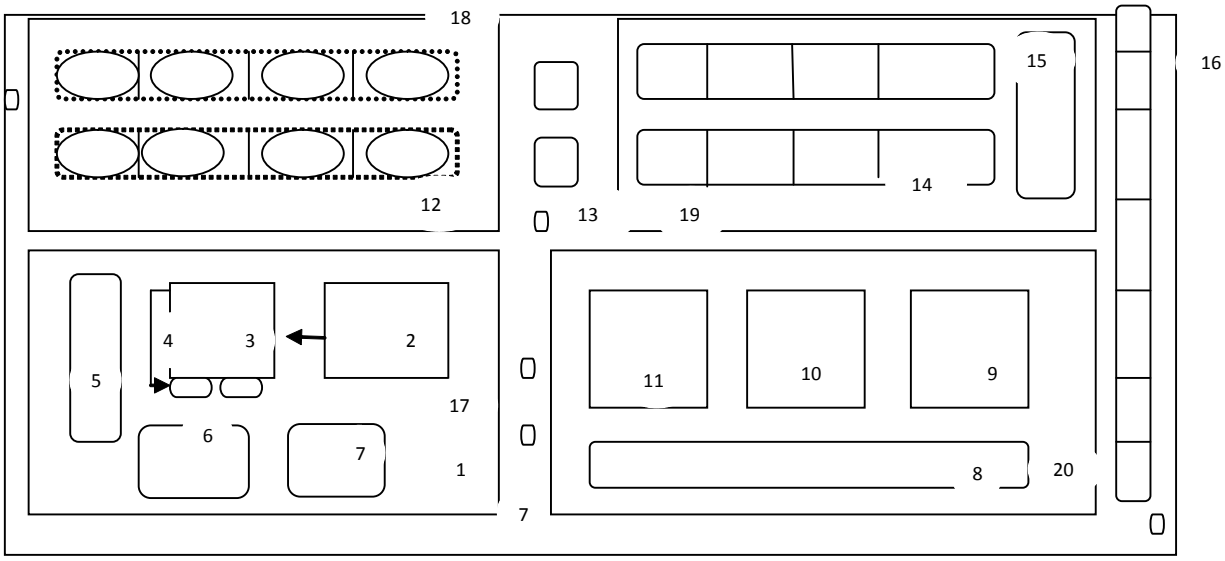

Figure 3. Manufacture Layout

Notes

1. Activity Glass Cutting
2. Cutting Machine
3. Glass Washing
4. Grending Glass(smoothing glass surface)for mini aquarium
5. Activity Assembly: Stock Glass
6. Activity Assembly: Stock Glass
7. Trolleies to move the products
8. Stock up glass after grending
9. Glass grending
10. Glass grending
11. Glass grending
12. Assembly Activity
13. Curing(dry up takes 8 hours)
14. Activity Assort
15. Finish Goods ready sent to ware house no 16
16. Inventory stock up, shelves are pre-number with the day the customer will pick up the order. The products will be sent to Japan using container every day. The longest waiting period for products is 1(one) week.
17. Quality Assurance(QA). To make sure all products have been manufactured based on criteria. Total employees in this activity is 35 people.

For taking order from Japan, PT LTI has 2 seasons:

a. Low Season Production (winter season) in the month of September through January. Total order can reach 1500-2000 unit
b. High Season Production (summer season) in the month of February through September. Total order can reach 3000-9000 unit

Manufacturing Cycle Time:

Time to proses (Three activity without dry up):	7 minutes/unit
Movement:	1 minute/unit
Waiting (dry up):	8 hours / 480 minutes
Inspection Time:	1 minutes/unit

<u>Compute MCE.</u>

MCE = 7/(1+1+480+7) = 7/489

= 1.43% or 0,0143 we can conclude there are activities do not have a value added 98.57%. Monitoring this MCE we expect PT LTI can speed up its MCE so the products can be sold cheaper.

To maintenance its quality, Person responsible for quality assurance make inspection every unit after finish production prosess in each activity.

Inventory

Inventory method at PT LTI is Just In Time using FIFO (First In First Out). Based on the principle, PT LTI order its raw material as its inventory based on the order from its customers so its Direct Material:Glass is only stay in warehouse for 1-2 days and Indirect Material such as filters, lights and pump stay for 3 months as the longest period.

As shown: how to arrange inventory stock up. When the inventory arrives at warehouse, we put it in shelf number 6, if there is an additional inventory arrive, we put in shelf number 5, etc. When inventory is pulled in and out from the shelf, the employee fill in the date in, date out. The date in and out should be maintenance within 3 months. Raw material:Glass will not available in the warehouse but it available at production site. Production activity can manufacture minimum 3 different types of aquariums.

JIT and Cost

PT LTI is using model Enterprise Resource Planning which Microsoft Dynamics, Microsoft FRx. Microsoft FRx is a software used for Financial Reporting for medium size company.Company just need to enter the data into the system and system will calculate and prepare Financial Reporting.

CONCLUSION AND SUGGESTION

In conclusion, PT LTI has been applying JIT for preparing its inventory and process production running well as it is planned using JIT method. Our observation revealed the factory lay-out based on activity and Raw Material was located near activity. By the time the production starts, we can pick up Raw Material right away. Stock inventory is only one day(1) stay in the floor. PT LTI is using Microsoft Dynamics software for its integrated system including Accounting record. Focus on quality and efficiency are main attention given daily by the management PT LTI when applying JIT. Suggestion is arrangement for purchasing Indirect Material such as filter, air pump, light etc so the company can reduce its variance because those inventory can stay for 3 months.

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