Environment Uncertainty and Management Accounting Information System in the Indonesian Commercial Private Bank: Empirical Analysis

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Abstract

Purpose: The paper aims to investigate the impact of environment uncertainty toward management accounting information system in Indonesian commercial private bank.

Design/methodology/approach: survey is carried out on 33 Indonesian private commercial bank. through the use of a structured questionnaire.

Findings: The result of this research indicate that internal environment and external environment were found to have a positive significant influence towards management accounting information system.

Research limitations/implications: The paper focuses on the commercial private bank in Indonesian.

Practical implications: The results provide insights to the Indonesian Private Bank and other organizations of similar structures of how the organization is expected to be able to improve the ability of organizational personnel through education and training to improve the ability of personnel to analyze the environment so that the application of management accounting information can be optimized.

Originality/value: This paper is perhaps one of the first to investigate environment uncertainty in the private bank using a comprehensive set of indicators in investigating influences on Management accounting information system

Keywords: Environment Uncertainty, Management Accounting Invormation System, Private Bank, Indonesia

Introduction

Environment factors can affect the application and design of management accounting information system (Ajibolade et al. 2010). According to Vijian (2005) changes of technology, competitiveness, and customer demand are some of the factors that affected the environment of company. In the environment full of competitiveness and global operation, the sustainable betterment is needed to survive (chapman et al, 2007:171).

Ashley Wood (2012) stated the firm competitiveness betwen banks in Indonesian causes the increasing of competitiveness themselves. According to Chapman (2007:173) the environment changes full with competitiveness can be attached with strategic, organization design and technology which are related to non financial aspect. Joni Swastanto (2011) stated that there are vulnerable points in banking operations, one of which is information technology. The same thing was revealed by Josh Lukuhay (2011) the rampant burglary in the banking industry because of the weak technology used.

Abernethy and Guthrie (1994) stated that the application of management system accounting information on company is affected by uncertainty environment, and so, it is applied as a factor that is affecting management strategy, system information, and accounting (Mangaliso 1995, Chenhal and Morris 1986, in Ashill and David Jobber, 2005)

Literature Review
1. Uncertainty Environment
The uncertainty environment according to Conrat (1957) in Miliken (2001) is an inability to understand or predict the future consequences of decision.
Environment attaches with uncertainty, the source of uncertainty is external environment of company as unexpected thing (Miliken, 2001) and that are supplier, competitive, government, distributor and customer. This statement is also similar to Khan and Jain (2007:23) that the adds of uncertainty are probability of customer movement, rivalry acts, technology development and change in economy or politic environment. Azhar zsusanto (2008:29) stated that environment still depends on how well the perceptive of social aspect, economy changes, technology, politic or rules, and etc.

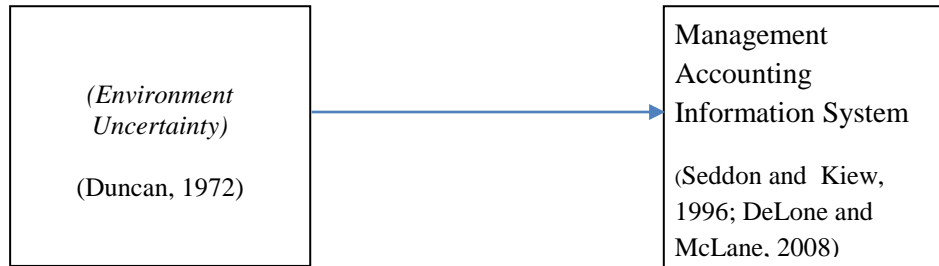**2. Management Accounting Information System**
Management Accounting Information System (jeffrey and Lonnie, 2008:39) is application of system information provides report which is management oriented with same format. Management accounting information system is integrated from various harmonize components to process the data info information (Azhar Susanto, 2008:84). The objective from the management accounting system is to reveal significant relation that will reduce the uncertainty in organization decision making by increasing the use of organization resources (Nichols, 1990:7). According to Nichols, to achieve the objective, the decisions are needed toguide the business. Those decisions include knowledgeabout quality and variety of informationthat is needed in organization because the future of organization is decided by the information that is given to decision maker. to Understand and measure the succes of applyng management accounting information system can be use the D&M model which content are six dimension of success factor (DeLone and McLane 2008).

3. Uncertainty environment and Management Accounting Information System
Ajibolade et al.(2010) stated that environment factor affects toward application and design of management accounting information system. Similar to Vijian (2015) the quality of applying management accounting is in the organization capability to adapt with environmental changes of company both internal dan external. This is also stated by Azhar Susanto (2008:29) that environment can powerfully affect the system. According to Lucey (2003:180) that system must adapt to environmeental changes. The similar statement from khandwalle (1972) in Vijian (2005) the uncertainty environment affects toward management accounting information system.

Theoretical Framework and Hypothesis Development

Figure 1: Theoretical Framework

Hypothesis in this reasearch will explain as follows:
The Environmental Uncertainty affects Management Accounting Information System

Method
Method used in this research is explanatory research. Simple analysis linier regression used to resolved the problem research. This study was carried out on 33 Indonesian private commercial banks through the use of a structured questionnaire.

Findings
Simple analysis linier regression is used to resolved the problem research.

1. Multicolinearity Test
Table 1: Multicolinearity Test

Model	Collinearity statistics	
	Tolerance	VIF
Constant		
X	1.000	1.000

The table above, data achieved that tolerance value from every variables independent more than 0.1 and VIF value from every variables is not more than 10, and so it can be concluded there is no multicolinearity between independent changer in this reasearch.
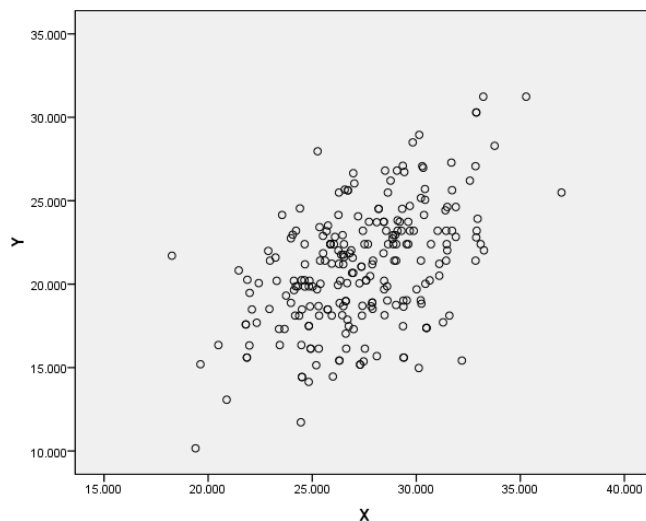
2. Autocorrelation Test

Table 2: Autocorrelation Test

Model	R	R Square	Adjusted R square	Durbin Watson
1	.489ᵃ	.239	.236	1.727

The table above, data achieved that value DW - 1.727 < + 2 so it can be concluded there is no autocorrelation.

3. Heteroskedastisity Test

Grafik 1. Heterroskedastisity Test

The chart above, it can be seen that plot between regression adjusted predicted value with regression studentized recidual spread randomly. It shows that there is no heteroskedasitity occurs, or the data is homogen variants.

4. Hypothesis test

Table 3: Hypthesis Test

Model	Sum of Squares	df	Mean Square	F	Sig.
1 Regression	733.480	1	733.480	72.964	.000ᵃ
Residual	2332.198	232	10.053		
Total	3065.678	233			

a. Predictors : (constant), X
b. Dependend Variable : Y

The table above, it achieved that significance value data 0.000< 0.05 and so it can be concluded that H0 is not accepted or in other word that the uncertainty environment is influencing towards management accoungint of system information

Discussion and Conclusion
1. Environment Uncertainty
Based on the responder towards the environment uncertainty to the National Private Bank of Foreign Exchange (BSND) in Indonesia is seemingly on high-moderate uncertainty. This condition is marked along with external factor that is affecting less, similar, but it keeps changing such as, the change of technology, customer social economy, and politic factor. The result shows that the environment uncertainty will later on influence the implementation of management accounting information system, because the system is a principle of organization (banking) in executing their activities

1.1 Internal environment Component Dimension
Internal environment banking is in condition of a high level of uncertainty, which is formed by the existence of an organization member that does not have a requirement skill in the banking expertise area such as; the standard of banking officer in term of an appearance, sanitation and tidiness of workplace, knowledge about banking product and service given, communication skill with customer, and also capability of operating banking technology such as ATM, and E banking, because, if the human resource does not expertise in technology, it will be squander for the banking because the banking technology cost a fortune, It can also be caused by less survey and study of the technology which supports the system information. Technology is developing fast as the era continues to grow, banking must predict and adapt as fast as possible towards technology development because customer will only look for bank with complete services and easy transaction. Banking must have system technology information in order to give the best service with full guaranteed of protection.

1.2 EXTERNAL ENVIRONMENT COMPONENT DIMENSION
According to customer respond about "customer and supplier" mean scores in moderate high uncertainty which is shown the increasing of customer towards National Private Bank of Foreign Exchange (BSND) is uncertain. This is caused by the customer trust towards bank, because bank is an industry that walk with customer trust and without customer trust, the bank will not be developing. Customer will trust a bank that is offering appealing product and service, easy and safety in money saving and daily transaction, and better facility.
Rivalry instrumental shows that new banks appeareance are the cause of customer trust towards national private bank of foreign exhange at the high uncertainty condition, because the effort of banks giving the best service are causing customer uncertainty, therefore customer will search a bank that can be trusted and eased customer activity.
Social politic indicates that government takes charge of banking activity with mean score in moderate high uncertainty condition, and adamant rule obeyed by National Private Bank of Foreign Exchange (BSND) could change, so bank must adapt to new adamant rule. For example, Indonesia Bank (BI) is obligated to give 20% of the total credit to UMKM sector. Jusuf Wibisana (2013) stated that there are three big obstacles which will block the target of banking growth: the regulation system as the first obstacles, interbank rivalry as the second obstacles, and human resources as the last obstacles.
Moreover, "technology" indicates the category of the high uncertainty level due to the rapid development of technology that is causing the highest-uncertainty level. As the era continues to grow, hacker is becoming sophisticated to hack a bank. Bureau of Research Info Bank (birI),

act of hacking a bank is very different than the bank robbers before crisis. Bank robbers are done by bank owner with fiction credit and mark-up credit as a motive. Nowadays, bank hacking is done by bank staffs themselves placed in branch.

Based on phenomenon, Joni Swastanto (2011) stated there is a crucial point on banking operational activity and one of it is information technology. Josh Lukuhay also (2011) stated the rampant of hacking in banking industry is due to unsophisticated use of technology.

2. The Implementation of Management Accounting Information System

National Private Bank of Foreign Exchange (BSND) in Indonesia is on standard category. The result indicates the implementation management accounting information system is not optimal because there are weaknesses in the national private bank.

Based on the responder towards variable of the implementation management accounting information system, it can be known as the statement which has the lowest rate indicated with " Information system that Sir/Ma'am own is at risk" statement. This research also indicates the information system of National Private Bank of Foreign Exchange Indonesia has a loop hole, such as the incident of bank customer as a victim of ATM bank fraud is the indication of sophisticated system owned by bank still can be hacked by criminal. Joni Swastanto (2011) stated that one of the loop hole in the banking operational activity is in information technology. Anwar Nasution (2008) stated that the government could not control well the accounting system performance of City Bank cases about blurring transaction and uncorrect registration for an ammount of transfer slip (Ichsannudin, 2011). also Bank Mega cases which had done a forgery deposits (Darmin Nasution, 2012). It means that it still has loopholes in banking security system as follows:

1. The loophole of banking procedure cause by weak indentification and validation for customer
    b) Physical card loophole, most of the ATM card used in every bank is magnetic stripe card without smart card
    c)   Application loophole
    d)   Mental loophole
    e) Regulation and law enforcement loophole

3. ANALYSIS ENVIRONMENT UNCERTAINTY TOWARDS MANAGEMENT ACCOUNTING INFORMATION SYSTEM

Simple analysis linier regression is used to resolve the problem research related with Influence of Environment Uncertainty towards Management Accounting Information System with sample reasearch 33 National Private Bank of Foreign Exchange in Indonesia

From the histogram above, we can conclude data in bell form is indicator of normal distribution. On the other hand the picture Normal P-p plot is achieved that the data spreads close to diagonal line and follows diagonal line. From both of the picture above, it can be concluded that data is normally distributed.

Conclusion

According to phenomenon, problem statement, hypothesis and research result, the writers deduction is as follows:

1. There is Uncertainty Environment towards Management Accounting Information System. The problem occurence in management accounting information system is caused by :
1. Technology has weakness and unsophisticated.
2. Individual weaknesses to not get involved in activity that ethically reducing profesinalism in the job.

3. Less comprehension for terminology (aim, traits, sense, language, and terminology) which is used by organization.

2. There is Uncertainty Environment towards Management Accounting Information System. The Problem of Applying Management Accounting Information as follows :
1. Some human resource are not expert at using technology.
2. Information system is still at risk.
3. Technology used still has loopholes.

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