

The Influence of Environment Uncertainty and Business Strategy towards The Usage of Management Accounting Information

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Abstract

The purpose of this research is to evaluate to what extent accounting information is used by many internal and external users in decision making. Besides, this research is also aimed at determining the effect of uncertainty environment towards the usage of accounting information. Environment factor contributes significantly in decision making, especially on corporate strategy and business unit strategy. Therefore, in formulating both strategies, non-accounting information is widely used. The usage of accounting information for credit decision making is also limited, except after the analysis of candidate character shows the feasibility of credit given. However, in making investment decision and formulating functional strategy, the extent of usage of accounting information is sufficiently high.

Key Words: Business Strategy, Accounting Information, Indonesia, Environment Uncertainty.

A. Background of The Research

Today, business is in information era. Objective consideration on information cannot be neglected. Firms do not only depend on subjectivity and feeling. To achieve competitive advantage, there should be new competences, one of them is an ability to maximize the usage of information, to develop information technology, database and system (Kaplan and Norton, 1996).

Accounting information can be used as a base in making decision for the firms development as well as for the related users such as investors, potential investors, creditors, agents, customers, staff, government, and society. Management has duty to conduct responsibilities in accordance with prescribed operational standard. Moreover, many organizations, in fact, depend on information system to sustain competitive ability.

Chenhall (2003) clarifies that research related with Management Control System covers large aspects, from the characteristics of accounting information, budgeting process, management accounting technique, and also personality problem. However, based on previous research, research on relationship between business strategy and accounting have not been done widely.

Conceptually, strategy determined in the process of strategic planning will be used as guidance in planning management accounting information (Anthony & Govindarajan, 1995). Many research on strategic management conclude that the relation between strategy and business unit performance is direct. However, Chong and Chong's research (1997) indicates that the relation between two variables is indirect, that is through the usage of management accounting information. Therefore, Chong and Chong's research result is new research finding, that strategy determined does not influence business unit performance directly, but through the use of management accounting information.

B. Formulation of The Research

Previous studies conclude that there is still the lack use of accounting information, and external users do not use accounting information in making decision. However, few research that explore why this problem occurs. The focus of this research is to analyze the uncertainty environment towards the usage of accounting information by external and internal users.

C. Research Contribution

Research on the relation between strategy and management controlling system dealing with the usage of management accounting information are few. Based on previous studies on accounting, there has not been found research in Indonesia that relates business strategy, uncertainty environment, and the usage of accounting information. Therefore, the main contribution of this research is to add empirical evidence on the relation between business strategy, uncertainty environment, and the usage of accounting information.

D. Review of Related Literature

Anthony and Govindarajan (1995) state that management control needs information both inside and outside of firms. Information type needed depends on the type of decision made. To determine the position of accounting in strategic management, the strategic management model according to Hungger and Wheelen (1993) can be used. Accounting is a part of strategic activities, in which one of accounting activities is budgeting. Budget will be made after program has been settled, whereas the procedures needed in strategic implementation is executed after budget is made.

Environment is external factor of the firm, that should be considered phisically and socially in decision making (Duncan, 1972). Environment can be categorized into general environment and task-environment (Bourgeois, 1980). Task environment is an environment that has direct influence towards firm. Elements included in this environment are customers, agents, competitors, technology, and government. General environment is environment that influences firm indirectly, such as, social condition, demografi, economy, culture, advance technology, eduction, politic, and regulations.

Decision makers should evaluate the condition of environment faced to consider the process of decision making. The condition of internal environment can be controlled relatively and predicted by manager than that of external condition. Uncertainty is condition that possible result of certain events is unknown, but the risks resulted from certain events may be known. Uncertainty is the difference between the amount of information needed in decision making and the amount of information has (Galbraith, 1977).

Environment is not a new one in accounting. Environment has been concerned in planning accounting standard and as the main factor used in formulating basic accounting framework. Since 1970's environment uncertainty has been a research interest as explanatory variable which has promising future in behavioral accounting research (Tymon & Shaw, 1998). Uncertainty environment is predicted to explain the differences occur in using accounting information. Various research have tried to test the relation between uncertainty environment with many variables, like the structire of organization, management accounting system planning, contract compensation planning, staff motivation, performance, work satisfaction and business unit performance.

E. Method of The Research

1. Population and Research Sample

There are two groups of accounting information users; internal users and external users. Qualitative approach is used in the process of indentification at the level of accounting information users, both internal and external users. Business field as the research subject is not limited at manufactures only but also at tradings and services. This is due to the possibility of having accurate data, that means respondents are those who work in 5 main businesses such as automotive, textil, financing, information technology, and cement. Each business is minimally two respondents. Particularly for external accounting users, data collection is used widely in DKI Jakarta because respondents are mostly residents in DKI Jakarta.

2. Variable Measurement

Definition of accounting information used in this research is information resulted from accounting process, mainly presented in financial report. Conceptually, the application of strategy can be done at 3 levels, thay are corporate level, business unit, and functional level. To determine the level of usage of information in decision making at the functional level, thus, questionnaire may be developed by modifying the measurement of functional strategy as it

was used by Kotey and Meredith (1997) and Gardenna (1998). That instrument covers 36 items to describe various functional strategy; to what extent accounting information has been used in formulating functional strategy.

Strategic analysis at business unit and corporate levels, items will be developed based on long term planning. Items in strategic planning at corporate level are related to business that will be come in. These items have long term orientation. Therefore, items used in these two levels deal with to what extent accounting information is used in long term planning, such as business development or entry into new market.

F. Research Finding and Discussion

The use of accounting information can be analyzed from two perspectives; internal and external firms. External users will use accounting information as a base in making decision on credit and investment. While internal users will use accounting information for responsibility and decision making. Therefore, discussion on research result is seen from internal and external users' perspectives.

Data are collected through in-depth interview towards decision makers. Data are gathered from 12 respondents who have large business size at 3 locations in West Sumatra, West Java, and DKI Jakarta.

1. Analysis on the Usage of Accounting by External Users

External users are those who do not have access directly to obtain accounting information from a firm or organization. Thus, external users will have accounting information in various forms of formal report produced by firms in accordance with firm's obligatory as stated in regulation. The main purpose of accounting information for external users is to make investment and credit decision.

a. Analysis on the Usage of Accounting Information from Investor's Perspective

Discussion on the use of accounting information from investor's perspective is divided into 2 periods, that is the booming at Jakarta Stock Exchange (BEJ) in 1989/90 and at 2000's. Since there were many investors got interest at first market, it forced BEJ to issue regulation on allocating numbers of stocks bought, and every buyer must attach identification card. As a result, investor candidates were driven to ask their housemaids to be in queue for buying stocks.

An informant whose name is Made stated that "that booming condition describes that accounting information was not used by investors in decision making for buying stock". This occurs because that the numbers of firms which are "go public" at that time were still limited, but the demand was high. This resulted highly different prices between primary market and secondary market.

Some research conducted at the beginning 90's proved that investors did not use accounting information as a base in investment decision making, one of those researcher is Papilaya (1990). Financial risk analysis to the condition of firm's finance which will "go public" was not able to influence alternative investment decision of investor candidate. At last, Sudibyo (1991) suggested that accounting function, particularly in decision making is eliminated – accounting function is only sufficiently used as a means in management, to account for the authority accepted from the owner or stock holders. This pessimist attitude is also mentioned by other informant whose name is Bonjo. He said that the purpose of accounting tends to account for management responsibility to stock holders.

In 2000's, the condition of stock market approached to be normal. The players in Stock Exchange did not have to come directly to the market but through mediator. An Informant – Made, stated that "today , perspectus in which there is quantitative and qualitative information (accounting information in wider perspective) contains, some of them, financial report, the purpose of using money, managers, and other descriptions, that will be a base in making investment decision". Even he said that, "through that prospectus, a candidate investor can evaluate the character of firm's managers". This statement indicates that there is highly important role of accounting information in investment decision making.

The similar phenomena occurs in capital analysis of a firm but it is not through purchasing saham at Stock Exchange as stated above. It is based on negotiation between the firms' owners. The lack of role of accounting information in investment decision making especially occurs when one or some firms' owners have certain

authority, that is, an offer to have a firm does not necessarily concern with accounting information. For example, at New Order Era, if the owner of the firm comes from Cendana's family, an offer to join into firm's possession does not concern with accounting information. An informant whose name is Made explained that "at the new order era, accounting information is not necessarily thought if there is an offer of cooperation of Bimantara Group".

b. An Analysis of the Use of Accounting Information from Creditor Perspectives

It is important for creditors to analyze many things related to candidate debtors in order to avoid loss as a result of debtor's failure in returning money. Analysis is conducted for several reasons. The first factor is the honesty of candidate debtor in fulfilling his duty. This factor is very important to evaluate the habit of debtor in performing his duty.

An informant, whose name is Purna and works at one of Government Banks, stated that accounting information is not the first factor of consideration in analyzing credit given to debtor. This is supported by other informant, Naldi, who works at a famous Private Bank, stated that the first factor is collateral given by a candidate debtor.

An informant, Rina, stated that at the firm there are computer programs that can analyze credit proposals, specifically financial analysis of candidate debtors. Based on the analysis on financial aspect, the feasibility and the amount of credit can be approved. This statement is also supported by other informants who work at different Banks. However, an analysis of financial information for capital sufficiency and analysis of firm ability to return credit given are not the first and main information to determine the credit decision. Among those Banks, it possibly occurs the differences on non-accounting information needed, that also depends on credit purpose, credit types, credit periods, and other factors.

Some research conducted in 1990's, such as Gunawan (1989) proved that Banks do not use accounting information in deciding credit to debtors. The same research was also conducted by Suhairi (2001) that concluded that non-accounting information is preferred than accounting information in feasibility analysis of credit application.

The similar condition is also found in non Bank financing, specifically for vehicle credit. The main factor for evaluation is the character of candidate customer in debt payment. Moreover, a firm is able to identify region, based on experience, that has low commitment in debt payment. An informant whose name is Hendra stated that "the willingness of candidate debtor in paying vehicle credit installments is analyzed by some methods, depending on the types of candidate debtor's occupation". For a candidate debtor who has permanent occupation, the analysis can be done simpler than the candidate who has non permanent job.

3. Analysis of the accounting Information Usage for Internal Users

Internal users are those who directly access accounting information needed. Internal users are managers who are given responsibility in managing business. To describe the role of accounting information for internal users, it is necessary to understand the environment changing faced by firm as that moment.

The changing of environment condition forces firm to do big change; from technology competition to information competition. At the period of technology competition, firms orientate on how to take advantage from new technology to produce massively and efficiently standard product. Some other informants, Iwan, Indra, and Edwar who work for firms that rely on information technology, do feel the changing occurred today.

a. Analysis of the Usage of Accounting Information for Responsibility

Previous experience indicates that the role of accounting information as a facility to account for responsibility and authority given by the owner is immense. In addition, Sudibyoy (1991) suggested to change accounting definition from its function as a base in decision making and responsibility is just for the sake of responsibility. This occurs since some research conducted at the end of 80's or at the beginning of 90's concluded that accounting information was not approvelly used as a base in financial decision making.

An informant, Bonjo, believed that until today the role of accounting information is mostly used as a means to account responsibility of managers to the firm's owner. This does not only occur in government firms but also in private firms. Even though the role of accounting information as a means of management responsibility is not denied by the informants; the other informants, like as, Made, Hendra, Zul, Purna, Ricky, Edwar agreed that the

role of accounting information for internal decision making purpose indicates greater role since this information era.

b. Analysis of the Usage of Accounting Information in Strategy Formulation

Strategy formulation can be seen from some levels: corporate, business unit, and functional. Analysis and below description is based on the level of strategies.

Corporate Strategy

Basic question on strategy formulation at this corporate level is what type of business will be entered. Decision to determine business type that will be entered is the authority of the highest executive in an organization or Top Manager. Analysis conducted need future perspective; ten years ahead by considering various aspects in macro economy, social, culture, and business environment that are probably faced with in the future.

Intresting case occurs at Electricity Corporation (PT PLN), which is the "kitchen" of the firm which runs telecommunication, as stated by an informant Iwan. At this moment, PT PLN has very great assets, they are, poles and electricity cables. They have great value since by adding few technology, electricity cables can be used as telecommunication facilities. Informant, Iwan, said that electricity cables can be analogized with pipe which can be used to flow types of water, such as, mineral water, syrup, milk, and others. Similarly, electricity cables can be supplied by various currents or other flow for making use of communication. If this occurs, all PLN customers will be all PLN telephone customers.

However, whenever proposal to be telephone operator offered by PT PLN to government, government explicitly refused the proposal. Government emphasizes that the core business of PT PLN is electricity service while telecommunication is the core business of Telecommunication Corporation (PT Telkom) or other telephone services. Therefore, PT PLN does not optimally take advantage of its assets.

Conclusion derived from this case is that accounting information gives formulation that business development of PT PLN as telephone operator will give high benefits. However, since decision is not only on the CEO of PT PLN, the decision relate to accounting information cannot be done. In fact, the salient benefit potentiality is persistently released because of political decision of government that is not allowed PLN as telephone operator.

Strategies of Business Unit

Porter(1980) proposes three generic strategies taht can be used at the level of business unit, that is *cost leadership*, *differentiation*, and *focus*. Informnat, Iwan, categorized the decision of business unit strategy at the medium term planning. Two determining factors in the decision of business unit strategies at PT M (subsidiary of PT. PLN) are *technology driven* and *customer driven*. Another case at PT M is also interesting to notice, that is, to enter handphone generation.

An informant, Iwan explained that 3G generation is only used after passing the second generation. If it enters the second generation, analysis based on accounting information concludes that firms will suffer financial loss. However, since the second generation must be entered in order to achieve 3G generation, the financial loss, willy nilly (whether one wants to or not), should be accepted. Therefore, even though analysis on accounting information indicates that the second generation results financial loss for PT M, the decision to enter the second generation is consistently done. Informant, Iwan stated that "ok, five years ahead we will suffer loss", but due to future technology and market needs, the decision to enter the second generation is still conducted.

Informant, Indra explained the condition which is not really different from textile business where he leads in. Even though, textile industry in Indonesia at this moment, faces with quite big problem because of the import of textile product from China, and one by one of textile firms suffer failure, the Indra's firm still runs stably. This is because that the firm mainly focuses on the quality of product. To achieve competitive advantage, firm believes that *Quality driven* is one of the most appropriate strategies to sustain the firm's existency. Product produced by the firm is not to fulfill stock however to fulfill order. To have the product, Informant Indra said that one should wait for 2 till 3 months. Therefore, accounting information is not the determinant in making strategic decision at business unit but on the quality (*read as* differentiation of strategy) which more influences the decision made.

Different condition occurs at firms that use cost leadership strategy or low cost. Informant, Edwar stated that "once we don't want to be left behind in the quality, however we do concern with the level of price determined". Automotive firm where Edwar works for, as a manager of division, stated further that accounting information is used in deciding particular technology application therefore the lower price can be produced.

Informant Made stated that various ways have been done in his firm to minimize production cost on the service produced. In addition, he said that to achieve it, analysis by the usage of accounting information is really needed to determine the best alternative. Many Chinese products can be a lesson on how this "the State of Bamboo Curtain" makes an effort to achieve superiority through *low cost* strategy.

Based on the above description, it is concluded that the role of accounting information in formulating differentiation of strategy does not need accounting information. If a firm chooses to use low cost strategy, the role of accounting information is highly needed to determine the cheapest cost alternative. However, in business practice, firms often apply combination strategies, between differentiation of strategy and low cost strategy.

Functional Strategy

Since the formulation of functional strategy is influenced by the strategy chosen at the previous level (business unit or corporate), the role of accounting information in formulating functional strategy is also influenced by business unit strategy chosen. In other words, if the firm decides to use low cost strategy at the previous level of strategy, the role of accounting information is more highly important than the other factors. On the other hand, to implement differentiation of strategy, it does not mean that accounting information is not used. But it should be used and considered, particularly in selecting one alternative out of among alternatives of differentiation of strategy conducted.

Research conducted by Kotey and Meredith (1997) and Gardenna (1998) use 36 instruments of functional strategy. Those instruments cover strategies in finance, marketing, human resource, consumer satisfaction, planning arrangement and formal operational controlling. This instrument will be used as research guidance to determine the level of usage of accounting information in making functional strategy decision. Almost 50% of functional strategy instruments truly need accounting information.

From many comments given by research informants, conclusion can be derived as following-up strategy formulated. Then, each functional unit of organization will prepare budget. Beginning with design activity, production, marketing, personnel, finance, and other functional units. Budgeting is one of accounting information. Therefore, the first and main role of accounting information at the level of functional strategy is to prepare budget for all organizational units or what is called as comprehensive budget.

Whatever the kinds of business, product costing or cost of goods sold is an important factor to avoid mistakes in decision making on selling price. To determine production cost and selling price is one of accounting information. Thus, the role of accounting information in determining production cost and decision making on selling price is very great.

Collecting debts is also the most important part in credit system at expenditure firms. Informant Hendra stated that analysis on debt collection performed by expenditure firms highly use accounting information – even using accounting information only, especially for calculating on how much money have been collected from the collection target and also for analyzing others. At the end of each month, debt collecting department usually works after hour to prepare report on the amounts of debt collection and who have delinquent payments.

Analysis on product and/or region, even the potential consumers is necessarily needed to determine the main marketing policy. This analysis needs accounting information such as performance achieved previously. Informant Made stated that such analysis should be done as various types of industries. For example, firm should make discount price policy at slack or dull tourist visits otherwise the level of hotel occupancy will be lower.

Some informants whose business have high level of competition state that they always find other alternatives in providing lower price, thus, they can win competition. Analysis needed to determine the alternative of activities,

materials, and others, need accounting information. Therefore, the level of competition has motivated firms to apply more accounting information in making many kinds of decision.

G. Conclusion and Suggestions

Based on the analysis previously explained, conclusion and suggestion are derived as follow:

1. Conclusion

The change of environment condition faced at the information era today has resulted many changes on strategies and tricks for coping with business competition. At the information era, producers do not only fulfill customers' need towards the product but also cover personal needs. Therefore, firm should be able to provide products in accordance with customers' need, without burdening with high expense. However, the level of business competition has motivated firms to widely use accounting information in making many kinds of decisions.

Accounting information is one of information needed in financial decision making. Yet, accounting information is not particularly as the dominant factor to determine final decision. At the beginning stage, accounting information is used, but at final decision, accounting information is not certainly used as a base in making financial decision. Non-accounting factor always becomes determinant factor used in making financial decision.

The role of accounting information in formulating corporate strategy is relatively low because firms are faced with various kinds and degrees of high uncertainty. Quality, technology, and customer driven are parts of many factors that greatly determine the formulation of corporate strategy, more than accounting information.

Different from the formulation of corporate strategy, the use of accounting information in formulating business unit strategy is dominantly determined by the strategy selected. When a firm chooses to use differentiation strategy, accounting information is not the main factor to be considered. However, if a firm chooses low cost strategy, accounting information is the basic main factor.

Since the formulation of functional strategy is influenced by business unit strategy, the role of accounting information in formulating functional strategy will be also influenced by business unit strategy chosen. It means that if at the previous level a firm decided to use low cost strategy, the role of accounting information is much more higher than other factors. In the contrary, the implementation of differentiation strategy does not mean that accounting information has no role, but it is necessary to consider accounting information, particularly in selecting one of alternatives from some alternatives of differentiation strategy that may be performed.

2. Implication

Information is utilized to reduce uncertainty. Accounting is one of the means to produce information. Therefore, accounting information has a role to minimize uncertainty. However, since the source of uncertainty is not same, depending on the kinds of business, business form, the purpose of information usage, users, and the level of strategies; an analysis of accounting information in decision making should not be generalized.

Based on the above explanation, the research on the role of accounting information is not used to different types of business. It is better to conduct a research to the similar types of business therefore characteristics and the source of business uncertainty is not quite different or relatively similar. As a result the conclusion derived will be logic.

3. Suggestions

Even though many efforts have been done to solve the possibility of research weakness, some weaknesses cannot be avoided. As for example, not all of respondents who have been interviewed are the chief executives at the firms, however, the researcher tried to interview managers who involve in making decision. Another limitation is that the number of respondents are still limited, particularly to firms that have different types of uncertainty.

The main factor that has been identified is that the ability to influence the usage of accounting information in decision making. They are uncertainty factor in business environment, either at internal business or external business environments. Whereas the internal factor that probably influences the firm such as personality factor and other internal factors which have not been identified yet. Therefore, future research is necessarily conducted to identify various internal factors in the firms that may influence the usage of accounting information.

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