

Factors that Affect Management Accounting Information Systems and its Implication to the Quality of Management Accounting Information

(Cooperative industries at Kuningan Indonesia)

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Abstract—The research aims to analyze the implementation of management accounting information systems, internal and external factors and information of management accounting in cooperative business entity in Kuningan (a district in Cirebon Region, West Java Province, Indonesia). The development of small business entities is strongly influenced by environmental changes. Nowadays, the industrial revolution version 4.0 has affected various business sectors both large and small entities. The development of small business entities is also influenced by organizational culture where the culture will be vital in managing a business entity (cooperative). The research uses quantitative methods. The analysis unit of this study is cooperatives business entities in the Kuningan district and observation units are managers, finance division, funding and lending division, savings division and human resources division. Data analysis using SEM-PLS. The results of this study indicate that environmental uncertainty and organizational culture influence the application of management accounting information systems. As well as the application of management accounting information systems affect the quality of management accounting information.

Keywords—*perceive environment uncertainty; organization culture; management accounting systems; information quality; cooperatives*

I. INTRODUCTION

Information is a resource which available for the manager that have an equal value to any other corporation resources such as personnel, supplies, equipment and cash [1]. Information is data that has been processed in such a way as to be useful for the recipient [2]. The terms of data and information can be used interchangeably. However, it is better to see the data as a source of raw materials processed into the finished product which is information. Thus, we can define the information as data that has been converted into a context that is meaningful and useful to certain end users [3]. Information is a resource that exist within the company, like raw materials, capital, labor and other source of businesses, information is crucial to the survival of contemporary business organization. Every working day, many information flows within the organization for decision makers and other users to meet a

wide range of internal needs. In addition, the information flow out of the organization, for external users, such as customers, suppliers, and stakeholders who have interests to the company [4]. Information users have a different need of information, such as privilege level of information access, details and characteristic such as managers only needs a comprehensive level of information to evaluate an organization's business process but still has a privilege access to any other information he wants [5]. The weaknesses in Kuningan District of Cooperatives which associated with information are the information about the debtor data are incomplete and not well integrated between cooperative branches and/or cross-cooperative and only a view of relevant information has been produced such as the amount of cooperative funding needs by the organization per period.

The accounting information system management provides necessary information to meet the management objectives. Management accounting information system unbounded by formal rules or criteria which determine the nature of the input, process or output [6]. The criteria are generally flexible and based on destination management. Management accounting systems have three general purposes: 1) providing information for the cost of services, products and other objects for management. 2) providing information for planning, control, evaluating, and doing a continuous improvement. 3) providing information for decision-making [5]. The management of reporting information required for planning and controlling of business activities. Organizational management implement MRS/SIAM at their discretion, based on the needs of internal users [5]. MRS referring to this data for input in the preparation of the report of the management responsibility [5]. Reporting process which leads by the management has been known as an important element of the internal control structure of the organization. MRS which directs attention to management issues in a timely manner promoting effective management and thus supports the business objective of the Organization [5]. There are inefficiencies in cooperative entity such as 1) the floating level of funding availability 2) cooperative funding process rely on banking disbursement quota and 3) debtor data

checking do not utilize debtor information system which provided by Financial Service Authority (OJK).

Organization culture enhance the success of management accounting information systems in the company. Organizational culture has a very strong influence towards the behavior of individuals and the Organization as a whole [6]. Because of the accounting information system is a major component of the organization then system information can substantially influenced by organizational culture [6]. Many accounting information systems experiencing failures simply due to these organizations does not match the culture of the organization with the design of accounting information system [6]. The weaknesses of cooperative organization culture located on Procedure Operational Standard (SOP) inexistences which contribute to managers determining funding and lending policy subjectively.

At few last decade, global competition has increased, some of global deregulation has been issued, there are an increase at service industries growth, a decrease to product life-cycle, a rapid development in manufacturing industries and information technologies, raising level of environment issues and an expansion of competitive environment force companies to be a customer-oriented than product-oriented and change business environment characteristic comprehensively [7]. This change has significantly changed the way in which companies operate, which in turn, has resulted in changes in corporate management accounting practices in complex entities, whose sustainability depends on the flow of data/ information [2]. Such things indicate that environmental factors influence the management accounting information system.

Referring to the explanation, this study aims to identify and analyze organizational culture, environmental uncertainty and management accounting information systems in cooperatives in the Kuningan district also its effect.

The benefit of this research is to overcome the discrepancies that occur in the field such as the problem of availability of funds, time of disbursement of funds and checking debtor data.

Contingency theory in management accounting is a management accounting approach that looks at situational factors faced by organizations [2]. Contingency theory is an approach to studying organizational behavior [8]. These theoryies explain factors such as technology, culture and the external environment that can affect the design and function of the organization [9].

Uncertainty is “as the organization’s inability to predict accurately the effect of various sources of uncertainty as competitions, productions technologies, customers tastes and preferences, deregulations and globalizations, government regulations and policies, and industrial relation [10]. Uncertainty a term applied to a situation where there are several possible outcomes and there is little previous statistical evidence to enable possible outcomes to be predicted” [7]. Environmental uncertainty as an inability to set probabilities for possible future events [11]. So environmental uncertainty in research is defined as a situation where the organization is not able to predict the possibility accurately in the future, due to

the existence of changes in competition, technology, government policy and culture.

Dimension of uncertainty is (1) Competitions, (2) Productions technologies, (3) Customers tastes and preferences, (4) Deregulations and globalizations, government regulations and policies, (5) Industrial relation [10].

Uncertainty consists of several components, is (1) Internal Environment Components; a) Personal components in the organization b) Functional components and staff in organizational units c) Components at the organizational level (2) External Environmental Components: a) Consumer Components b) Component Supplier/supplier c) Competitor components d) Socio-Political Components e) Technological component [12].

“Organizational culture refers to a system of shared meaning held by members that distinguishes the organization from other organizations [13]. Organization Culture is “The culture of a group can be defined as a pattern of shared basic assumptions that was learned by a group as it solved its problems of external adaptation and internal integration, that has worked well enough to be considered valid and, therefore, to be taught to new members as the correct way to perceive, think, and feel in relation to those problems [14].

So, in this study organizational culture is defined as a system that distinguishes organizations from other organizations with patterns of assumptions about the way an organization resolves a problem related to external adaptation and internal integration and is taught to each employee in the organization as a correct way of thinking in solving problems

Organizational culture can be distinguished between strong organizational culture and a weak organizational culture [15].

Organizational culture has 7 characteristic, consists of 1) Innovative and take risks 2) Attention to Detail 3) Outcome Orientation 4) People Orientation 5) Team Orientation 6) Aggressiveness. 7) Stability [13]. Other expert opinions dimension of organizational culture consists of 1) Innovation 2) Stability 3) Respect for people 4) Outcome orientation 5) Attention to detail 6) Team orientation 7) Aggressiveness. In this study, the point of view used to measure organizational culture such as 1) attention for detail 2) stability 3) outcomes 4) aggressiveness.

Management Accounting Information System is “Management accounting systems accumulate, classify, summarize and report information that will assist employees within an organization in their decision-making, planning, control and performance measurement activities [7]. While other opinions say that “When information system applications focus on providing information and support for effective decision making by managers, they are called management support systems [7]. Then, Ahmed Riahi Belkaoui say that “A management accounting system may be defined as the set of human and capital resources within an organization that is responsible for the production and dissemination of information deemed relevant for internal decision making”. Then the management accounting information system in this study is defined as a collection of labor and capital resources in an organization that accumulates, classifies, summarizes and

reports information that focuses on providing information and supporting decision making by managers effectively.

This research measurement of Management Accounting Information Systems is viewed from the point of view such as 1) Quality Service 2) Quality System and 3) Quality Use.

Management accounting information is needed to assist managers in making decisions in 4 areas 1) long-term plans and strategies 2) job evaluation 3) control over resource allocation 4) determine cost-benefit. Other experts state that management accounting information is information used by managers in planning and coordinating and controlling organizational activities. So, what is meant by management accounting information is information that is used by management in carrying out its functions (planning, organizing, actuating and controlling) on the resources in the company.

Measurement of information quality management accounting refers to 1) broad scope 2) aggregation 3) timeliness 4) integration and 5) relevance

Environmental uncertainty has a significant influence on the Management Accounting System [16]. Environmental uncertainty is an antecedent variable that is important for the design of the Management Accounting System.

According to Robert, there are many problems in the implementation of the Integrated Financial Management Information System (IFMIS) which is caused by organizational factors and issues related to the organizational culture in the government [17]. Referring to Hoque the management accounting information system provides information on a problem [10]. Management accounting information systems provide relevant and accurate information for managers [10]. The Management Accounting Information System must provide information for planning, controlling, measuring performance and continuous improvement [7].

II. RESEARCH METHODS

The subject of this research are cooperatives industries at Kuningan District, Cirebon, West Java, Indonesia. The research object is Perceive Environment Uncertainty, Organizational Culture, management accounting information system and Information accounting management. The research use quantitative data analysis. All of these variables are unobserved / latent variables. Data processing using SEM-PLS. The unit of observation in this study were managers, accounting, marketing and staff as many as 52 observation units. Analyses unit are savings and loan cooperatives, all-round cooperatives and Islamic boarding school cooperatives as many as 13 cooperatives. The collecting data process use questionnaire.

Models Equation:

$$\eta_1 = \gamma_1 \xi_1 + \gamma_2 \xi_2 + \zeta_1 \quad (1)$$

$$\eta_2 = \beta_1 \eta_1 + \zeta_2 \quad (2)$$

Information:

- η : Endogenous latent variable.
- γ : The coefficient of influence of exogenous variables on endogenous variables.
- ξ : Exogenous latent variables.
- β : The coefficient of influence of endogenous variables on endogenous variables.
- ζ : Error Model.

III. RESULTS AND DISCUSSION

The value of the t-statistic of organizational culture is equal to 1,981, The t-test value of the organizational culture variable is equal to 2,17. So this research is influential.

In addition, the organizational culture in the disbursement of funds should be through the Procedures Operating Standard which created and formulated, but in reality, not all of cooperatives have a standard and clear procedure operating standard (SOP) so that the decisions taken are subjective depending on the cooperative manager or cooperative management. This has an impact on the lack of speed in the process of collecting and distributing funds to customers due to the process of disbursing funds that do not have a standard and clear implementation stage, so that greatly affects the availability of existing cash funds. The faster cash funds are available, the faster the process of channeling funds to customers, on the other hand if the availability of funds relies too much on funding from banks, the process of disbursing funds becomes hampered due to waiting for the approval process of funds disbursement from the bank. Then, SOPs for standard collection and distribution of funds and clearly influence the implementation of management accounting information systems regarding fund collection and distribution so that it can support the decision-making process for a manager.

The value of the t-statistic of perceived environment uncertainty is equal to 1,981, The t-test value of the perceived environment uncertainty variable is equal to 2,91. So this research is influential.

Environment uncertainty (technological change) has not been utilized optimally. In general, cooperative governance is still carried out manually. Such as debtor data are not well integrated between cooperative branches and/or cross-cooperative makes it difficult for customers to carry on the lending process. Technological development also followed by the ability of Human Resources who can support the technology. If the development of technology can be applied by cooperatives, the management accounting system can be applied maximally and simplify the process, especially when distributing funds related to debtor information. Likewise with technology (software) used in cooperatives to assist financial management such as making balance sheets and profit and loss report and reporting the amount of funds available in cash.

As for some cooperatives that use financial management applications but still use vendor-made applications (not customized/adapted to existing business processes). Therefore, although software is available but cannot be used for all business activities in cooperatives entity, for example, the process of spending office operational funds is not recorded in the system or the collection and distribution of funds cannot be displayed in the cooperative management accounting information system. Therefore, technological developments influence the implementation of management accounting information systems so that they can support the decision-making process. This is in accordance with the Hansen and Mowen which state that changes in technology, the way of communication, economic conditions affect the operation of the company [5].

The t-statistic value of the Management Accounting System is equal to 1,98, the value of the t-test of the Management Accounting System is equal to 2,31. So, this research has an effect. This means that the higher capability of a manager so the managers will be able to calculate the management accounting system, the more quality management accounting information will arise.

The magnitude of the effect of the management accounting system is rely on the quality of management accounting information, hence a relevant information needed both in funding and lending process, unfortunately, debtor data has not made maximum use of the debtor information system provided by the Financial Services Authority.

If a cooperative can take advantage of the Debtor Information System, then the likelihood of bad credit occurring will be smaller. Bad loans that occur can be detected as early as possible by utilizing these technologies. So that if the management accounting system can be used optimally it will affect the quality of management information taken, this results in better quality of management accounting information and decision-making processes by managers.

IV. CONCLUSION

Management Accounting Systems can be affected by multi variables. The result shows that organizational culture has an effect on implementation of management accounting systems. This conclusion may be conducted from the existences of SOP in cooperatives industries help the organization to operate in effective and efficient way. The perceive environment uncertainty also has an effect on management accounting

systems. This conclusion may be conducted from the use of debtor data checking systems will facilitate the cooperatives industries to checking the debtor loan history which affected to assurance of the loan return process.

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