Factors that Influence Decision Making through the Application of Management Accounting Information Systems

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Abstract---The role of management accounting information system (MAIS) is very important in providing the information needed by managers for decision-making in a company. To achieve the success of implementation of MAIS requires the management commitment and organizational culture. The purposes of this research are to analyze the influence of management commitment and organizational culture on the implementation of MAIS and that implication to the decision making. The method employed in this research is the descriptive and explanatory research one. The type of the data used is the primary ones, and the measurement scale used is the ordinal one. The data collection is conducted by using survey technique through the instrument of questionnaires that are distributed to the three-four-and-five-star hotels in the province of West Java, and the respondents involved are line manager. The validity and reliability are tested towards the questionnaires that have been collected. Then the data are converted within the interval scale. The data analysis is conducted both descriptively and inferentially with the assistance of the Weighted Mean Score and Path Analysis statistics respectively. The results of the research indicate both management commitment and organizational cultur influence managers' decision making through the application of MAIS.

Keywords---Management commitment, Culture of organizational, The implementation of MAIS, Managers' decision-making.

I. INTRODUCTION

Information is useful in decision making activities, Gelinas and Dull (2008) state : Information as data is expressed in a form that is useful in decision making activities. Information has value for decision makers to reduce and increase knowledge about certain fields. The information system that process business event and provide information for management decision making must be designed, implemented and effectively operated. Mc Leod and Schell (2007) stated that information quality must have characteristics : relevant, accurate, timely and complete. The quality information can be used for decision making where the result is the right decision, allocation of resources and a better response time so that it can provide benefits and reduce costs (Laudon and Laudon, 2008). Hall (2011) stated that the information system is the set of formal procedures by which data are collected, processed into information, and distributed to users.

Decision making is a choice from among a set of alternative courses of action designed to achieve some objective-drive the need for accounting information (Horngren, et al. : 2011). The phenomenon of a decision-making error that results in company losses is stated by Bambang Kustopo (2012) the chief superintendent of the judge on PN

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Surabaya that Bali Kuta Residence Hotel (BKR), declared bankrupt because management has failed to make decisions because it is not supported by accurate information with the support of a good data base and adequate analysis. Laudon & Laudon (2008) states that managers who are committed and work in an intensive company using information systems and investing in information technology will outperform their competitors. Scwhalby (2010) stated that the management commitment is very important because the implementation of information systems requires adequate resources and human resources. An important role of management commitment is delivered by Englund and Buchero (2006) that the relationship of management commitment and the development of information systems is the participation of top management and middle management in formulating goals and clarifying the development of information systems, work commitment in documenting work plans for accountability in directing business, approving, measuring, supporting activities from the beginning to the end of the development project as a form of active role for top management and middle management (Hilkevics & Semakina, 2019).Cooper (2006)stated that commitmentas engaging in and maintain behaviours that help others. Yousaf (2006) stated that management commitment must be driven by a strong desire to improve the quality all business of a company. In line with organizational value and goal orientation. Malthis and Jackson (2008) state that organizational culture is a form of value and trust in an organization. Luthan (2006) state that an organizational culture is norms and values that guide the behavior of members of the organization. Each member will behave in accordance with the prevailing culture, in order to be accepted by the environment. Kreitner and Kinichi (2001) states that organizational culture is a group together, implicitly that groups hold and determine how they perceive, think, and react to various conditions.This research was conducted in hotels in West Java. Head of the Bandung City Culture and Tourism Office (Disbudpar), Priana Wirasaputra (2011) stated that hotel development is closely related to investment in the development of the city of Bandung. Investors' decision making still considers the hotel business as an opportunity, has caused intense competition in the hotel business because hotels in West Java are quite diverse, ranging from budget hotels to starred hotels.

II. LITERATURE REVIEW

II.I. Management Commitment

   Abrahamsson and Iivari (2002) stated that Commitment can be viewed as a state of attachment that defines the relationship between an actor and an entity". Meyer and Allen (1997) stated that Commitment is identified three types of commitment; affective commitment, continuance commitment, and normative commitment as a psychological state "that either characterizes the employee's relationship with the organization or has the implications to affect whether the employee will continue with the organization." Lack of management commitment has often been argued to cause (to some extent) the failure to sustain software process improvement activities in an organization. The failure in these cases is more related to the common aspects of commitment: the depth, focus and terms. In addition to the depth, focus and terms, commitment as a psychological attachment takes different forms: affective, normative and continuance commitment(Abrahamsson ; 2002).High commitment management has been described as a form of management which is aimed at eliciting a commitment so that behaviour is primarily self-regulated rather than controlled by sanctions and pressures external to the individual, and relations within the organization are based on high levels of trust (Wood ;1996). Asfhaq (2007) stated that management's commitment was not just to provide resources but also actively involved in the development process, as stated in the statement : Management commitment is provide resources and active involvement in process improvement. Active involvement refers to monitoring software process improvement activities and developing personal interest in process improvement initiative that ultimately brings up energy, passion and excitement among employees. Schwalbe (2010) stated that management commitment is essential for the implementation of the information system requires resources and adequate human resources. Sourced from some literature and practice. Abrahamson and Jokela (2000) stated that without management commitment to software process improvement the initiative will most likely fail or the results are not far reaching. Three forms of commitment are introduced: affective, continuance and normative.

II.II. Organizational Culture

   The definition of an organizational culture according toMalthis and Jackson (2008) stated that Organizational cultur is the shape values and beliefs in an organization. Douglas (1985) stated that organization culture is the emergent result of the continuing negotiations about values, meanings and proprieties between the members of that organization and with its environment. The dimensions of organizational culture according to Shaskin (2001) includes:

1) Managing change : Organizational members are able to affect their work environment, especially since a lack of influence is likely to hinder the effective management of change. People save their energy and time without any possibility to influence
2) Achieving goals : What values or beliefs can thus help an organization achieve its goals
3) Coordinated teamwork : Measure of the extent to which the efforts of individuals and groups within the organization are bound together, coordinated and sequenced, so that everyone's work efforts coalesce effectively.
4) Customer orientation : Assesses the extent to which organizational activities are directed towards identifying and meeting the needs of clients and customers

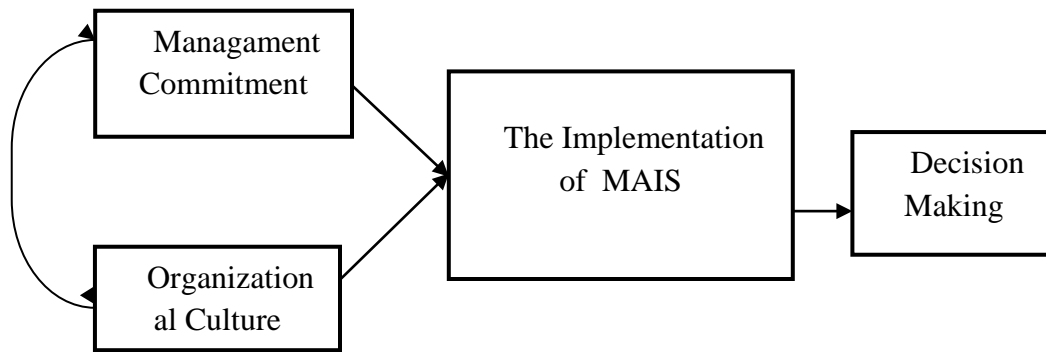II.III. The Implementation of Management Accounting Information System

Hansen and Mowen (2006) stated that the management accounting information system is processes, there are described by activities such as collecting, measuring, storing, analizing, reporting and managing information. Horngren et al. (2011) stated that management accounting information system is the process of identifying, measuring, accumulating, analyzing, preparating, interpreting, and communicating information that helps manager fulfill organizational objective. Mitchell and Smith (2000) stated that management accounting information system is the process of identification, measurement, accumulation, analysis, preparation, interpretation and communication of financial information used by management to plan, evaluate and control within an organization and to assure appropriate use of and accountability for it resources. DeLone & McLean (1992) states that the success of an information system can be represented by six dimensions of success factors which include : System quality , Information quality, Use output, User satisfaction, Individual impact , Organizational impact. There are 3 (three) dimensions of the information system success model in measuring customer satisfaction which refers to the De Lone and McLean information system success model (Seddon and Kiew 1996) : Information Quality, System Quality, Usefulness

II.IV. Decision Making

Salusu (1996) generally word of decision means choice. Decision making is the process of identifying different courses of action and selecting one decision appropriate to a given situation (Jackson, Sawyers and Jenkin 2009). Hansen and Mowen (2006) stated that .Decision making is the process of choosing among competing alternatives. Harrison in Teale et al. (2003) stated that decision making is a moment, in ongoing process of evaluating alternatives for meeting an objective, at which expectations about a particular course of action impel the decision-maker to select that course of action most likely to result in attaining the objective. Horngren et al. (2011) stated that Decision making is choice from among a set of alternative courses of action designed to achieve some objective-drive the need for accounting information. The role of the manager in decision making is stated by Simon (1986) that the work of managers is largely work of making decisions and solving problems. It is work of choosing issues that require attention, setting goals, finding or designing suitable courses of action, and evaluating and choosing among alternative actions. The first three of these activities--fixing agendas, setting goals, and designing actions--are usually called problem solving; the last, evaluating and choosing, is usually called decision making. Suryadi (2007) states that there are three dimensions in decision making, : States of Nature , Act / Available alternative, Outcome / Payoff. Teale et al. (2003) states about the causes of difficulties in decisions : A further cause of difficulty in decision making is ambiguity. Uncertainty and doubt will always interfere with managerial decision making unless clarified through improved communication and risk assessment (Saudi, 2018).

II.V. Conceptual Framework

The structural relations model is as follows :

Picture 1.1:*Conceptual Framework*

II. VI. Research Hypothesis

H1 : Management commitment influences the implementation of MAIS

H2 : Organizational culture influences the implementation of MAIS

H3 : Management commitment and organizational culture influences the
      implementation of MAIS

H4 : The application of MAIS influences the decision making

III. METHODSOF RESEARCH

  The method of research is descriptive method and explanatory research method. The type of data is primary data. According to Sugiyono (2008), primary data is data directly obtained from respondents. The respondents is line managers in the Front Office, Food and Beverage, Banquet, Sales and Marketing and line managers in other parts as decision makers who are also users of management accounting information systems. The target population to be studied are 3 (three) star hotels, 4 (four) star hotels and 5 (five) star hotels in West Java Province with consideration because they have used management accounting information systems (Hussain et al., 2018).

  The analytical method used in this study is divided into two parts :

1. Descriptive analysis uses weighted average value analysis (*weighted mean score)*
2. Inferential analysis using path analysis

IV. RESULT AND DISCUSSION

1. Descriptive Analysis of Research Variable Data

  Explanation of the table below, management has sufficient commitment in the success of the implementation of MAIS in its companies.

Table 1.1:*Recapitulation of Respondents' Answer Score Percentage Regarding Management Commitment*

Indicator	Actual Scored	Ideal Scored	WMS	Category
Affective Commitment	677	885	76,5 %	Enough
Continuance Commitment	664	885	75,0 %	Enough
Normative Commitment	612	885	69,1 %	Enough
Total	1953	2655	73,6 %	Enough

Table 2:*Recapitulation of Respondents' Answer Score Percentage Regarding Organizational Culture*

Indicator	Actual Scored	Ideal Scored	WMS	Category
Managing change	646	885	73,0 %	Enough
Achieving goals	627	885	70,8 %	Enough
Coordinated teamwork	601	885	68,0 %	Enough
Customer orientation	849	1180	71,9 %	Enough
Total	2723	3835	71,0 %	Enough

Based on the table 2, it can be described that management has a fairly good organizational culture.

Table 3:*Recapitulation of Respondents' Answer Score Percentage Regarding the Implementation of ManagementAccounting Information Systems:*

Indicator	Actual Scored	Ideal Scored	WMS	Category
System Quality	1113	1475	75,5 %	Enough
Information Quality	846	1180	71,7 %	Enough
Usefullness	632	885	71,4 %	Enough
Total	2591	3540	73,2 %	Enough

The resume based on the table 3, the average implementation of the management accounting information system in the hotel is quite successful.

Table 4:*Recapitulation of Respondents' Answer Score Percentage Regarding Manager Decision Making*

Indicator	Actual Scored	Ideal Scored	WMS	Category
Event	636	885	71,8 %	Enough
Act / Available alternative	841	1180	71,3 %	Enough
Outcome / Payoff	622	885	70,3 %	Enough
Total	2099	2950	71,2 %	Enough

Explanation of the table above, the decision making of managers included in the category is quite good

2. Inferential analysis using path analysis
   Analysis of The Influence of Management Commitment and Organizational Culture on Implementation of Management Accounting Information Systems and Its Implications for Managers' Decision Making

   The structural relationship between the four research variables can be described as follows :
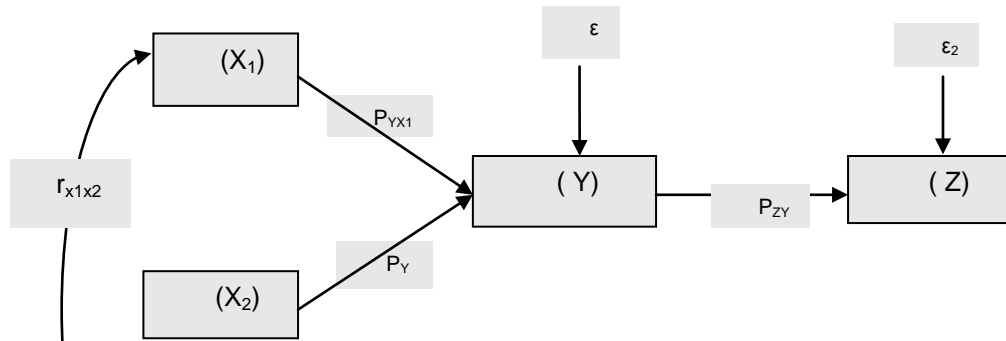
Picture 2: *Research Paradigm Path Diagram*

The path diagram image as shown above can be formulated into 2 structural equations as follows :

$$Y = P_{YX1}X_1 + P_{YX2}X_2 + \varepsilon_1$$
$$Z = P_{ZY}Y + \varepsilon_2$$

Information :

$Z =$ Managers' Decision Making
$Y =$ Implementation of Management Accounting Information Systems
$X_1 =$ Managament Commitment
$X_2 =$ Organizational Culture
$\varepsilon =$ Effect of other factors

Table 5:*Path of Coefficient of Each Independent Variable on the Implementation of Management Accounting Information Systems (MAIS)*

Independent Variables	Path coefficient	t_{-test}	$R^2 = 0,566$
X_1	0,464	4,896	
X_2	0,444	4,689	

Source: Attachment Output Lisrel

Visually the path diagram of the management commitment influence and organizational culture on the implementation of MAIS is shown in the following figure.
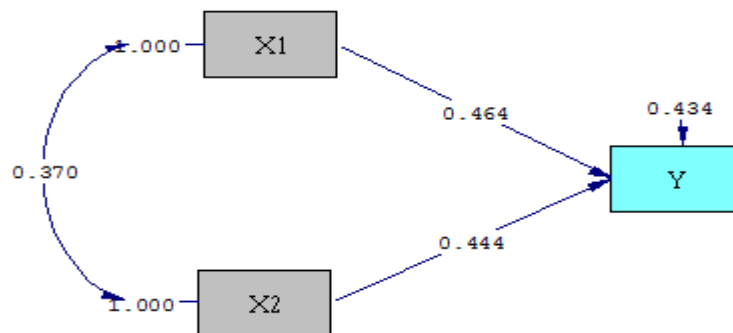
Picture 3: *The first model path diagram*

From the results of the research, it was obtained F-test (36.52) and greater than Ftable (3.16), so at the 5% error rate it was decided to reject H0 so that H1 was accepted. It can be concluded that management commitment and organizational culture simultaneously influence the implementation of MAIS in three-star, four-star and five-star hotels in West Java Province.

Table 6:*Test results of the influence of management commitment on the implementation of MAIS*

Path Coefficient	$t_{\text{-test}}$	$t_{\text{table (db:56)}}$	Ho	H_1
0,464	4,896	2,003	Rejected	Accepted

Based on the test results above, it can be seen that the management commitment t-test variable (4,896) is greater than t table (2,003). Because the value of t-test is greater than t table, then with a 5% error rate it is decided to reject Ho so that H1 is accepted. It can be concluded that management commitment influences the implementation of MAIS. The influence of organizational culture on the successful implementation of MAIS is as follows :

a. The direct influence of organizational culture on the implementation of MAIS = (0.444) x (0.444) = 0.197 (19.7%)

b. The indirect influence of organizational culture on the successful application of MAIS is due to their relationship with management commitment = x x = (0.444) x (0.370) x (0.464) = 0.077 (7.7%).

So that the total influence of organizational culture on the successful application of MAIS = 19.7% + 7.7% = 27.4%.

Table 7:*Independent Variable Path Coefficient on Manager's Decision Making*

Independent Variables	Path coefficient	$t_{\text{-test}}$	$R^2 = 0,607$
Y	0,779	9,303	

It is known that the implementation of MAIS has an effect of 60.7% on manager's decision making. While the remaining 39.3% is the influence of other factors not examined. Visually the path diagram of the influence of the implementation of MAIS on manager's decision making is shown in the following figure.
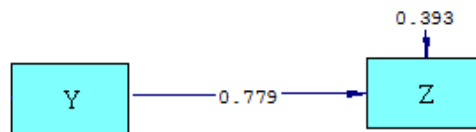
Picture 4: *Path Chart in the Second Model*

Table 8:*Test results of the influence of the MAIS on manager's decision making*

Path Coefficient	$t_{\text{-test}}$	$t_{\text{table (db:57)}}$	Ho	H_1
0,779	9,303	2,002	Rejected	Accepted

Based on the table 8, the implementation of management accounting information systems t-test variable (9,003) is greater than t table (2,002). Because the value of t-test is greater than t table, then with a 5% error rate it is decided to reject Ho so that H1 is accepted.   It can be concluded that implementation of management accounting information systems (MAIS)   influences the manager's decision making.

V. CONCLUSIONS AND RECOMMENDATIONS
V.I. Conclusions
- Management Commitment influences on the Implementation of MAIS
- Organizational Culture influences on the Implementation of MAIS
- Management Commitment and Organizational Culture influences on the Implementation of MAIS
- Implementation of MAIS influences on the Managers' Decision Making

V.II. Recommendation
- To achieve the successful implementation of management accounting information systems (MAIS), top management should not only commitment to approve the application of MAIS but also must monitor and provide examples to line management
- To reduce the failure of decision making, the development of information systems should produce quality information as well as user oriented where hardware, software, communication networks, database management systems must match the needs of users.

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