STRATEGY AND MANAGEMENT CONTROL SYSTEM IN A MANUFACTURING INDUSTRY IN SELECTED CITIES IN INDONESIA

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Abstract: The purpose of this study is to examine the relationship between strategy formation process and strategy implementation process with the usage of MCS. The focus of strategy formation process used in this study is intended strategy, emergent strategy, and implemented strategy. The focus of MCS used in this study, is interactive control system and diagnostic control system. This study uses structural equation modelling as multivariate analyses tool. AMOS software 16 program is used as the aid tool to solve the problem in SEM application. Respondents in this study are 287 upper managers who work in manufacturing industry with prospector typology strategy. The results from this study are: intended strategy positively and significantly influences the interactive control system; intended strategy positively and significantly influences the diagnostic control system; emergent strategy positively and significantly influences the interactive control system; and emergent strategy provides no influence on diagnostic control system; implemented strategy positively and significantly influences the interactive control system; implemented strategy positively and significantly influences the diagnostic control system. The strength of pressure that is used in each control system that will be able to provide optimal result has not known yet. The result of this study recommends that firms should have used many kinds of control usage which are suited with their condition.

Keywords: intended, emergent, implemented, strategy, control system, manufacture

Introduction

Contribution from manufacturing industry in Indonesia in gross domestic product (GDP) keeps continually decreasing in consistent way for the last eight years. In 2009, this sector can even only contribute for about 26,4% on GDP. Statistic centre of bureau noted that the role in manufacturing industry on PDB in 2002 still reach 29,7%. Yet, in 2003 this role was decreasing into 28,3%. In 2004, this contribution is a bit decreasing into 28,1% and in 2005 it decreases into 27,8%. The decreasing role in industry at PDB keeps continuing occurred for more than five years in consistent way. It indicates that Indonesia has entered beginning deindustrialization phase and shows the competitive power of Indonesia's manufacturing industry that has shown a significant decreasing. This decreasing can be occurred since the inability of management control system to adapt itself with the existing strategy in a firm (Henri, 2006; Widener, 2007). Management control system (MCS) which is used in firms in Indonesia tends to use the interactive approach not the diagnostic one. It is closely related with Indonesia's culture to use gathering as a tool to solve any problems (Ismail et al., 2012).

Basically, the purpose of MCS is to provide a valuable information in decision making process, and also in planning and evaluation ones (Merchant & Otley, 2006). MCS is a tool to create a good cooperation both in collective and individual way, so as to make the organization becomes the channel for every effort which is performed to reach company's specific purpose (Ouchi, 1979).

There are two line researches which highlight the effect of strategy on MCS. First, strategy is conceptualized on strategic option which takes strategy from the content approach; and second, strategy is conceptualized as a process. There have been many literatures which explore strategy from content approach; unfortunately there are few studies which have highlighted process approach. Kober et al. (2007) found that MCS will adapt itself with company's strategy.

Specifically, interactive control system will adapt itself with strategy formation process and strategy implementation process.

The researchers who investigate the relationship between strategy process and MCS have conceptualized strategy formation process into two parts (Chenhall, 2005). The first part, emergent strategy which comes from the process or the development of a strategy which has quick response. And the second part, intended strategy as a planned strategy which has been prepared in advance by top management in a company, it may not be used if there is an unexpected change.

Although there had been many researchers who had explored the relationship between strategy process and the usage of MCS (Kober et al, 2007), however they had not given a generalizable result. Kober's study (2007) used case study qualitative method. In addition, Kober's study only used interactive control system in their study, whereas qualitative method enables more detailed analysis of a strategy formation process and it is also supported by many researchers (Dent, 1990). Unfortunately, the generalizability of this result is still limited, since there are many kinds of specific organization's characteristics. Current research investigates the relationship between strategy implementation and strategy formation process by the usage of MCS, in order to make a more generalizable result, by using quantitative method. Furthermore, this study uses two usages of MCS, namely diagnostic control system and interactive control system. Two usages of MCS will provide a maximum result, since the function of diagnostic control system and interactive control system will complement each other (Simons, 2000). This study is performed in manufacturing industry in Indonesia, and the chosen areas are DKI Jakarta, West Java and Banten provinces. These three areas are selected based on the reason that most of manufacturing industry in Indonesia is cantered there (as 60%). In addition, there is no similar study which ever performs in Indonesia or Asia.

The remainder of this paper is organized as follows. The next section briefly examines strategy and the use of MCS. Thereafter, a theoretical model is developed and a set of hypotheses is presented. The next two sections include a description of the survey design, the analysis of the data using structural equation modelling and a discussion of the results. The Final section presents the conclusion, limitations, recommendation.

Literature Review
Strategy Formation Process & Strategy Implementation   Process

The researchers of strategic management have studied the alteration of strategy conceptualization and they have also explored the relationship between strategy and MCS since in the middle of 1990's (Langfield-Smith, 2007). The running process when a strategy is formed has been attracted many researchers. Literatures which explored strategy management signify that there are many varieties of natural trait and shape in a strategy which occurs in an organization (Bhimani & Langfiled-Smith, 2007. p. 3-4). Various characterization of strategy process have also been stated and explained by many researchers (Johnson & Scholes, 1999).

One characteristic of strategy formation process in its taxonomy has been well developed by Mintzberg (1978, 1987, 1994); Mintzberg & Waters (1995); Mintzberg & McHugh (1985); and Mintzberg (1990, 1994). There are two independent processes which work simultaneously in strategy formation process (Mintzberg & Waters, 1985).

First, intended strategy in its taxonomy, in which it is viewed as a proactive statement which has formal shape and it has been planned before an actual action or decision is taken. Having made the strategy formation process, it will be followed by implementation phase (Langfiled-Smith, 1997). This kind of strategy is considered as intended strategy. Intended strategy is a plan which becomes the company's purpose and it is predicted to be the most suitable action to reach the company's purpose (Mintzberg, 1978). Based concept of this strategy is that all action must be properly replanted. In this case, intended strategy describes that there is a plan from top until the lowest position in an organization.

Intended strategy can be implemented if the three requirements below fulfilled (Mintzberg & Waters, 1985). (i) Personnel in an organization must comprehend each important detail of intended strategy and what management means about it; (ii) Each personnel in an organization must view the business world as a collective action; (iii) Collective attention can be accomplished if there is no influence on many unpredicted things such as politic, technology and market power. These three requirements are difficult to find, as a result intended strategy is rarely performed without significant change (Mintzberg & Waters, 1985).

The second strategy formation process is called emergent strategy. This kind of strategy is the result of cumulative influence from daily's decision which is made by middle manager, technician, sales force and financial department. Their decision usually has tactical character, and it is not framed as strategic decision. Emergent strategy is a strategy which responds external threat which is not predicted before or it comes out from trial and error (Mintzberg, 1994). This kind of strategy emerges from daily's decision of a business and it sometimes comes out from unpredicted idea of the subordinates in an organization.

Interactive Control System

Diagnostic control system can be made interactively by continuing and continually paying attention on management's interest. Interactive control system is used by top management to help them in guiding strategy formation process in informal way by implementing personal involvement, intimacy or relatedness with problems and commitment (Mintzberg, 1987).

A system will be classified as an interactive system if top manager reports that this system is usually personally and regularly used and it becomes the top priority both for manager and it's subordinate. This system is used in routine meeting, which is usually performed both by subordinate and other parts of an organization to review the data and produce an action planning (Simons, 2000). Each control system can be used interactively by senior management if the system is suitable with the required uncertainty rate (Simons, 2000: 219), Meanwhile the selection of interactive control system is heavily dependent on four factors, namely (i) technological dependence; (ii) regulation; (iii) value creation complexity; (iv), the reality of tactical response (Simons, 2000). There are many reasons why manager uses interactive controls system, as follow: (i)economy aspect, in which management's attention is a rare and costly resource; (ii) cognitive aspect, in which every individuals' ability has the limitation to process the information; (iii) strategic aspect, in which it is closely related with active learning on strategic uncertainty and collecting the new plan action (Simons, 2000).

Management control system becomes the interactive control when a business manager use the planning procedure and controlling procedure in which they actively monitor and intervene the decision making activity that continually occurs from the subordinate in an organization (Simons, 1990). A continuous intervention will provide an opportunity for top management team to give an argumentation, challenge based on ground data, acquisition and other planning action, as a result interactive management control system will demand continuous attention from the subordinates that operate in each level of an organization (Simons, 1990).

Modern organization has different kind and form of control system. Top manager will opt the management control system that has interactive trait if the existing system collects the strategic uncertainty information. By using interactive control system to monitor and observe the strategic uncertainty, top management team in an organization will express their value, their reference to each individual in an organization who gives an input to decision making process. Observation or surveillance action is an action to search any unexpected things, interactive management control will guide each member of an organization to search any unexpected things or any kind of expectation and intelligent information that will be collected (Simons, 1995). Unexpected things may become the new alternative, new preference, or a change for an organization. New alternative decision making process by top management is really needed when the decision itself s closely related with strategic policy and organization's resource (Simons, 1995). Interactive control system

controls enables the top manager to obtain full information about how the taken decision will be distributed to every line of an organization.

Diagnostic Control System

Diagnostic control system is a feedback system that is formally used to monitor and observe the organization's result and to correct any deviations that occur in a organization's performance (Simons, 1994). Diagnostic control system will be represented by business plan and budget plan (Simons, 1994). It is a feedback system that is used to track any variances that deviate from the fixed purpose in exceptional base. Critical performance variable analyses will influence diagnostic control system design (Simons, 1994).

The classified system will be known as diagnostic system if the top managers has lack of involvement, and they are likely to delegate the operation and system to staff or lower management, and it depends on other parts of an organization to provide a necessary information (Simons, 1994). This system also report information on important factor that enables the manager to focus its attention on organization's based direction that needs to be monitored so as the company will realize the aimed strategy.

There are two important reasons, why manager use diagnostic control system (Simons, 1994), namely to effectively implement the strategy and save the management's attention. Most managers are interested in scrutinizing diagnostic controls system which reports deviation information in critical performance variables, whereas these factors must be achieved (Simons, 1994). Critical performance variables are closely related with performance triggers that: will influence the successful probability of strategy implementation process; or will provide the largest potential efficiency (Simons, 2000: 233). As a result, diagnostic controls system in strategy implementation process will be the plan to perform a job in an organization. Every formal information will be used diagnostically if it enables to continue the plan; measure the output; calculate the performance deviation; and use deviation information as feedback system so as to attain the performance like it is expected before.

Some diagnostic control system form performance measurement such as balanced score card, load centre budget, surveillance system, market share surveillance system, human resources system, and cost accounting standard (Simons, 2000). The effective use of diagnostic control system needs some requirements namely (Simons, 2000: 11): purpose negotiation and implementation; performance measurement integration; incentive design; exceptional reports review; significant exceptional follow up. Moreover, diagnostic control system faces some risks like, a probability to measure the false variable, and create a slack in target (Simons, 2000).

Diagnostic controls system is used to measure the critical performance variables and it is based on defined view on important aspects. Manager's duty will be delegated to lower organizational level to save the time of top management, so as to enable the senior manager in responding the unsuitable result. Any unsuitable responses from organization's members will be part of learning process (Argyris, 1977).

Hypotheses Development

In a study at light bulb factory which discusses strategy change, Roberts (1990) performed three years study, to investigate the penetration of competitor in a market, followed by the acquisition on Conglomerate Company. To give a response on any change that happens in a strategy, organization's MCS must be adapted with organization's strategy. The result from this study provides a point of view on how the relationship that comes from a formation and implementation of a strategy will influence the MCS usage.

Emergent strategy formation concept (Mintzberg, 1978, 1987, 1994; Mintzberg and Waters, 1985) will be integrated with Simons' results (1990, 1991, 1994, and 1995) which examine the usage of diagnostic control and interactive control system. Simons (1990 1991, 1994, and 1995), provided theoretical and empirical support on how the diagnostic control system (DCS) and interactive

control system (ICS) will be used by an organization. DCS will help an organization to pursue a formed plan. Meanwhile ICS will help the organization to communicate a strategic agenda and lead the organization's attention on emerging uncertainty that may be produced by a strategy. Simons (1995) examined ICS that will help the emergence of dialogue and argument that occur in a long time. ICS will also create a competitive pressure in an organization to make an innovation and adaptation (Simons, 1995). Therefore, ICS will be adapted with spontaneous emergent strategy.

Changes that happened in traditional relationship between strategy formation process, strategy implementation and MCS review have been strengthened by another researchers who explore the relationship between MCS and strategy. Marginson (2002) for example, found that managerial perception about MCS usage will be adapted itself both in strategy implementation process and strategy formation process. It means that strategy will influence MCS. Kober et al. (2007) found that MCS mechanism which is used in interactive way will facilitate the change that happened in a strategy. When a change in strategy happens, MCS mechanism will alter and adapt itself with the process of a strategy.

To direct a strategy, an organization will use diagnostic control system meanwhile to communicate critical success factor of a strategy they will use interactive control system. According to Simons empirical study (1994), Chenhall & Morris (1995), they stated that organic decision making process has similar natural shape with interactive control and it is effectively proven when it is combined with diagnostic control system (Henri, 2006). The relationship between diagnostic and interactive system states that information and learning is produced by interactive system that attached in strategy and purpose of an organization, therefore it can be monitored and observed by diagnostic control (Simons, 2000; p. 305). Widener (2007) argued that an organization will simultaneously use interactive system and diagnostic system. The larger the top manager depends on the interactive control system, the larger their dependence on interactive control system, as well as the larger their dependence on diagnostic system; it will enable interactive system runs effectively.

According to Mintzberg's study (1978), he further distinguished intended strategy that becomes the purpose of an organization and emergent strategy that becomes the spontaneous strategy. Conventional view said that the relationship between strategy and MCS on strategy formation process and its implementation will influence on how a control system is used. It is in line with contingence theory. Otley et al. (1995) said that MCS needs to be adapted with organizations' strategy. It will lead into the developing hypotheses as follow (figure 1):

H1a: Intended strategy (InS) positively influences interactive control system (ICS).
H1b: Intended strategy (InS) positively influences diagnostic control system (DCS).
H2a: Emergent strategy (ES) positively influences interactive control system (ICS).
H2b: Emergent strategy (ES) positively influences diagnostic control system (DCS).
H3a: Implemented strategy (ImS) positively influences interactive control system (ICS).
H3b: Implemented strategy (ImS) positively influences diagnostic control system (DCS).

Figure 1. Empirical Model
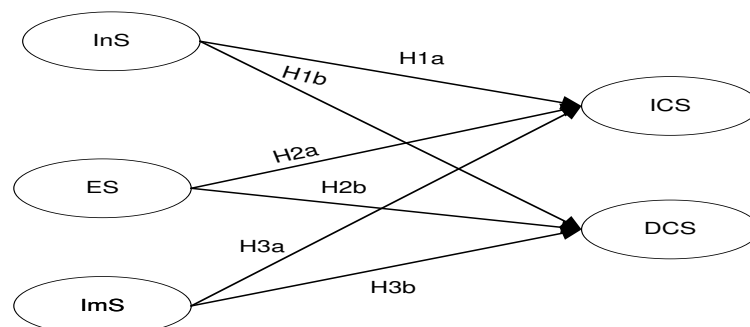
Method

Strategy in process approach consists of intended strategy (InS), emergent strategy (ES) and implemented strategy (IS). The indicators which are used to measure Intended strategy construct will be adopted from Boyd & Reuning-Elliot, (1998) such as: Mission statements (ins1), Trend analyses (ins2), competitor analysis (ins3), Long term Goal (ins4) Annual goals (ins5), Action plans (ins6), ongoing evaluation (ins7). Indicators which are used to measure Emergent strategy construct will be developed from Mintzberg & Waters (1985) and Marginson (1999), such as: opportunistic strategy (es8), bottom up strategy (es9); intuition strategy (es10). And the indicators which are used to measure implemented strategy construct will be adopted from Noble (1999) and Heide (2002) such as: the involvement of entire member (is11), organisational structure adaptation (is12); managerial style adaptation (is13), organizational culture adaptation (is14); the availability of information to entire member of an organization (is15); the availability of skill and knowledge to employee (is16); fund and resources allocation (1s17).

Meanwhile the indicators to measure ICS construct will be adopted from Simons (1995). Henri (2006) and Widener (2007), such as: developing a discussion with manager, subordinate and peer (ics18); developing challenge and argumentation based on data, assumption, and action planning (ics19); presenting general view of an organization (ics20), commitment to an organization (ics21); focus on main problem (icss22); focus on successful factors (ics23); developing a general language in an organization (ics24). Lastly, the indicators to measure DCS will be adopted from Simons (1995), Henry (2006), and Widener (2007), such as: tracking the improvement (dcs25); monitoring the result (dcs26); comparing the result with the expectation (dcs27); exploring the successful factors measurement (dcs28). Each questionnaire uses 7 points of Likert scale. Scale 1 shows "totally disagree" and scale 7 shows "totally agree".

Samples in this study are the upper managers who work in manufacturing industry with prospector typology. Prospector typology company is an organization that actively search opportunity and perform continuous innovation (Miles & Snow, 1978). These organizations are situated in Banten Province, DKI Jakarta West Java, and each company has minimum 2 years experience. The reason why the author took these samples is caused by its large amount (about 60%) of manufacturing industry in Indonesia which is cantered in these three provinces.

Data used in this study is primary data in form of respondents' perception which is collected through direct mail to respondents. Total sent questionnaires in this study are 429, there are 113 questionnaires which return to their original address and there are 29 questionnaires which cannot be used since it is not completed by the aimed respondents. It leaves out 287 questionnaires which can be used (429 - 113 - 29 = 287). In other words, the returned questionnaires rate is 74% and the used questionnaires rate is 66.9%.

Result and Discussion
Structural Equation Models

This study uses structural equation modelling as a multivariate analyses tool that enables the author to test the relationship between complex variables and they can also obtain a full description on the entire model. SEM has been considered as a statistic tool that is useful for the researchers in social science. SEM had been a must for non experimental study, in which the testing method to test the theory has not been fully developed. This study uses software AMOS 16 as the aid tool to solve SEM's problem (Ghozali, 2007).

In confirmatory factor analyses, it shows that these constructs namely, intended strategy, interactive control system and diagnostic controls system must be modified by removing some indicators which have loading value below 0.5, that is to say ins1, ins3, ins5. Some indicators like ics11, ics15, ics16 and dcs18 are used to measure more than one construct; therefore these four indicators must be removed from the model.

Normality Testing

Normality testing is performed by using critical value as ± 2.58 at significant rate as 2.58. If the critical value from this study is bigger than the criteria value, it can be concluded that data distribution is not normal. Structural Equation Modelling at assessment or normality part, with critical ratio (CR) in multivariate way as 2.44. It means that this value is smaller than ± 2.58. As a result, the normality testing result for these data has met the requirement to be categorized normal (Ghozali, 2007).

Outliers Testing

Outlier testing is performed by using mahalanobis distance calculation for each variable. Mahalanobis distance calculation shows the distance for each variable from the average value of the variables which are in multidimensional space (Byrne, 2010). The mahalonobis calculation is based on chi square in distribution $\square^2$ at degree of freedom which is apt with the amount of used variable in this study. This study uses 28 variables at p < 0.001 that is $\square^2$ (28: 0.001) = 56.89. Therefore, mahalonobis distance value is bigger than 56.89, and it is considered as multivariate outliers. There is no outlier in this study.

Multicollinearity Testing

To see whether there is multicollinearity or singularity in variable combination, we need to observe the covariance matrix determinant, the multicollinearity indications can be seen if the correlation value between construct > 1 (Byrne, 2010). Because there is no warning on this analyses and there is no correlation value among constructs which is > 1, covariance matrix is non singular and it can be observed further.

Goodness of Fit Testing

Based on the figure 2, it can be seen that goodness of fit index show the good fit. Probability value as 0.051, GFI value as 0.95, TLI value as 0.99, CFI value as 0.99, NFI value as 0.98 and RMSEA value as 0.04. As a whole, these criteria show the good acceptance of fit value.

Figure 2. Output Full Model
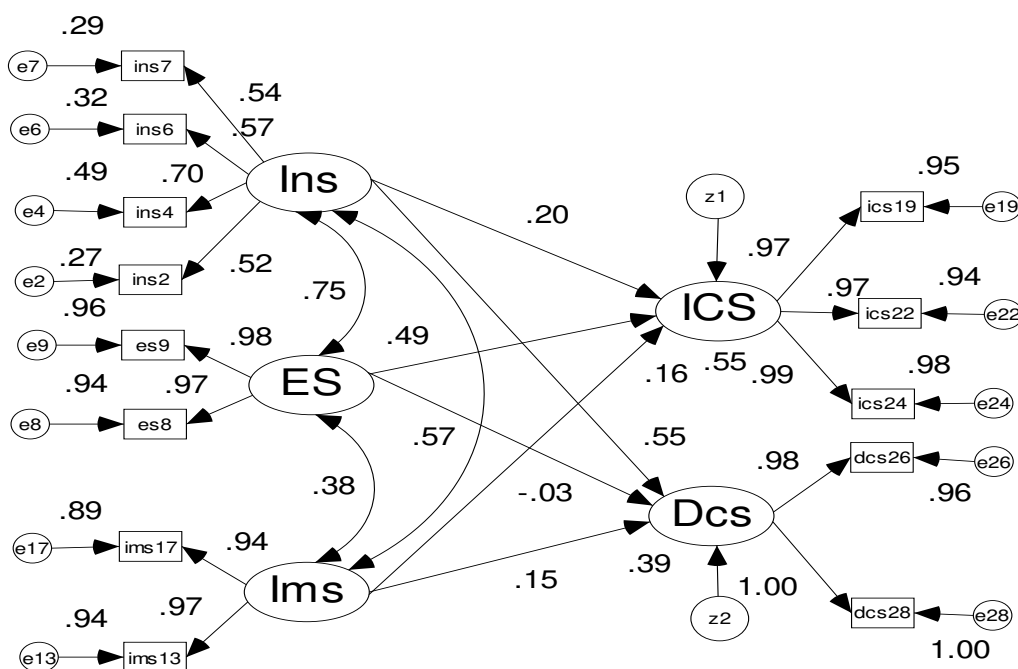
Hypotheses Testing

Confirmatory and structural equation model analyses cover Intended Strategy construct, Emergent Strategy, Interactive control System, Diagnostic Control System. The next phase is to test the proposed hypotheses, and the result can be viewed from Table 1 which covers critical ratio and probability on output regression weight value.

Intended strategy positively and significantly influences on interactive control system, it is shown from the coefficient value as 0.203, and it is in line with the statement in H1a. The testing result on causality relationship shows that there is enough prove to accept this hypothesis. As a whole, the intended strategy relationship is formed by long term goal renewal, short term action planning renewal, continuous evaluation, and trend analyses which all positively influences the interactive control system. As a form of strategy, intended strategy is a plan that becomes the company's purpose and it is predicted to be the most suitable action to reach the company's purpose (Mintzberg, 1978). Basically, intended strategy needs proper control, the result from this study proves that the environment around the manufacturing industry in Indonesia has implemented proper management control system, as a result the strategy process positively influences on interactive control system as a part of management control system.

Table 1. Regression Weight

			Std. Estimate	S.E.	C.R.	P	Remark
ICS	<---	InS	0.203	0.233	3.864	***	H1a: Supported
DCS	<---	InS	0.55	0.318	3.465	***	H1b: Supported
ICS	<---	ES	0.486	0.071	5.953	***	H2a: Supported
DCS	<---	ES	-0.028	0.088	-0.26	0.154	H2b: Not Supported
ICS	<---	ImS	0.16	0.058	2.697	***	H3a: Supported
DCS	<---	ImS	0.128	0.069	2.96	***	H3b: Supported

Fit indices of the model

GFI	:	0.95
NFI	:	0.98
CFI	:	0.99
RMSEA	:	0.04
Hoelter	:	274
P	:	0.06

Notes: *** significant at the level 0.01

Some indicators which cannot be used to measure the intended strategy variables are the company manager develop and renewal mission statement; the management team performs or facilitates another organization in similar industry and the management team renews its yearly plan. Because these three indicators have loading estimate value below 0,5, consequently it can be said that company in this study's samples do not employ these three indicators to form intended strategy process.

The result of this study supports the importance of MCS. Specifically interactive control system must be adapted with intended strategy as a part of strategy formation process. The result of this study actually supports contingence theory which stated that a company basically must be adapted with contextual factors. Contingence theory belong to Otley (1980) stated that MCS needs to be suited with an organization's strategy. Interactive control system will help an organization to communicate strategic agenda and direct the organization's attention on the uncertainty which will probably emerge due to the strategy's development. The results are consistent with the work of Kober et al. (2007).

Hypothesis 1b states that intended strategy positively influences the diagnostic control system, the result testing of estimation parametric (regression weight) between intended strategy and diagnostic control system shows that there is a positive and significant influence as 0.55. Therefore, H1b is accepted.

Any changes or alterations in an organization when the formation of intended strategy is carried out will also influence an organization's strategy, as a result an organization needs to continually develop and renew its long term purpose with an organization's environment. The renewal of long term goal will be followed a renewal on short term goal (ins6), ongoing evaluation (ins7) and trend analyses (ins2) are the indicators to measure intended strategy, When there is a change in long term goal and another three process in intended strategy, then the next phase that must be performed by a company is monitoring the continuous achieved result. Like comparing the expected result and the actual result and also reviewing the key factors to reach the long term goal of a company, monitoring the achieved result and reviewing the key factors are ways in diagnostic control system perform its function and to ensure the achieved organization's strategy. Therefore, the result of this study proves that intended strategy will support the usage of diagnostic controls system.

The result of this study supports the importance of diagnostic control system as part of MCS, and it must be adapted itself with intended strategy as part of the entire strategy formation process. The result is in line with speculative statement from Kober et al. (2007) who said that diagnostic control system will facilitate the strategy formation process. The result is actually supported by contingence theory which stated that an organization basically must be adapted with contextual factors. Therefore, when the contextual factors occur, management controls system as part of control and review system must be adapted with the organization's strategy. Contingence theory (Otley et al., 1995) stated that MCS must be adapted with an organization's strategy. Diagnostic control system will help an organization to communicate its critical succeeded factors which emerges as the result of strategy formation process like indented strategy.

A hypothesis 2a states that emergent strategy positively influences the interactive control system. The result of estimation parametric (regression weight) between emergent strategy with interactive control system shows that there is positive influence with critical value as 5.95. CR Value is far above the critical value at 2. Therefore H2a is accepted.

The result of this study states that spontaneous emergent strategy needs a supportive control to encourage any prolonged dialogues and argumentation. Dialogue and the argumentation are parts of interactive usage of MCS. The relationship can be explained from the result which stated that an organization must be adapted itself with the changing consumer's preference, high competition and dynamic business environment. To anticipate the quick changing and win the businesses competition, a management needs to develop and pursue a strategy which is based on spontaneous opportunity seeking. Only strategy that provides a high certainty that will be elected by top management. When this strategic information is accepted by management, they will need information which is based on data, assumption, and required planning action. Information, data and strategy plan are not only based in one division, but it will also allow any other information to flow into the upper top management. Therefore, intensive discussion among the member of each management level in an organization needs to be maintained to yield the best action planning and

strategy. Opportunistic and spontaneous strategy is indicator from emergent strategy construct. Argumentation based on data, assumption and action plans are the indicators of interactive control system.

Hypotheses 2b states that emergent strategy positively influences diagnostic control system. The result from estimation parametric (regression weight) between emergent strategy and diagnostic control system shows that there is no influence on critical value of CR as -0.26. CR value is below the critical value at 2. Therefore H2b is denied. The result is against with Simons (1990) who stated that opportunistic emergent strategy needs a control to halt the emergence of excessive investment through diagnostic control.

The rejected hypotheses can be caused by the samples in this study that is prospector typology company. This kind of company will actively search any opportunity by continuous innovating and have a creative attitude (Miles & Snow, 1978). A creative employee is likely to deny to be controlled by diagnostic control system (Henri, 2006), since diagnostic controls system will limit their creative thought and behavior. The patent ownership in these samples comes from the employee's creativity in the organization; it proves that employees in the organization are very creative. It usually happens that innovation; patent and other result will come out from an unplanned condition (Mintzberg, 1978). Therefore, in dynamic emerged strategy, people will be more creative and likely to deny the usage of diagnostic control system.

The relationship between implemented strategy and interactive control system has coefficient value 0.16 and significant at 0.01. It shows that the coefficient direction is in line with the statement in hypothesis 3a. The relationship between implemented strategy and diagnostic controls system has coefficient value 0.128 and it is significant at 0.01. It is in line with the statement in hypothesis 3b. In this study, implemented strategy construct is composed from two indicators namely; the management performs any suitability to organizational management style when they implemented strategy (ims13). Management style can be generally viewed as the delegation of decision making authority and also as a certain technique used by manager to implement its strategy. Another indicator formed implemented strategy is the resources allocation performed by the company, both in funding resources and human resources to implement its strategy (ims17).

Porter et al. (2006) stated that authority delegation is a vital tool in an organization. Management needs delegate their authority so as to make they are able to run properly their operation management. Besides, authority delegation is a logical consequence of the growing organization. Delegation must be well performed so as to make the management are able to empower its subordinate and also to strengthen the organization especially when there is a change in management line.

The requirement to succeed the authority delegation is to whom the delegation is provided, commitment on organization's aim, (Porter et al., 2006). The adaption on management style (ims13) is the indicator to measure the implemented strategy construct which has loading estimate value as 0.97 and organization commitment as the indicator of interactive control system. It also includes the commitment on resources allocation, both funding resource and human resources. Therefore, the result of this study proves that implemented strategy will support the usage of interactive controls system.

Besides, authority delegation is a logical consequence of growing organization. Delegation is not totally meant that there is no control, the subordinate needs to be given a delegation in which they are always to be monitored, as well as to ensure that the action has met organization's plan. The adaptability of managerial style (ims13) is the indicator to measure implemented strategy construct which has loading estimate value as 0.97 and monitoring action is the indicator of diagnostic control system. Therefore, the result of this study proves that implemented strategy will support the usage of diagnostic control system.

Another result from this study states that the usage of management control system by managers in manufacturing industry in three chosen areas use more than one control system, both interactive control system and diagnostic control system. Yet, The company tends to use interactive control system compared with diagnostic control system.

Conclusion

The result from this study shows that MCS is influenced by a context in which MCS operate and it needs to be adapted with the organization's need and situation. One influential variable in deciding management control system is organization's strategy. Empirical model in this study only uses interactive control system and diagnostic control system. The strength of pressure that is used in each control system that will be able to provide optimal result has not known yet. The result from this study recommends that competitive business environment should use many kinds control that are suited with the company's condition. There is no an absolutely right control system that can be used in every organizations in a universal way. A control system will have different form in each company.

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