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The results in Tables 2 through 7 provide some support for this explanation. The two most frequently accessed information sources for all six environmental sectors were personal internal sources, which included subordinates, superiors, coworkers and staff, and the Internet. Presumably, managers access these sources regularly and gathering information regarding environmental sectors from these sources requires very little additional effort. Gathering information from written external and internal sources and from personal external sources such as business associates, customers, vendors, officials and trade shows would likely require substantially more effort and planning. However, information that is the easiest to access may not be the most accurate. Information from the Internet may not always be reliable. Information gained from within the organization may be subject to institutional forces that result in a degree of isomorphism with respect to how information is expressed and interpreted (DiMaggio & Powell, 1983). The relatively less frequent use of personal external sources to monitor all environmental sectors suggests that this information source, which may often be more objective, may be underutilized.

## **LIMITATIONS AND SUGGESTIONS FOR FUTURE RESEARCH**

The length and scope of survey instruments are limited due to the general reluctance of individuals to participate in complex or time consuming survey-based data collection efforts (Newby, Watson, & Woodliff, 2003; Markman, Balkin, & Baron, 2002). This limits the ability to assess the relationship of large numbers of variables. Unfortunately, many relationships involved in assessing cognitive behavior can be quite complex and can involve many variables. As a result multiple studies may be necessary to fully assess these types of relationships. These limitations often also preclude the desirable use of multiple measures of a single construct. An additional bias resulting from obtaining the data using a single method is possible (Avolio, Yammarino & Bass, 1991; Spector, 1987). Spector (1987) found this bias was of minor consequence in an analysis of employee self-report measures. Relative rankings of similar items were used for analysis. In the present study, any common method bias would similarly affect those items and be less influential with respect to individual rankings.

Collecting cognitively based data from managers related to decision-making behavior often requires the use of self-report measures and reliance on the recollection of past behaviors or attitudes. However, Brewin, Andrews and Gotlib (1993) have determined the retrospective

recall of specific events or facts is quite accurate. The study involved only one industry. This methodology eliminates any industry effects on the results, but also imposes possible limits on the generalizability of the findings to managers in other industries. Designing studies addressing these additional research questions that simultaneously include managers from two or more industries should increase the generalizability of their findings.

While providing evidence to support the differential frequency of use of various information sources by managers based on their perceived importance of environmental sectors in which their organization operates, this study raised issues to be resolved in future studies. The study assessed the quantity of information seeking behavior by measuring the number of times information sources, identified in numerous previous studies, were judged to be helpful. A future study that includes an expanded list of information sources within each information source category should prove additional insights although constraints on data collection may require multiple studies to include numerous potential information sources. For example, identifying the hierarchical position of respondents within an organization should add a higher level of understanding whether internal information exchanges regarding environmental sectors is primarily among peers or among personnel at different hierarchical levels. The type of data might determine the extent the information gathering from personal internal sources is a byproduct of normal social interaction or the result of a strategy driven quest. Seeking information from external information sources often requires considerable effort and expense. Therefore, soliciting the opinions of respondents regarding what they perceive as the most helpful external personal and written sources might not only provide useful directions for future research, but also provide guidance to organizational leadership seeking to allocate resources to seek this information and to provide training to its managers in directing information search efforts. Because the Internet was consistently rated as a frequently used source, further research is warranted to identify sites are the most frequently visited to provide information on each environmental sector and which are perceived to be the most helpful by managers. Organizational leaders can use this information to assess whether to encourage or discourage the use of particular websites.

Finally, because one possible explanation for the lack of relationship between perceived importance of task environmental sectors and frequency of scanning relates to possible difficulty in obtaining information future studies could include an assessment of respondents perceived effort associated with obtaining information related to each of the sectors and the various information sources related to them.

## **PRACTICAL IMPLICATIONS**

The results of this study suggest many managers do not perform scanning activity related to environmental sectors based on how important they perceive the sectors are to organizational performance. The decision-making processes of managers should consider changes in the environment to the extent those changes bear on those processes if optimum decision outcomes are to be achieved. That objective may not be achieved if an improper scanning process omits important information about such changes. Scanning related to the task sector is arguably more important to organizational performance than the general sector, but is less influenced by the perceived importance of the sector. One possible explanation for this phenomenon is that the scanning related to the task environment requires more time and effort. This suggests that organizations do not sufficiently encourage managerial scanning behavior by allocating sufficient resources or incentives.

Organizational leaders have the potential to improve the scanning performance of their lower level managers in many ways. First, the creation of an organizational culture that encourages managers to regularly seek information, particularly from personal external sources, can be encouraged by providing resources to meet with these sources on a frequent basis and by recognizing superior performance in seeking and obtaining information from them. Second, organizational leadership can clearly articulate the strategic direction of the organization and what environmental factors are critical to the success in executing the preferred strategic direction. Finally, managers can be provided training in which information is the most helpful in monitoring changes in the environmental sectors and where that information can be found.

Thus, the information seeking behavior of managers can be greatly influenced by not only the perceived importance of an environmental sector to organizational performance, but also their perceptions of the importance of the information seeking process to their organizational leaders as well. An organization where managers do not sufficiently recognize the importance of obtaining information regarding changes to environmental sectors and how that lack of information may impede organizational performance will likely be at a significant competitive disadvantage compared to an organization that articulates a strategic direction to its managers, describes what environmental information relates to that direction and facilitates an ongoing quest for that relevant environmental information.

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# CONTROL SYSTEM, STRATEGY AND LEARNING

**Tubagus Ismail, Sultan Ageng Tirtayasa University**

**Imam Ghozali, Diponegoro University**

## ABSTRACT

*Up to now, there have been many literatures which explore the impact of management control system (MCS) on strategy. Unfortunately, there are still few studies which highlight the impact of MCS on strategy based on interactive approach and process approach (Henri, 2006; Kober et al., 2007). Kober et al. (2007) found that MCS will shape company's strategy. Roberts (1990) also said that the use of interactive MCS (interactive control system) will facilitate the strategy formation process.*

*Kober et al. (2007) and Roberts (1990) used case study qualitative method. Case study enables more detailed analyses of strategy formation process, in addition many authors encourage the use of case study (Dent, 1990). Generalization of this qualitative result, however, is still limited because of many specific organizational characteristic. Interactive control system and strategy will influence internal and external learning process. This study shows that control system not only help strategy formation but also improve the learning process in an organization, yet the knowledge of how strategy influence learning process is still limited (Mulcaster, 2009).*

*This study aims to investigate the relationship between the use of MCS and strategy formation process which results in intended and emergent strategy. These two strategies are useful to improve learning. This study uses structural equation modeling as multivariate analysis. Samples used in this study are the upper and middle manager in manufacturing industries in Indonesia. The author uses AMOS 16 as the aid tool to overcome structural equation modelling (SEM) problem. The findings for this study are: interactive control system positively affects the intended and emergent strategy, interactive control system positively affects the internal and external learning; intended strategy and emergent strategy formed by interactive control system will positively affect internal and external learning. The results of this study can be generalized rather than those of previous studies.*

*Keywords: interactive, formation strategy, learning*

## INTRODUCTION

When a strategy is implemented, it sometimes needs an alteration to adjust with the change in surrounding environment of a firm. Therefore, a formed strategy may be accomplished as it has already planned before. The formed strategy can also be realized in modified shape, or even completely different strategy. Strategy formation process also demands manager to learn more rapidly (Elcock, 1996). As a result, it needs a control system which can not only help strategy formation process but also improve the learning process in an organization (Kober et al., 2007; Simon, 2000). Learning process to reach sustainable competitive advantage derives from

internal and external learning (Schroeder et al., 2002). Management control system (MCS) provides valuable information in decision making, planning and evaluation process (Anthony & Govindarajan, 2004; Davila, 2005; Merchant & Otley, 2006). MCS attains the collective and individual cooperation in organizational unit and becomes the channel to every employee's effort in accomplishing company's specific aim (Anthony & Govindarajan, 2004; Ouchi, 1979; Flamholtz, 1983).

There has been a significant development of researches which explore the relationship between MCS and strategy (Langfield-Smith, 2007). MCS is the only managerial instrument used to implement a desired strategy (Anthony & Govindrajana, 2004). Therefore, every company must have orientation and business strategy reflected in MCS (Langfield-Smith, 1997).

Up to now, there have been many literatures which explore the impact of management control system (MCS) on strategy. Unfortunately, there are still few studies which highlight the impact of MCS on strategy based on interactive approach and process approach (Henri, 2006; Kober et al., 2007). Kober et al. (2007) found that MCS will shape company's strategy. Roberts (1990) also said that the use of interactive MCS (interactive control system) will facilitate the strategy formation process.

Kober et al. (2007) and Roberts (1990) used case study qualitative method. Case study enables more detailed analyses of strategy formation process, in addition many authors encourage the use of case study (Dent, 1990). Generalization of this qualitative result, however, is still limited because of many specific organizational characteristic. As a result, future study needs to provide causal relationship between MCS and strategy based on quantitative method, consequently we can get a more generalized result (Kober et al., 2007).

Many authors have conceptualized strategy formation process into two parts (Chenhall, 2005). First, strategy that becomes an intention (intended), a pre formulated strategy by top management in a company. This kind of strategy may not be used if an unexpected change happens. Second, a strategy that has immediate nature (emergent), it comes out either from a process or the strategy development, to respond on sudden changing environment.

Strategy formation process must be able to adapt itself into any situation. By constantly learning the feedback, management will find out the best way to implement the formed strategy (Elcock, 1996). Having formed a strategy, an organization must collect and analyze information needed to reach the successfulness of strategy implementation. It is in line with Mulcaster (2009) who said that one succeeded factor in implementing a strategy is organizational learning. A process to collect and analyze any information is called organizational learning (Senge, 1990). Yet, the knowledge of how strategy influence learning process is still limited (Mulcaster, 2009). This study aims to investigate the relationship between the use of interactive control system a part of MCS with strategy formation process and its impact on learning. Learning which is used in this study is internal and external learning (Schroeder, 2002).

The remainder of the paper is organized as follows. Theoretical background and hypotheses development, research method, result, discussion, and the final section is conclusion, limitation and future research.



## **THEORETICAL BACKGROUND AND HYPOTHESES DEVELOPMENT**

### **Interactive Control System**

Interactive control system (ICS) is a formal system used by top managers to involve themselves in regular and personal decision making activities (Simons, 1987; Simons, 1994; Simons, 2000). Interactive control system is used to stimulate any dialogue, interview and bridge the information gap among hierarchy levels, functional departments and profit centre in an organization. Interactive diagnostic control system can be made by constantly giving attention and focusing on manager's interest. Interactive control system is used by top management to guide strategy formation process informally by setting personal involvement, intimacy or closeness with problem and commitment matter (Mintzberg, 1987).

A system will be called interactive system if top manager reports that the system is frequently used personally and regularly. Interactive system becomes top priority for top managers and their subordinates (Simon, 1987; Henri, 2006). This system is used by management in direct routine meeting with subordinates and other parties in a company to review data and generate action plans. Top manager must decide which aspect of management control system that will be used interactively and which aspect that will be the program (Simon, 1987). MCS becomes interactive control when a business manager uses planning and controlling procedures, and they also actively monitor and interfere decision making activity which continuously occurs among subordinates in a company (Simons, 1990). Intervention will give opportunity for top management team to have an open and fair argument based on data, acquisition and other action plans, for that reason interactive management control demands continuous attention from subordinate in every level of a company. (Simons, 1990).

Interactive control system's function is to monitor strategic uncertainties. Top management in a company will uncover their possessed value and reference to individual in an organization who gives input to decision making process. Observation and monitoring are actions to search for unexpected matters, interactive management control will guide their organizational member on how to search for unexpected matters and what kind of intelligence information will be collected (Simons, 1990). Unexpected matters or expectation will probably become new alternative, new preference or a change for the company (Feldman & March, 1981). New alternative decision making by the top manager is really needed when the decision itself is closely related with strategic policy or strategic change in a company (Mintzberg, 1973). Interactive control system enables top manager to have complete information on taken and distributed decision in a company.

### **Strategy Formation Process**

One characteristic of strategy formation process in present taxonomy has been explained by Mintzberg & Waters (1985); Mintzberg & McHugh (1985); Mintzberg (1990, 1994); Mintzberg (1978, 1987, 1994). In strategy formation process, there are two simultaneous independent processes (Mintzberg & Waters, 1985). First, intended strategy (InS) viewed as a statement which has proactive purpose and formal shape and it has been planned before a

decision is taken and or an action is performed. Having finished strategy formation, the process will be followed with implementation phase (Langfield-Smith, 1997). This kind of strategy is called as intended strategy. Intended strategy is a plan that becomes the company's purpose and it has been predicted as the most suitable action to reach company's purpose (Mintzberg, 1978). If the existing situation is appropriate, maneuver, trick or thing like that will be used to halt and threat competitor from entering the market (Mintzberg, 1978). Basic concept of this strategy states that entire action must be planned well in advance. In this case, intended strategy explains plans from top to bottom position.

The second strategy is emergent strategy (ES). Emergent strategy is the result of cumulative influence from daily decision made by middle manager (Mintzberg, 1994). Their decision is usually tactical, and not framed as strategic decision. Emergent strategy is a strategy to give responses on unpredicted external threat (Mintzberg, 1994). This kind of strategy derives from daily activities or routine business, and it sometimes comes from an unpredicted idea or way of thought from bottom to top position of a company.

### **Internal Learning**

Internal learning (IL) process includes employee training in multifunctional way (Gerwin & Kolodny, 1992) and it also becomes the process to unite ideas or suggestions from every employee in company (Hall, 1987). Internal learning aims to make product process and development in a company. Further, internal learning in routine activities will lead into a change that explains the development of path dependent from manufacturing company's process (Nelson & Winter, 1982). Internal learning improves the strategic ability by improving knowledge sharing among individuals in an organization. Each individual is able to learn from its work team, as part of an organization and the surrounding environment (Schroeder et al, 2002).

### **External Learning**

In manufacturing industry context, Schroeder et al. (2002) defines external learning (EL) process as a learning process among organizations through its capability to solve problem between customer and supplier. External learning in manufacturing industry context, is a kind of inter organizational learning process. It is performed through problem solving activity which comes out from the interaction between customer and supplier, and finally create a tacit knowledge that is imperfectly imitated by its competitor.

Technical certification of production method is held by supplier and customer. The formation of continuous relationship between company and its supplier explains that customer is the main and most important part of routine activities (Schroeder et al., 2002). This customer relationship will create an implicit knowledge which is imperfectly imitated by competitor (Madhok & Tallman, 1998). External learning process also occurs through long term relationship formed in the contract endorsed between the company and its supplier (Gerwin & Kolodny, 1992). External learning can take a shape as an input from supplier to end product, quality design and continuous practice improvement (Schroeder et al., 2002).

## **Interactive Control System and Strategy Formation Process**

Roberts (1990) in his three years study observes ELB Ltd, acquitted by Conglom Inc. in England. He found out about how ICS use will influence strategy formation process. Kober et al. (2003), in their four years longitudinal study (retrospective) observed the adjustment between ICS and strategy. Kober also predicted the natural way and ICS use in a strategy. This kind of study took samples from pathological server in Western Australia. Their result states that ICS use is more important in strategy process compared with management control system design. Kober et al. (2003) states that changes in management control system will also change the organizational strategy.

Kober et al. (2007) extended his study in 2003 to investigate the relationship between ICS and strategy. Kober et al. (2007) developed two main research questions to explain the relationship between ICS and strategy, and tested it by using public entity that experienced strategic change. This study is five years retrospective longitudinal study, and it also involves archival data, interview and distributed questionnaire. Kober et al. (2007) finds out that ICS mechanism will positively influence strategic process. It is in accordance with contingency theory that states that the existing strategy will be influenced by management control system. The above explanation will lead into H1 and H2 as follow:

*H1 Interactive control system positively affects the intended strategy*

*H2 Interactive control system positively affects the emergent strategy*

## **Interactive Control System And Learning**

Interactive control system is a double loop learning system. It is more complicated than single loop learning system (Argyris, 1977). The purpose of interactive control system is to improve manager's ability in anticipating, managing and organizing probable future uncertainties (Simons, 2000). Organizational learning is a learning process derives from past experience (Levitt & March, 1988).

Levitt & March (1988) state that the lack of experience and complexity in a certain situation may halt the learning process. Interactive system aims to involve the manager in scanning and searching for behaviors which may trigger the emergent strategy (new behavior and new experience). Interactive strategy will help the manager to overcome difficult situation since the managers may have lack of experience.

Simons (1990, 2000) explains that interactive system is a facilitator in learning process. It is a system implemented by the company to ease them in processing information and facilitating learning process by using vertical information channel in every level of a firm. Control system will help the company to form a new strategy, explains new ideas and possibilities. It also supports and improves curiosity and seeking behavior (Dent, 1990; Simons, 1994). Control system signifies the lowest part of a firm about the most important part in new ideas implementation (Simons, 1990).

Using samples from 63 hospitals, Abernethy & Brownell (1999) provide empirical support on interactive control and organizational learning relationship. They find out that interactive control system will facilitate organizational learning. Organizational learning will then have higher level when the existing budget system is used interactively instead of using it in diagnostic way (Henri, 2006).

ICS will be a tool to improve internal ability of a company. As a result, it enables the company to change the existing strategy and respond the changes in an environment (Bisbe & Otley, 2004). ICS focuses on open dialogue and communication, the use of interactive control system plays a role as a tool to reduce hierarchical and functional borders that halt the information flow in a company (Abernethy & Brownell, 1999; Abernethy & Lillis, 1995). By keeping open dialogue and argument, a company will always support the information exchange, therefore the use of MCS in interactive way will contribute to knowledge and information distribution, communication flow and the production of spontaneous strategy (Malina & Selto, 2004; Simons, 1995). Interactive control system will contribute to learning system. Based on RBV theory, internal and external learning process (St. John & Harrison (1999)) will be naturally distinctive, thus it will be imperfectly imitated by competitor and manufacturing entrepreneur (Schroeder et al., 2002). The empirical result and literature review will lead on H3 and H4 as follow:

*H3 Interactive control system positively affects the internal learning*

*H4 Interactive control system positively affects the external learning.*

## **Strategy And Learning**

Collis & Montgomery (1995) investigated the relationship between strategy formation process with internal and external learning by using traditional approach. According to Collis & Montgomery (1995) and resource based view (RBV) theory, the combination of internal and external learning will be connected with traditional approach in strategy formation process. Strategy formation process will facilitate learning (Elcock, 1996; Mintzberg, 1998; Mulcaster, 2009). Strategy formation process consists of intended and emergent strategy that demands manager of a company to rapidly learn and adjust with the environment's change. It is a must for a company that wants to survive in business industry. In this case, learning consists of internal and external learning. It is about transformation as well as perpetuation; it must involve individual cognition and social interaction, cooperation as well as conflict; it has to include analyzing pre and post programming as well as negotiating. All of these must respond the demanding environment (Mintzberg, 1998). It is in accordance with resource based view theory that derives from managerial and practical perspective, competitiveness and core competence. The explanation above will lead to the H5, H6, H7 and H8.

*H5: Intended strategy positively affects the internal learning*

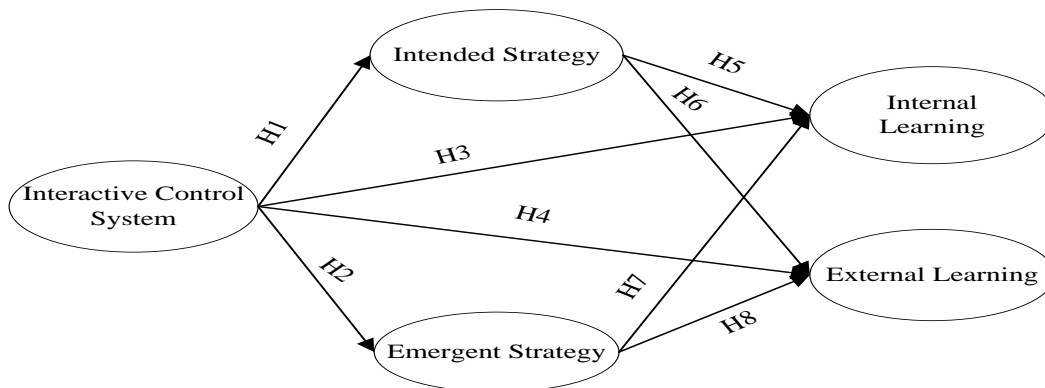
*H6: Intended strategy positively affects the external learning*

*H7: Emergent strategy positively affects the internal learning*

*H8: Emergent strategy positively affects the external learning*

The relationship between interactive control system, strategy formation process and internal learning can be described as empirical model (figure 1):

**Figure 1. Empirical Model**



## RESEARCH METHOD

Indicators to measure the interactive control system developed by Simons (1995); Henri (2006). These indicators are: develop an open discussion with manager, subordinate and peer in a meeting (ics1); develop challenge and open argument based on data, assumption and action plans (ics2); provide general view of organization (ics3) commit to organization (ics4); focus on the main problem (ics5); focus on succeeded factor (ics6); develop a universal language in an organization (ics7). Indicators to measure intended strategy construct adopted from Boyd & Reuning-Elliot (1998): long-term goal (ins8); trend analysis (ins9); competitor analysis (ins10); mission statements (ins11); ongoing evaluation (ins12) action plans (ins13); annual goals (ins14). Indicators to measure emergent strategy are developed by Mintzberg & Waters (1985): opportunistic strategy (es15); unstructured intuition strategy (es16); bottom up strategy (es17). Indicators to measure the internal learning based on Schroeder et al. (2002): training on different unit (il18); training with multitasking ability (il19); suggestion to improve process and product (il20); implementing suggestion (il21). Meanwhile, the indicators of external learning based on Schroeder et al., (2002): building a good long term relationship with the supplier (el22); building closed communication with supplier about quality and design change (el23); feedback on quality and delivery performance (el24); active involvement of customer in product design process (el25).

Analytical unit in this study is the upper middle manager in manufacturing industry in Indonesia. Consideration and criteria to determine samples are the upper middle manager who has at least two years experience and work in a prospector manufacturing industry. Prospector industry has characteristics like: high learning level, ability to explore and perform trial and error

(Miles & Snow, 1978; Simons, 1990; Bhimani & Langfield-Smith, 2007). Data in this study is collected by distributing the questionnaires directly to respondents. The distributed questionnaires are 429. There are 387 returned questionnaires, 113 questionnaires can not be used, as a result it leaves 274 usable questionnaires with response measurement scale 1-7.

This study uses structural equation modeling as multivariate analytical tool that enables the author to test the relationship among complex variables and get a comprehensive description on model. SEM has been considered as valuable statistical tool for social research. SEM has been a must for non experimental research. This study uses AMOS 16 Software as aid tool to overcome SEM problem.

## RESULT

### Respondent descriptive

Respondents in this study are the leader of manufacturing industry with at least 5 years experience. They decide the organizational strategy, have a wide organizational point of view, and provide the biggest influence to organizational end results. Top management becomes the most suitable informant for overcoming some critical important problems such as controlling and strategy, and decision making process. Total distributed questionnaires are 429. There are 155 unreturned questionnaires, and 274 returned questionnaires. 78 percent of respondents live in Jakarta as the capital city, 15 percent live in Banten and 5 percent live in Western Java Province.

### Structural Equation Modeling

In confirmatory factor analyses of exogenous construct, interactive control system must be modified by eliminating some indicators that have loading value below 0,5: ics1, ics3, ics4 and ics6. Endogenous constructs, ins10, ins12, ins13 and ins 14 are the indicators to measure more than one construct. Therefore the eight constructs need to be dropped out from the model. Having modified CFA exogenous and endogenous factors, and remaining indicators, we will reanalyze the process, and it will result in AMOS output as seen in table 1.

Data normality testing is performed by using critical value criteria as  $\pm 2.58$  on significant rate at 0.01 (Ghozali, 2007). If critical value of the present result is larger than the criteria value, it will be assumed that data distribution is not normal. Structural Equation Modeling as part of normality assessment has critical ratio columns (CR) value as 2.45, it means that the value is less than the critical value 2.58. Each variable's value is in +2 till -2 for skewness and less than 7 for kurtosis (Byrne, 2010). Therefore, the result of data normality testing from this study has fulfilled the requirement to be categorized as multivariate normal.

Multivariate outliers evaluation is performed by using mahalanobis distance calculation for each variable. Mahalanobis distance calculation shows that the distance in each variable has met multidimensional requirement (Byrne, 2010). Mahalanobis calculation is based on chi square value. Distribution table  $\chi^2$  at degree of freedom has as many as variable used in this study. The author uses 25 variables at  $p < 0.001$  as  $\chi^2$  (25; 0.001 = 52.62). Therefore, data in

this study has mahalonobis distance more than 52.62 and it is considered as multivariate outliers. There is no mahalanobis distance value that is bigger than 52.62 from all data in this study.

<b>Table I</b>						
<b>Summary of measurement scale, normality, reliability and validity</b>						
Variable	Skewness	Kurtosis	Factor loading	Cronbach'α	AVE	CR
Interactive control system				0.87	0.65	0.85
ics2	0.82	0.99	0.97			
ics5	0.17	0.14	0.97			
ics7	0.63	0.37	0.99			
Intended strategy				0.86	0.66	0.86
ins8	0.33	0.97	0.58			
ins14	0.26	0.98	0.52			
Emergent strategy				0.75	0.62	0.87
es15	0.36	0.87	0.98			
es16	0.27	0.77	0.98			
Internal learning				0.81	0.59	0.84
il18	0.93	0.41	0.63			
il20	0.76	0.82	0.68			
il21	0.93	0.45	0.74			
External learning				0.88	0.62	0.84
el23	0.15	0.90	0.98			
el24	0.23	0.82	0.99			
el25	0.94	0.40	0.95			

To observe multicollinearity or singularity in variable combination, the author observes covariance matrix determinant. AMOS 16.0 program will automatically signify a warning for singular covariance matrix. Multicollinearity indicators can also be seen in correlation between constructs that have value  $> 1$  (Byrne, 2010). Since the analytical result does not show construct correlation  $> 1$ , thus covariance matrix is non singular and can be analyzed.

Table 2, goodness of fit index, shows a good index. RMSEA value as 0.042, is in accordance with the requirement to have value less than 0.08. GFI value as 0.955, is in accordance with the required values as 1 (Joreskog, 1993), CFI evaluation value as 0.994 and Hoelter value as 275, with maximum sample as 274, has significant rate at 0.01 (Hoelter, 1983). As a whole, those criteria show fit acceptance rate of the model.

## **DISCUSSION**

Having performed confirmatory analyses and structural equation modeling testing which include 4 constructs in the model, the author then tests the proposed hypotheses. The results can be seen on P values from structural models (Table 2). Hypothesis 1 states that interactive control

system positively affects the intended strategy. According to estimation parametric result between interactive control system and intended strategy, it shows a positive association as 0.731 and significant at 0.001, consequently H1 is accepted.

Hypothesis 2 states that interactive control system positively affects the emergent strategy. According to estimation parametric result between interactive control system and emergent strategy, it shows a positive association as 0.715, and significant at 0.001. Consequently, H2 is accepted. Both results are supported by Kober et al. (2007) and Roberts (1990). They stated that management control system will be adjusted with strategy process. Interactive control system is a control that has distinctive feature and signified from the existence of regular and personal manager that involvement in decision making activities. The result from interactive controls system testing based on indicators: develop challenge and open argument based on data, assumption and action plans (ics2); focus on the main problem (ics5); develop a universal language in an organization (ics7).

Tabel 2. Result Of Structural Models

Description of path			Standard Estimate	S.E.	C.R.	P
InS	<---	ICS	0.731	0.04	7.655	***
ES	<---	ICS	0.715	0.05	15.85	***
IL	<---	ES	0.406	0.03	4.655	***
IL	<---	ICS	0.575	0.07	3.547	***
EL	<---	ICS	0.334	0.11	2.573	***
EL	<---	InS	0.884	0.3	5.798	***
EL	<---	ES	0.305	0.06	4.418	***
IL	<---	InS	0.135	0.18	5.736	***
Fit indices of the model						
GFI	:	0.955				
NFI	:	0.981				
CFI	:	0.994				
RMSEA	:	0.042				
Hoelter	:	274				

Notes: \*\*\* significant at the level 0.001

Meanwhile indicators develop an open discussion with manager, subordinate and peer in a meeting (ics1); provide general view of organization (ics3) commit to organization (ics4); f; focus on succeeded factor (ics6); will not be used to measure interactive control system construct. These four indicators are the main and the most important indicators to form interactive control system, yet, the four indicators has parametric statistical value below the required value, as a result they removed from the model.

Indicator ics7 describes that management develops universal language in an organization and it becomes the most important factor for the manager, because top managers tries hard to involve themselves personally with their subordinate. It is supported by indicator parametric











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