

UDC 331

MANAGEMENT CONTROL SYSTEM AND ERP WITH PERCEIVED ENVIRONMENTAL UNCERTAINTY AS MODERATING VARIABLE TOWARDS ORGANIZATIONAL PERFORMANCE

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ABSTRACT

Abundance definition of Management Control System (MCS) leads to different perception. The needs of data integration leads to Enterprise Resource Planning (ERP) implementation. The success of both are means to increase the company performance. Those might influenced by Perceived Environmental Uncertainty (PEU), and this study aims to figure out this. This study applies primary data from questionnaire survey to 12 companies in Indonesia whom already implemented ERP Dynamics Axapta. Valid data contains of 111 respondents using Partial Least Square with Smart PLS 3.0 software. Both MCS and ERP have a positive significant correlation to Company Performance. While PEU as a single variable has a positive significant correlation as well, but as a moderating variable the result shows that PEU has no significant moderating effect for both MCS and ERP to Company Performance. The sample only ERP Microsoft Dynamics Axapta. The managerial impact is considerable, for company implemented ERP, need to consider environmental uncertainty. While MCS is slightly moderating by PEU, due to scope of MCS itself already include controlling the environment uncertainty, still there is another consideration for better organization performance. To the best of author's knowledge, studies on MCS and ERP with PEU are non-existed for companies in Indonesia.

KEY WORDS

Management control system, enterprise resource planning, erp, dynamics ax, perceived environmental uncertainty, organization performance.

Management Control System has been applied worldwide. In a study, Malmi and Brown (2008) mentioned that the first challenge in conducting research on MCS is the difficulty of defining what is meant by MCS. The number of definitions and descriptions of MCS is quite a lot, some of which seem to overlap, while others also differ from each other. Some authors have outlined a very broad conception of what can be considered an MCS. Chenhall and Morris (2007) discussed MCS as a broader term that includes Management Accounting System (MAS) and also includes other controls, such as personal and group supervision. Merchant and Otley (2007) noted that controls can include factors such as strategic development, implementation control and processes. Merchant et al., (2011) separate management control from strategic control and define management control as dealing with employee behavior. Management control is needed to keep from the possibility that people will do something that the organization does not want them to do or fail to do something that must be done. If all employees can always be relied on to do the best for the organization, there will be no need for MCS. In this study, MCS is defined as a structured tool or methods used by managers to ensure that the people they supervise implements the intended strategy.

Enterprise Resource Planning states that information systems are now used in the business world, which can provide information in real time and integrated between departments is an Enterprise System (ES) or also called Enterprise Resource Planning (ERP). The high cost of ERP implementation makes ERP implementation process is one of the company's business plans and strategy and therefore needs to be measured for success, and because in the ERP contains all the company's core business, the evaluation of ERP success also reflects the company's overall performance. Challenge comes while choosing

how to measure ERP success. While some studies has applied different tools to measure, this study will use Control Objectives for Information and Related Technology (COBIT) framework 5.0, released on 2012. Noted that at the time of this study, newest version of COBIT framework has been released, named COBIT 2019.

In the system of controlling and implementing information systems is also influenced by the company's environment. Duncan and Moores (1989) state that organizational effectiveness is a function of conformity between the organizational structure and the environment in which the organization operates. Environmental uncertainty is an external influence of the organization that can affect managers in producing outcomes. Allbright (2004) states that if the company does not follow the environmental trend, then the risk of the company will be left behind or even fall to a greater extend. On the other hand, companies that actively detect environmental signals and immediately seize opportunities or counter threats can bring the company towards success and prosperity. Taking into account, the impact of perceived environmental uncertainty (PEU) allows organizations to adapt to the environment in which their activities are carried out, which of course supports the achievement of the company goals by improving their performance.

Those 3 variables (MCS, ERP, PEU) are all meant to get the better company performance. While some studies has been done in several countries, up to today, based on author's knowledge this kind of study has not yet existed for companies in Indonesia. Very few used COBIT 5 as ERP success measurement, and none in Indonesia. These facts lead to a start of next research for using COBIT for ERP measurement, even better to use a newest framework version. This study aims to investigate the effect of ERP implementation on the company performance and the effect of sustainability as a factor that strengthens the impact of ERP implementation on the company performance.

This study can be used as a reference for company who plan to implement ERP, or update/upgrade its existing ERP to get better company performance as requested. This study can contribute to next research by providing a guideline measurement. Other possibilities for next researcher are to compare all available measurement, both for MCS and successful ERP to get the most appropriate measurement tools.

LITERATURE REVIEW

Classic organizational theory or traditional theory started in 19th century define organization as a structure of relations, powers, goals, roles, activities, communication and other factors that occur when people work together. Rigid and not creative, that's what happened in this era. Modern organizational theory started thinking that organization needs to collaborate with environment, in order for organizations to maintain its sustainability. This is related to Stakeholders theory (Freeman 2010; Archie et.al 2014) Company performance is the most efficient way for organizations to communicate with stakeholders that are considered to have an interest in controlling certain strategic aspects of the organization that supports goal achievement for business profit and going concern.

Donaldson (2001) in contingency theory, mentioned that there is no such exact way to manage organizations. Due to its complexity, there always room for changes and things to adapt, ie management control, accounting system. The most appropriate form depends on the type of task or environment that is being faced. The central point of the relationship of accounting information systems with the assessment of company performance is the concept of contingency where the prediction of a particular situation of an organization can be done by redesigning the main activities of the organization, with environment consideration (Waldman & Jensen, 2016).

Management Control System

According to Malmi and Brown (2008), the number of definitions and descriptions of MCS is abundance. Some authors have outlined a very broad conception of what can be considered an MCS. Chenhall and Morris (2007) discusses MCS as a broader term that includes Management Accounting System (MAS), personal and group supervision and

control. Merchant and Otley (2007) noted that controls can include factors such as strategic development, implementation control and processes. The broader and complexity of MCS open up a possibility of different study results, but it also a challenge for adaptation and further studies. In this study, the definition of MCS can describe as a structured tool or method used by managers to ensure that the people they supervise implement the intended strategy.

Enterprise Resource Planning

Data reconciliation activities are time-consuming. They often need to be done repeatedly, usually caused by problems with the network, hardware, or human errors. ERP is one of the solution to resolve this problem. O'Leary (2010); Chan *et al.* (2007); Chen *et al.* (2015) ERP emphasizes aspects of planning and integration of company resources. Integration means combining various needs in one software in one database, making it easier for all departments to share information and communicate. Existing databases can provide appropriate access to every user in the company to retrieve information whenever the user needs it.

Implementation of system always take time, depends on how complex and complete it want to use. Every business process needs re-mapping to new system, then come the testing. These steps can do back and forth several times, to ensure at the go live date, system will run well, business will run smooth, Some of implementation failed and it never go live because organization doubt that system can cover all business process. Usually implementation of ERP will divided into some phases. In this study, we only include the successful ERP implementation. The reason is only successful ERP implementation can contribute to performance of the company.

COBIT (Control Objectives for Information and Related Technology) is an information system audit and control base made by the Information Systems Audit and Control Association (ISACA) and IT Governance Institute (ITGI). COBIT Framework is a common standard of control of information technology, by providing a framework and control of information technology that can be accepted and applied internationally. First COBIT Framework released in 1996, keep updated on year 1998, 2000, 2005, 2007, 2012 for version 2, 3, 4, 4.1 and version 5 respectively. In this study, we used COBIT 5, while in time of writing, newest version has released, named COBIT 2019.

Perceived Environmental Uncertainty

Environmental uncertainty can be seen from various aspects including relationships with competitors, customers, suppliers, markets, and government (Fisher, 1998). Environmental uncertainty is an external environmental condition that can affect the company's operations (Otley, 2016); Miliken (1987). Then Allbright (2004) asserts that PEU is the most important contingency factor, because perceived environmental uncertainty makes the planning and control process more difficult. Robin and Coulture (2010) state that the compatibility between low environmental uncertainty and the mechanistic control system (accounting control system) will improve company performance while the sustainability between high environmental uncertainty and organic control systems will improve company performance.

Organizational Performance using Balanced Scorecard

Richard *et al.* (2009) stated that company performance is a picture of the whole condition of the company for a certain period of time, which is a result or achievement that is influenced by the company's operational activities in utilizing the resources it has. Gaspersz (2005), the purpose of performance measurement is to produce data, which then when the data is analyzed correctly will provide accurate information for users of the data. Based on the objectives of performance measurement, a performance measurement method must be able to harmonize the overall objective of the organization, or we can say goal congruence.

Balanced Scorecard (BSC) is one of the performance measurement which can be use according to literature above. The Balanced Scorecard is a valuation method that includes

four perspectives to measure company performance, namely a financial perspective, a customer perspective, an internal business process perspective, and a learning and growth perspective also translating missions and strategies into various objectives (Kaplan, 2009)

Hypothesis

The Management Control System (MCS) is part of the company's strategic actions in its efforts to maintain and enhance the competitiveness of the company. Many definitions of MCS affect many variations that can be applied and evaluated in the MCS (Otley and Tessier, 2012). The following hypothesis can be formulated:

H₁: Management Control System influences company performance.

ERP implementation is also part of the company's strategic actions that are also applied for the purpose of improving company performance. ERP implementation is a very costly and resource-consuming action that tends to be very expensive, so it is very important to measure whether the success of ERP implementation has an effect on company performance (Kallunki *et al.*, 2011). From the explanation, the second hypothesis can be proposed, namely:

H₂: Success of ERP Implementation influences Company Performance.

Environmental Uncertainty will affect the company's performance. In a certain environment, MCS can run better, and therefore the company's performance will be better (Reginato & Guerreiro, 2013). From that explanation, a third hypothesis can be proposed, namely:

H₃: MCS moderated by Perceived Environmental Uncertainty on its effect towards Company Performance.

Environmental uncertainty is often associated with contingency theory related to external environmental conditions and internal characteristics of the organization, therefore decision makers must find conformity between the demands of the external environment and the capabilities of the organization. Accounting Information Systems, including ERP are part of the company's strategic decisions whose success is influenced by the company's environmental conditions (Setiawan, 2012). From that explanation, the fourth hypothesis can be proposed, namely:

H₄: Successful ERP implementation, moderated by Perceived Environmental Uncertainty on its effects towards Company Performance.

The study framework shown below:

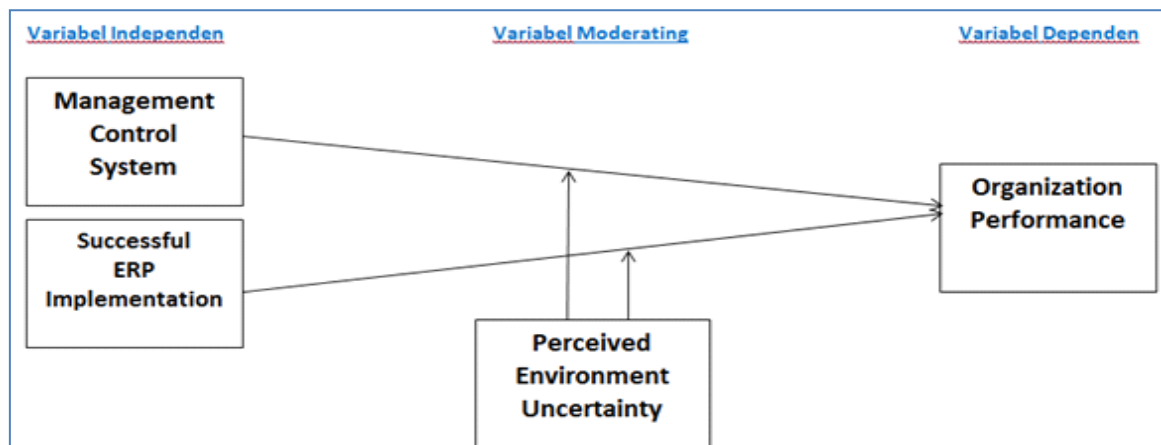


Figure 1 – Conceptual Framework

METHODS OF RESEARCH

Research Design

This study is a causal research conducted quantitatively. According to Augustine and Kristaung (2013), Causal design is a research that aims to analyze the causal relationship

between independent variable (influencing variable) and dependent variable (influenced variable) with additional moderating variable that strengthens or weakens the relationship between the independent and the dependent variables. This method was implemented to obtain empirical evidence regarding the effect of independent variable on the dependent variable. This study aimed to test hypotheses with the actual research environment (real environment). The type of data used in this study was primary data obtained from answers to questionnaires distributed.

Population and Sample

The population used in this study was all employees who worked in companies that successfully implemented ERP Microsoft Dynamics AX (MDAX) in 2000 to 2015. The unit of analysis in this study were individuals including employees who had positions as supervisors, managers, senior managers, and executive levels of the companies that successfully implemented MDAX ERP in the 2000-2015 period who were willing to be the respondents of this study. Sampling was conducted by purposive sampling technique, which is sampling technique with certain considerations (Sugiyono, 2011). This technique can be interpreted as a sampling process by determining in advance the number of samples to be taken, then selecting the sample based on certain objectives, and in accordance with predetermined sample criteria. The sample was chosen based on the following predetermined sample selection criteria:

1. The employees who had supervisory positions or above, including: supervisors, managers, senior managers, and executive levels at companies that successfully implemented ERP MDAX in the 2000-2015 period.
2. The employees had 5-year experience and had become active users of MDAX ERP for at least 1 year at companies that successfully implemented MDAX ERP in the 2000-2015 period.

Independent Variable

The independent variable can also be called the predictor variable. Sugiyono (2011) affirms that the independent variable is a variable that influences or is the cause of the change or the emergence of the dependent variable, while the dependent variable is the response variable, which is the variable that is affected or becomes the result of the independent variable.

In this study, there were two (2) independent variables, including:

- a. Management Control System
This study adapted 28 questionnaires from previous studies to measure the Management Control System (MCS) variable.
- b. Implementation of Enterprise Resource Planning (ERP)
This study utilized the COBIT Framework to measure the success of ERP implementation through 34 questionnaires that had been standardized by ISACA.

Dependent Variable

In this study, the dependent variable was the Company Performance measured using the Balanced Scorecard based on 4 Balanced Scorecard perspectives which were translated into 25 questions:

1. Company performance from a financial perspective;
2. Company performance from customer perspective;
3. Company performance from the internal business process perspective;
4. Company performance from the learning and growth perspective.

Moderating Variable

Moderating variable is a variable that strengthens or weakens the influence of the independent on the dependent variables. One of the important characteristics is that this variable is not influenced by the independent variable. In this study, the moderating variable

was the Perception of Environmental Uncertainty (PEU). There were 18 questionnaires used as instruments to measure PEU.

Data Collection Method

The data collection method used in this study was distributing questionnaires. The data used were primary data, i.e. sources of data which were directly obtained from respondents as MDAX ERP users in the form of answers to the questionnaires. The questionnaire was prepared for this study and then distributed directly to the respondents. The type of question in the questionnaire was in the form of a close question that asked the respondents to choose one of the answers provided by crossing the selected answer/number. The close question helps the respondents to make decisions quickly by choosing one of several alternative answers.

Data Analysis Method

The analytical method used in this study was Partial Least Square (PLS) with the support of SmartPLS version 3.0. Ghozali (2015) points out that Partial Least Squares (PLS) is a multivariate statistical technique that makes comparisons between multiple dependent variables and multiple independent variables. PLS is a method of analysis that is soft modeling since it does not assume the data must be with a certain scale measurement. It is one of the variant-based statistical methods of Structured Equation Modeling (SEM) that is designed to solve multiple regression when researchers have limited number of data samples and multicollinearity.

Descriptive Statistics

According to Ghozali (2015), descriptive analysis is an empirical analysis of information obtained to provide an overview/ description of an event (who/what, when, where, how, how much) collected in the study. In this study, the data were obtained from the answers given by the respondents to the items in the questionnaire. Furthermore, the researchers processed the existing data by grouping and tabulating then giving an explanation.

Inferential Statistical Analysis

Inferential statistics, (inductive statistics or probability statistics), are statistical techniques used to analyze sample data whose results are applied to population. In accordance with the hypotheses that have been formulated in this study, the inferential statistical data analysis was measured using SmartPLS (Partial Least Square) software starting from the measurement of the model (outer model), model structure (inner model) and hypothesis testing. PLS (Partial Least Square) uses the principle component analysis method in the measurement model; extraction of variance to see the relationship between indicators and latent constructs by calculating the total variance consisting of common variance, specific variance and error variance. Thus, the total variance is high. This method is one of the methods in Confirmatory Factor Analysis (CFA).

Measurement Model Analysis (Outer Model)

According to Ghozali (2015), outer model is frequently also called outer relation or measurement model which defines how each block of indicators relates to their latent variables. The measurement model (outer model) is used to test the construct validity and instrument reliability. Validity test is conducted to determine the ability of research instruments in measuring what should be measured, while the reliability test is used to measure the consistency of measuring instruments in measuring a concept or can also be used to measure the consistency of respondents in answering questionnaire questions or research instruments. The convergent validity of the measurement model can be seen from the correlation between the indicator score and the variable score. The indicator is considered valid if it has an AVE value above 0.5 or shows the entire outer loading of the variable dimension that has a loading value > 0.5 , so it can be concluded that the

measurement meets the convergent validity criteria (Chin, 1995). AVE (average variance extracted) can be formulated as follows:

$$AVE = \frac{\sum_{i=1}^n \lambda_i^2}{n}$$

Where: AVE is the average percentage score of a variance that is extracted from a set of latent variables estimated by loading the standardized indicator in the algorithm iteration process in PLS. λ symbolizes the standardized loading factor and i is the number of indicators.

Furthermore, reliability test can be seen from the value of Cronbach's alpha and composite reliability value. A statement item can be considered reliable if the Cronbach's alpha value > 0.6 and composite reliability value > 0.7 . These measurements assume that all indicators are given the same weight. Therefore, Cronbach's Alpha tends to be a lower bond to reliability, while Composite Reliability is a closer approximation with the assumption that parameter estimation is accurate.

Structural Model Analysis (Inner Model)

The structural model (inner model) is a structural model for predicting causality between latent variables. Through the bootstrapping process, T-statistic test parameters are obtained to predict causality. The structural model (inner model) is evaluated by looking at the percentage of variance explained by the value of R^2 for the dependent variable using the measurement of Stone-Geisser Q-square test (Stone, 1974; Geisser, 1975) as well as seeing the magnitude of the structural path coefficient. Coefficient of determination (R^2) is utilized to measure how far the model's ability to explain the variation of the dependent variable. The coefficient of determination is between zero and one. A small value of R^2 indicates that the ability of the independent variable to explain the dependent variable is limited. A value close to one means that the independent variable provides almost all the information needed to predict the variation of the dependent variable (Ghozali, 2015). If the results generate R^2 value greater than 0.2, then it can be interpreted that latent predictors have a large influence on the structural level.

R-square of the PLS model can be evaluated by looking at Q-square predictive relevance for variable model. Q-square measures how well the observational value produced by the model and also the estimated parameters. Q-square value greater than 0 (zero) shows that the model has a predictive relevance, while a Q-square value less than 0 (zero) shows that the model has less predictive relevance. However, if the calculation results show a Q-square value of more than 0 (zero), then the model is worthy of being said to have a relevant predictive value.

Hypothesis Testing

Ghozali (2015) explains that a measure of the significance of hypothesis support can use a comparison of T-table and T-statistic values. If the T-statistic is higher than the T-table, it means that the hypothesis is supported or accepted. In this study, the confidence level is 95 percent (alpha 95 percent), then the T-table value for the one-tailed hypothesis is > 1.96 . Here is the linear regression equation in this study:

$$Y = a + B_1X_1 + B_2X_2 + B_3X_1X_3 + B_4X_2X_3 + e$$

Where:

Y = Company Performance;

a = A constant;

β = Regression Coefficient;

X_1 = Management Control System (MCS);

X_2 = Enterprise Resource Planning (ERP);

X_3 = Perceived Environment Uncertainty;

e = error.

RESULTS AND DISCUSSION

The majority of respondents, namely 94 respondents (84.68%) were male, while 17 respondents (15.32%) were women. The highest number of respondents is manager, 59 respondents (53.16%), while supervisors are 24 respondents (21.62%). Senior / General Manager as many as 23 respondents (20.72%) and Executive level as many as 5 respondents (4.5%). The highest work experience of respondents is over 10 years, namely 48 respondents (43.24%) with the highest S1 education of 69 respondents (62.16%) and the maximum duration of ERP used is more than 10 years as many as 44 respondents (39.64%).

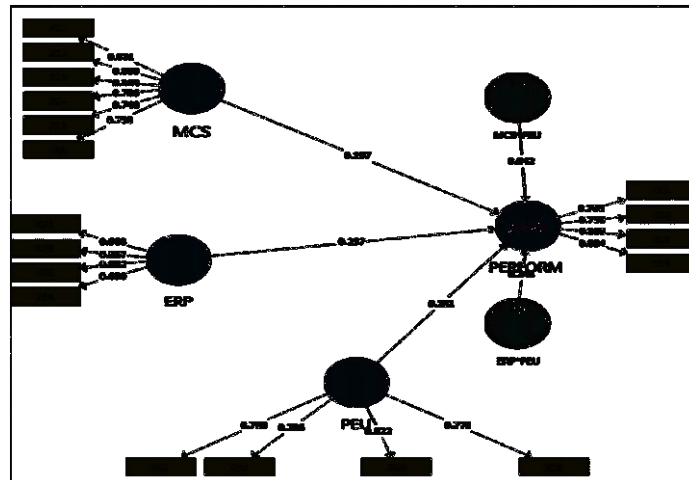


Figure 2 – Outer Model Scheme

All validity tests, ie : Convergent Validity Discriminant Validity Composite Reliability and Cronbach Alpha, are all passed the standard, proved that the indicators in this study are valid. Two indicators for Perceived Environmental Uncertainty has been dropped during statistical data processing. Since the construct defined as Reflective construct, dropping these two indicators will not changed the definition of the variable (Augustine & Kristaung, 2013; Ghozali & Latan, 2015). Structured Model Analysis show the result below:

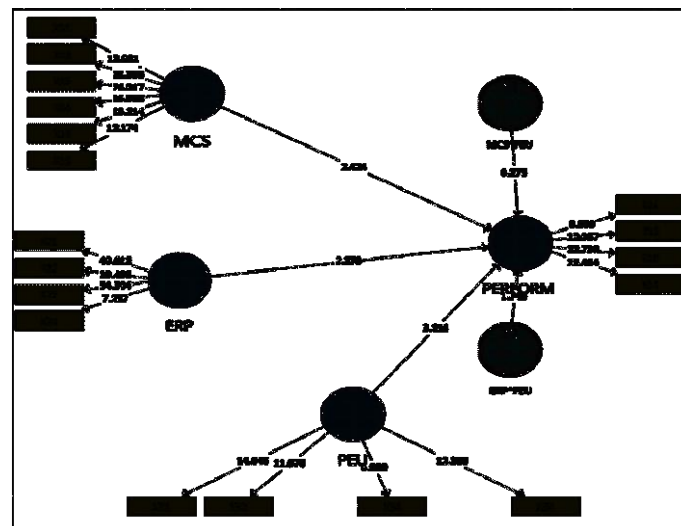


Figure 3 – Inner Model Scheme

To test the significance of variables, t-test calculated and the result shown below:

Table 1 – t-test result

	Original Sample	Sample Mean	Standard Deviation	T Statistics	P Values
ERP->PERFORM	0.257	0.234	0.113	2.278	0.023*
ERP*PEU ->PERFORM	0.248	0.250	0.142	1.746	0.081
MCS->PERFORM	0.297	0.323	0.122	2.424	0.016*
MCS*PEU ->PERFORM	0.042	0.053	0.151	0.275	0.783
PEU->PERFORM	0.231	0.237	0.072	3.216	0.001*

All independent constructs have a positive relationship with t-statistic > t-table. The results showed that there was no moderating relationship between MCS and PEU on Company Performance and there was also no moderating relationship between ERP and PEU on Company Performance. This means that MCS and ERP have a significant positive effect on Company Performance, but PEU does not have an effect on increasing the effect of positive MCS and ERP relationships on Company Performance.

Hypothesis tests result as below:

Table 2 – Hypothesis Results

No	Hypothesis	t-statistics	P-Value	Result
H ₁	MCS influence to Performance	2.424	0.016	Accepted
H ₂	ERP influence to Performance	2.278	0.023	Accepted
H ₃	MCS moderated PEU to Performance	0.275	0.783	Rejected
H ₄	ERP moderated PEU to Performance	1.746	0.081	Rejected

Finally, the multiple regression model will be:

Table 3 – Multiple Regression Results

	Path Coefficient
ERP	0.257
ERP*PEU	0.248
MCS	0.297
MCS*PEU	0.042
PERFORM	
PEU	0.231

Can also be described as follow:

$$\text{Performance} = 0.297 \text{ MCS} + 0.257 \text{ ERP} + 0.042 \text{ MCS*PEU} + 0.248 \text{ ERP*PEU}$$

DISCUSSION OF RESULTS

From the equation in the regression model above, the regression coefficient Management Control System (MCS) is 0.297 which means that MCS has a significant positive effect on Company Performance. These results are in accordance with the theory and all research results, as well as research from Van der Stede et al., (2006); Otley and Tessier (2012); Watts & McNair-Connolly (2012). There have been no results of empirical research that shows a negative relationship between MCS to performance, because based on the definitions of the MCS, it appears that MCS exists with the aim of improving performance. Variable research results are at the level of the coefficient / level of influence that occurs due to differences in the ways of measuring MCS (Malmi & Brown 2008).

From the equation in the regression model above, the regression coefficient of Enterprise Resource Planning (ERP) is 0.257 which means that ERP has a significant positive effect on Company Performance. This result is in accordance with the theory that ERP is one of the tools that arises because of the company's need to improve its performance (Davis 2004, O'Leary, 2010) This is also in accordance with the research of Mouritsen and Mouritsen (2005); Azan and Bollecker (2011); and Kallunki et al. (2011).

From the results of data processing, the MCS variable with PEU as moderator has t -count = 0.275 and p -values = 0.783, which means hypothesis 3 in this study is rejected because t -count < t -table and p -value > 0.5, meaning PEU does not strengthen the influence of MCS on Company Performance. From the equation in the regression model above, the MCS regression coefficient which is moderated by Perceived Environment Uncertainty (PEU) is 0.042, which means that PEU strengthens the influence of MCS on Company Performance of 0.042. Although the PEU as an independent variable has a significant positive effect on Company Performance (Path Coefficient PEU = 0.231), but the PEU does not provide a moderating effect on the relationship between MCS and Performance. This is in line with the research of Bastian and Muchlis (2012) and McCabe's (1990) study, but the results are different from the O'Shannassy (2007) study which replicates McCabe (1990) research and changes the measurement method using the measurement method used by Duncan (1972). This shows that different results can occur if the measurement method is different.

From the results of data processing, ERP variables with PEU as moderators have t -count = 1.746 and p -values = 0.081, which means hypothesis 4 in this study is rejected because t -count < t -table and p -value > 0.5, which meaning that PEU does not strengthen the influence of ERP on Company Performance. From the equation in the regression model above, the ERP regression coefficient which is moderated by PEU is 0.248 which means that PEU strengthens the influence of ERP on Company Performance of 0.248. Although from the results of data processing, H4 was rejected, but the researcher gave a special note in this study because the results of data processing were very close to significant limits and the correlation coefficient was even greater than the PEU correlation coefficient as its own independent variable (0.231 vs 0.248).

This is inline with the results of the study of Robbins and Coulter (2010) which states that the sustainability between low environmental uncertainty and the mechanistic control system (accounting control system) will improve company performance while the compatibility between high environmental uncertainties and organic control systems will improve company performance. In the study of Setiawan (2012), the results of the study stated that PEU provided a moderating effect on Broadscope System (wide coverage), but it did not have an effect on financial performance. In this study, measurement of company performance has considered the financial and non-financial aspects using the Balanced Scorecard method, so that differences in results are possible due to differences in measurement aspects, and opens the possibility of further research to examine the effect of PEU as moderating MCS on performance using financial measures and non-financial separately.

CONCLUSION

From the equation in the regression model above, the regression coefficient Management Control System (MCS) is 0.297 which means that MCS has a significant positive effect on Company Performance. From the equation in the regression model above, the regression coefficient of Enterprise Resource Planning (ERP) is 0.257 which means that ERP has a significant positive effect on Company Performance.

From the results of data processing, the MCS variable with PEU as moderator has t -count = 0.275 and p -values= 0.783, which means hypothesis 3 in this study is rejected because t -count < t -table and p -value > 0.5, meaning PEU does not strengthen the influence of MCS on Company Performance. From the equation in the regression model above, the MCS regression coefficient which is moderated by Perceived Environment Uncertainty (PEU) is 0.042, which means that PEU strengthens the influence of MCS on Company Performance of 0.042. Although the PEU as an independent variable has a significant positive effect on Company Performance (Path Coefficient PEU = 0.231), but the PEU does not provide a moderating effect on the relationship between MCS and Performance.

From the results of data processing, ERP variables with PEU as moderators have t -count = 1.746 and p -values = 0.081, which means hypothesis 4 in this study is rejected because t -count < t -table and p -value > 0.5, which meaning that PEU does not strengthen the

influence of ERP on Company Performance. From the equation in the regression model above, the ERP regression coefficient which is moderated by PEU is 0.248 which means that PEU strengthens the influence of ERP on Company Performance of 0.248. Although from the results of data processing, H4 was rejected, but the researcher gave a special note in this study because the results of data processing were very close to significant limits and the correlation coefficient was even greater than the PEU correlation coefficient as its own independent variable (0.231 vs 0.248).

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