ORGANIZATIONAL CONTROL AND PERFORMANCE: AN EMPIRICAL STUDY OF FINANCIAL INSTITUTIONS

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Abstract

The aim of this research was to examine the effect of diagnostic control system and interactive control system on organizational performance with organizational capability as intervening variable. Resource-based view theory was used for underlying the association between the variables. The respondents were 84 Financial Institutions in Indonesia. The data were analyzed using Structural Equation Model with Warp PLS 3.0. The results show that the diagnostic control system has positive significant effect on organizational capability but no significant effect on organizational performance. Interactive control system is proven to have positive significant effect on organizational capability and organizational performance. Organizational capability is proven not to mediate the association between diagnostic control system and organizational performance, but it mediates partially the association between interactive control system and organizational performance partially.

Keywords: Diagnostic Control System, Interactive Control System, Organizational Capability, Organizational Performance, Financial Institutions, Indonesia

1. INTRODUCTION

Financial institution in Indonesia is an institution having a very important role in supporting the nation's economy. The institution has the principle of trust to be the intermediary between parties who have surplus of funds that will be made productive on the sectors or areas experiencing lack of fund. The excellent services are providing innovative products that meet the needs of customers, expanding the technology-based transaction networks and branch offices that the company is always close to the market which is the demands and challenges for financial institutions. The enforcement of the Asean Economic Community (AEC) in 2015, which is effective in 2020 for the banking sectors (Infobank No. 404, volume XXXIV, November 2012) means that open market or free trade agenda is important for financial institutions to be introspective. Open market means more and more foreign competitors with stronger capital based and supported by technology and advanced information systems. This has led to changes in the environment for financial institutions so that the institutions have to improve themselves by setting up a professional management, technology and cutting-edge information systems, and more competitive products. The ability of the financial institutions in Indonesia to adjust to the change become a key factor in maintaining organizational performance.

Eisenhardt & Martin (2000) state, in order to maintain a competitive advantage in a very volatile market, a company must continue to reconfigure the resources to create a series of competitive advantages. The company strategic focus should be changed from the effective way to manage unique resources to be the effective way to modify resources in a rapidly changing environment (Kylaheiko & Sandstrom, 2007). Companies, to remain competitive, should continue to build new capabilities in accordance with changes to match the changing needs which are hard to be duplicated by their competitors. Resource-based perspective or resources-based view theory (RBV Theory) considers that sustainable competitive advantage is determined by the ownership of the resources that have the characteristics of valuable, rare, difficult to imitate and non-substitutable. Wu (2009) found that market conditions cannot be predicted; the association of resources and performance to achieve a sustainable competitive advantage will not be enough. When the environment is unstable, the resource is not strong to support company's

competitive advantage (Wu, 2009).

The authors on RBV like Wu (2006) argued that resources do not directly affect competitive advantage. Resources affect competitive advantage indirectly through organizational capability. This means that the evaluation process will associate control system with outcomes or organizational performance mediated by organizational capability. Diagnostic control system (DCS) and interactive control system (ICS) as part of the Management Control System (MCS) can be predicted to appear new strategy for an organization to improve performance. According to Simons (2000), diagnostic control system plays a role as traditional feedback supporting the implementation of organizational strategy. Meanwhile, interactive control plays a more active role related to the spread of information throughout an organization to focus the organization attention, to encourage dialogue and to support the emergence of a new strategy.

Several previous studies that examined the role of diagnostic control system (DCS) and interactive control system (ICS) in supporting the implementation of organizational strategy provide conflicting evidence. Klott (1997) and Widener (2007) proved that diagnostic control has positive significant effect on organizational learning, while Henri (2006) found the contrary evidence. Widener (2007) in his research obtained an evidence that interactive control does not have significant effect on organizational learning, while Abernethy & Brownell (1999), Henri (2006), Tekavčič et al. (2008), Hudayati & Sofiah (2011) obtained the evidence of the positive significant effect. This ambiguous research results provide an opportunity to conduct the same research in the same field.

In resource-based view (RBV), Henri (2006) says that capability as a strategic choice will lead to a sustainable competitive advantage, which in turn contributes to organizational performance. Companies are required to implement strategies by optimizing company's resources such as market orientation, innovation, organizational learning, and entrepreneurship which are recognized as main capabilities to achieve competitive advantage (Hult & Ketchen, 2001; Hurley & Hult, 1998; Ireland et al., 2001). Several previous studies that evaluated the effects of each resource in the form of market orientation, innovation and organizational learning on organizational performance provided ambiguous results. The research of Kirca et al. (2005), Panigyrakis & Theodoridis (2007) proved that market orientation has positive significant effect on organizational performance. Meanwhile, the research of Jaworski & Kohli (1993) and Henri (2006) proved that market orientation has positive effect but insignificant on organizational performance. The research that examined the effect of innovation on organizational performance, such as Agarwal et al. (2003), Bisbe & Otley (2004), Deshpande & Farley (2004), Henri (2006) and Ratmono (2012) found positive significant effect, but the research of Dorrach (2005) proved the opposite effect. Some studies that evaluated the effects of organizational learning on organizational performance, such as Santos-Vijande et al. (2005), Aragon-Correa et al. (2007), Widener (2007), Jiang & Li (2008), Hudayati & Sofiah (2011), proved that organizational learning has positive significant effect on organizational performance. The different results of these studies, perhaps, because market orientation, innovation and organizational learning are treated as separated capabilities. Meanwhile, according to Hurley & Hult (1998), Hult & Ketchen (2001) and Bhuian et al. (2005), the resources will collectively be able to help companies to be unique, competitive, and can improve organizational performance. Therefore, in this research, the resources in the form of market orientation, innovation and organizational learning are synthesized as the variables of organizational capabilities.

This research used the resource-based view theory that examined how control system is used by the top management team to build organizational capabilities that lead to organizational performance. The focus of this research was to examine the direct and indirect effect between diagnostic control systems and interactive control system on organizational performance at the financial institutions in Indonesia, with organizational capability as the intervening variable.

The rest of the paper is organized as follows. The next section will present a theoretical review, hypothesis formulation. This is followed by a description of the method. Analysis result are presented in Section 5. Finally, the paper offers discussion and conclusions.

2. THEORETICAL REVIEW

2.1. Financial Institution in Indonesia

In Indonesia, the financial institution is divided into two, namely Bank financial institutions and non-Bank financial institutions. Bank financial institutions are a financial institution that provides financial services and attract funds from the public directly. This Institutions type consists of the Central Bank, commercial banks and rural banks. Central Bank in Indonesia held or conducted by Bank Indonesia, has the duty to establish and implement monetary policy, regulate and maintain the smoothness of the foreign exchange system and regulates and supervises banks. Based on the Main Law of Banking No. 23 of 1998, types of banks in Indonesia have two commercial banks and rural banks. Commercial banks are banks that can provide services in payment traffic, while the Rural Bank is the only bank that accepts deposits in the form of time deposits or other form that is equivalent to them.

According to Law No.10 of 1998, Non-Bank Financial Institutions (NBFIs) is a business entity conducting activities in the financial sector, which raise funds by issuing commercial paper and distribute it to pay the investment firm. Type of Non Bank Financial Institutions (NBFIs) in Indonesia, among others Insurance company, Capital Markets, Money Market and Foreign Exchange, Pawn, Leasing, Venture Capital and Pension Funds. In this study, the Non-Bank Financial Institutions (NBFIs) which used as the research object is Insurance Company and Financing Company (Leasing / Finance). Because, the two types of companies are most in demand by the people of Indonesia.

2.2. Financial Services Authority (FSA)

In 2013, Indonesia entered a new round of regulation of the financial sector with the establishment of institutions such as the Financial Services Authority (FSA). Institutions Financial Services Authority (FSA) was established on basis of Law No. 21 of 2011 are as agency or institution authorized in arena of regulation and supervision of financial industry in Indonesia (Infobank No. 406, Vol. XXXIV, January 2013). These institutions set almost the entire life cycle of a financial business, ranging from birth (examination of the feasibility and licensing), the development and its growth (signs and supervision) to death (revocation of business entities and the treatment of afterward). Institutions FSA is super body agency, because the agency oversees the industry which has a membership of 3.292 companies with asset value Rp.5.199 trillion, or about 70% of gross domestic product/nominal GDP of Indonesia in 2011. The existence of the FSA as financial institutions supervisor in Indonesia should be run effectively, so that the financial institutions in Indonesia would be able to compete in at least ASIA region.

2.3. Resource-Based View Theory

Resource-based theory as a theory in the field of strategy is based on the fundamental assumption that every company is different. Each company may have a collection of unique and different resources in the form of tangible and intangible assets as well as the capability to take advantage of these assets. Wernerfelt (1984) stated that the concept of RBV considers company ability to compete highly depends on the unique resources within an organization and company itself as a group of resources and capabilities. This concept is in line with the statement of Barney (1991) and Jones et al. (2005) that resource-based view is a concept of company competitive advantage by viewing the company as something unique surrounded by diverse resources and capabilities. Sharma and Vrenderberg (1998) said that the competitive strategy of an organization and performance depend significantly on the specific resources and capabilities of the organization.

2.4. Diagnostic Control System (DCS)

Diagnostic control system is a formal feedback system used to monitor the results of an organization and to monitor deviations from previously set performance standards (Simons, 1995). This system is intended to motivate employees to perform and align their behavior with the goals of an organization so that diagnostic control system acts as a control to employee behavior (Simons, 2000). Burns & Stalker (1961) add that diagnostic control illustrates two important features related to mechanistic control; the strict control of operations with strategy and highly structured communication channels with limited flow of information. This means that diagnostic control can be described as a negative force that creates obstacles and ensure compliance with the orders for organization's members.

2.5. Interactive Control System (ICS)

Interactive control system (ICS) is a formal system used by top managers to engage regularly in decision-making activities of their subordinates (Simons, 2000). Interactive system is intended to help find new ways for a company in a dynamic market. Galbraith (1973) stated that interactive control system is a system implemented by a company to facilitate information processing demands and to facilitate learning process using vertical channels across the organization. Meanwhile, Dent (1990), Hopwood (1987) and Simons (1994) stated that interactive control system is a control system that can form new strategies, suggesting the possibility of new ideas and promote curiosity and innovation behavior. This control system provides downward signal in an organization on an important arena for proposing and implementing new ideas (Simons, 1990).

2.6. Organizational Capability

Organizational capability refers to the capability of a company to collate, integrate and deploy valuable resources. According to Prahalad & Hamel (1990) capability refers to organization rooted in processes and business routines. Grant (1991) defines organizational capability as the strength of a company based on a combination of resources that work together. Resource-based view emphasizes the importance of organizational capability in providing tools for mobilizing resources in an effort to achieve competitive advantage (Barney, 1991; Day, 1994; Grant, 1991; Kogut & Zander, 1992). Thus, capability should be embedded in the routine of a company to provide a source of competitive advantage (Grant, 1991) or the pattern of current practices and learning (Teece et al., 1997). Barney (1991) adds that a company with unique resources cannot be imitated by other companies and these factors make the company to be able to survive in a competition.

In this research, organizational capability is a synthesis of market orientation, innovation and organizational learning. Market orientation refers to organization's emphasis on the development of long-term thinking based on customer needs (Narver & Slater, 1990). Market orientation effectively and efficiently creates the necessary behaviors for the creation of superior value for customers and improves business performance in a sustainable manner (Kohli & Jaworski, 1990). Innovation refers to organization's openness to new ideas, products and processes oriented towards innovation (Hurley & Hult, 1998). Companies with more capacity to innovate are able to develop competitive advantages, to achieve corporate renewal and to achieve higher levels of performance (Danneels, 2002; Hurley & Hult, 1998). Organizational learning leads to the development of insight, knowledge and associations in past actions, the effectiveness of actions, and future actions (Fiol & Lyles, 1985). Learning is considered to be an important facilitator for competitive advantage by improving information processing activities of companies which is faster than that of competitors (Baker & Sinkula, 1999).

2.7. Organizational Performance

Mandy (2009) looks at the organizational performance as a result of the effective management adaptation process is measured by some criteria; include effectiveness, efficiency, and productivity growth. While Kanyabi & Devi (2012) stated the organization's performance as a measure of the financial organization ability such as profitability, investment levels with growth in sales and profits. Bisbe & Otley (2004) state organizational performance as a measure of company's success in achieving the goals determined from financial and non-financial aspects. Financial and non-financial dimensions have been used in several studies to measure performance, such as Prieto & Revilla (2006) that measured the performance of business with financial and non-financial dimensions. Widener (2007) measured organizational performance with financial measures such as company's profitability, non-financial indicator in the form of market share and productivity of delivery system. Mahmood et al. (2015) measure the organization's performance with the objective performance aspect by increasing sales and employee satisfaction as the subjective performance aspect. Organizational performance is often measured in different indicators for different types of companies and there are several approaches used to measure performance. In this research, the company's performance was measured using the indicators of total revenue, total profit growth, return on assets (ROA) and return on investment (ROI).

3. HYPOTHESIS DEVELOPMENT

3.1. Diagnostic control system and Organizational Performance

Simons (1990) and Fisher (1998) state, by taking into account the contingency framework, that control system is contextual contingent variable. It is hypothesized that the use of control system results in increased organizational performance. Diagnostic control system (DCS) as part of management control system (MCS) has a negative force that will function as the control of behavior, limit the space the employees have to explore and to ensure compliance with organizational objectives through feedback information in order to know the level of irregularities and required adjustment action. Argyris (1977) states that diagnostic control system provides information for managers about the results that do not meet expectations, so that corrective actions can be formulated. Several studies support the positive association between the design of management control system (MCS) and company's performance, i.e. Scott & Tiessen (1999), Davila (2000), Baines & Langfield-Smith (2003) and Said et al. (2003). Then, this research hypothesized that there is a positive effect between positive diagnostic control system and organizational performance, so the hypothesis is formulated:

H1: Diagnostic control system has positive effect on organizational performance

3.2. Interactive control system and Organizational Performance

Accounting literatures have shown that the use of control system serves and has the impact on organizational performance (Ahrens & Chapman, 2004; Simons, 1995). Interactive control system (ICS) as part of the management control system (MCS) has the role of stimulating and directing the emerging strategies (Simons, 1995**),** which is expected to improve organizational performance. The previous researches linking control system and organizational context performance are Govindarajan (1988), Govindarajan & Fisher (1990), Perera et al. (1997), Sim & Killough (1998). The research results of Hudayati & Sofiah (2011), Ratmono & Nahartyo (2012) found that control system has positive effect on company performance. Based on the description, this research predicted that there is a positive effect between interactive control system and organizational performance, thus it is formulated in the following hypotheses:

H2: Interactive control system has positive effect on organizational performance

3.3. Diagnostic control system and Organizational Capability

Diagnostic control system (DCS) uses the critical factors of success and ensures that employee action is in line with the strategy of organizational resource management. Diagnostic control can be used as a tool to ensure that new ideas can be transformed more innovatively (Henri, 2006). The use of diagnostic control system is expected to help managers to modify the capabilities possessed in achieving organizational goals. Simons (2000) states that diagnostic control system available in a company serves to guide behavior so that it facilitates the organizational capability in the form of organizational learning. Klott (1997) and Widener (2007) proved that diagnostic control has positive effect on organizational learning. Grafton et al. (2010) proved that diagnostic control system as control feedback has positive effect on organizational capabilities. This research assumed that there is a positive effect between diagnostic control system and organizational capability so that the formulated hypothesis is:

H3: Diagnostic control system has positive effect on organizational capability.

3.4. Interactive control system and Organizational Capability

Interactive control system (ICS) is required to improve the ability of managers to use vertical channels across the organization, enabling companies to meet the demands of information processing and facilitating organizational learning, establishing new strategies, suggesting the possibility of new ideas and promoting curiosity and searching behavior (Dent, 1990; Hopwood, 1987; Simons, 1994). Interactive control system will encourage dialogue within an organization, encourage the exchange of information and communications, and the emergence of strategic

action (Haas & Kleingeld, 1999; Malina & Selto, 2001; Simons, 1995). Interactive control provides a mechanism for top managers to learn new strategic opportunities. Finally, it contributes to expand organization's information processing, encourage interaction among organizations actors who can extend organizational capability. Abernethy & Brownell (1999), Henri (2006), Hudayati & Sofiah (2011) proved that interactive control system positively affects capability in the form of organizational learning. Grafton et al. (2010) proved that feed forward control can be used to predict company's new capabilities. Ratmono (2012) proved that control system has positive effect on innovation as part of organizational capability. Therefore, this research assumed that there is a positive effect between interactive control system and organizational capability so that the following hypothesis is formulated:

H4: Interactive control system has positive effect on organizational capability.

3.5. Organizational Capability and Organizational Performance

The core of resource-based view theory is that company's resources can produce competitive sustainability advantage that can improve company performance (Roy & Aubert, 2000). The organizational capabilities in this research are market orientation, innovation, and organizational learning. Market orientation according to Narver & Slater (1990) as an effective organizational culture will encourage essential behavior for the creation of superior value for customers as well as the performance of the business. The empirical supports include the research of Jaworski & Kohli (1993), Kirca et al. (2005), Henri (2006), Panigyrakis & Theodoridis (2007), Vieira (2010) and Vazifehdoost et al. (2012) proving that organizational performance is positively influenced by market orientation. It applies similarly in the form of innovation capabilities. Innovation as the ability to create new thinking, new ideas, and offering innovative products has been getting a lot of empirical supports. The research of Agarwal et al. (2003), Bisbe & Otley (2004), Deshpande & Farley (2004), Henri (2006), Jankala (2010) and Ratmono (2012) proved that innovation has positive significant effect on organizational performance. In relation with organizational learning capability, Marquardt (1996) states that company must increase the capacity of learning to achieve and maintain a competitive advantage. The previous researches, such as Carter (2005), Chenhall (2005), Prieto & Revilla (2006), Garcia-Morales et al. (2007), Jimenez – Jimenez & Cegarra-Nevarro (2007), Widener (2007), Hudayati & Sofiah (2011), proved that organizational learning as part of organizational capability has a significant effect on organizational performance. This research predicted that the capabilities in the form of market orientation, innovation and organizational learning have positive effect on organizational performance so that it is formulated in the following hypothesis:

H5: organizational capability has positive effect on organizational performance.

4. METHOD

The population in this research were 369 companies, consisting of the banking companies in Indonesia based on the data from the Bank of Indonesia's website (http // www.bi.go.id) of 120 companies, 112 Indonesian finance companies Indonesia based on the site of www.ifsa.or.id, and 93 Indonesian insurance companies obtained from the site of www.aaui.or.id, and 44 companies from the site of www.aaji.or.id. This research involved the entire population because of the limitations of the population, so the number of samples of this research was the number of questionnaires returned from the respondents. The distribution of the questionnaire used the returned mail service in the form of express service which aimed to ensure that the questionnaires were acceptable to the respondents. The target of the questionnaires were 396 people in this position as Chief Executive Officers (CEO), Chief Operational Officers (COO), or chief executives of the banking companies, the finance companies which are the members of Indonesian Financial Services Association (IFSA) and the insurance companies incorporated as the members of the Association of Indonesian Insurance (AAI) as of May 1, 2014. The selection of the respondents was based on the consideration that the respondents had the knowledge of control system run by the companies and had the knowledge of the companies' strategies. Of the 369 questionnaires sent, 87 questionnaires were returned and there were three questionnaires filled incompletely, so the questionnaires analyzed were 84 questionnaire with the response rate of 22.76% of the questionnaires distributed. According Jogiyanto (2011), the response rate above 20% for postal survey in Indonesia is considered good.

There are four variables analyzed in this research; i.e. diagnostic control system (DCS), interactive control system (ICS), organizational capability and organizational performance. The variable of diagnostic control system (DCS) was measured using 7 indicators and the interactive variable control system (ICS) was measured using 4 indicators adopted from Simons (2000), Henri (2006), Widener (2007) and Ratmono (2012) on a Likert scale 5, ranging from 1 (strongly disagree) to 5 (strongly agreed).

The organizational capabilities are the synthesis of market orientation, innovation and organizational learning measured on a Likert scale 5, ranging from 1 (strongly ddisagree) to 5 (strongly agreed). The market orientation was measured by 13 indicators of Narver & Slater (1990), Greenley (1995) and Henri (2006). The innovation was measured by four indicators used by Hurley & Hult (1998) and Henri (2006). Meanwhile, organizational learning was measured by four indicators of Garvin (1993), Hurley & Hult (1998), Henri (2006) and Widener (2007). The variable of organizational performance was measured by six indicators adopted from Lane (1999), Bisbe & Otley (2004), Widener (2007) and Ratmono (2012) on a Likert scale 5, ranging from 1 (very poor) to 5 (very gold).

5. ANALYSIS RESULT

5.1. The Analysis of Measurement Model

The analysis of the measurement model in this research used validity and reliability. The construct's validity test included convergent validity and discriminant validity, while the reliability test used two sizes, namely, composite reliability and Cronbach's alpha. The convergent validity can be seen from the loading factor and Average Variance Extracted (AVE). The value of loading factor is > 0.70 for the confirmatory research or > 0.60 for the exploratory research *(Kock, 2012*) and the p-value is significant at p <0.05 (Hair et al., 2013). The value of Average Variance Extracted (AVE) according to Fornell and Lacker (1981) in Sholihin & Ratmono (2013) used the criteria > 0.50. In this research, the two-stage measurement model analysis was conducted because in the first stage of analysis to test convergent validity it was found several indicators with a loading factor value <0.70 and should be excluded from the analysis. The three variable indicators of diagnostic control system (DCS) of DCS2, DCS4 and DCS7; one indicator organizational performance (OP) of OP1 and thirteen indicators of the organizational capability (OC) of OC1, OC3, OC6, OC7, OC8, OC10, OC11, OC14, OC15, OC16, OC17, OC18, OC19 with the loading factor of < 0.70 were excluded from the analysis.

Furthermore, the analysis of the second stage measurement model is presented in Table 1.

Table 1. Convergent validity (Running 2)

Variable	Loading Factor	P-Value	Average Variances Extracted (AVE)
DCS			0.680
DCS1	0.873	<0.001	
DCS3	0.825	<0.001	
DCS5	0.865	<0.001	
DCS6	0.728	<0.001	
ICS			0.667
ICS1	0.880	<0.001	
ICS2	0.829	<0.001	
ICS3	0.785	<0.001	
ICS4	0.768	<0.001	
OC			0.562
OC2	0.725	<0.001	
OC4	0.724	<0.001	
OC5	0.785	<0.001	
OC9	0.767	<0.001	
OC12	0.730	<0.001	
OC13	0.797	<0.001	
OC20	0.784	<0.001	
OC21	0.758	<0.001	
OC22	0.758	<0.001	
OP			0.704
OP2	0.771	<0.001	
OP3	0.810	<0.001	
OP4	0.870	<0.001	
OP5	0.872	<0.001	
OP6	0.866	<0.001	

The second phase result of the convergent validity in Table 1 shows that all the variables already have met the convergent validity with the value of loading factor > 0.7 at p < 0.001 and the AVE value of each variable > 0,50.

Discriminant validity was used to assess whether a construct is different from the other construct. This validity was evaluated by comparing the square root of average variance extracted (AVE) to the correlation between the constructs. The criteria of a variable meets discriminant validity when the value of the square root of AVE > the correlation between the latent constructs (Ghozali & Latan, 2012; Kock, 2012). The test result of the second discriminant validity is presented in Table 2 showing that all the variables have met the discriminant validity because they have the square root of AVE > the correlations between the constructs.

Table 2. Discriminant validity (Running 2)

Varible	DCS	ICS	OC	OP
DCS	0.825***	0.584	0.515	0.308
ICS	0.584	0.817***	0.617	0.324
OC	0.515	0.617	0.749***	0.385
OP	0.308	0.324	0.385	0.839***

*Note: Square roots of average variances extracted (AVE's) shown on diagonal; *** significant at p < 0.01*

The constructs' reliability can be seen from the values of Cronbach's alpha and Composite Reliability, with the criteria of Cronbach's alpha and Composite Reliability values > 0.70 for the confirmatory research or > 0.60 for the exploratory research (Ghozali & Latan, 2012; Kock, 2012). The reliability test results of the constructs in the second phase are presented in Table 3. It shows that the values of the composite reliability coefficient and Cronbach's alpha coefficient of all variables > 0.70 meaning that all of the variables studied are reliable.

Table 3. Instrument Reliability (Running 2)

Variable	Composite Reliability Coefficient	Cronbach's alpha Coefficient
DCS	0.894	0.841
ICS	0.889	0.833
OC	0.920	0.902
OP	0.922	0.894

5.2. The Analysis of Structural Model

Table 4 and table 5 present the analysis results of the structural model, while the full image of the structural model is presented in Figure 1.

Figure 1. Full Structural Model (Output of WarpPLS 3.0)

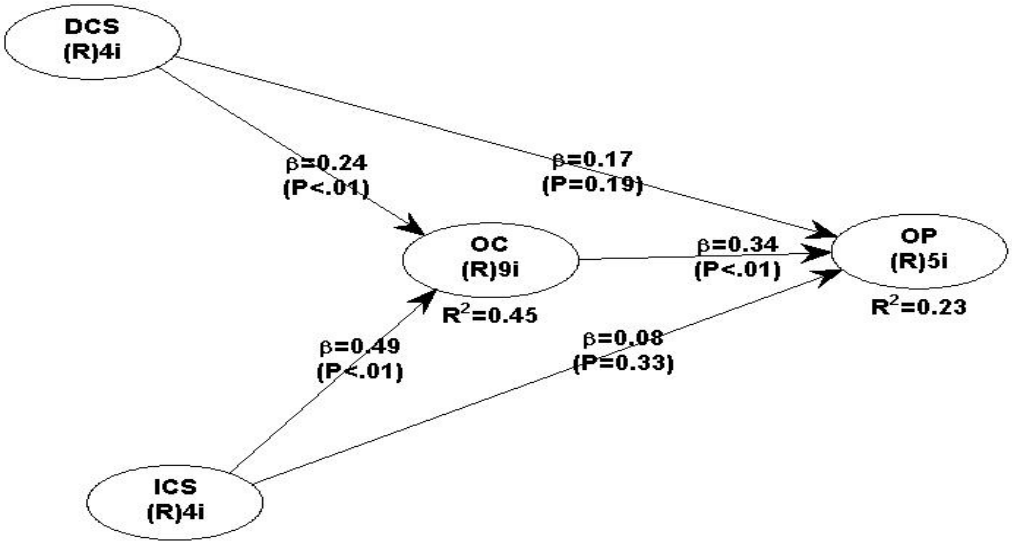

Table 4 presents the output of model fit indices and p values, Path coefficients and effect sizes for path coefficients from the direct and indirect effect test. The software of WarpPls 3.0 provides three indices of model fit, i.e.: Average Path Coefficient (APC), Average R-Squared (ARS) and Average Variance Inflation Factor (AVIF). The rules of the thumb of the general analysis results of SEM (Kock, 2012) to a good model fit index is a model with P-values for APC and ARS at p <0.05 and requires AVIF <5. The test results show the goodness fit of the model of the direct effect test (APC = 0.225, p<0.001; ARS = 0153, p = 0.005; AVIF = 1.341, Good if <5) as well as the indirect effect test (APC = 0262, p<0.001; ARS = 0342, p<0.001; AVIF = 1.590, Good if < 5) has been met or meaning that the research model is fit.

The path coefficients and p-value of the direct effect test, that is the path of the diagnostic control system (DCS) → organizational performance (OP), show the coefficient of 0.231 (p value = 0.106) and the path of the interactive control system (ICS) → organizational performance (OP) indicates the coefficient of 0.219 (p value = 0.066). The indirect effect test, that is the path of the diagnostic control system (DCS) → organizational performance (OP) shows the coefficient of 0.169 (p value = 0.188); the path of the interactive control system (ICS) → organizational performance (OP) with the coefficient of 0.076, (p value = 0.328), the path of the diagnostic control system (DCS) → organizational capability (OC) with the coefficient of 0.241 (p value = 0.003), the path of the interactive control system (ICS) → organizational capability (OC) with the coefficient of 0.488 (p value <0.001), and the path of the organizational capability (OC) → organizational performance (OP) with the coefficient of 0.337 (p value = 0.003).

Output effect sizes are f-squared coefficient proposed by Cohen (1998) in Sholihin & Ratmono (2013) was used to determine the effects indicated by the path coefficients of the practical point of view. Effect sizes according to Kock (2013) and Hair et al. (2013) can be grouped into three categories: weak/small (effect sizes = 0.02), medium (effect sizes = 0.15) or large (effect sizes = 0.35). Table 4 presents the output effect sizes of the direct effect test to the path of the diagnostic control system (DCS) → organizational performance (OP) at 0.079 and the path of the interactive control system (ICS) → organizational performance (OP) at 0.074.

Table 4. Output WarpPLS 3.0 (Model fit indices, Path coefficients, Effect sizes for Path coefficients)

Direct Effect	
Model fit indices	**P values**
APC = 0.225	P<0.001
ARS = 0.153	P=0.005
AVIF = 1.341	Good if < 5
Path coefficients	**P values**
DCS → OP 0.231	P = 0.106
ICS → OP 0.219	P = 0.066*
Effect sizes for Path coefficients	
DCS → OP 0.079	
ICS → OP 0.074	
Indirect Effect (Full Model)	
Model fit indices	**P values**
APC = 0.262	P<0.001
ARS = 0.342	P<0.001
AVIF = 1.590	Good if < 5
Path coefficients	**P values**
DCS → OP 0.169	P = 0.188
ICS → OP 0.076	P = 0.328
DCS → OC 0.241	P = 0.003**
ICS → OC 0.488	P <0.001***
OC → OP 0.337	P = 0.003**
Effect sizes for Path coefficients	
DCS → OP 0.086	
ICS → OP 0.081	
DCS → OC 0.136	
ICS → OC 0.316	
OC → OP 0.149	

*Note: *** significant at p < 0.01; ** significant at p < 0.05; * significant at p < 0.1*

The output effect sizes of the indirect effect test to the path of the diagnostic control system (DCS) → organizational performance (OP) at 0.086,

the path of the interactive control system (ICS) → organizational performance (OP) at 0.081, the path of the diagnostic control system (DCS) → organizational capability (OC) at 0.136, the path of the interactive control system (ICS) → organizational capability (OC) at 0.316 and the path of the organizational capability (OC) → organizational performance (OP) at 0.149.

Table 5 presents the values of R-squared and Q-squared and Full collinearity VIFs. R-squared is a size that is calculated only for endogenous variables, which represents the percentage of the variance that can be explained by exogenous variables. The higher the R-squared coefficient, the better the explanatory power of the latent variable predictor in a model. Q-squared is usually called Stoner-Geisse coefficient as an analog of R-squared, but it can only be obtained through resampling (Sholihin & Ratmono, 2013). Q-squared value can be negative, while the R-squared value is always a positive. The acceptable predictive validity is if the expected Q-squared coefficient > 0. Full collinearity VIFs is the test results of full collinearity, including vertical and lateral multicollinearity. The criteria for full collinearity test is smaller than 3.3 (*Kock, 2013*).

Table 5. The Test Results of R-Squared, Q-Squared dan Full Collinearity VIF

	R-squared	Q-squared	Full collinearity VIFs
Direct Effect	OP = 0.153	OP = 0.171	DCS = 1.628
			ICS = 1.922
			O = 1.804
			OP = 1.203
Indirect Effect	OC = 0.452	OC = 0.455	DCS = 1.628
	OP = 0.233	OP = 0.231	ICS = 1.922
			OC = 1.804
			OP = 1.203

R-squared value of the direct effect test to the construct of organizational performance (OP) is 0.153 meaning that the variance of organizational performance (OP) can be explained by 15.3% of the variance of diagnostic control system (DCS) and interactive control system (ICS). R-squared value on the indirect effect test to the construct of organizational capability (OC) is 0.452 meaning that the variance of organizational capability (OC) can be explained by 45.2% of the variance of diagnostic control system (DCS) and interactive control system (ICS). Meanwhile, R-squared value for the construct of organizational performance (OP) is 0.233 meaning that the variance of organizational performance (OP) can be explained by 23.3% of the variance of diagnostic control system (DCS), interactive control system (ICS) and organizational capability (OC). Q-squared value on the direct effect test to the construct of organizational performance (OP) is 0171, while the indirect effect test to the construct of organizational capability (OC) is 0.455 and to the construct of organizational performance (OP) is 0.231. The results show that the model estimation has good predictive validity since Q-squared value > 0. The values of Full collinearity VIFs for the entire constructs on the direct and indirect effect tests are < 3.3, so this research model is free of vertical and lateral collinearity and common method bias.

Mediation test is conducted in two steps (Baron & Kenny, 1986; Hair et al., 2011; Kock, 2013). First, the estimation to direct effect is conducted (the coefficient should be positive significant). Secondly, the estimation to indirect effect is conducted (the coefficient should be positive significant). The test results have been presented in Table 4.

Furthermore, the values of the variance accounted For (VAF) are calculated. The Variance Accounted For (VAF) is a size of how much the mediation variable able to absorb the direct effect initially significant of the model without mediation variable. According to Hair et al. (2013), if the value of VAF > 80%, the mediation variable in the model is full mediation. If the value of VAF between 20% and 80%, it is partial mediation. If the value of VAF < 20%, it is categorized as no mediating effect. Variance accounted For (VAF) is calculated by the formula of indirect effect divided by the total effect. Total effect is direct effect plus indirect effect. Based on Table 4, the direct effect of diagnostic control system (DCS) → organizational performance (OP) shows the coefficient value of 0.231 is not significant (p value = 0.106). In other hand, the path of interactive control system (ICS) → organizational performance (OP) shows the coefficient value of 0.219 (p value = 0.066 significant at p <0.1). These results indicate that the value of Variance Accounted For (VAF) is only calculated for the association of interactive control system (ICS) → organizational performance (OP). The calculation of VAF is presented in Table 6. The value of VAF at 42.8% (20% <VAF> 80%) proves that the organizational capability (OC) are as the partial mediation of the association between interactive control system (ICS) and organizational performance (OP).

Table 6. The Calculation of Variance Accounted For (VAF)

Direct Effect	
Interactive control system (ICS) → organizational performance (OP)	0.219
Indirect Effect	+
ICS → OC * OC → OP (0.488*0.337)	0.164
Total Effect	0.383
Variance Accounted For (VAF) = Indirect Effect : Total Effect (0.164/0.383)	0.428

6. DISCUSSION

This research was aimed to examine the effect of diagnostic control system and interactive control system on organizational performance with organizational capability as the mediation variable. Five hypotheses formulated have been demonstrated as presented in Table 4. The analysis results of the direct test prove that diagnostic control system (DCS) has positive but not significant effect (β = 0.231, p value = 0.106) on organizational performance (OP), meaning that hypothesis 1 is supported. The effect size of diagnostic control system (DCS) on organizational performance of 0.079 indicates that the role of diagnostic control system (DCS) on organizational performance is small and tends to be medium from practical view. The direct test results are in line with Henri (2006) that the association between control system and

organizational performance is indirect; when there is a direct effect, the effect is relatively small. Thus, diagnostic control system (DCS) can only be used as a control system to provide regular information to managers on performance measures and progress towards the objectives of the organization and not as a tool to improve organizational performance directly.

H2 is supported with the value of β = 0.219, P = 0.066 (significant at p value <0.1) proving that interactive control system (ICS) has positive significant direct effect on organizational performance (OP). These test results statistically indicate that the achievement of good performance in the financial institutions in Indonesia as a regulated industry can be reflected by interactive control system (ICS). The findings and confirmation of this empirical data has the meaning that interactive control system (ICS) as the control system can directly improve organizational performance. The results support the view of Widener (2007) that control system has the effect on organizational performance. However, the effect size of interactive control system (ICS) on organizational performance was only by 0.074, meaning that the role of interactive control system (ICS) on organizational performance from practical view is small and tends to be medium.

The test results do not directly prove that diagnostic control system (DCS) has positive and significant effect (β = 0.241, p = 0.003 **) on organizational capability (OC), meaning that is supports H3. These results show that diagnostic control system (DCS) as a formal feedback system can encourage resource mixed strategy or organizational capability. Simons (2000) states that diagnostic control system is a traditional feedback system with the role to support the implementation of organizational strategy. The value of the effect size of 0.136 approaches the medium effect (medium effect = 0.15) indicating that, from a practical view, the role of diagnostic control system (DCS) is important enough to push organizational capability at the financial institutions in Indonesia. The results are consistent with the research of Widener (2007), which proves that diagnostic control system (DCS) has positive significant effect on organizational learning as part of organizational capability.

H4 test results prove that interactive control system (ICS) has positive and significant effect (β = 0.488, p <0.001) on organizational capability (OC), meaning that H4 is able to be supported. The value of the effect size of 0.316 approaching the large effect (large effect = 0.35) indicates that, from a practical view, diagnostic control system (DCS) has a major role to organizational capability (OC) on the financial institutions in Indonesia. These results are consistent with the statement of Simons (2000) that interactive control system (ICS) has a more active role associated with the spread of information throughout an organization to focus the organization, encourage dialogue and support the emergence of a new strategy. The research result are in line with the researches of Henri (2006), Hudayati & Sofiah (2011) who found that interactive control system (ICS) has positive significant effect on organizational capability.

H5 also receives support in which organizational capability (OC) are proven to have positive and significant effect (β = 0.337, p = 0.003 **) on organizational performance (OP). The effect size value of 0.149 indicates that, from a practical view, organizational capability (OC) have medium role (medium effect = 0.15) to organizational performance (OP). This empirical finding has the meaning that organization's capability utilization strategies can improve organizational performance. The results support the resource-based view theory of Wernerfelt (1984) which states that organizational performance is highly dependent on the unique capabilities of a company. This research is in line with the previous studies that examined the effect of company's partial capabilities on company performance. Narver & Slater (1990), Jaworski & Kohli (1993), Baker & Sinkula (1999), Panigyrakis & Theodoridis (2007), Haugland et al. (2007) proved that market orientation has positive significant effect on company performance. Calantone et al. (2002), Agarwal et al. (2003), Weerawardena (2003), Bisbe & Otley (2004), Henri (2006), Jankala (2010), Ratmono (2012) provide the empirical support that innovation at a high level results in high organizational performance. Meanwhile, Santos-Vijande et al. (2005), Aragon-Correa et al. (2007), Widener (2007), Jiang & Li (2008), Hudayati & Sofiah (2011) found that organizational learning as part of organizational capability has positive effect on organizational performance.

The value of Variance Accounted For (VAF) of 42.8% indicates that the variable of organizational capabilities (OC) is a partial mediation of the association between interactive control system (ICS) and organizational performance (OP). The partial mediation role shows that organizational capability (OC) are not the only mediation of the association between interactive control system (ICS) and organizational performance (OP); there are still other mediation factors (Baron & Kenny, 1986).

7. CONCLUSION

This research has some practical implications for companies and other related parties such as academicians, government and other relevant agencies. The research results prove that the organizational performance of the financial institutions in Indonesia was influenced directly by the interactive control system (ICS) although it has small effect and indirectly affected by the diagnostic control system (DCS) and interactive control system (ICS) through organizational capabilities. These results support the view of Dent (1990) and Simons (1995) that control system has an important role for the implementation of organizational strategy in the form of organizational capability.

The research findings can explain the research gap on the effect of market orientation and innovation on organizational performance. The researches of Kirca et al. (2005), Panigyrakis & Theodoridis (2007) and *Mokhtar et al. (2014)* show positive significant effect, while the research of Jaworski & Kohli (1993) and Henri (2006) proved that market orientation has positive but not significant effect on organizational performance. The research of Agarwal et al. (2003), Bisbe & Otley (2004), Deshpande & Farley (2004), Henri (2006),

Ratmono (2012) and Atalay et al. (2013) which examined the effect of innovation on organizational performance found the positive significant effects, but the research of Dorrach (2005) proved a negative significant effect. Therefore, financial institutions, government and academicians in Indonesia should be aware that the capabilities in the form of market orientation and innovation are not enough to push organizational performance, but they must be combined with organizational learning capability. Companies need learning for the members of the organization to be able to carry out innovation strategies related to products, administration process and services to their customers. Similarly to market orientation, learning is required so that companies know the needs of their customers, improve services and visit prospective customers, and expand their technology-based network. Thus, resource mixed or capability strategies will be able to improve organizational performance, and it can even make the companies have sustainable competitive advantages. As the statement of Hurley & Hult (1998), Hult & Ketchen (2001), when the resources or capabilities are used collectively, they will help a company to be unique competitively and can improve its organizational performance.

First indicator of Interactive Control System (ICS1) has the highest loading values, indicating that financial institutions in Indonesia always using performance measurement to strengthen coordination between the functions within the organization. So the company can integrate various functions within the organization and always conducting a learning organization as the basic values of the company to provide the best service to prospective customers.

Actual action of a financial institution in Indonesia, especially banks to provide excellent service to customers is the use of technology such as Automated Teller Machine (ATM), Cash Deposit Machine (CDM), Phone Banking and SMS / m-Banking, product sales of Credit card or Debit card etc. The next development of financial institutions in Indonesia is the Bank has opened on line services (e-tax) for payment and reporting an income tax (IT) and Value Added Tax (VAT) with real time on line system to the State Tax System. Electronic banking services (e-banking) are closer to customers because their products, which provide convenience and comfort for customers to run the E-Commerce activities. Meanwhile, insurance companies began to offer products of investment banking, securities brokerage, asset management, life insurance, general insurance and so adapted to the needs of customers and finance companies with the product link.

Efforts of financial institutions in Indonesia to provide the best service for the customer are able to improve the organization performance. This is evidenced from the loading value of test results of convergent validity for organization performance variable in the form of Return on Asset (ROA) has the highest loading values. Return on Asset (ROA) demonstrated the ability of financial institutions to obtain a return on assets owned by calculating the ratio between incomes after taxes with total assets. These results prove that the use of assets on financial institutions in Indonesia to provide the best service for customers is not wasting, because the impact on after-tax profit is good or high for the company.

This research has limitations that can distort the results. The sample size is small because the companies which are the research object are regulated industries. The companies do not want that the information related to control system is known by the public, so they are not willing to give response. Future research needs to overcome this limitation by multiplying the sample size for better research findings. This research was also designed with a cross section, so that future studies can consider longitudinal research design to explore the effects among variables deeper. In this research, the variables of organizational capability (OC) are proven to be the partial mediation of the association between interactive control system (ICS) and organizational performance (OP). Future research may include other variables as the mediation of the association.

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