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## MANAGEMENT CONTROL SYSTEM, CORPORATE SOCIAL RESPONSIBILITY, AND FIRM PERFORMANCE

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**Abstract.** The aim of this study is to examine, through corporate reputation and double-loop learning, how Management Control System (MCS) in the form of a diagnostic and interactive system positively and significantly affects corporate social responsibility (CSR) and the firm performance (FP). This study uses a sample of 163 respondents who are middle to top level managers of manufacturing companies in Banten Province. We test hypotheses by using structural equation modelling, especially SmartPLS. We find that the effect of MCS on CSR does not directly affect the corporate firm performance, and that reputation and Double-Loop Learning (DLL) do mediate better firm performance. The study implies that MCS can help the company to support the process of CSR application more effectively when it matches performance to the expectation of stakeholders. In addition, manufacturers must maintain their reputation and increase their double-loop learning to seize opportunities as a result of their socially responsible activity, and to achieve optimal corporate firm performance.

**Keywords:** Management control system (MCS); corporate social responsibility (CSR); reputation (Rep); double-loop learning (DLL); firm performance (FP)

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## 1. Introduction

Management control system (MCS) is a procedure and formal system that uses information to maintain the focus of participants in organizational activities such as planning, monitoring, and reporting (Henri, 2006). MCS can strengthen the resolve of businesspeople to operate socially and responsibly. Moreover, it can monitor whether the business operates in accordance with social responsibility and stakeholder interest (Durden, 2008). Although previous research (Arjalies and Mundy, 2013; Durden, 2008; Kiviverta, 2010) discusses the relation between MCS and corporate social responsibility (CSR), certain aspects have yet to be studied. Durden (2008) and Arjalies and Mundy (2013) use a qualitative method that causes difficulty in generalizing their findings due to the presence of specific organizational characteristics. Therefore, a quantitative study on the causal relation between MCS and CSR is needed so that the results can be generalized. Following up the limitations of the work of Durden (2008) and Arjalies and Mundy (2013), our quantitative approach measures the effect of MCS on CSR and the relationship of CSR to double-loop learning.

Earlier work on organizational education received by each individual in an organization to improve CSR activity discusses the effect of the learning process (Antal and Sobczak, 2005; Blackman et al., 2013), but few consider the opposite direction where CSR affects the learning process. Carter (2005) analyzes the role of organizational learning in mediating the relation between CSR and supplier performance but does not show clearly how CSR can affect organizational learning and what the mechanism of learning is. We use a new double-loop learning approach that is not found in previous discussions of CSR. According to Argyris (1976), double-loop learning is a process whereby an entity (an individual, a group, or an organization) is able to ask about fundamental changes in values, assumptions, and policies. This process is different from single-loop learning, which encourages entities to change only to reduce the difference between expected and obtained results (Argyris, 1976).

In double-loop learning, the learner not only searches for a way to act and reach a goal but also checks that the action itself is fit and proper. Double-loop learning involves reflection on values and norms and the social structure in which these values and norms are practiced. With the pattern of double-loop learning, each learner must have a more dynamic attitude towards change than with one-loop learning (Greenwood, 1998). Argyris (1976) added that an organization accustomed to the pattern of one-loop learning faces difficulty when changing current assumptions because double-loop learning is more dynamic in requiring such changes. Previous and system-wide CSR speeds the process of double-loop learning because the goals of and obstacles to CSR are already a familiar part of the learning process. Thus, if MCS can help to implement CSR, then double-loop learning will encourage employees to actively participate in CSR-related issues. The present study not only demonstrates the effect of CSR on double-loop learning but also explains how this process mediates the relation between CSR and corporate financial performance. A company's commitment to CSR improves its financial performance by reducing the costs of retention and access to capital (McGuire, Sundgren, and Schneeweis, 1988; Sweeney, 2009). However, the critics of this concept reject a direct link between CSR and the financial performance of a company (Mill, 2006; Moore, 2001).

No simple correlation exists between CSR and financial performance because a business benefit is necessary to bridge the relation (Fombrun, 2000). We show that double-loop learning mediates the relation of CSR and corporate financial performance. According to Kaplan and Norton (2000), double-loop learning is a powerful instrument that allows management to work as a team to interpret data and develop a new strategy in accordance with environmental change. Relating to the role of business benefit for bridging the relation of CSR and corporate financial performance (Fombrun, 2000), this study includes the second intervening variable for bridging that relation, which is reputation. Some earlier studies investigate the relation with contradictory results. Sweeney (2009) finds a positive direct relation between CSR and corporate financial performance with certain business benefits, while Mill (2006) finds that CSR has no relation to financial performance.

According to Neville, Bell, and Mengüç (2005), the direct relation between CSR and performance is difficult to explain without a mediating variable, that is, reputation. Furthermore, reputation is a key factor in the success of a company. By promoting the outcome of corporate activity to the public, reputation connects CSR and performance (Neville, Bell, and Mengüç 2005). Thus, we include reputation as an intervening variable in the relation of CSR and performance and investigate the five-fold relationship between MCS, CSR, double-loop learning, the firm's reputation, and the firm's performance. In a 2012 survey conducted by the *Program Peringkat Kinerja Perusahaan Dalam Pengelolaan Lingkungan Hidup* or Ratings Program of Firm Performance in Environmental Management (PROPER), 24% of manufacturing industries in the province of Banten in Indonesia scored "category red" in waste management. This category indicates the worst level of environmental management. The present study, which focuses on industries in Banten Province, contributes to the literature on MCS and CSR.

### **Literature Review**

According to Durden (2008), MCS is able to accommodate the substantive phase of management action. He agrees with Kiviverta (2010) and argues that before disclosing sustainability in accordance with CSR external reporting, a company must be able to manage, measure, and monitor its own economic, social, and environmental performance (Durden, 2008). The company must measure employees' performance and motivate employees to achieve the CSR goal of their employer. The MCS implements CSR policy, and this implementation needs periodic examination. It changes in accordance with changes in the company's internal and external environment. Assumptions and policies that have been formed on the basis of those assumptions may or may not produce the planned results. Such policies may be realized in ways that are completely different from what has been planned.

Changes in a company's environment require each learner to learn quickly (Mundy, 2010). Double-loop learning in the context of organizational learning is not only an activity driven by a policy but is also a continuous test of the policy (Linz and Resch, 2010). According to Davison and Blackman (2005), employees develop a mental model or schema about their organization's CSR that will affect the way they see and react to events in the workplace. In other words, their logical thoughts on CSR become the basis of double-loop learning whereby any member of an organization can contemplate not only whether a deviation in the rules has occurred but also whether the rules must be changed to redefine "deviation" (Argyris, 1976). Double-loop learning can mediate and is hoped to "improve" corporate financial performance. According to Fombrun (2000), correlating CSR and financial performance in a simple way is difficult. A business benefit must exist to bridge the relation. That benefit is the knowledge acquired by employees as they relate double-loop learning to CSR, simultaneously increasing the effectiveness of MCS and the efficiency of the firm. Double-loop learning is known as a problem-solving technique in which the knowledge gained from contemplating anomalies triggers actions to achieve the company's goals, especially efficiency (Dooley, 1999).

Aside from double-loop learning, another business benefit is the CSR's credibility with stakeholders. Social responsibility underpins the firm's reputation, an idea common in the literature. The company that has its reputation for CSR confirmed in external reports shows steady long-term increases in performance (Adams, 2002). The company's reputation affects the prospective consumer's view of the entire corporate operation, including product quality, so they are willing to pay a premium price more than they will pay for a similar product generated by another firm (Sweeney, 2009).

Our framework relates to the MCS introduced by Durden (2008) and extended by Kiviverta (2010). We propose an additional new perspective where CSR can affect double-loop learning and where the concept becomes the intervening variable relating CSR to corporate financial performance. Then, adding an intervening variable,

reputation, as a business benefit with double-loop learning bridges the relation of CSR and corporate financial performance. Figure 1 shows the model of the study.

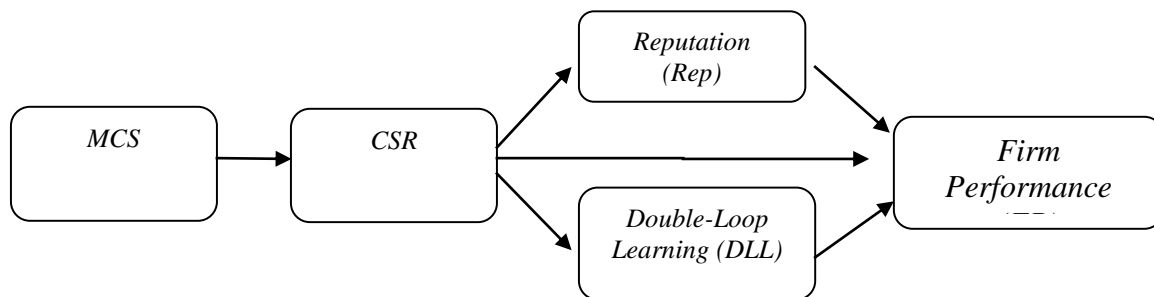


Figure 1. Research Model

In Figure 1, MCS positively affects CSR. Several previous studies have investigated the relation between MCS and CSR (Arjalies and Mundy, 2013; Durden, 2008). However, being only qualitative, those studies cannot measure the strength of the relationship. Thus, we use a *quantitative* method to find whether the relation between MCS and CSR is positive or negative and to measure it. Our first hypothesis (H1) is expressed below.

Furthermore, our second (H2) and third (H3) hypotheses posit that CSR affects reputation and double-loop learning positively. These two variables mediate the relation of CSR and corporate financial performance in our fourth (H4) and fifth (H5) hypotheses. Other researchers study the direct relation between CSR and corporate financial performance but with contradictory findings (Nadeem, 2012; Sweeney, 2009). Drawing a simple correlation between CSR and corporate financial performance is difficult, and a business benefit that can bridge the relation is needed (Fombrun, 2000). Our H2, H3, H4, H5, and H6 aim to determine whether CSR positively affects reputation and double-loop learning and whether any variable can mediate the relation between CSR and corporate financial performance.

## 1. Hypothesis Development

### MCS and CSR

According to Donaldson and Preston (1995), managers are responsible for selecting activities and using resources to obtain benefits for stakeholders. Durden (2008) also says that a resource-based view (RBV) confirms this important role for management, and an MCS must operate in accordance with the principles and goals of stakeholders. The RBV proposes that for an organization to reach its goal, its internal structure must adapt to external conditions. Internal resources are created and external market conditions are met through unique strategic development. According to Taghian (2008), in terms of marketing, a company's CSR is one of the intangible resources unique to the company. Galan (2006) argued that CSR is unique because it incorporates the formal values of the organizational culture. CSRs highlight the strategic role assignment of the existing MCS (Cresti, 2009). The mutual adaptation involves planning and control. Compensation and evaluation, incentive and benefit, are also present along with information sharing and cross-communication (Yuliansyah and Khan, 2015a; Yuliansyah and Khan, 2015b; Yuliansyah et al., 2016a). Consistent and socially oriented planning requires a control system whose objectives can be accurately measured. Only then can managers see whether or not the company achieves its objectives and can employees move in the right direction (Yuliansyah et al., 2017; Yuliansyah et al., 2016b).

H<sub>1</sub>. *MCS positively affects CSR.*

**CSR and Reputation**

Stakeholder theory argues that a firm's performance is determined by its stakeholders' release of resources to trigger a response by the firm (Frooman, 1999). Furthermore, the customer's impression of the product depends not only on the quality, price, and unique selling points but also on the perceived social responsibility of the company to its stakeholders and to society (Fombrun and Shanley, 1990). In a competitive market environment, many companies use CSR to create a good corporate image (Jones, 1995). CSR is a key component of a firm's reputation (Sweeney, 2009), and a good reputation attracts profit, capital, and trading partners (Lai, 2010).

According to RBV theory, tangible resources increase the efficiency and effectiveness of intangible assets (Barney, 2001; Newbert, 2008). The reputation of a company is another intangible resource that is unique to the company and difficult to imitate; the reputation can continue to yield a competitive advantage for a long time (Fombrun and Shanley, 1990; Neville, 2005; Deephouse, 2000). By signaling high product quality, reputation allows a company to take a superior position in the market (Sweeney, 2009). Lai (2010) shows that CSR positively affects the corporate brand reputation. In addition, Sweeney (2009) shows CSR enhancing a firm's business and social reputation.

*H<sub>2</sub>. CSR positively affects a firm's reputation.*

**CSR and Double-loop Learning**

CSR can be a factor for organizational change, so management of that change should be considered (Kivivirta, 2010). Known and shared CSR in an organization reduces dissonance and strengthens motivation. Employees expect their organization to follow their mental model of CSR, and this condition affects the way they observe an event in the workplace and react to it (Davison and Blackman, 2005). CSR presumes that experience in the real world, and knowledge obtained through reflection results in mental model reframing, that is, learning and creating new knowledge (Davison and Blackman, 2005). Double-loop learning supports new knowledge that has not been learned before often with "unlearning" the "process by which firms eliminate old logic and make room for new ones" (Sinkula, 2002). In summary, CSR affects double-loop learning because people can contemplate changing the rules and not only learning how to fix deviations.

*H<sub>3</sub>. CSR positively affects double-loop learning.*

**Reputation and Corporate Financial Performance**

Deephouse (2000) defines corporate reputation as an overall media evaluation that is important to stakeholders. Pride and public reputation are crucial to the success of the company (Roberts and Dowling, 2002). According to Fombrun and Shanley (1990), a positive reputation inspires an organization to achieve competitive advantages that allow it to charge a premium and save promotion costs. According to the RBV, resources have value if they increase the efficiency and effectiveness of intangible assets (Newbert, 2007; 2008). Reputation based on effective CSR is difficult to imitate and therefore yields competitive advantages (Neville, 2005). According to Brammer and Millington (2005), a positive and significant relation exists between a firm's reputation and its corporate financial performance. In fact, Neville (2005) states that reputation is the mediating variable between CSR and financial performance.

*H<sub>4</sub>. Reputation positively affects corporate financial performance.*

**Double-loop Learning and Corporate Financial Performance**

The RBV posits that performance can be affected by how the organization manages its unique resources. One such resource is knowledge, and another is the ability to learn and quickly apply changes based on what is learned (Garvin, 1993). According to Barney (1991), knowledge and information unique to an organization allow for long-term planning that leads to higher corporate efficiency. The knowledge acquired by employees in double-loop learning simultaneously increases process effectiveness and efficiency. One-loop learning focuses on routine activity. Double-loop learning manifests as problem solving, where new knowledge is triggered by anomalies and



where people assume that the anomaly contains within itself the discoverable means to meet performance objectives and increase the efficiency of processes (Dooley, 1999). Thus, we present our fifth hypothesis:

H<sub>5</sub>. *Double-loop learning positively affects corporate financial performance.*

### CSR and Corporate Financial Performance

Some researchers say that CSRs summarize the expectations of stakeholders, both internal and external, and increase the company's competitiveness in the long term (Webb, 2013). Jorgensen and Knudsen (2006) state that the entire area of the relation between CSR and a firm's performance is questionable. One study supports a light positive relation (Orlitzky, 2001). This relation has been recognized through financial performance mechanisms that are increased by CSR, but it has not been understood well. The RBV explains how to manage resources that are rare and difficult to imitate to achieve a competitive advantage (Barney, 1991). According to Taghian (2008), CSR can be a unique intangible resource for marketing. CSRs incorporate formal values of the firm's culture and Taghian (2008) argues that in the RBV, CSR is a unique intangible resource that is difficult to imitate and eventually leads to a competitive advantage. Other researchers conclude that the effect of CSR on financial performance is negative. The argument continues. The exact relation between CSR and financial performance is important and also difficult to pin down (McGuire and Sundgren, 1988).

H<sub>6</sub>. *CSR positively affects corporate financial performance.*

## 2. RESEARCH METHOD

### Population and Sample

The population in this study consists of manufacturing companies located in Banten Province, Indonesia. We choose this population because, first, manufacturing industries have more complex control than other industries (Anthony and Govindarajan, 2007). Second, Banten Province accounts for 60% of all manufacturing companies in Indonesia. Moreover, manufacturing is the major industry in Banten Province, so waste management and industrial environmental issues have to be examined. Third, nearly a quarter (24%) of manufacturing companies in Banten are in the red category, that is, the worst level of environmental management. Prior to questionnaire distribution, it was pretested to clarify understanding of the questions. Pretesting is conducted with companies that are similar but are outside the population area.

Data on manufacturing companies in Banten Province come from various sources, including the Ministry of Industry of Banten Province and the Statistics Centre Bureau. We sent questionnaires to the managers of those companies. We delivered a total of 300 questionnaires directly to 75 companies (see Table 1). A total of 163 respondents from 67 companies returned the questionnaires. Research data to test hypotheses were analyzed using structural equation model (SEM).

**Table 1.** Data Collection

	<b>Total</b>
Total questionnaires distributed	300
Total questionnaires returned	163
Response rate	54.33%

### Measurement of Variables

In the present study, MCS was measured using a two-dimensional construct of the diagnostic system and the interactive system adopted from Henri (2006). Then, CSR was measured using CSR activity affecting reputation and double-loop learning using the study instruments introduced by Sweeney (2009), that is, by evaluating the following: environmental friendliness, recycling of packaging material, production waste, information on labels, response to customer complaints, charity activities, job vacancies with an element of community support, a fair basic wage, and career development for employees. Firm reputation was measured using the study instruments of

Neville (2005) and Sweeney (2009) on business reputation, performance, investment value, quality of products, service quality, management quality, environmental responsibility, and community responsibility. Measurement of double-loop learning emphasizes comprehensive thoughts on assumptions and beliefs (Cartwright, 2002). Feedback on an assumption creates a more effective back-and-forth decision-making process (Argyris, 1976). The functions of double-loop learning proposed by Kaplan and Norton (2000) for quantitative measurement are the following: working as a team to interpret data, development of new strategy, and adaptation to change. Finally, firm performance was measured using the variables used by Henri (2006) and Sweeney (2009), which are sales, net profit, and ratio of net profit to cost.

### 3. RESULTS

#### Testing of Data Quality

##### Validity Test

We test validity using partial least squares (PLS) software. Each construct with a value of average variance extracted (AVE) more than 0.5 can be said to have good discriminatory validity.

**Table 2.** Fornell–Lacker Criterion

	MCS	CSR	DLL	Rep	FP
MCS	0.892				
CSR	0.972	0.926			
DLL	0.925	0.930	0.868		
Rep	0.924	0.920	0.847	0.845	
FP	0.934	0.928	0.937	0.867	0.916

All variables have an AVE value of at least 0.845, which is well above the 0.5 threshold for validity.

##### Reliability Test

We test reliability by considering the value of composite reliability from the indicator block measuring the construct. The result is satisfactory if it is above 0.7.

**Table 3.** Cronbach’s Alpha, Composite Reliability, AVE, R-squared

	Cronbach’s Alpha	Composite Reliability	AVE	R-squared
MCS	0.974	0.977	0.796	
CSR	0.979	0.982	0.858	0.945
DLL	0.836	0.901	0.753	0.865
Rep	0.866	0.909	0.714	0.846
FP	0.905	0.940	0.840	0.904

As shown by the analysis result of reliability test with SmartPLS (Table 3), the value of composite reliability (column 3) has a minimum of 0.901. This result means that the dependent variables (CSR, reputation, double-loop learning, and corporate financial performance) and the independent variable (MCS) have good reliability and internal consistency.

**Results and Discussion**

Hypothesis 1 states that MCS positively affects CSR. H<sub>1</sub> is accepted where MCS positively and significantly affects CSR. This relation is shown with estimation coefficient value between MCS and CSR of 0.980 and with a significance level of 11.196. The coefficient value of R-squared (R<sup>2</sup>) is 0.945.

**Table 4.** Results for Inner Weights

	Original sample estimate	Mean of subsamples	Standard deviation	T-statistic
MCS -> CSR	0.980	0.909	0.088	11.196
CSR -> Reputation	0.966	0.853	0.149	6.482
CSR -> Double-Loop Learning (DLL)	0.955	0.728	0.263	3.636
CSR -> Firm Performance (FP)	-0.055	-0.060	0.206	0.270
Reputation (Rep) -> Firm Performance (FP)	0.575	0.562	0.163	3.519
Double-Loop Learning (DLL)-> Firm Performance (FP)	0.476	0.535	0.156	3.056

As stated in H<sub>2</sub>, CSR positively affects a firm’s reputation. This hypothesis is proven. The coefficient value between CSR and reputation is 0.966 with a significance level of 6.482. The coefficient value of R<sup>2</sup> is 0.846. Thus, H<sub>2</sub> is accepted. Hypothesis 3 shows that CSR positively affects double-loop learning. This premise is proven by a positive path coefficient value of 0.955 with a significance level of 3.636 and an R<sup>2</sup> value of 0.865. Our finding that H<sub>3</sub> is supported. Hypothesis 4 states that reputation positively affects corporate financial performance. This hypothesis is proven by a positive path coefficient value of 0.575 with a significance level of 3.519. Thus, H<sub>4</sub> is accepted. Hypothesis 5 indicates that double-loop learning positively affects corporate financial performance. This result is proven by an estimation coefficient value of 0.476 with a significance level of 3.056. The coefficient value of R<sup>2</sup> is 0.904. based on above data, H<sub>5</sub> is accepted. Hypothesis 6 states that CSR positively affects corporate financial performance. We find a T-statistic value of only 0.270. This value is below the t-count of 1.96 that is required to support the hypothesis. A negative effect is observed, but it is not significant. Therefore, we reject H<sub>6</sub>.

**Path Analysis**

**CSR Path Analysis of Firm Performance through Reputation**

To investigate the indirect effect of CSR on corporate financial performance, we consider the mediating variable reputation. Table 5 presents the path analysis.



**Table 5.** CSR Path Analysis of Firm Performance through Reputation

Path	Information	Indirect Effect CSR–Firm Performance (FP) (A)	Direct Effect CSR–Reputation (B)	Direct Effect REP–Firm Performance (C)	Indirect Effect A + (BxC)
4	CSR-Rep-FP	-0.055	0.966	0.575	0.500

Based on the preceding calculation, the construct of reputation can mediate the effect of CSR on corporate financial performance. The comparison of direct and indirect effects shows that direct effect (-0.055) < indirect effect (+0.500).

**CSR Path Analysis toward Firm Performance through Double-Loop Learning**

To investigate the indirect effect of CSR on performance, we look at the addition of indirect effects through the mediating variable double-loop learning. Table 6 shows the path analysis.

**Table 6.** CSR Path Analysis of Firm Performance through Double-Loop Learning (DLL)

Path	Information	Direct Effect CSR – FP (A)	Direct Effect CSR-DLL (B)	Direct Effect DLL-FP (C)	Indirect Effect A + (BxC)
5	CSR-DLL-FP	-0.055	0.955	0.476	0.399

Based on the preceding calculation table, the construct of double-loop learning can mediate the effect of CSR on corporate financial performance. The comparison of direct and indirect effects shows that direct effect (-0.055) < indirect effect (+0.399). The result of hypothesis testing of relations between MCS, CSR, reputation, double-loop learning, and corporate financial performance is presented in Table 7.

**Table 7.** Summary of Hypothesis Testing Results

Hypothesis	Hypothesis Statement	Summary
1	MCS positively affects CSR.	Accepted
2	CSR positively affects reputation (Rep).	Accepted
3	CSR positively affects double-loop learning (DLL).	Accepted
4	Reputation (Rep) positively affects firm performance (FP).	Accepted
5	Double-loop learning (DLL) positively affects firm performance (FP).	Accepted
6	CSR positively affects firm performance (FP).	Not accepted

**4. Discussion**

The result of this study is in accordance with the two underlying theories: stakeholder theory and RBV. The stakeholder theory posits that an organization must be managed ethically to meet the identified needs of stakeholders (Freeman, 1984). Thus, management has to identify and satisfy each stakeholder before finalizing the CSR. In the RBV, the success of an organization is predicated on resources that are important, rare, or difficult to imitate. Focusing on the RBV forces basic changes both in the system and its strategic management to

be able to create value (Barney, 1991; Wernerfelt, 1984). Then, CSRs incorporate the formal values of the company culture (Taghian, 2008). In addition, our study found that CSR positively affects a firm's reputation. This result supports the statement by Jones (1995) that in a highly competitive market environment, CSR responds to the expectations of various parties such as the media, public opinion, nongovernment organizations, and customers by creating a good corporate image. Lai (2010) also finds a positive and significant relation between CSR and reputation. The result of this study also supports the RBV that CSR is a unique resource that is very difficult to imitate and which incorporates formal values (Taghian, 2008). According to Neville (2005), reputation is also a resource formed from positive interaction with stakeholders and enhanced by selected information about the company's activity conveyed to stakeholders. Both statements clarify that CSR can affect a firm's reputation and that CSR is a resource wholly under the company's control.

Hypothesis 3 shows that CSR positively affects double-loop learning. Our findings strengthen the suggestion that any organization with CSR activity can use double-loop learning to foster individual sensitivity toward the dynamics of CSR in their organization. Mental models (schema) developed by employees will affect the way they view events in the workplace and then react to them (Davison and Blackman, 2005). The results of this study cannot be separated from the stakeholder theory and RBV. The stakeholder theory presupposes a framework for stakeholders to examine management practice (Mishra, 2013). Post and Preston (2002) add that successful management of stakeholders also involves learning because the characteristics of stakeholders change from time to time.

According to our study that reputation increases firm performance. The result of this study is in accordance with the findings of Neville (2005) and Sweeney (2009). A company that is considered socially responsible can benefit from its reputation, especially when its public image is boosted by publicity. In addition, its reputation in the business community increases its ability to attract capital and trading partners. Similarly, based on stakeholder theory from employees perspective, the company management systematically attempts to produce benefits for each employee from learning, improved leadership, increased efficiency of working, employee commitment, and reduced costs. The higher the level of double-loop learning, the better the firm's performance (Dooley, 1999). Furthermore, the result of this study is in accordance with the RBV that performance is affected by the way of managing unique resources. One of these resources is knowledge, which includes the ability of an organization to apply changes based on what has been learned (Garvin, 1993).

## 5. Conclusion And Limitations

Our objective is to examine the effect of MCS on CSR and the effect of CSR on performance mediated by reputation and organizational learning. The present study specifically aims to examine the effect of MCS, including diagnostic control system and interactive control system, on CSR. This study also intends to examine the effect of CSR on reputation and double-loop learning as well as the effect of reputation and double-loop learning on corporate financial performance. Furthermore, this study aims to examine the direct effect of CSR on corporate financial performance and firm performance that is mediated by reputation and double-loop learning. To achieve the goal of the study, we conducted a survey by sending questionnaires to managers of manufacturing companies in Banten Province. Our primary data were the answers to the questionnaire collected from 163 respondents in 43 companies. Research data to test hypotheses were analyzed using SEM, particularly SmartPLS.

Referring to the result of data analysis, hypothesis testing, and discussion, we find the following: **First**, management control system in the form of a diagnostic and interactive system positively and significantly affects corporate social responsibility. This result shows that a company that has MCS based on performance gives high priority to the implementation of CSR as a strategy. **Second**, corporate social responsibility affects reputation and

double-loop learning positively and significantly and facilitates such learning for company employees. **Third**, both reputation and double-loop learning have positive and significant effects on corporate financial performance. The process of knowledge creation through the double-loop learning model validates the legitimacy of the corporate reputation as an instrument to improve performance. **Fourth**, corporate social responsibility does not directly affect financial performance. This result indicates that CSR might be used as a strategy to determine the objective of social activity that will be conducted, but its role in increasing performance directly is unclear. **Fifth**, the indirect effect of CSR on corporate financial performance through reputation and double-loop learning means that CSR activity performed by the company becomes more effective in the form of financial performance if it is supported by business benefits such as reputation and double-loop learning.

This study has several practical implications. First, in designing social responsibility strategies for manufacturing companies, the MCS should focus on performance in the form of simultaneous diagnostics and interaction so that the MCS can help the company to achieve its CSR. Second, manufacturers must maintain their reputation and increase their double-loop learning to seize opportunities as a result of their socially responsible activity, and to achieve optimal corporate financial performance. Third, our definitive finding is that manufacturers should use corporate capabilities, such as double-loop learning, and corporate resources, such as reputation, simultaneously to improve performance.

This study has two limitations. First, it highlights performance measurements that implement MCS in the form of a diagnostic system and an interactive system operating in tandem. The synergy of these systems is expected to provide a maximum result. However, this study does not address how much relative attention should be given to diagnosis and interaction in assisting effective CSR implementation. Second, the empirical model built in this study uses only two of four levers in its levers of control framework. These are interactive and diagnostic. A future study that involves a four-lever framework might provide different results.

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