

## **Corporate Sustainability Performance on Service Industries: A Study of Factors That Encourages Competitive Advantage for Industry Performance**

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**Abstract:** The review relates to correlation between reputation and corporate sustainability performance, become one of studies focuses on service industries. Another study about innovation, diversification and competitive advantage and also correlation with corporate sustainability performance also becomes the important attention. But the whole study relates to the correlation of reputation, innovation, diversification and competitive advantage with corporate sustainability performance in particular for service industry has not became the study focus yet. The aim of study is to get the best model from correlation of reputation and corporate sustainability performance in overall, by including variable of innovation, diversification and competitive advantage. Through a case study on building automation system industries in Indonesia as one of service industries that needs corporate sustainability performance. This study uses 43 directors of building automation system company as respondent. By using mixed method research approach and also structural equation model, through analysis tools of SmartPLS. The finding of study states that corporate sustainability performance can be reached well through the strategy on competitive advantage and also supporting from innovation and diversification. But directly, supporting from reputation on the achievement of corporate sustainability performance has no a good impact. This finding is useful to encourage Indonesia government program in facing issue of “Saving Energy”. And also it is as reference for company in improving corporate sustainability performance through innovation, diversification and competitive advantage.

**Key words:** Reputation, innovation, diversification, competitive advantage, corporate sustainability performance, sustainability

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### **INTRODUCTION**

In general, Chief Executive Officer (CEO) carries out the rule from shareholder to improve company performance this case is conducted through corporate sustainability performance especially for company which has entered in the phase of grow and developed (Gupta and Kumar, 2013). Truly, corporate sustainability performance will be achieved by competitive advantage of company and it is not missed from company ability in behave of government' regulation (Dao *et al.*, 2011). Those cases need to be faced where company is charged indirectly to become environment of company outside such as regulation from government as supporting in gaining competitive advantage (Singh *et al.*, 2015). Company that grows and develops well historically it passes the determined target in its business this case is indication that company is believed by market because it is good reputation (Sofian *et al.*, 2015). Good reputation has opportunity to improve performance target because market trust on company (Lumeau *et al.*, 2015). The grow of good company performance is absolutely not missed

from human resources inside, gaining of reputation as the beginning to gain competitive advantage is seemed important created by human resources inside, those cases have the final goal which is corporate sustainability performance.

In strategy of grow both company and business, like strategy of new product creation to existing customer and bring the old product to new market it is needed diversification strategy (Block *et al.*, 2016). Product diversification is one of strategy that attracts the existing and new customer and also it is useful to improve competitive advantage of company (Sahaym and Nam, 2013). In its development, every company does similar competitive advantage so many companies compete in the same market such as implementation of business strategy with conducting leadership cost strategy and differentiation or strategic focus (Porter, 1990). After knowing threat potential in industry competition, every time each company has risk to get lost of competitive advantage, speed in adjusting its competitive advantage depends on changing or market trending, so the writer has attractiveness to study the variable that influences in

order to competitive advantage keep outstanding and sustainable that impacts on company performance which is sustainable (Amoako-Gyampah, 2008). The synergistic cooperation called with cooperative advantage with other company that offers additional value for customer. Innovation becomes one of strategy in updating at once improving competitive advantage (Chen *et al.*, 2016). Innovation activity can be new product creation with new advantage and give additional advantage for customer. The chance does product innovation and solution innovation it is closely related with smart building industry and green building (Fuisz-Kehrbach, 2015). Company does product innovation and solution product to update its competitive advantage and it is success to be accepted by the existing and new customer.

Innovation encourages the grow of corporate sustainability performance with improving financial and efficiency performance (Ezzi and Jarboui, 2016). Ignoring innovation and bringing risk are swept by global competition currently (Herrera, 2016). Innovation encourages the improvement of product and process, make continuous improvement that helps company grow faster, more efficient and more useful compared with company that has no innovation. Product innovation and process innovation are possible to company to perpetuate its positive performance (Awa, 2010). Innovation will encourage diversification depends on product that is needed by customer as well as vice versa diversification planning because there is information need of product from customer will produce innovation activity too. In principle, the key component of reputation is business reputation and social reputation (Sarstedt *et al.*, 2013).

According to background of study that has been reviewed before it has explained that there is correlation between corporate sustainability performances with gaining competitive advantage of company (Chen *et al.*, 2016). In other sides it is seemed gaining competitive advantage can be conducted by innovation improvement (Chen *et al.*, 2016), diversification (Block *et al.*, 2016) and reputation (Czinkota *et al.*, 2014). In line with that phenomenon it is stated that study focus on the review of reputation in innovation development and company diversification. And another impacts on competitive advantage to gain corporate sustainability performance. This study focuses on Building Automation System (BAS) Industries in Indonesia where there is phenomenon which relates to corporate sustainability performance in that industry. In developing country like United States (US), Building Automation System (BAS) developed well regulation and government's policy such as the rule of greenhouse gas emission which is increasing the

awareness of advantage of building automation (Kapoor and Sandhu, 2010). But it is not happened in Indonesia, remember it is included developing country and BAS needs a quite expensive infestation (Kapoor and Sandhu, 2010). Although, truly by existing BAS is possible to building owners to press the operational cost and also to improve environmental performance which is needed by company. By technology of intelligent building that increase energy efficiency (Ndubisi and Agarwal, 2014) can press electrical energy consumption of air conditioning system until 30% from total of electrical energy consumption of air conditioning system. According to annual report on company which runs in building automation system industries in Indonesia, most of them do not grow well and only the fraction can grow with the percentage growth is about 15% till 20%. This study becomes the importance review in which the review of competitive advantage on reputation, innovation and company diversification has been ever conducted. And also this review theoretically is the correlation variable can improve corporate sustainability performance. And it is conducted on industry that encourages energy efficiency and green building in Indonesia which is building automation system industries.

### **Literature review**

**Reputation:** Reputation is estimation as a whole where organization has market value because of trust (Fombrun, 2005). Today, many companies in Indonesia are diligent in managing their reputation they are MNC Group in media business, Bluebird in transportation business and Bank Mandiri in Banking business (Musteen *et al.*, 2013). That case indicates the importance of reputation in order to improve customer trust on company and expand market segment. Relating to reputation can be assumed that reputation is consensus and the impression that felt socially about how company will behave in any situation (Sarstedt *et al.*, 2013). Managing reputation well is needed, the measurement of reputation with some indicators that involve all of businessman both shareholder and stakeholder. Reputation as the whole positive evaluation towards organization that has formed during long term among the audience which based on variety of constructs such as philosophy, activity and company communication (Fu and Li, 2014). Reputation forms collective trust about ability and company's willingness to satisfy the diversity interest of stakeholders.

Some cases that becomes attention on reputation is product quality, values of products for money, commitment in keeping environment, corporate success, treatment of employees, customer orientation,

contribution towards local issues and charity, financial performance, management qualification, credibility of advertisement claim (Ali and Ali, 2011). In the study of Kim and Cha (2013), the measurement of reputation is more simplified into three major cases which are company identity, company strategy and company communication. While, dimension of reputation is also stated Amigo *et al.* (2014) where it is divided into some cases, like. Product and services is about product and service offered by company also about customer satisfaction. Innovation is about innovation that is showed by company, starts from the similar ideas until string up and develop those ideas to be product. Workplace is about employee's satisfaction or company ability in attracting, forming and maintaining the talented and high qualified people. Citizenship is about recognition of company towards its duty to society and environment including ethical aspect in business: integrity, transparency and accountability. Governance is about the correlation of company and public authority. Leadership is about company leading position and performance is about long-term business success and the power of company financial.

**Innovation:** Schumpeter is the first person who offends innovation scientifically (Sundqvist *et al.*, 2012). Drucker is as father of management science, introduces innovation as special tool for businessmen that is possible to them to use the changing as is a chance to offer service and also assumes innovation as organization capability that can be learned and applicative (Ankli, 1992). Innovation as admission policy, program, structure, process or market or any product that assume right by manager (Nohria and Gulati, 1996). Innovation as formation, admission and implementation of ideas, product, process or new service and creative ideas in an organization (Amabile, 1988). Differentiation Strategy covers the creation of a unique product, those cases can be stated the effort of innovation creation (Alamsyah and Angliawati, 2015). The uniqueness of features or benefit that will give superior value for customer will ensure the success of differentiation strategy which means that innovation is also a part of company differentiation strategy (Hull and Rothenberg, 2008). Innovation as admission of organization towards ideas or new way related to product, service, system, tools, policy or program (Damanpour and Gopalakrishnan, 2001). The core of innovation is novelty ideasthat can improve organization performance (Chen *et al.*, 2016). The growth of sell is not only because offering the cheap price but another factor that is not connected with price, difference, design, quality and customization (Ferreira *et al.*, 2015) that case meant innovation. It indicates that new product, service and

process produced from innovation process that is outcome of infestation on R&D, technology acquisition, employee training, etc.

In innovation, logic is behind value innovation is providing total solution, the amazing experience in line with pressing cost. Value innovation is the result of combination between eliminating, reducing, enhancing and newly creating of elements key from product, service and delivery (Kim, 2016). While, value innovation is encouraged by culture, process, people, resources and also contain three elements: fundamental reconceptualisation of the business model, reshaping of existing markets, dramatic value improvements for customers (Schlegelmilch *et al.*, 2003). Knowledge and ideas are input for value innovation, so ability to create value innovation relates to concepts of absorptive capacity also dynamic capabilities. Elaboration of value innovation with introducing the concept of Blue Ocean versus Red Ocean strategy; Red Ocean focuses on proportion in which company must get unique positioning or low cost. In development, dimension of innovation can be simplified into four types of innovation (Hassan *et al.*, 2013) which is product innovation, process innovation, marketing innovation and organizational innovation.

**Diversification:** Company diversification is a phenomenon that obtains serious attention in literature of strategic management and industrial organization. Related with this diversification is assumed as tool to spread business risk and transferring capability that is built by company to other business that is closely related with the core business (Degl'Innocenti *et al.*, 2014). Diversification is divided into two types which is diversification relates to where new business is still related to the core business and diversification is not related where new business has no direct correlation with the core business (Gutierrez and Vernis, 2015). Diversification is business collection that is under one corporation umbrella (Xuefeng and Ya'ar, 2016). This opinion emphasizes that diversification is a set of subsidiary. Diversification strategy is situation where business corporation starts produce new product in new market (Zekiri and Nedelea, 2012).

In means that diversification is the creation of new product in new market. This case is difficult to be conducted without supporting innovation (Hull and Rothenberg, 2008).

Diversification can be conducted well but it must be measured with the case that can be base of diversification. Some previous studies use the different measurement will be diversified from company, though the principle relates to two cases which is related diversification and unrelated diversification. One of measurements is seemed

from strategic fit, the core competency (risk factors risk minimization), PLC-stage of core business PLC stage of new business, resources and capability (resources and capabilities) managerial capability and strong marketing capital adequacy (Tobiasen, 2014).

**Competitive advantage:** Competitive advantage of company is very needed to be achieved it is caused company performance sources from gaining competitive advantage (Amoako-Gyampah, 2008). And it is known that competitive advantage can be achieved by innovation (Herrera, 2016), obviously it can be also achieved by cooperation with human resources of company inside (Syarifuddin and Internasional, 2017). Besides recruiting and maintaining a good worker, organization must improve skill and employee's capability with encouraging individual learning or organizational in creating environment that supports where knowledge can be created, divided and applied (Ledford, 2014). The consequence of power with low skill must be conducted the training or recruiting new employee who has high skill. That human capital is the key for competitiveness in new economic and the key for doing innovation (Agenor and Neanidis, 2015). Competitive advantage is a management concept that is most popular in contemporary management literature currently. This is a part caused by a rapid changing faced company today, complexity of business environment, globalization impact and unstructured market, customer needs that is always changed, competition, revolution of information technology and communication and also free trade world (Chen, 2008). Competitive advantage as organizational capability in recording performance is hard to be imitated by competitors either today or future (Kotler, 2000). Assuming that competitive advantage which grows from company value can create the value for customer that overs cost to create it.

One of measurements from competitive advantage according to Moghli *et al.* (2012) is time, means it is needed by company to present the product to customer; quality; cost and flexibility, means company ability to respond changing. In service industry, the indicator of competitive advantage is more simply such as cost, flexibility, delivery and quality (Diab, 2014). While according to Mehrmanesh and Managhebi (2006) in similar industry, dimension of competitive advantage takes cost and quality and also other dimensions like general image, design, price, support and differentiation. If it is reviewed from the third research, actually it seems the similarity for indicator dimension of competitive advantage which always talking about quality, price and

the way of delivery. Competitive advantage must be updated continuously in order to bargaining value of company can be sustainable, this case that is commonly called sustainable competition advantage. There are four dimensions of sustainable competition advantage such as: effective supply chain management, product differentiation and innovation, organizational responsiveness and cost leadership (Sihite *et al.*, 2016). It seems that in principle of sustainable competition advantage is not also much different of measurement with competitive advantage that has some the importance review like quality, efficiency, innovation and responding to customers (Parmigiani *et al.*, 2011). Seemed from the previous researches there is difference of dimension for competitive advantage; all of them are depend on company types and the necessity of research.

**Corporate sustainability performance:** Maintaining corporate sustainability performance is not easy case. Porter's five forces about competition from new comers is sometimes make management must think clearly in maintaining the position as market leader. Only company ability in producing product and qualified service of corporate sustainability performance (O'Dwyer *et al.*, 2011). The growth of corporate sustainability performance is performance growth in long-term as the result of company ability in maintaining its ability in producing product and qualified service (Lee and Park, 2016). While, company performance is measured depends on the collection of selected indicator that can make comparison between one company with others (Leonidou *et al.*, 2013). However, the development that relates to stakeholders is stated that corporate sustainability performance is one of the ways to satisfy investors and it can be represented by profitability its growth and market value, all of aspects are completing each other (Cho and Pucik, 2005). That opinion explains many cases that must be achieved in finding corporate sustainability performance. Customer satisfaction improves willingness to-pay and its turn improves the value created by company (Scotti *et al.*, 2007). While employee satisfaction relates to infestation in practicals of human resources; employess tend to assume important of job description that is clear, infestation in training, career planning and good reward policy (Sofian *et al.*, 2015).

Trully, corporate sustainability performance can be valued. Some dimensions of corporate sustainability performance is the example, like financial performance (profitability, environment performance, social performance) (Santos and Brito, 2012). The dimension explained is simply that divided into 2 cases between

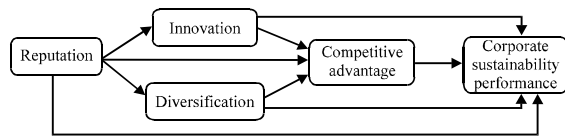


Fig. 1: Research model

financial and strategy which becomes evaluation. It is often used in service research, the correlation is not only measure performance but also sustainability performance (Cho and Pucik, 2005; Lee and Park, 2016).

**The correlation of reputation, innovation, diversification, competitive advantage and corporate sustainability performance:** In previous study has been discussed that there is correlation between reputation and innovation (Mohamme *et al.*, 2016). Reputation can be assumed as key driver for innovation that the value is taken from specific asset which leads to competitive advantage (Herrera, 2016). Besides that it has been stated that there is correlation between reputation and competitive advantage in service industry (Czinkota *et al.*, 2014). Where in principle of competitive advantage has a role in controlling corporate sustainability performance it can be conducted by the use of reputation (Sofian *et al.*, 2015), company innovation (Herrera, 2016) and company diversification (Block *et al.*, 2016). All of literature reviews that explained in the previous study in principle used in recently study that focuses on reviewing of service industries on building automation system in Indonesia. So more emphasizing and it can encourage the research today with focuses on corporate sustainability performance which influenced by reputation, innovation and diversification, through competitive advantage.

Based on the review of previous study, so it is stated the research model of reviewed currently with the major goal is on the improvement of corporate sustainability performance in building automation system industries (Fig. 1). Based on research model that made in this study, so it is stated the series of hypothesis testing which is conducted:

- H<sub>1</sub>: reputation influences on innovation development
- H<sub>2</sub>: reputation influences on diversification creation
- H<sub>3</sub>: reputation influences on gaining competitive advantage
- H<sub>4</sub>: innovation influences on gaining competitive advantage
- H<sub>5</sub>: diversification influences on gaining competitive advantage
- H<sub>6</sub>: reputation influences on corporate sustainability performance

- H<sub>7</sub>: reputation influences on gaining competitive advantage
- H<sub>8</sub>: innovation influences on corporate sustainability performance
- H<sub>9</sub>: diversification influences on corporate sustainability performance
- H<sub>10</sub>: competitive advantage influences on corporate sustainability performance

## MATERIALS AND METHODS

Type of study that used was descriptive verificative with focused on strategic management field that was specifically reviews factor of reputation, innovation, diversification, the influence on competitive advantage and the implication towards corporate sustainability performance. Problem-solving plan in this study through the approach of mixed methods research where data processed was sourced from two sides such as quantitative and qualitative. Population in this study was all of companies that had website and business unit of building automation system in Indonesia which was about 43 it represented by one of respondents (Director of Business Unit or Manager of Business Unit). In analyzing the correlation between research variable, the measurement used SEM approach (Structural Equation Model) in this case all of unobservable variable was translated at first in form of indicator that could be observed or measured directly and every indicator was measured using ratings for the answer with determining scale which was ordinal scale.

**The measurement of research variable:** Every research variable was submitted in questionnaire to measure those variables used five of likert scale which was 1-5. Where the measurement from “disagree” until “agree” from every indicator that existed in each research indicators.

Reputation it has equity value and it can be able to create emotional value because company ability provides product and service that has value and differentiation and also conducting innovation activity which is needed by customer or market continuously and it produces customer loyalty and get social support. Those cases can be measured by product and service, work environment, leadership of CEO, business management, competency and responsibility. Innovation is activity and organization ability in providing product or service that always orientates on customer needs or market do the effective and efficient process improvement, produce product that has customer value and has business intelligent for trending of market changing and updating competitive

advantage of company continuously. Innovation can be measured by the culture takes a risk, customer orientation, learning, readiness of organization, business intelligent and management team. Diversification is organization or company activity in development portfolio product or business expansion that related to or it is not oriented to customer needs or market that aims to increase the growth of corporate sustainability performance. To measure diversification can be done by capability, resources, risk factor and competency. Competitive advantage is organization or company activity in updating or improving its competitive advantage that has flexibility depends on the changing of market needs with offering new product and service on time and also improving financing efficiency to produce low cost product, qualified and has differentiation value compared with the competitors. Those cases can be measured by some measurements such as time, quality, cost, flexibility and differentiation. Corporate sustainability performance is activity of a company to improve its competitive advantage that has flexibility depends on needs and market changing, build company equity, improve emotional value do innovation activity and complete portfolio product that oriented with market needs, do collaboration strategy of strategic cooperation which has value added and can fulfill employee's desire, shareholder and also contribute to social life.

## RESULTS AND DISCUSSION

The result of empirical study that is conducted on 43 respondents in building automation system industries which spreads on 8 cities in Indonesia. The result of SEM analysis for the research is stated on Fig. 2.

The result of data processing through structure equation modelling found that there is positive correlation for all lines of research variables, though one of them is no significant effect. However, all of former variables of corporate sustainability performance impact is about 63.9%. Before evaluating research model it is conducted research model testing. This study is conducted by SmartPLS tools, research model testing in SmartPLS can be done by outer model and inner model. The testing is conducted by convergent validity that is measured by outer loading where the measurement of individual reflective is stated to be high if it is correlated More then 0.50 and the outer loading value of this finding research is above 0.50 (Table 1).

The next testing through composite reliability, where it is measured from discriminant validity that shows what the variable measured has a high reliability if it has composite reliability is above 0.7. In Table 2 explained the

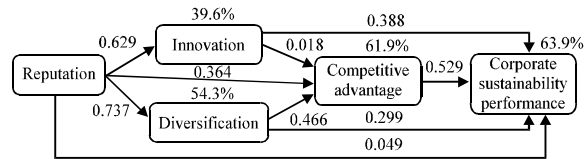


Fig. 2: The correlations research model

calculation result of composite reliability and its value is above 0.70. This case is also happened to average variance extracted value in which the data processing result is above 0.5 and the value of cronbach alpha where the value is above 0.7. Based on some of model evaluation value can be stated research model proposed is valid and reliable.

### Implementation of reputation, innovation and diversification in building automation system industries:

not at all of companies in building autoamtion system industries in Indonesia has a good reputation. Data summary from survey result and FGD can be seen above that the result of FGD shows almost all indicators gets value reduction on FGD except responsibility. The result of average value dimension shows that the value of survey result is 76.5% and the value of FGD result is 68.5% and the result of both still restricted by range both good or high. So from those analysis result shows that reputation on Building Automation System (BAS) industries in Indonesia has been good or high. The cases that must be increased in almost all of dimensions because there is no can get above 84% and it becomes the major priority which needs to be improved is work environment, product or service, leadership of CEO and business management. Reputation is one of major variables in forming of corporate sustainability performance, although its impact is not quite big. That case is in line with the theory from Boyd *et al.* (2010).

The data summary from the result of survey and FGD can be seen above that FGD result shows almost all of indicators get reduction value on FGD except learning and it gets the increasing value from 73-88% and this case has been explained in discussion of FGD. The result of average value dimension shows that the value of survey result is 75.2% and the value of FGD result is 72.2% and both of results are still restricted by range of good and high. So from those analysis result shows that innovation on Building Automation System (BAS) industries in Indonesia has been good or high. Innovation is very important in company, especially in this study review remember its impact on corporate sustainability performance. In line with the previous studies that innovation has impact on corporate sustainability

Table 1: Outer loading value

Factors	Items	REP	INN	DIV	CA	CSP
X11	Product and service	0.747				
X12	Work environment	0.758				
X13	Leadership of CEO	0.814				
X14	Business management	0.732				
X15	Business management	0.694				
X16	Social responsibility	0.741				
X21	Culture to take risk		0.689			
X22	Customer orientation		0.794			
X23	Learning		0.697			
X24	Readiness of organization		0.657			
X25	Business intelligent		0.843			
X26	Management team		0.807			
X31	Capability			0.672		
X32	Resources			0.828		
X33	Risk factor			0.768		
X34	Competence			0.815		
y11	Punctuality				0.746	
y12	Quality				0.865	
y13	Cost				0.857	
y14	Flexibility				0.804	
y15	Differentiation				0.733	
z1	Financial performance					0.771
z2	Customer satisfaction					0.836
z3	Employee satisfaction					0.905
z4	Appropriateness of management					0.789
z5	Growth of selling volume					0.510

Reputation (REP), Innovation (INN), Diversification (DIV), Competitive Advantage (CA), Corporate Sustainability Performance (CSP)

performance (Atalay *et al.*, 2013). In qualitative assessment, variable dimensions of competitive advantage is dominated by categorized “quite”. In some previous studies it seemed that competitive advantage has a role in gaining corporate sustainability performance (Sofian *et al.*, 2015). Data conclusion from the result of survey and FGD can be seen that FGD result shows almost all of indicators gets value reduction on FGD and there is only one that still hold out in high-range which is flexibility with the same number. The result of average value dimension shows that the value of survey result is 73% and the value of FGD result is 68% and both result is adrifted 5 but both of them in limitation of same range. So from those analysis result shows that competitive advantage on building automation system industries in Indonesia has been good or superior. It seemed reputation, innovation, competitive advantage has difference between quantitative and qualitative but it is still on “good” range but it needs to be conducted the improvement on dimension and indicator explained in discussion of reputation, innovation and competitive advantage as well as diversification variable and corporate sustainability performance gets reduction and it can be concluded that both of this variables is on limitation of “quite” range it needs to be conducted some improvements on dimension and indicator that has been explained in discussion of diversification and corporate sustainability performance. The average of variable quantitatively is 74.69 and qualitatively is 68.25.

Table 2: Composite reliability value

Variables	Composite reliability
Diversification	0.855
Innovation	0.885
Competitive advantage	0.900
Corporate sustainability performance	0.868
Reputation	0.884

**Reputation on company innovation creation:** The result of hypothesis testing (Table 3), describes indirectly the condition of Building Automation System (BAS) industries in Indonesia. The first result explained that reputation becomes the important variable that will influences innovation. It can be concluded that if reputation is better so it leads to innovation on building automation system industries in Indonesia to be better too. The activity of process innovation on building automation system industries in Indonesia has many spaces to be implemented such as the activity of cost efficiency, time efficiency, efficiency of engineering work process that all of them are aim to improvement. The second innovation is product innovation especially it relates to customer needs, so if product innovation is because of customer needs so the implementation of product innovation is influenced by reputation. As example of product innovation is energy saving program this product innovation needs implementation that needs skill competence, stability organization to guarantee of completeness jobs and one company has been reputed and tested. The innovation succes on building automation system industries in Indonesia is heavily influenced by reputation.

Table 3: Hypothesis testing

Hypothesis	The result of descriptive ad statistic (%)
H <sub>1</sub> : Reputation~Innovation	Influence significantly is about 39.56
H <sub>2</sub> : Reputation~Diversification	Influence significantly is about 54.30
H <sub>3</sub> : Reputation~Competitive advantage	Influence significantly is about 13.20
H <sub>4</sub> : Innovation~Competitive advantage	Innovation does not influence significantly towards competitive advantage, the value effect is only 0.03
H <sub>5</sub> : Diversification~Competitive advantage	Influence significantly is about 21.70
H <sub>6</sub> : Reputation~Corporate sustainability performance	Influence has very small effect (not significant) because the value effect is 0.24
H <sub>7</sub> : Reputation~Competitive advantage corporate sustainability performance	Influence significantly is about 3.71
H <sub>8</sub> : Innovation~Corporate sustainability performance	Influence significantly is about 15.05
H <sub>9</sub> : Diversification~Corporate sustainability performance	Influence significantly is about 8.94
H <sub>10</sub> : Competitive advantage~Corporate sustainability performance	Influence significantly is about 27.98

#### Reputation on company diversification creation:

Reputation is intangible it has a strong relationship with market segment, the close relationship with the old customer produces the openness of customer side for new product that customer needs; so diversification will be further to success if it is produced by revealing of product need by customer. The high of reputation influences towards diversification, heavily influenced by the close relationship with customer. This finding is encouraged with the previous study by Luo (2002) and Rindova *et al.* (2010) that reputation influences to diversification in improving business performance. The study of Greenwood *et al.* (2005) that transferring reputation is only effective in case of diversification. Those study is conducted theoretically review. From the third study review supports this research that reputation influences to diversification.

The result of verificative calculation above is also a description from condition of building automation system industries in Indonesia that actually reputation becomes the important variable which will influence diversification. The low of value can be relied on reputation and it influences the value of managerial capability on diversification and otherwise with the low adjustment value on reputation cause the value of business selecting and economic scale is also low it needs to be conducted the solution how to improve adaptive value becomes high. Investment level of human resources and the lower education on reputation causes readiness of organization and competency transfer is also lower on innovation.

#### Reputation on company competitive advantage creation:

The path coefficient of reputation indicator towards competitive advantage is seen the low of responsibility and quality from product and service on reputation cause the low of the path coefficient of delivery time, quality of service and guarantee on innovation, so to improve the path of coefficient of reputation towards competitive advantage it must do improvement on responsibility and quality of product and service on reputation. The low of

human resources infestation and learning system cause production cost and efficiency are also low, this case shows that resources and competency must be improved in order to production cost is better and efficiency is also better. The path of coefficient that influences competitive advantage is one of them reputation, all of improvements on reputation will improve the path of coefficient to competitive advantage. This study is in line with previous study from Ogrimah (2016) stated that reputation has positive impact on competitive advantage of company. The study is conducted empirically on company in general. This case is emphasized by study of Schwaiger *et al.* (2011) who assumed that reputation is the beginning of gaining competitive advantage in international market. The third study above supports this study that reputation influences to competitive advantage. The result of verificative calculation above is also description of building automation system industries in Indonesia that actually reputation influence positively to competitive advantage.

#### The correlation of innovation and diversification with company competitive advantage:

This study is opposite with research finding from Chen *et al.* (2016) who states that there is influence from innovation on competitive advantage. The theoretical review is for Blue Ocean strategy. Those findings are emphasized by studies from Herrera (2016). It is explained through the study result which is the existence of closely relationship between innovation with competitive advantage on logistic industry or stock. Generally, innovation influences heavily competitive advantage but in building automation system industries in Indonesia, innovation is not a variable that can influence positively towards advantage. Although, many innovation result of a company like product innovation it cannot influence competitive advantage. Why innovation does not influence competitive advantage because it has not been able to influence customer directly because reputation becomes the major consideration in selecting company that will implement the product that will be bought. Many product



innovation offered such energy saving but that innovation is attracted for customer if that it is offered to company that has good reputation. Product innovation like energy saving program becomes the sample that this program has not been a customer need because customer sees that this program needs additional cost, in fact of financing of energy saving program is obtained from in the difference of cost savings. Innovation has not been considered a competitive advantage is maybe because it is considered an extra fees and it also needs reputation; it means innovation has not been able to become a separate variable that influences competitive advantage. It needs a time, promotion and government support in order to innovation product can move and grow well.

Next it is stated that this study result is appropriate and strengthen the previous study result where diversification influences positively towards competitive advantage is appropriate with the study of Block *et al.* (2016). This case is encouraged by Ramanathan *et al.* (2016) who assumed that diversification strategy is the way to competitive advantage. Both opinions are re-emphasized in the newest study from Eukeria and Favourite with the study result stated that company applies diversification strategy well it can create competitive advantage position of a company. More better of diversification of a company on building automation system industries in Indonesia will be more influenced positively of competitive advantage of a company.

Although, innovation does not influence significantly towards competitive advantage but the correlation between innovation and diversification simultaneously can influence competitive advantage significantly. Today, innovation has not attracted as competitive advantage of business because product innovation as energy saving program and other innovation product is still considered need infestation and it is expensive; so product innovation has not an attractive thing for customer. It needs time, promotion, introduction and government support towards energy saving program that provides contribution in energy efficiency, reduce CO for continuity of future generation. Nowadays, product innovation has not been attractive but along with the time as neighboring countries like Singapore, Malaysia and Thailand; energy efficiency program has become a must in implementing Building Automation System (BAS) on building to get green building certification.

**Reputation on gaining corporate sustainability performance:** Feasibility employee and the low of human resources development on corporate sustainability performance is heavily influenced by employee

satisfaction and the opportunity to improve the low of education on reputation. The condition shows that corporate sustainability performance needs another variable in improving its performance. This study result is opposite with the first research by Roberts and Dowling (2002) where it is discussed for financial field company there is correlation between reputation with corporate sustainability performance. Next, in the study of Boyd *et al.* (2007) that emphasizes theoretically the correlation of reputation and performance has a good closeness. Finally, study from Lourenco *et al.* (2014) who emphasizes in gaining reputation is needed controlling of factor external and reputation as intangible resource can influence company continuity or sustainable performance.

**The correlation of innovation and diversification on gaining corporate sustainability performance:** The study result stated that it needs to be conducted improvement of the low indicator on innovation to improve the effect value on corporate sustainability performance. Next, turnover is also high, resources development is also low and it is heavily influenced learning opportunity, the low of learning mechanism on innovation. The high turnover is heavily influenced by employee dissatisfaction. The low of strategy decision is heavily influenced by capability of the low management team. This study shows that innovation influences to corporate sustainability performance is the same with previous study which is Chen *et al.* (2016) explained that corporate sustainability performance can be achieved by supporting from company innovation and human resources inside. Those researches are encouraged by the next research from Atalay *et al.* (2013), Anafarta and Sarvan, stated that product innovation and process innovation relates positively towards company performance. The review of previous third researches emphasize that there is correlation between company innovation with business performance; in this case corporate sustainability performance. So, the third researches above is supported by this study that innovation influences to corporate sustainability performance.

**Competitive advantage in improving corporate sustainability performance:** Next discussion is explained that the low of coefficient value on efficiency, delivery time, quality of product and service, guarantee and cost leadership on competitive advantage is heavily influenced customer retention and perceived quality of customer satisfaction and also selling volume, income from old customer, new customer, income from innovation and diversification is still low. The highest value on competitive advantage is customer need that influence

positively towards the mixture of product and service and in the descriptive of the mixture of product and service also get high value so there is similarity between descriptive and verificative. In verificative, employee satisfaction is seen career planning to get the highest value while in descriptive, employee loyalty and additional employee gets the highest value.

Competitive advantage influences positively to corporates sustainability performance on building automation system industries in Indonesia. Every improvement on competitive advantage will influence positively towards corporate sustainability performance. Competitive advantage has positive impact significantly towards corporate sustainability performance. Every customer especially new customer will always see competitive advantage becomes the first consideration in selecting process because competitive advantage has represented reputation as the important foundation from competitive advantage. It is in line with the previous study that explains there is correlation between competitive advantage with corporate sustainability performance (Choudhury, 2010).

**Development of research model:** The path of reputation towards corporate sustainability performance is missed because as it is explained at the beginning that reputation is built to long-term for industry that their customer need reputation. Reputation can influence corporate sustainability performance indirectly but it influences through implementation of innovation, diversification and competitive advantage. At first, customer observes company from its reputation but on the next buying, customer observes product complexity offered, competitive advantage is very superior and innovation product offered. So the result of improvement model with missing the path of reputation towards corporate sustainability performance (Fig. 3).

Based on the study of problem fact obtained, so the final of this study stated new model related to improvement of corporate sustainability performance that is determined by competitive advantage and supports from reputation, innovation and diversification.

## CONCLUSION

This study found that descriptive result from building automation system industries in Indonesia relates to reputation, innovation, diversification in improving competitive advantage. With the main objective is controlling corporate sustainability performance. Some cases that needs to be underlined is reputation creation contains meaningful because creation needs process and

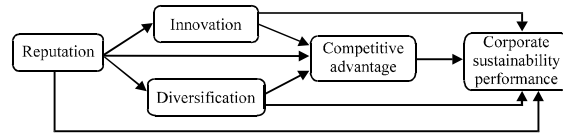


Fig. 3: New model of corporate sustainability performance

generally this process is conducted after producing performance and next build reputation that keep product and service quality, full of responsibility, give value added for customer, reliable, has strong customer retention, replacing employee as asset, improving leadership quality, build competence and do social responsibility.

The improvement on competitive advantage contains that it always must be improved after created. Creation or gaining competitive advantage is temporary because it is easy to imitate by competitor; so it is not superior again. Competitive advantage must be contious improved as sustianably through some strategies where in this study the improvement with implementation of innovation and diversification that is supported by reputation. In this finding, innovation does not influence significantly towards competitive advantage. Remember some theories and also business potential to implementation of innovation product is very big like program of energy efficiency and smart building, so innovation line to competitive advantage is keep maintained with the expectation of innovation product can grow fast and innovation becomes the important variable for competitive advantage for BAS industries in Indonesia as same with our neighboring countries like Singapore, Malaysia and Thailand. It needs to be conducted intensive activity to introduce innovation product, educate customer for value added of innovation product and promote the promotion activity with the special price in order to customer attracted.

This research model has been never reviewed fully from the previous studies that has been discussed in "State of The Art", only revied apart with different company type or it is not focuses on product and service company. So this finding enters on new finding or something new. This finding shows that innovation and diversification reinforces mutually as in the study of Block *et al.* (2016) in providing the influence of competitive advantage. This finding can be generalized specifically on industry that uses proprietary technology or applied on industry where customer priority reputation as the first consideration inside of choice, so model of business performance can be used to build corporate sustainability performance. This research studies still needs improvement, where it is not reviewed from

corporate culture (Gupta and Kumar, 2013) that develops inside of building automation system industries in Indonesia.

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