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# **BUSINESS PERFORMANCE SUSTAINABILITY: A CASE OF** INDUSTRY OF BUILDING AUTOMATION SYSTEM IN INDONESIA

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## Abstract

Business of Building Automation System in Indonesia does not show optimization of company performance, in which building improvement is not compensated by business performance improvement. It is assumed that the low of business performance, because the low of innovation and company diversification of Building Automation System in Indonesia. This study focuses on reviewing sustainable business performance for supporting of innovation and diversification that have been conducted by Building Automation System in Indonesia. Research method used is survey to Marketing Manager and Operational Manager of Building Automation System industry in Indonesia. Study path analysis is conducted by using Smart PLS, to analyze exploratory. The study result found that business performance will improve by existing the



support of innovation and diversification. Innovation plays an important role where culture to take a risk, customer orientation, learning, organization readiness, business intelligence, and management team that is forming factors of innovation have the highest impact in gaining of business performance sustainability. This study is conducted on the previous research, but it is not for Service Company that supports the effort of "green building". It seems the review on research finding can be used as information support, especially for government in handling Global Warming issue with saving energy.

Keywords: Innovation, Diversification, Business Performance Sustainability

## INTRODUCTION

The company's leaders in case of Chief Executive Officer (CEO), carry out of the task generally from the stakeholders to improve company performance grow sustainable, especially for company that has been developing position (Huang, 2013). Recently, company that has been developed and becomes a market leader, getting pressure surely from market like new comers, new product competition and raw material that authorized by competitor etc (Leonidou et al., 2011). In behaving the competition, it needed a company competitive advantage (Chang, 2011). However, all of the company's obstacles need to be faced by company in order to reach company performance sustainability.

The growth of good company performance, surely it is not regardless from human resources inside. Gaining of company performance seems to be important created by human resource inside, remembering company's human resources that create company innovation (Atalay, Anafarta, & Sarvan, 2013). In other words innovation created by human resources in company is needed the relation with gaining of business performance sustainability. However, in supporting company performance, diversification is also needed (Barney & Clark, 2007), so gaining of business performance sustainability can be achieved. From the explanation above, it seems the importance of competitive advantage, innovation, and diversification in finding business performance sustainability. It is also applied on automatic control industry in Indonesia, where on the business unit of Building Automation System (BAS) in Indonesia based on pre-survey result on the low of business performance sustainability.

Building Automation System (BAS) is a good and efficient solution for industry, office, apartment, and all the systems that have electrical control extensive. By this system, it will ease operator in doing control towards electricity tools performance that must be monitored all the time, and if there is a disruption so operator will know directly what types of problems happened



on the machine or those electricity tools. It supports Indonesia government regulation of saving energy on Undang-Undang No. 30 tahun 2007. In Automatic control industry is divided into several segments, such as: PA (Process Automation), FA (Factory Automation), BA (Building Automation) and HA (Home Automation) (Qiu, 2007). An industry which needs the process in producing the product, starting from raw material become a product need automation in order to production process can run automatically through stages of process with minimum of zero human error. Today, there are 43 companies that run on BAS industry in Indonesia. Factors that influences building's owners to use BAS equipment is the cost of electricity energy that must be paid for operational cost of building facility like air cooling process, lighting and others equipment reach about 70% of total operational cost of a commercial building, it means office. By existing BAS, it is possible for building owner to press operational cost and also improving environmental performance that is needed their tenant. By exploiting the building of intelligence technology they can press energy consumption until 30% (Agarwal et al., 2010).

Seeing from the projection of BAS development in Asia, it is projected by HIS (2013) which grow is more than \$400 million from 2012 until 2017. Nowadays, it is more than 200 companies in BAS industry. Market growth of BAS in Asia is triggered by some key factors, such as: rising manufacture industry, improving of urbanization in China, India, and South East Asia (Lee & Chang, 2008), and also commitment of green building solution usage that is more increased (Chan et al, 2009). It is because private and government investment in construction project also plays a role in increasing demand of building automation equipment in Asia. Reviewing from the opportunity of BAS industry in Asia that will also impact to Indonesia, so it opens a company chance with business unit of BAS to develop in Indonesia. In which according to HIS report (2013) mentioned that there are some government and private projects which use BAS. From some studies of Annual Report of BAS industry in Indonesia which is ABID, SKJ, JCI, AT, and EP, seems they are not getting maximum performance improvement (Figure 1).



#### Figure 1: Survey of BAS Industry Growth in Indonesia





Company that runs in BAS industry, it is mostly grow well; just a few can grow with the growth percentage is about 15% until 20%. The market growth of BAS in Indonesia influenced by the growth of commercial building construction, it means the more of commercial building, so the necessity of BAS is also improved. In fact of 2005 until 2015, commercial building development in Indonesia increased, as the example the improvement of Supermarket retail as company that runs in service sector (Alamsyah, Ariawati & Helmi, 2015). Reviewing from description on the development of BAS industry above, it seems not be maximum of company performance sustainability. This case is also assumed from the low of company competitive advantage, thinking of it is explained on study Krasnikov & Jayachandran (2008), that there is relationship between competitive advantages with company performance improvement. Company performance is success measurement of a company that measured in the end of determining time (Leonidou, 2011). The result can be stated as value from every activity which has been arranged and conducted to be able identify what strategy made and the implementation is right or on the contrary. Indirectly, by existing of problem in innovation and diversification of that company. It is stated by Chang (2011), company competitive advantage can be achieved by innovation improvement and making efficient of external factors of that company. In addition, Barney & Clark (2007) explained that the close relationship between diversification with competitive advantage. Those study result explained that there is a hesitancy of innovation and diversification strategy application on Building Automation System (BAS) company in Indonesia. The result becomes a study-based relates to business performance sustainability that influenced by company innovation and diversification through competitive advantage.

In strategy company and business growth, like strategy of new product creation to the old customer, and bring the old product to market, so it needed diversification strategy (Capar, 2009). Diversification of product is one of strategy that attracts an old or new customer, and it is useful to increase company competitive advantage (Barney & Clark, 2007). In its development, every company do the same strategy, so many companies compete in the same market with the same strategy also; like business strategy by conducting cost leadership strategy and differentiation or strategic focus, as stated on Generic Porter. Where each strategy is getting weakness because it is easy to imitate by competitor. After knowing the threat potential in industry competition, that each company has a risk to get lost competitive advantage every time, speed in adapting its competitive advantage depend on changing or market trending, so the researcher has an interest to investigate the variable that influences in order to make competitive advantage is still outstanding and sustainable and it will impact on company performance sustainability (Gyampah & Acquaah, 2007). Innovation becomes one of strategy in updating and even improving competitive advantage (Chang, 2011). Innovation activity can be a



creation of new product with a new superiority and it gives additional benefit for customer. Innovation also can be activity of internal organization process by doing improvement of that process activity and it produces efficiency and effective value which support competitive advantage. The opportunity to conduct product innovation and solution innovation in BAS industry is extensive that connects with smart building and green building (Bossink, 2007). Some companies do product innovation but it is not succeed to grow well; it is possible caused by the necessity of those product innovation is not to be important to use, but some of them do not conduct innovation activity (Atalay et al., 2013).

Innovation supports the growth of sustainability performance with improving financial performance and efficiency (Zeng, Xie & Tam, 2010). Ignoring innovation will import the risk of global competition today (Mohamad & Sidek, 2013). Based on the background of the study that has been reviewed at before, it is explained that there is connection between company performance sustainability with gaining of company competitive advantage (Leonidou et al., 2011). In the other hand, it seems gaining of business performance sustainability can be conducted by innovation improvement (Atalay et al., 2013), and diversification (Utami & Imron, 2012). So the goal of this study focuses on impact of innovation and diversification in increasing the growth of company performance sustainability on Building Automation System (BAS) industry in Indonesia. This study is useful for BAS company in Indonesia in reviewing competitive strategy, its relation with company performance.

#### LITERATURE REVIEW

#### Innovation

Innovation is derived from the Greek word of "innovare' that means construct of something new. Innovation is as policy acceptance, program, structure, process or any product that viewed appropriate by manager. Innovation is also as forming, acceptance and implementation of idea, product, process or new service and creative ideas in an organization. The review makes an abstract of innovation as a strategy differentiation. Strategy differentiation includes creation of an unique product; it is stated the effort of innovation creation. Unique features or benefit that will give superior value for customer will guarantee the successful of differentiation strategy that means that innovation is also a part of company differentiation strategy (Hull & Rothenberg, 2008). The customer sees the product as the product that is unsurpassable, so the price elasticity tends to be decreased and the customer tends to be loyal of the brand. However, this strategy needs an additional cost relates to cost of product figure creation that is different and of course it needs strategy of premium price in an innovation.



Innovation as organization acceptance of idea or new way which relates to product, service, system, tools, policy or program (Damanpour & Goplakrishnan, 2001). The core of innovation is updating idea that can increase organization performance (Camison-Zornoza et al., 2004). Innovation contributes in some cases like business performance improvement with new product. Selling growth is not only because offering the low price, but another factor that is connected with price, difference, design, quality, and customization (Tidd, pavitt & Bessant, 2013). Porter said that innovation of industry in technology, design, making product, management and commercial activity like marketing of new product or commercial activity of new product improvement, new service or new tools, all of them are included into innovation. Recently, many industries use innovation especially to renewal product speed and product differentiation which is getting improved, that finally it gains competitive advantage (Chang, 2011). Competitive advantage is the beginning of gaining business performance sustainability (Majeed, 2011).

In innovation, logic is behind the value innovation which is providing total solution, an amazing experience, together with pressing cost (Zeng, Xie & Tam, 2010). There are three platforms where value innovation can be conducted: product, service, and delivery. While value innovation is supported by culture, processes, people, and also resources; and it has three elements which is fundamental re-conceptualization of the business model, reshaping of existing markets, dramatic value improvements for customers (Ambos, Ambos & Schlegelmilch, 2006). Knowledge and ideas are input for innovation value, so ability to create value innovation relates to concepts of absorptive capacity also dynamic capabilities. Elaboration of value innovation by introducing the concept of Blue Ocean versus Red Ocean strategy. Red Ocean focuses on proposition where company must pursue unique positioning or low cost (Kim & Mauborgne, 2012). It can point on the close competition as in case of video game industry. Blue Ocean focuses on integration of unique positioning and low cost, so it changes industry dynamic. Industry dynamic is psychology parameters, it is not permanent construction. However, it is important to be noticed that when material substitution or recycle of component is not sufficient, sustainability strive for the existing radical product transformation (Buisson & Silberzahn, 2010).

In the study of Margues & Ferreira (2009), the measurement of innovation consists of Product innovation, Process innovation, Investment in R & D, New distribution channels. Factors that influenced Firm's Innovative Capacity: Size of the firm: Greater of company so greater its ability to make innovation. Phase of company life-cycle: company is more losing the ability to make innovation in line with every phase of life-cycle passed. Entrepreneurship quality: the higher of entrepreneurship quality in a company, the higher of ability in innovation.



Partnership & cooperation: company that joins with other companies have a higher of innovation ability.

The review that explained by Margues & Ferreira (2009) is specialized for company in general. In development, innovation can be simple into four types of innovation (Tidd, Pavitt & Bessant, 2013), such as: product innovation, process innovation, marketing innovation, and organizational innovation.

Product innovation includes the offering of new product and service to market also the great repairing on function or user characteristic from the existing product and service. Process innovation covers a great changing on method, equipment and software. One of the example is new production method. Marketing innovation tries to respond customer's needs as better in order to increase company sales. As an example of this innovation is opening new market or relocation company product in market. Organizational innovation can be defined as company method implementation. This review is focuses on all of the companies.

Innovation should has values or it called value innovation that is useful not to improve sale or improving advantage but customer gets the benefit from that innovation (Kataria, 2013). Here is the summary of some journals that describes indicators from innovation (Table 1) that becomes a reference of innovation forming on the review appropriated with the study recently on Building Automation system (BAS) in Indonesia.

Selection based of culture dimension take a risk (Chang, 2013) which is to measure responsibility on product and service offered, with innovative character indicator to know what company culture is innovative, be brave to take risk and adaptive to know what company and employee adaptive toward the changing that becomes indicator tested on company provider of Building automation System (BAS) in Indonesia. Customer Orientation (Chang, 2013) with the indicator of supervisor value, customer evaluation, and solution for customer is to know what company and employee give super value, evaluation of customer needs. Indicator of organization readiness that used by Palmer Kaplan (2007) become indicator that used to measure what the organization is ready to do innovation process, ability of employee competency, company discipline does implementation of innovation. Dimension of business intelligence that adopts measurement conducted by Chang (2013) will be indicator than can be tested to measure what company observes the competitor and do benchmarking to competitor. The last dimension which can be measured is management team to know what management team has strong entrepreneurship soul, having the different background and ability to lead innovation process (Kataria, 2013).



No	Authors	Measurement			
1	Ambos, Ambos &	Fundamental re-conceptualization of business model, reshape of			
	Schlegelmilch (2006)	existing market, repairing of the dramatic value for customer.			
2	Derrick Palmer & Soren	Innovation process managed, strategic allignment, prediction of			
	Kaplan (2007)	industry, knowledge of customer, technology, and the core of			
		competency, organization readiness, disciplined implementation.			
3	Buisson & Silberzahn	Technology innovation, business model innovation, design			
	(2010)	innovation, process innovation.			
4	Tidd, Pavitt & Bessant	Product innovation, process innovation, position innovation, and			
	(2013)	paradigm innovation.			
5	Joshua C. Chang (2013)	Meaningful work, culture take risks, customer orientation, make			
		quick decision, opened communication, business planning,			
		learning organization, business intelligence, empowerment.			
6	S. Kataria (2013).	(2013). Learning, management team, entrepreneurial leadership.			
7	Hassan, Shaukat, Nawaz, Product/ service innovation, process innovation, mark				
	dan Naz (2013)	innovation, and organization innovation.			

Table 1: Summary	y of	Innovation	Measurement
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#### Diversification

Company diversification is a phenomenon that gets a serious attention in literature of strategic management and industrial organization. If its industry is stagnant, getting decreased or becomes not attractive anymore, so the company's future becomes bleak, the growth level becomes difficult to be maintained and it is more difficult to post superior profit performance.

NomjCollis, Montgomery & Montgomery (2005) divide diversification into two types, which is related diversification where new business still connected with the core business: unrelated diversification where new business is not having a connection with the core business. Formerly, Johnson et al. (2008) stated that diversification is the business collection that is under one of corporation. This opinion emphasizes on diversification is a group of new market branch (Zekiri, Nedelea, 2011). In the meaning of diversification is new product creation on new market. It is hard to do without innovation support (Hull & Rothenber, 2008).

Diversification to market related the product, getting the higher benefit than diversification to market unrelated the product, and company which diversified limitedly having a better performance than company which is not diversified; diversification as operational activity in one more industries (Ibrahim & Kaka, 2007). It also increase company investment scope where it is possible to company to take the benefit of opportunities that is more useful in economic sector of never enters before. Concerning of the growth level of company profitability which is not diversified is lower compared with the growth level of company profitability that is very diversified (Choi & Russel, 2005). Here is the determining dimension of diversification succeed according to Tobiasen (2014), strategic fit, risk factors, PLC-stage, resources &



capabilities. Here is presented summary of diversification measurement dimension on Table 2. Its dimension is appropriate with this study today on Building Automation System (BAS) in Indonesia which runs on building construction service.

No	Author	Measurement
1	Eric Muema (2014)	Related Diversification, Unrelated Diversification, and No
		Diversification
2	l Chaneta (2010)	Entering New Industries, Related Diversification, Unrelated
		Diversification, Divestiture and liquidation, Corporate
		turnaround, retrenchment, restructuring, and multinational
		diversification
3	J. Zekiri & A. Nedelea (2011)	Concentric Diversification, Conglomerate Diversification,
		and Horizontal Diversification
4	A. Oyedijo (2012)	Single specialized business, Related Diversified Business,
		Unrelated Diversified Business, and Mixed Diversified
		Business
5	Mashiri Eukeria & Sebele	Market power, resources, internal market.
	Favourate (2014)	
6	R. T. Tobiasen (2014)	Strategic fit, the core competency (risk factors- risk
		minimalization) PLC - stage - PLC - stage of the core
		business - PLC - stage of the new business, resources &
		capability & resources & capability), managerial capability &
		the strong Marketing & sufficient capital.

## **Business Performance Sustainability**

Owen et al. (2001) assumed that the growth of company performance sustainability is performance growth in long period of time as a result of company ability in maintaining its capability in producing product and qualified service. While company performance is measured based on selected of indicators group that can make comparison between one company' with others (Ketokikvi & Schroeder, 2004). In addition, Cho & Pucik (2005) mentioned that business performance sustainability is one of the way to satisfy investors, and it can be presented by profitability, its growth, and market value, all of aspects must be completed each other. Customer satisfaction and employee is also two aspects that must be considered. Customer satisfaction improves willingness-to-pay, and for it is turn improving value created by company (Barney & Clark, 2007). While, employee's satisfaction relates to investment in human resources practice, employees tend to consider a clear-work-description to be important, investment in training, carrier planning, and a good intensive policy (harter, Schmidt & Hayes, 2002).

Santos & Brito (2012) explained some dimensions of business performance sustainability, such as: Financial Performance (Profitability, Growth, Market value); Strategic



performance (customer satisfaction, employee satisfaction, environment performance, social performance). Those dimensions explained so simple, which divided into two cases between financial and strategic that becomes evaluation. It is different with five key principles like Corporate Sustainability Performance that stated by Stankovic, Novicevic & Dukie (2012 which is as follow:

- a. Innovation is investment on product innovation, service, and contribution process significantly towards efficiency and effectiveness of the resource usage (Tangible and intangible) during long period of time.
- b. Management is creating the highest standard of company management, included decision quality and strategic responsibility, organizational capacity, and company culture.
- c. Stakeholders is reaching the goal of stock holder, especially in case of ROI, the growth of long period of time, the improvement of sustainable production in long period, the improvement of global competitive energy, the use of valuable resource to create SCA, especially by increasing intangible assets.
- d. Leadership is management tries to achieve sustainability by determining and using standard best practices and keep superior performance.
- e. Social is supporting social prosperity at long period in the framework of local and global work, in interaction with various stakeholders, and it responds their specific needs and constantly changing. This case can preserve company business in long period and it also creates superior loyalty of customer and employee.

Table 3 presents summary of articles about measurement dimension of business performance sustainability, from all the side of research object.

No	Author	Measurement		
1	Cho, H., & Pucik, V. (2005),	Financial performance, the growth, market value		
2	Harter, Schmidt & Hayes (2002)	Employee satisfaction.		
3	Barney & Clark (2007)	Customer satisfaction.		
4	Almudehki & Zeitun (2012)	Tobin's Q, Return on Assets (ROA), and Return on		
		Equity (ROE).		
5	Santos dan Brito (2012)	Financial performance, strategic performance.		
6	Stanković, Novićević, & Đukić	Management appropriateness, innovation, leadership,		
	(2012)	stock holder, society.		
7	Al-Matari, Al-Swidi, & Bt Fadzil	Return on Assets (ROA), Return on Equity (ROE),		
	(2014)	Return on Sales (ROS), Profit Margin (PM), Earnings		
		per Share (EPS), Tobin-Q, Market Value Added		
		(MVA), and Market-to-Book Value (MTBV).		

Table 3: Summary of Business Performance Sustainability Measurement



Based on the previous study literature, it is determined dimension of the study now is financial performance, customer satisfaction, employee satisfaction, and the suitable management. The selection of the dimension due to need on the company today; research object is building automation system (BAS) industry in Indonesia. Analysis relates to the relation of innovation on business performance sustainability has been discussed previously by Atalay et al. (2013). Likewise, from the relation of diversification with business performance sustainability (Eukeria & Favourate, 2014). According to those reviews, conducted examining in this study with the hypothesis as follows:

Hypothesis 1 (H1): Innovation can influence gaining of business performance sustainability.

Hypothesis 2 (H2): Diversification can influence gaining of business performance sustainability.

Hypothesis 3 (H3): Innovation and diversification can influence business performance sustainability simultaneously.

In this study, it is assumed there is influence between innovation and company diversification on increasing of business performance sustainability in Building Automation System (BAS) industry exist in Indonesia. So it seems from the study framework that is presented in the figure 2.





#### **METHODOLOGY**

This empirical study examines the relationship of innovation and diversification on business performance sustainability, so survey method on BAS industry used in this study. The type of study used is descriptive that is research conducted to get description of study variables, and verification study which is research to know the influence between variable through a hypothesis. The study focuses on strategic management sector with data and information obtained from questionnaire and direct survey to Business Unit director and Marketing on



Building Automation System (BAS) Company in Indonesia. Amount of BAS company in Indonesia is about 43 companies, so total of respondents that becomes sample is about 84 respondents. Data obtained as time horizon and cross-sectional (one shot) in 2015.

This study measures the relationship of independent variable which is innovation and diversification, also dependent variable is business performance sustainability. The study constructs is measured by dimensions and indicators that is stated in questionnaire. In measuring study construct used five points of Likert Scale that is 1-5, with the range "disagree" to "agree". The explanation of dimensions and indicators on research variable explained below.

Innovation is renewal idea that can improve organization performance (Camison-Zornoza et al., 2004). In innovation, there is measurement that divided into dimensions, such as: culture of taking risk (innovative character, be brave in taking risk, adaptive), customer orientation (superior value, customer evaluation, customer solution), learning (opportunity to study, learning mechanism, employee understanding), organization readiness (shore up of the process, employee competency, discipline, innovation management), business intelligence (observing competitor, benchmark, mechanism of business intelligence), and management team (entrepreneurship, diversified management, capability).

Diversification is a situation where Business Corporation begins to produce new product in new market (Zekiri & Nedelea, 2011). Diversification in company can be measured by some dimensions, which are capability (managerial capability, marketing capability, technique capability), resources (sufficiency of capital, resources transfer), risk factor (risk minimization, risk spread, business selection, economic scale), competency (economic transfer, synergy, build competency).

Business Performance Sustainability is one of way to satisfy investors, and it can be represented by profitability, its growth, and market value, all of aspects keep completing each other (Cho & Pucik, 2005). Some cases that exist in business performance sustainability that need to be noticed and measured is financial performance (profitability, market-share, asset, employee), customer satisfaction (customer complaint, customer retention, product and service mix, satisfaction in general, quality acceptance), employee satisfaction (turn-over, SDM development, the policy of wages and incentive, organization climate, career planning, employee satisfaction generally), and fit management (company culture, strategic decision, best practices standard, organization capacity).

The proposed research model in this study is explained on figure 3, where path analysis through software of SmartPLS.





Figure 3: The Proposed Research Model

#### **EMPIRICAL RESULTS**

The study review explained starting from profile respondents of the study until the relationship between variables. This study is succeed to collect data from 86 Marketing Manager and Operational Manager who dominated by Manager with gender of Male is about 74%, and the rest is woman. While, the age of them is about 31-40 years old; that age is categorized productive in doing work well. From the period of working, managers have the experience more than 10 years. With having the experience, obviously it supports human resource performance that is quite good, but the last education is mostly bachelor. At the average, Building Automation System (BAS) industry in Indonesia has attained the age of more than 10 years, the company's age supports to get better company performance of BAS in Indonesia.

Based on the review of company background and respondent, it makes an abstract of readiness of BAS industry in Indonesia is guite good. So the effort to improve business performance sustainability can be faced well, but the other case that must be noticed is variable that can support or weaken business performance sustainability which is innovation conducted company and diversification. Before reviewing for further, it is explained the testing result of Good of Fit, to examine compatibility of research model conducted. The result of Loading Factor for innovation, diversification and business performance sustainability appears a good value. In which the outcome of software for Loading Factor is taking risk (X11 = 0.602), customer orientation (X12 = 0.638), learning (X13 = 0.778), organization readiness (X14 = 0.858), business intelligence (X15 = 0.831), management team (X16 = 0.870), capability (X21 = 0.760), resources (X22 = 0.793), risk factor (X23 = 0.866), competency (X24 = 0.780), financial performance (Y1 = 0.935), customer satisfaction (Y2 = 0.939), employee satisfaction (Y3 =



0.928), and fit management (Y = 0.717), all of them is over 0.5. Based on the result, so all of the studies measurement conducted in this research model is valid. While the value of Composite Reliability is innovation (0.857), diversification (0.804), and business performance sustainability (0.935), having a value over 0.7, so it can be stated that the research model is reliable. Examining of two testing on Loading Factor & Composite Reliability, it seems Good of Fit from the research model that is quite good. To emphasize conducting test of Average Variable Extracted (AVZ), that produces innovation (0.516), diversification (0.523) and business performance sustainability (0.783); all of them is over 0.5 and it gives fit for all research model testing. There is data processing of research model on figure 4.



Figure 4: Research Findings

Research finding is emphasized its value by the hypothesis test as follows.

No.	Hypothesis	Path Coefficients	t-value	Results
1	H1	0.577	4.971	Sig. / Supported
2	H2	0.414	3.386	Sig. / Supported
3	H3	0.635	10.432	Sig. / Supported

Table 4: Coefficients Path and t-value

The result appears on Table 4 obviously in which the hypothesis stated significantly. Based on the review it emphasizes all the relation between supported study variables.



## Description of Innovation, Diversification, and Business Performance Sustainability

This study gives an image descriptively from each study variable, to know how far the application of innovation, diversification and gaining of business performance sustainability on Building Automation System industry in Indonesia. Each Marketing Manager and Operational Manager who have an authority on strategic management implementation in company, giving a different view of innovation, diversification, and business performance sustainability attained. So in this study is concluded the view result which presented in indicator to dimensions of study measurement.

In innovation that has been conducted by BAS company in Indonesia, it is done a measurement by using some dimensions, such as: taking risk, customer orientation, learning, organzation readiness, business intelligence, and management team. For further information, it is presented on Table 5.

Dimension	Ν	Sum	Means	Std. Deviation
X11	84	281	3.35	1.247
X12	84	268	3.19	.630
X13	84	250	2.98	1.700
X14	84	249	2.96	.702
X15	84	252	3.00	.601
X16	84	251	2.99	.736
Valid N (list wise)	84			

The result of Table 5 in form of Means, where it is found Marketing Manager's and Operational Manager's view on innovation conducted. Manager concludes that he is good in taking a risk (X11) of the effort done, likewise customer orientation (X12). However, it has weakness of learning (X13), organization readiness, business intelligence (X15), and management team (X16), where Means value is below 3.10. Based on the review, it makes an abstract of the implementation of innovation on BAS company in Indonesia is not optimal. The low of innovation conducted is surely having an impact on the low of business performance sustainability (Atalay et al., 2013).

So, Building Automation System (BAS) industry in Indonesia assumed need to observe the factors that become weakness innovation applied. Continued by diversification is already done, where it is formed by some determining factors that have been concluded in dimension, such as: capability, resource, risk factor, and competency. To make explanation data is presented on Table 6.



Dimension	Ν	Sum	Mean	Std. Deviation
X21	84	266	3.17	1.096
X22	84	252	3.00	1.192
X23	84	256	3.05	.863
X24	84	261	3.11	.892
Valid N (list wise)	84			

Table 6: Means Value of Diversification

In diversification, it is truly formed by twelve questions in indicators. But it is concluded in dimensions and it appears Means value on Table 6. Diversification factor that has been conducted well by BAS industry in Indonesia which is capability (X21) and competency (X24) while resources (X22) and risk factor (X23), all of them are not perfect to be implemented. The review result gives the position of diversification that can be conducted by BAS Company in Indonesia is not optimal. Remember there is no perfect, surely this review is important for BAS industry in Indonesia. Thinking of there is a relation of diversification with gaining of business performance sustainability (Eukeria & Favourate, 2014). The last description result of this study is on business performance sustainability, where it shows the same cases. Furthermore, it can be seen on Table 7.

Dimension	Ν	Sum	Mean	Std. Deviation
Y1	84	261	3.11	.560
Y2	84	256	3.05	.638
Y3	84	255	3.04	.590
Y4	84	268	3.19	.424
Valid N (list wise)	84			

Table 7: Means Value of Business Performance Sustainability

Business performance sustainability has a measurement on indicator is about 19 questions, but it is concluded in some dimensions, such as: financial performance, customer satisfaction, employee satisfaction, and fit management. In the factors that form business performance sustainability that is assumed "good" which is financial performance (Y1) and fit management (Y2); while customer satisfaction (Y2) and employee satisfaction (Y3) are neglected. So it replaces the average of value on business performance sustainability of BAS industry in Indonesia that achieved is not to be optimal.

The whole result from the description of research variable which are innovation, diversification, and business performance sustainability that seems not to be maximum. So it needs the improvement of strategy implementation by Marketing Manager and Operational Manager. On the existing of strategy improvement that has been determined by management



side of BAS company in Indonesia. Its meaning is, it is important to repair innovation, diversification and business performance sustainability. Thinking of the existing impacts on the continuity of BAS company in Indonesia. In fact of the company has been good in supporting the effort of energy efficiency.

#### The Effort to Improve Business Performance Sustainability

Business performance sustainability is most important to be achieved by company today; thinking of the higher of business performance, so more matured of company continues to grow and survive in business competition. It is applied for Building Automation System (BAS) industry in Indonesia. The research findings found that there is a relation of innovation creation on gaining of business performance sustainability (Picture 4). In which the coefficient value (r) obtained is 0.577; the value indicates that the relation is guite strong in innovation of business performance sustainability. Based on the fact, it is concluded that any improvement occurred on innovation creation, so the improvement of business performance sustainability will be occurred also. If it is reviewed deeply, found the amount of influence of innovation is about 33%. The result of this study is in line with the previous study from Atalay et al. (2013), the difference of the study recently is it runs on construction service industry while in automotive industry at before. So a part of study completes the previous study, that the connection of innovation with business performance sustainability can be used in service and automotive field.

In other hand, it seems a fact of problem that there is a relationship between diversification and business performance sustainability. But those relationships are not as strong as their connection with innovation. In which coefficient value (r) found is only 0.14, the value indicates that any improvement of diversification occurred, it will improve business performance sustainability on BAS industry in Indonesia. The positive relationship of the two variables actually can be concluded in the previous study by Eukeria, Favourate, 2014). In the study of Eukeria & Favourate (2014), the focus review on food product, but today it focuses on service industry of BAS in Indonesia. So it concludes a renewal research, is emphasizing the previous study. The amount of influence of diversification in business performance sustainability is about 17%, the value is lower than innovation. It means that the existing of innovation is important to be a priority, and diversification is after. And the three variables have not been reviewed simultaneously in a study of service field on BAS industry. Therefore, it makes an abstract of this study has a renewal research which is created a new research model of innovation and diversification relationship on business performance sustainability. In which they can improve the performance is about 71% simultaneously.



The effort of improving business performance sustainability on BAS industry in Indonesia, especially in another industry; it is conducted by improving on creation of innovation and diversification that applied by company. This study has an impact not only for Service Company but it is also addressed for BAS industry in Indonesia which impacts on the improvement of company performance generally. Another impact is the effort of BAS industry in Indonesia that actually has supported government's effort in supporting energy efficiency, so it needs a government's role on industries that support the occurrence of energy efficiency. It seems like in renewable energy industry with regulation of Feed in Tariff (FIT). By increasingly BAS industry in Indonesia, so it will increase the effort of energy efficiency in Indonesia.

#### CONCLUSION

The study result has been explained that there is a fact of problem relates to gaining of business performance sustainability is not optimal on Building Automation System (BAS) in Indonesia. The low of gaining business performance, it seems from gaining of innovation and diversification are not optimal that conducted by BAS industry. Remembering of there is a positive impact of innovation and diversification on business performance sustainability. The improvement effort of business performance sustainability on Building Automation System (BAS) industry in Indonesia can be done by observing some factors exist on innovation, such as: take a risk, customer orientation, learning, organization readiness, business intelligence, and management team. Maintaining factors exist on the creation of good diversification which is capability, resources, risk factors, and competency. By existing an attention of those factors, so indicator of business performance sustainability also improve which is on financial performance, customer satisfaction, employee satisfaction, and fit management.

This study has not perfect yet forming business performance sustainability, thinking of not perfect value for innovation and diversification impact on business performance sustainability. So it is recommended for the next research to reviewing the case of being able to improve business performance sustainability as the review of competitive advantage (Talaja & Ercegovic, 2013) and company's reputation (Seheehan & Stabell, 2010). In which the review of this study having an impact in effort of saving energy that launched by Indonesia government and the worldwide towards the renewable energy products.

The generalizability of the findings of this study is limited to the sampling frame i.e. building automation system industry. Therefore, the study should not be generalized to other industries. Future studies might also apply this framework to firms operating in other businessto-business or consumer products areas to further test the findings. Any future studies might also look at additional control variables, such as a firm's organizational structure or the level of



competition in the industry. Finally, different measures of performance could perhaps yield different results.

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