Journal of Economics and Sustainable Development
ISSN 2222-1700 (Paper) ISSN 2222-2855 (Online) DOI: 10.7176/JESD
Vol.10, No.14, 2019
www.iiste.org

The Influence of Product Innovation and Enterprise Risk Management to Increase Firm Value with Culture as a Moderation Variable

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Abstract
The goal of this research paper is looking for advantage of product innovation, application of enterprise risk management and culture in supporting the sustainability of the company to increase fair value.
Methodology
The paper provides based on seconder data, the data were collected from annual report company, which listed in idx.com. This method was proposed how to use descriptive statistic linear regression and measure the correlation among product innovation, enterprise risk management, culture and firm value.
Findings
Data analysis revealed that if product innovation and enterprise risk management have significant influent to fair value. Culture has in grey area influent to increase firm value of the company.
Keywords Product Innovation, Enterprise Risk Management, Culture, Fair Value.
DOI: 10.7176/JESD/10-14-14
Publication date:July 31st 2019

1. Introduction

Enterprise Risk Management is very important in various aspects and can apply to maximize the performance of new product innovations for corporate sustainability. Technology, organization, marketing, commercial are strategies to succeed in developing a new product which very important to compete in business. Research shows that only 60% of new products are successful, others fail and have financial problems. (Mehran Salavati's research, 2015). The aim of risk management is to minimize negative effects and maximize positive effects when dealing with organizational systems. Before the product manager makes a plan to innovate and develop new products, it must think about the acceptable level of risk (Young H. 2010). Risk management aims at crisis prevention and calculating product.

In this paper is determining to analyze the factors that involved Sustainability Company to increase firm value. The true strategic be able to increase totally performance and successful of the organization. The right strategy can reduce risk factors for Sustainability Company. Section 2 discusses the theory that the data from literature review, section 3 present the methodology, framework the study then the measurement. Last for section 4 giving about result and conclusion.

2. Literature Review

2.1 Firm Value

According to Godfrey (2011), agency theory explains the existence of a relationship between agents and principals to achieve maximum corporate goals. Where the agent is the person given the principal's principal to manage the company and the principal is the shareholder or investor. With the separation between principal and control, (agent) investors have the hope that by providing management authority, they will benefit from increasing investor wealth and prosperity.

The main principle of this theory states that there is a working relationship between the authority (investor) and the recipient of authority (manager) that makes the agency relationship in a contract where one or more principals involve other people (agents) to do some services on behalf of those who partially involves authority in decision making (Jesen and Meckling, 1976)

Agency Theory assumes that all individuals act on their own behalf and the principal wants to know the principal to assess management performance will use information related to management activities related to the funds they have given to the company by asking for accountability reports on the agents. However, this will cause an internal conflict of interest between the agent's funds the owner because the agent does not always act according to the principal's wishes so that it will trigger agency costs. Relation to the agency, there are two factors that

influence the social and environmental disclosures that the company does namely monitoring costs and contracting costs (Mustafa and Handayani, 2014). Company value is a condition that describes the position of the company at this time as an achievement towards various operational objectives. The company will strive to enhance value of the associate as an achievement for the performance in accordance with the wishes of the investors or the owners of capital. With good corporate value, it will have a good impact on the lives of companies, management, and shareholders.

The point from long-term goal of the enterprise is how to optimize firm value Wahyudi & Pawesri (2006). Growing the equity valuation of a company can describe the welfare of shareholder of the firm, so that the owner of the company will encourage managers to work harder by using various intensively to maximize the valuation of the company's equity. Beaver & Ryan (2000) uses price to book ratio, which reflects market value relative to firm value. This ratio covers the views of investors about the company as a whole, management, profits, liquidity, and the company's future prospects. Gitman (2009) uses the market to book ratio that evaluates how investors perceive company performance.

2.2 Enterprise Risk Management

The purpose of risk management is to reduce the negative influence and increase the positive influence of product development in management organization system. Young H. Park (2010). Base on contingency theory, the achievement of the group is aggregation based on the motivational the leader and the degree how to the leader has control and influence in a certain situation, the situation rightness. Fiedler (1974). We can conclude that risk management is a series of methodologies or procedures used in anticipating all risks that have the potential to result in losses arising from all organizational activities.

2.3 Product Innovation

Theory competitive advantage is the ability acquired by a company through the characteristics and resources it has to be able to have higher performance compared to other companies in the same industry and market. Michael (1985). According to Prokosa (2005), innovation is a mechanism for companies to absorb for a dynamic environment. Therefore, it is requisite to proficient to create new concept, new concepts by offering innovation products and improving services that can gratify clients. The two ideas of innovation put forward are innovation and competence. Product innovation is the thought of disclose to new thinking as aspects of corporate courtesy, while the holding to improve is the potential of companies to use or implement new concepts and processes successfully. According to Raharso (2006), that organizational performance depends on the harmony of technical innovation and administrative innovation. Product innovation a way to growth firm value as a key constituent to the success of a business operation, which can bring the company to have a competitive advantage and become a leading market as a key component to success in business operation that can bring the organization has a benefit competitive advantage and become a leading market.

2.4 Culture

Theory of behavior leadership J.M. Pfiffner (1980) leadership is the knack of coordinating and giving direction for individual or team to reach desired goals. Hofstede (2001) defines culture as a simultaneous programming of thoughts that differentiate members of an organization from others. Hofstede analyzes the cultures of several nations and groups them into several dimensions. Cultural dimension according to Hofstede (2001) is understandable that cultural comparison presupposes. Something must compare that not every true culture is so unique, that not every culture that is parallel to other cultures has such meaning. Culture can influence work performance in an organization, for example, Japanese PMA companies certainly have a different work culture from PMA companies from Europe or America.

3. Methodology and Data Selection

Sample of research using seconder data, the data collected from the annual report company from manufacturing companies in Indonesia, which is listing in Stock Exchange (JSX), in the period of 2016. 2017.

This study using the data which taken from many industries, due to the relatively small size with 40 annual report companies. The data were collected from annual reports many industries, which have implemented COSO. The outcome of this research also prove that moderating variable of culture cannot moderate the effect of risk management for increasing firm value. Because there are companies that have a low rating on the value of their companies, because the nature of disclosure is still voluntary. The criteria used to select samples in this study are:

1. Manufacturing company that publishes an annual financial report or sustainability report registered with Use Securities Indonesia and a company website in the 2016 period. 2017.
2. Company that have implemented ISO 31000.
3. Company that were not delisting during the 2016 period. 2017.
4. Company that have a book closing date December 31.

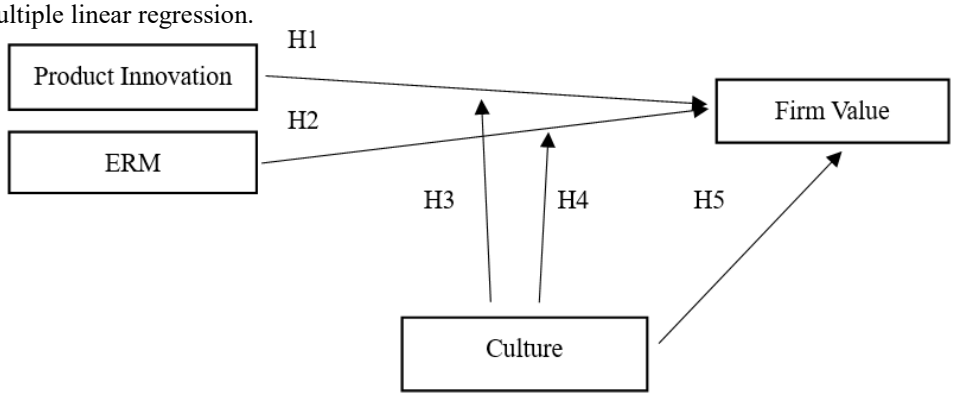
5. Company that have positive earnings in each study period from 2016 until 2017.
6. Company that make disclosures about Enterprise Risk Management, Information about the Risk Management, Corporate Culture and Company Value reports for the period 2016 2017 obtained from the official web of each company.

This study using secondary data, the data are not straight taking from the, the acquired of data has been conjugate, processed and published by other parties, namely is company.

3.1 Hypotheses Development

These research models are product innovation and risk management as independent variables, firm value as the dependent variable and culture as a moderating variable. This research using culture as moderation variable because culture will affect company performance.

The data analysis technique using linear regression analysis. The analysis used to find out and obtain an overview of the influence of product innovation and enterprise risk management in increasing the value of companies in various industries that have implemented ISO 31000. Companies have been registered or on the Indonesian stock exchange in 2016 - 2018. Descriptive statistics to provide a general description of the research variable and the value of the associate in the firm. The result of this paper includes descriptive analysis, classic assumption test, hypothesis testing (T-Test and F Test), and testing the adjuvant of determination (R_2) in analyzing data with multiple linear regression.



Interaction Effect of Product Innovation, ERM, Culture for fair Value

α : Constanta
β_1 : Coefficient Independence Product Innovation
β_2 : Coefficient Independence ERM
β_3 : Coefficient Variable Moderation
IP : Product Innovation (X_1)
E : Enterprise Risk Management (X_2)
C : Culture (X_3)
NP : Firm value (Y)
e : Standard Error
Y = $\alpha + \beta_1 X_1 + e$
Y = $\alpha + \beta_2 X_2 + e$
Y = $\alpha + \beta_1 X_1 + \beta_3 X_3 + e$
Y = $\alpha + \beta_2 X_2 + \beta_3 X_3 + e$

H_1 = Product Innovation gives a positive result on company cores. Product innovation influences the company to create definitive value to improve the performance of risk management. It has concluded that orientation of competitors give a positive outcome on risk management.

H_2 = Enterprise Risk Management gives a definitive result on company cores with risk management; the firm will be able to find out customer expectations or in accordance with market needs than the company's cores will growth. Risk management has a definitive influence on the value of the firm and sustainability.

H_3 = Culture can strengthen the influence of product innovation on company value, the corporate culture raises the company's vision and mission in harmony to support the development of product innovation in increasing the value of the company.

H_4 = Culture can strengthen the influence of risk management on company value. A good culture in organization will have a positive influence on risk management, with a well-organized culture, it is not difficult for management to maximize the implementation of enterprise risk management and it is clear that risk management that is proxies by a good work culture will increase company value and corporate sustainability.

H_5 = Work culture has a definitive effect on company value. Every organization must have and create a good work culture for the progress of the organization; the only goal is to develop firm value of the organization.

3.2 Measurement of Variables

3.2.1 Firm Value

The instrument for measuring company cores as well as known is Tobins'Q. The company cores defines as market value because the higher stock price, the higher value. High corporate value is for desire owner because with high value shows the welfare of shareholders. Tobinns'Q ratio provides an overview of the market's valuation of the firm. This ratio consider able to present the best information. Tobis'Q formula will be able to measure all elements of debt and the company's share capital.

3.2.2 Enterprise Risk Management

The instrument used is scale ratio to measure by variables, namely 1 for a company that discloses each item of COSO risk management in annual reports and 0 for a company that does not disclose annual reports and for each item disclosed in the company's annual report worth 1.

3.2.3 Product Innovation

The instrument used is scale ratio measured by variables, namely 1 for a company that discloses item of innovation product budget or development in annual reports and 0 for a company that does not disclose annual reports and for each item disclosed in the company's annual report worth one.

3.2.4 Culture

The instrument used is scale ratio measured by variables, namely 1 for a company that discloses each item from the core value or philosophy of the company in annual reports and 0 for a company that does not disclose the annual report and for each item disclosed in the company's annual report is worth 1.

4 Results

The samples use various industries that have implemented ISO 31000, namely as many as 20 associates which's listed on the Indonesian Stock Exchange based on results of purposive sampling for 2 years so that the number of samples is 40.

4.1 Descriptive Statistics

According to the results from descriptive statistical measurement, information characteristics of the variables in this paper, namely Product Innovation (X_1), Enterprise Risk Management (X_2), Culture (X_3), and Company Value (Y), obtained statistical descriptive tables of data from manufacturing companies in 2016. 2017. The maximum value is 4.93, the minimum value is 0.36, while the mean is 1.6795 and STD deviation is 1.04863.

4.2 Normal Distribution

The function Normality Test to view whether in the regression model outcome, Is dependent variable and independent variable show normal distribution or not. The statistical tests used include histogram graph analysis, normal probability plots, and Kolmogorov Smirnov test. The results of the P-Plot image show that the subject follow and approach diagonal line so that it describe that the regression design meets the assumptions of Normality.

4.3 Multicollinearity

The objective multicollinearity to determine a relation between independent variables. There is no difficulty in seeing the influence independent variables on the dependent variable. Multicollinearity score to determine if there are perfect intercorrelations between the independent variables used this study. This test is carried out with tolerance value and Variance Inflation Factor (VIF). In order to avoid multicollinearity, the tolerance value > 0.1 and VIF <10. The results of multicollinearity tests obtained VIF X_1, X_2, X_3 are 1,161,1142.1.142 and tolerance values X_1, X_2, X_3 are 0.861,875,0875 and tolerance value > 0,1 and VIF < 10 can be concluded that it can deduce that both independent variables there is no multicollinearity relationship and can be used for the next test.

4.4 Autocolinearity

Autocorrelation shows a relation both of confound errors in the term period (t) with errors in the term period (t-1). To find out existence of autocorrelation in a regression model, Durbin-Watson (DW) was tested, based on the outcome above the DW score (0.800) while according to the DW table the score of dL (1,338) and the score of Du (1,659). By following are data on the DW test provisions.

DW	dI	Du	4-Du	4-dI
.445	1.338	1.659	2.341	2.662

Table 1 Data on the Conditions for the DW Test

This value shows that the value of DW <dL, so that the data experiences symptoms of autocorrelation, so it must be above with the Lag Transform. Lag transformation is the conversion of the scale of data measurement into

other forms with the aim of overcoming data that has autocorrelation. The following are the results of the lag transformation.

Model	R	R^2	Adjusted R^2	Std Error of the Estimate	Durbin-Watson
1	.775	.600	.589	.60119304	1.817

Table 2 Transformation Lag

This value indicates that the value: du <d <(4-du), concluded that there are no symptoms of autocorrelation.

4.5 Heteroscedasticity

The objective of heteroscedastic measurement is to review aims to test if distinction and rest inequalities occur an observation to another observation in the regress design. There are some ways to discover the serve of heteroscedasticity which indicates that the research model is not feasible. In this study a scatter plot was used which should have random points so that there is no heteroscedasticity. A scatterplot graph indicate that the points float arbitrarily, and around both above and below number 0 on the Y axis. It can be deduce that there is no heteroscedasticity symptoms in the regression model used.

4.6 Determinant Coefficient (R^2)

The value used is Adjusted R Square because the independent variables used in this research are two. Obtained that value of R^2 is 0.718. It concluded that magnitude influence of the independent variables on the dependent variable is 71.8% and the remaining 28.2% is impact by other factors not included in the regression model.

4.7 F test

According to the result data for F testing, the significance score is 0.000 (less than 0.05). That is, simultaneously or jointly independent variables which's impact for dependent variable.

4.8 t - test

The purpose of T testing in these research goals to define whether or not there is influence for independent variable on the dependent variable simultaneously by assuming the other independent variables are constant.

	Unstandardized Coefficients		Standardized Coefficients			Collinearity Statistics	
Model	B	Std Error	Beta	t	Significant		
X_1	.951	.343	.305	2.775	.009	.583	1.714
X_2	.976	.371	.482	2.627	.012	.265	3.770
X_3	.558	.321	.245	1.739	.090	.365	2.817

With dependence variable Y

Table 3 Results t-test Variable X for Y

According to the results of the processing data, researchers get X_1, X_2, X_3 have significant 0.009,0.012,0.090 this reveals the magnitude of independent variable on dependent variable. It can be define that product innovation has a good definitive influence on firm value. Enterprise risk management has got a definitive influence on corporate value and culture does not has influence on firm value.

Moderation Regression Analysis Test (MRA) Variable X_3 on the effect of X_1 on Y

In order to test whether a variable can moderate the impact of independent variables on the dependent variable, this measurement can be done by MRA test. MRA test is conducted in two stages, first is to regression X_1 to Y to see the results of the R square.

Model	R	R^2	Adjusted R^2	Std Error of the Estimate	Durbin-watson
1	.690	.477	.463	1.44556	.585

Table 4 Regression Variabel X_1 for Y

Regression of X_1 * X_3 for Y.

Model	R	R^2	Adjusted R^2	Std Error of the Estimate	Durbin-Watson
1	.702	.494	.481	1.42206	.651

Table 5 Regression of Variables X_1 * X_3 for Y

Based on this information, it is famous know the value of R^2 in Result I equals 0.477, while in Result 2 is 0.494. That is, it can be concluded that the presence of X_3 has the effect of moderating (strengthening) the effect of X_1 on Y or culture moderating the positive influence of product innovation on firm value. Moderate regression analysis test (MRA) variable X_3 on the effect of variable X_2 on Y. The MRA test is carried out in two stages, first is to regression X^2 to Y to see the results of the R square.

Model	R	R^2	Adjusted R^2	Std Error of the Estimate	Durbin-Watson
1	.819	.671	.662	1.4640	.517

Table 6 Regression of Variable X_2 to Variable Y

Model	R	R^2	Adjusted R^2	Std Error of the Estimate	Durbin-Watson
1	.715	.511	.498	1.39795	.499

Table 7 X_2 * X_3 Variable Regression of Y

Based on this information, it is known that the R square value in Result I is 0.671, while in Result 2 is 0.511. That is, it can be concluded that the presence of X_3 can weaken the influence of X_2 on Y. Culture can weaken the influence of enterprise risk management on corporate values.

5 Discussion

After analyzing the outcome of the data, the result of this study takes some conclusion as follows:

Product innovation implementation on firm value shows from table 3 (significant t-test measurement), the result testing shows that the null hypothesis, (H_0) is accepted or Ha is rejected, namely product innovation has definitive significant effect of 0.951 or 95% of firm value. Demonstrate that for the sustainability of an organization, product innovation has very definitive influence on increasing firm value.

Enterprise risk management implementation on from value show from table 3 (significant t-test measurement), the result testing shows the null hypothesis (H_0) is accepted or Ha is rejected. This means that risk management has a positive effect of 0.976 or 97.6% on vompany value. Demonstrate that Entrepreneurial Risk Management has a very positive effect on increasing corporate value. So it is expected that an organization does not neglect to run and even hold a special division of risk management to maximize the growth of company.

Culture has significant 0.090, while $t \geq 0.05$ (significant t-test measurement) the null hypothesis (H_0) is accepted or Ha is rejected, namely the work culture can tighten the influence of product innovation on company value. Culture moderating the positive influence of product innovation on firm value. Analysis that a good Work Culture and discipline in an organization can strengthen the influence of product nnovation on increasing corporate value. The work culture will support the achievement of the organization's vision and mission.

Based on regression result shows that the null hypothesis (H_0) is rejected or Ha is accepted, this is means culture can weaken the effect of enterprise risk management on company values. The work culture can also weaken the performance of risk management towards increasing company value. In certain circumstances, the existing culture in the organization can weaken the risk management performance, because enterprise risk management is an uncompromising control tool.

Effect of implemented culture on firm value, the result testing shows the null hypothesis (H_0) is reject or Ha is accepted. Culture does not has affect the value of the company. The outcome of the research that culture does not give a direct influence on increasing firm value.

The point of advantage from consideration is product innovation and enterprise risk management connect to improve firm value and give benefit to company. They work together and give the big impact to sustainability organization.

5.1 Conclusion and Limitation

This study provides empirical evidence regarding the Influence of product innovation and enterprise risk management to Increase firm value with culture as a moderation variable. The results of the study indicate that product innovation and enterprise risk management have significant positive effect on firm value. This is in accordance with the explanation of COSO, 2004 in CIMA, 2008. Where ERM is designed to identify opportunity and risk that can affect to increase value of company. Collier and Agyei-Ampomah (2006) the amount of risk an organization is willing to accept in pursuit of value. It is directly related with an organization's strategy (risk appetite). Risk can be seen as a source of opportunity to business. The statement means through good ERM, the organization can running well the strategy, one of the way by improving new product. Then the organization can be realized and able to improve firm value for company.

There are several weaknesses of research limitation from this study, which might influence the results of the research. There are weakness in selection of samples because the researcher using limited number of companies from various industries, variable testing of research, statistical testing assumptions.

The researcher has tried to design and develop this research but has limited time so that there are still some limitations in this study, including:

1. Using seconder data and there is limitation for annual report disclosure especially for variables which is concern.
2. Using different business line industries that implemented ISO 31000, so the object of concern is different focus.
3. Research use limitation period annual financial report companies 2016-2017 and still need more samples to ensure the result of the research.

5.2 Implications and Suggestion

The results of this study indicate that product innovation and enterprise risk management increase firm value. This shows that enterprise risk management (ERM) is important to measure the risk, find control to run the strategy. Product innovation function to increase firm value. This application might be very influential when applied to manufacture organizations, Service Company and financial institutions. Business in manufacture is potential and growth because there is a cycle good product launch in market. Management has to give more budget in research development to provide new product innovation sustainable organization.

To determine how the influence of product innovation and enterprise risk management increase on the value and sustainability of the company;

1. Future research is expected to conduct companies already have CRO – Chief Risk Officer and have implemented ISO 31000 completely.
2. For variables do not have significant effect can be reviewed whether still feasible or can be replaced with other variables.
3. The implementation of enterprise risk management is very influential on the relationship of product innovation, value and sustainability of the company.
4. Increase product sales and market share because there is a positive view of the community on the company that helps increase sales of the company's products. If sales increase, then the performance or value of the company increases.
5. Obtain investor trust because growth value of the firm can make shareholders have a positive view of the company because the company consider has successful in their strategy. Increased sales and good financial performance due to the positive response of the community can make investors give more ratings to the company so that they will invest in the company.
6. Can do company development with the existence of capital support obtained from investors and creditors.
7. Benefits for the government is urge companies to provide the best products and provide the best services.
8. Benefits for the community are as input for company leaders in order to make decisions related to strategic decisions in general and especially those related to risk management.

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