



Effects of Strategic Performance Measurement System and Islamic Work Ethics on Firm Performance: (Evidence from Malaysian Islamic Banks)

Anita Kusuma Dewi, Politeknik Negeri Lampung, Lampung, Indonesia

Doctoral Student Program of Economic Science, University of Lampung, Indonesia

Nurdiono, Faculty of Economics and Business, University of Lampung, Indonesia

Fajar Gustiawaty Dewi, Faculty of Economics and Business, University of Lampung, Indonesia

Yuliansyah, Faculty of Economics and Business, University of Lampung, Indonesia

Agrianti Komalasari, Faculty of Economics and Business, University of Lampung, Indonesia

ABSTRACT- The strategic performance measurement system (SPMS) is part of the performance measurement system. SPMS is a performance measurement system that combines strategy, business operations, and finance to measure how well a company achieves its targets/vision and mission. The implementation of a successful strategy in a company should be guided by two important things, first an understanding of the company cycle that connects strategy and operations, and second, knowing what strategies are used in each phase of the company. The performance measurement system encourages managers to think strategically about how the company's activities fit into other parts of the company and to assist the company in managing its operational activities. Inadequate management supervision on the performance measurement system puts the company at risk of failure. A suitable performance measurement system can protect the organization from potential losses and increase organizational effectiveness.

Work ethics is interesting to study because it presumed to be greatly affects company performance. The company's values are influenced by the ethics that the company operates. The company's values are influenced by the ethics that the company operates. Islamic Work Ethics comes from the Qur'an and Hadiths. This study aims to examine the effect of SPMS and Islamic work ethics on company performance and to see the moderating effect of Islamic work ethics on the relationship between SPMS and firm performance and to investigate the moderating effect of Islamic work ethics on the relationship between competitive strategy and company performance (Malaysian Islamic banking). The research design is explanatory research with a quantitative approach using a survey method in the Islamic banking industry. The population of this research is Islamic commercial banks, the sampling technique is based on purposive sampling method, the data used are primary. The research data processing using structural equation modeling. The difference between this study and previous research is that this study uses the Islamic work ethic variable and then investigates the effect of the strategic performance measurement system on company performance in Malaysian Islamic banks.

The results show that there is sufficient evidence that Islamic work ethics has positive effects on firm performance. While the effects of strategic performance measurement system on firm performance shows not supported. The role of moderating effects of Islamic work ethics on the strategic performance measurement system variable against firm performance which is moderated by Islamic work ethics shows supported results and a positive slope. This means that when Islamic work ethics is stronger, the effect of the strategic performance measurement system on firm performance is higher.

Keywords: Firm performance, Islamic work ethic, Strategic performance measurement system, Islamic bank.

I. INTRODUCTION

Bustinza et al. (2010) stated that companies should focus on activities that lead to sustainable competitive advantage to achieve higher levels of performance. The performance measurement system can be used as a means of monitoring, a means of motivating, monitoring performance, encouraging learning within the company (Neely, 2005). A performance measurement system is a tool commonly used to monitor the success of an organization (Neely, 2005; Bustinza et al., 2010). The performance measurement system encourages managers to think strategically about how the company's activities are aligned with other parts of the company and to assist companies in managing their operational activities (Abushaiba and Zainuddin, 2012; Ullrich and Tuttle, 2004; Choe, 2003). Improper management supervision in the performance measurement system puts the company at risk of failure (Turner et.al, 2017). Previous research such as Munir et al., (2013);

Neely, (1995); Otley, (1999); Sharma, (2000); Chenhall, (2005); Soltanizadeh, (2016); Nashwan, (2017) stated that an appropriate performance measurement system can improve organizational performance. Management accounting practices can also be used for financial reporting and control activities that help management in the formulation and implementation of organizational strategies (Wadan et al., 2019). Research on the relationship between strategic performance measurement systems, competitive strategies, and company performance still gives different or inconsistent results. Baird et al. (2017), Burney et al. (2009), and Chenhall (2005) make an important contribution to the Strategic Performance Measurement System (SPMS) in achieving organizational performance. The article of Baird et al. (2017) discussed the relationship between SPMS and organizational effectiveness. The results of the article by Baird et.al (2017) explain that SPMS is more focused on performance achievement related to performance-related outcomes, the focus on workers tends to be less.

Nashwan, Abdullah, and Obaid (2017); Bourne et.al (2013); Bisbe and Malagueno, (2012); Adler, R (2011); Gimbert et al., (2010); Li et al., (2009), Hyvonen (2007) provide evidence that there is a strong positive relationship between performance measurement systems, business strategies, and company performance. However, different empirical findings were provided by Ittner et al. (2003). Ittner et al. (2003) concluded that the performance measurement system has a negative effect on performance. Moreover, the research findings from Kihn (2007); Braam and Nijssen (2004) stated that the strategic performance measurement system does not affect company performance. The results of Hall's (2011) study indicated that learning has a positive association with company performance. His research examines whether the process of updating and changing mental (learning) models helped to explain how the performance measurement systems affect performance. Hall's (2008) research investigated performance in Australian manufacturing companies and found that an effective performance measurement system improves managerial performance through role clarification and psychological empowerment. This study used a contingency theory approach because it considers situational factors of role clarity and psychological empowerment in implementing a performance measurement system. The performance measurement system is expected to be related to company strategy (Adler, 2011; Baird, 2017; Gimbert et al., 2010; Beal, 2000).

Work ethics is interesting to investigate because it may affect company performance. Ethics is a set of moral practices that differentiate between right and wrong things (Marri et al., 2012). Studies show organizations that act socially irresponsibly often suffer losses due to unethical behavior (Marri et al., 2012). According to Quddus et al. (2009) that religious beliefs will influence the understanding of ethics, people tend to practice religious beliefs and insights about ethics in their daily lives. Ethics can be a determinant and direction for humans to behave. Ethics are needed as rules that direct how individuals work properly and correctly. The scandals that have occurred in several companies may come from ethical violations (Miller et al., 2002). For managers, an employee is more important in terms of work ethics (61%), intelligence (23%), enthusiasm (12%), and education (4%) (Miller et al., 2002).

Islamic work ethics has a good impact on individual behavior at work because it can provide a stimulus for positive work attitudes (Yousef, 2001). Ethics is a rational explanation implied in rules of thumb to show what is good and right (Sundry, 2010). Positive work attitudes such as hard work, commitment, and dedication to work and other work attitudes allow beneficial results that can benefit the individual itself and the organization (Yousef, 2001). Trade transactions should take place in an environment that is mutually open, trusting, and transparent. Transparency determines moral responsibility. Therefore, moral behavior is an important prerequisite for maintaining economic prosperity and the business community (Ali and Al-Owaihyan, 2008). Abbasi's research (2011) showed that Islamic work ethics had great potential to improve the business performance of an organization. This might cause the researchers willing to further investigate the effect of Islamic work ethics on performance and examine the moderating effect of Islamic work ethics on the relationship of strategic performance measurement systems and on company performance. Kumar and Rose (2012) provide evidence that the power of innovation and knowledge sharing capabilities are positively and significantly related to Islamic work ethics in the Malaysian public sector. The improvement of economic

conditions from the global economic crisis is affected by ethical values at work that must be instilled in organizational culture (Khadijah et al., 2015).

According to Ramalu and Rashid (2016), the impact of Islamic work ethics in organizations which explains that *Islamic Work Ethic* (IWE) is the influential factor shaping the work value system in Malaysia. The performance of the banking industry can be used as an indicator of economic growth in a country. The economic growth of a country tends to be in line with its banking industry, if the performance of the banking industry in a country is considered good, the country's economic growth will also good (Nitisastro, 2010). This study is different from previous studies because it uses Islamic work ethics variables which are presumed to moderate the relationship between strategic performance measurement systems and company performance. Management accounting research is usually carried out in the manufacturing sector while this research is conducted in service sector companies, namely the Islamic banking sector. There are still few studies on management accounting in Islamic banking. Previous studies have focused more on manufacturing companies. Previous studies in the banking sector (service companies) were mostly carried out in conventional banking.

II. LITERATURE REVIEW

2.1 Strategic Performance Measurement System

The strategic performance measurement system (SPMS) is part of the performance measurement system. SPMS is a performance measurement system that combines strategy, business operations, and finance to measure how well a company achieves its targets/vision and mission. To be able to find out to what extent a company's success in running its business requires a performance measurement. Performance measurement shows the relationship between the planning set by the company and the results that have been achieved. Performance measurement also shows whether a company needs to make improvements and adjustments to plan and control activities. The definition of performance according to Drucker (2002) is "The level of achievement or actual results achieved which is used to obtain a positive result". Performance is also defined as the success of personnel in realizing strategic goals in four perspectives: finance, customer service, process, and learning and growth (Mulyadi, 2007).

The performance measurement system was developed as a strategic orientation aimed at providing information to improve the quality of the company's strategy in achieving company success (Abushaiba and Zainuddin, 2012). The characteristics of the information expected from the design of the performance measurement system, is to have complete information. Completeness of information in the design of a performance measurement system has two components. Firstly, information that has a generic aspect that provides an understanding of the cause-and-effect relationship between the company's operations and the company's strategic objectives, and between various aspects of the value chain (Kaplan and Norton, 2001; Malina and Selto, 2001). Secondly, the measurement component concerns the provision of measures in finance, customers, business processes, and long-term innovation (Kaplan and Norton, 1996a; Sharma, 2000; Elshishini, 2001; Malmi, 2001).

Performance measurement systems have an essential role in strategy implementation by helping to translate corporate strategy into company operating activities to achieve the desired goals (Chenhall and Langfield-Smith, 1998; Kaplan and Norton, 2001; Ittner, et al., 2003; Chenhall, 2003). According to Hambrick (1983); Srivastava (1983) and Chenhall (2005) strategy researchers have emphasized that information acquisition provides potentially useful ideas relating to external and internal firms, opportunities, and threats relevant to formulating innovative strategies to gain competitive advantage. Roslender and Hart (2002) explained that the current emphasis was on efforts to produce accounting information that raises the competitive advantage of a sustainable company.

2.2 Islamic Work Ethics

Islamic work ethics is derived from the Koran and Hadiths. Islamic work ethic views dedication to work as a virtue and emphasizes honesty, cooperation, and good communication in the workplace. Work in Islam views hard work and creativity as elements of personal achievement and happiness. Al-Quran teaches justice, honesty in trade, and fairness in the distribution of wealth in society. Al-Quran encourages the improvement of the skills and techniques of each individual so that the person is kept away from laziness. The value in Islamic work ethics comes from that which accompanies it (Ali, 1988).

Muslims are able to build a strong civilization and control over international trade for centuries supporting the idea that Islam does not impose an idealistic view of life and ethics. On the other hand, Muslims are successful practically because of their flexibility and adaptability (Cornwell et al., 2005). Ethics is a system of law and morality that is comprehensive and covers all areas of human life. Islamic work ethic is expressed in the form of shari'ah, which consists of the Qur'an, Sunnah (hadith), ijma, and qiyas. Based on the nature of justice, shari'ah for Muslims serves as the source of a set of criteria to distinguish what is right (Haq) and what is bad. Al-Qur'an and Sunnah are the main principles and guidelines in Islamic ethics.

Islam as a religion and ideology encourages its people to work hard, not forgetting to work after Ibadah (worship) (QS.Al-Jumu'ah: 10). We should be afraid of the next generation who are left behind in difficulties of faith and economy (QS An-Nisa: 9). Some of the Prophet's hadiths state the importance of a strong generation (ummah) rather than a weak one and should not depend on others/others (HR.Tirmizi). As well as some Islamic teachings that encourages people to carry out their economic activities or activities in a good, professional, systematic, and continuous manner. For example, Islamic teachings have placed trading business activities as one of the highly recommended areas of life (QS.An-Nisa: 29).

The value of work according to the Islamic perspective is proportional to the value of obligatory. The main element of Islamic work ethics is the shari'ah indication that any work should be done as well as possible to support personal life, family, and the surrounding community. In particular, work ethics is a held and trusted principle that is reflected in individual work attitudes and is closely related to moral commitment and individual involvement (Yousef, 2001). The concept of Islamic work ethics comes from the Qur'an and Hadith. Islam teaches that hard work can cause sins to be forgiven and there is nothing better than eating from one's work, laziness and wasting time on unproductive things are strictly prohibited.

Islamic work ethics views dedication to work as a virtue (Yousef, 2000). Working positively in a worldly manner is also a religious duty. Islam can accept both the actions of an individual who has a certain profession or field of work, then he prioritizes his profession and field of work rather than fulfilling the Sunnah, work must be useful and also meaningful (Ali and Al-Owaihah, 2008). The work that is carried out must still be inspired by the motivation of Ibadah and its activities do not make someone neglect the obligatory acts of Ibadah (Ahmad, 2011). The concept of Islamic work ethics which refers to the research of Ali (1988) in Yousef (2000), Ali and Alkazemi (2007), Ali and Al-Owaihah (2008), Kumar and Rose (2010), Khalid et.al (2018) includes dimensions the following: Taqwa to Allah SWT, Dedication in Work, Honesty / Trust, Cooperation / Teamwork, Fairness, Contribution to Society (Beneficial to Society), Creativity, Good Intention, Humility, Patience, Continuous Improvement.

2.3 Differences in Islamic Work Ethics and Non-Islamic Work Ethics

Islamic work ethics and non-Islamic work ethics, such as Protestant work ethics (PWE), focus on hard work, commitment and dedication at work, creativity at work, avoiding the accumulation of wealth that is not following ethics, cooperative and healthy competition in work (Yousef, 2001). According to Weber (1958), Protestants consider the urge to meet the needs of living humans, but what determines the level of prosperity that a person achieves is more determined by the attitude and behavior of that person in meeting his life needs.

According to Kalemci and Tuzun (2017), Islamic work ethics are based on the Qur'an as well as Hadiths and Islamic work ethics emphasizes taqwa to Allah SWT/tauhid, while non-Islamic work ethics are more secular, contribute to society, emphasize values work is more focused on intentions than results (Yousef, 2001; Ali

and Al-Owaihian, 2008; Kalemci and Tuzun, 2017). Rasulullah revealed that 'A person's actions are judged by their intentions, and someone will be rewarded/punished according to the intention of the action'. The words of Rasulullah SAW "Innamal a'malu bin niyat" actually the deeds depend on the intention. In contrast to non-Islamic work ethics, Islamic work ethics emphasizes intention rather than results (Yousef, 2000).

Islamic work ethics also emphasizes social aspects and responsibility to society, Taqwa to Allah SWT. Taqwa refers to belief in Allah SWT, justifying it, and fearing Allah. The form of one's faith in Islam must be applied thoroughly in various aspects of life. The work that is done by a Muslim must be beneficial for the people/society, not only for himself. Rasulullah SAW said "*Khoirunnas anfa'uhum linnas*" The best human being is the most beneficial for humans (HR. Ahmad, ath-Thabrani, ad-Daruqutni. This hadith was produced by al-Albani in Sahihul Jami 'no: 3289). In Addition, Islamic work ethics also emphasizes justice and generosity at work (Kalemci and Tuzun, 2017; Yousef, 2001). Involvement in economic activities is a virtue that is intended as a form of faith. Islamic work ethics and Protestant work ethics are the same in several ways such as focusing on hard work and commitment to it, but Islamic work ethics emphasizes contribution/dedication to society, cooperation in work and emphasizes not the individual achievement but good/useful for many people (Ali, 1988; Modrack, 2008).

2.4 Company Performance

Dessler (2012) defines work performance, namely the comparison between the work results and the set standards. According to Gaspersz (2006), performance is the control of behavior changes in organizations to execute or implement strategies. Sanchez and Marin (2003); Aragon (2003) states that performance is measured by return on investment (ROI) and can be measured using quantitative and qualitative indicators. According to Carpenter and Sanders (2002); Desphande et al., (1993); Hill and Jones, (2005), performance is measured by return on assets (ROA); business profitability; and sales growth (Mavondo and Farell, 2003). Gopalakrishnan (2000) stated that company performance is related to efficiency, effectiveness, financial outcomes, and employee satisfaction. Meanwhile, Olson (2005) explained that organizational performance is based on the performance assessed by the organization and its competitors.

2.5 Hypothesis Formulation

2.5.1 The Effect of Strategic Performance Measurement Systems and Competitive Strategies on Company Performance

Performance Measurement System is an integral part of a management accounting system that provides information to encourage managers to think strategically about how the company's activities fit with other parts of the company, and to assist companies in managing their operational activities (Lillis and Anne, 2002; Ittner, et al., 2003. ; Fullerton and McWatters, 2002; Ullrich and Turtle, 2004). A performance measurement system can be defined as a process of quantifying the efficiency and effectiveness of the company. An appropriate performance measurement system (PMS) can protect organizations from potential losses and increase organizational effectiveness (Turner et al., 2017; Munir et al., 2013). Without adequate and precise management control, namely with a performance measurement system, the company will be at risk of failure (Turner et al., 2017). Several studies have explained that the use of PMS is expected to improve organizational performance (Kaplan and Norton, 1996b; Hoque and James, 2000; Ittner et al., 2003). A concise performance measurement system will support the organizational decision-making process by collecting, processing, and analyzing the measured information about performance, and delivered in the form of a summary (Neely et al., 1995; Henri, 2006).

Chenhall's research findings (2005) showed that there were still few studies that reveal the characteristics of information that can help the system how to provide positive benefits for the company. Chenhall (2005) examined the relationship between PMS and competitive advantage as an indicator of the competitive strategy of firms with a business focus on product differentiation and low-cost strategies. Chenhall (2005) states that strategic performance measurement systems have a positive effect on improving performance. Research by Hoque and James (2000) provides the same results that strategic performance measurement

systems have a positive relationship with organizational performance. Meanwhile, Ittner et al. (2003) give different results that the performance measurement system has the opposite effect, or has a negative effect on performance.

H1: The strategic performance measurement system has a positive effect on company performance

2.5.2 Effect of Islamic Work Ethics on Company Performance

The company's values are influenced by the ethics that the company operates. It is advisable to include ethics in corporate decision making. This can enhance strategy development and implementation, which in turn will maximize company profits. Studies showed that ethics have an effect on corporate failure/disaster in the company (Abbasi, 2011). The scandals that occur in the company come from ethical violations. Ethics are the key to bringing value to a company. Many studies show organizations that act socially irresponsibly often pay fines for unethical behavior.

According to Ahmad (2011), work ethic in an Islamic perspective is defined as the emanation of a creed that comes from the Islamic faith system, namely, as a basic life attitude concerning work, so that an Islamic work ethic paradigm can be built. Meanwhile, the characteristics of the Islamic work ethic are explored and formulated based on the concept of (1) Work is a description of aqidah (2) Work is based on knowledge (3) Work is based on imitating Lord attributes and following Lord instructions. A person does not get anything, except what he has worked for (QS.An-Najm: 39). Work can be used as a medium for optimal personal development and creativity by opening a business, creating and expanding employment opportunities.

Abbasi's research findings (2011) used a sample of 114 managers who worked in the telecommunications industry in Pakistan. The results showed that Islamic work ethics has great potential to improve the business performance of an organization. Improving conditions from the global economic crisis lies in ethical values that must be instilled in organizational culture for sustainable business performance. Khadijah (2015) research findings depicted that bank employees generally adhere to Islamic work ethics. Khadijah (2015) stated that further studies were recommended to associate the dimensions of Islamic work ethics with organizational performance.

H2: Islamic Work Ethics have a positive effect on company performance

The success and progress of humans on this earth depends on their efforts. Many verses in the Quran emphasize the importance of work. This principle is further explained in the following verses: "For a man, there is what benefit he earns and for women, there is a part that they earn (QS.An-Nisa: 32). Abbasi's research (2012a) stated that Islamic work ethics together with manager integrity would increase shareholder value. The three dimensions of shareholder value analyzed are profit, customer satisfaction, and employee loyalty.

H3: Islamic Work Ethics strengthen the influence of strategic performance measurement systems on company performance

III. METHODS

3.1 Data Collection

We conducted a preliminary study before we distributed the questionnaires. The first preliminary study was conducted to ensure the accuracy of the English translation into the Indonesian language. The second preliminary study aimed to determine the level of reliability and validity of the questionnaires so that the questionnaires are ready to be distributed. The industry chosen in this study was the banking industry because studies in banking are part of financial institutions that actively argue that performance measurement can increase the value/effectiveness of companies. The banking industry is also a reflection of successful organizations. Researchers send more than two questionnaires in one organization. According to

Van der Stede et.al (2005, p.666) states that “using one respondent weakens the validity of the study because a single individual often cannot reasonably reflect the beliefs of an entire organization”.

The sample of this research was using the purposive sampling method. Determination of sample members from the population by this method was carried out with certain considerations. The city that is considered representative for sampling in this study is Kuala Lumpur, the capital city of Malaysia. Respondents of this research are all elements of leaders/managers in Islamic banks because they are considered to have extensive knowledge about the management of Islamic banks which is their responsibility. Individuals who were given the questionnaire in this study were all managers/department heads who were considered to understand the scope of the questionnaire given. The questionnaires returned from the mail survey and can be processed are 117 sample questionnaires.

The determination of the minimum sample size refers to the statement from Sugiyono (2012) for the determination of the minimum sample size is as follows: "The minimum sample size that is feasible in a study is 30-500 if the sample is divided into categories of the number of sample members, for each category the number of sample members each category is at least 30. If in a study, the analysis uses more than two involved variables, statistical studies that study behavior and the relationship between two or more variables, and then the minimum sample size is 10 times of the used variables (Hair, 2010).

The data analysis used in this study was to use structural equation modeling (SEM). One of the reasons for choosing SEM was its ability to model multiple relationships, which is the advantage of latent variables SEM over multiple regression and path analysis (Baines & Langfield-Smith, 2003). The data analysis tool used was SmartPLS 3.0 full version and the model estimation technique used was the variance matrix. Partial Least Square (PLS) is an analytical tool that is considered appropriate for testing the variables in this study. According to Hair et al. (2013), Partial Least Square (PLS) has the advantage that in the relationship between latent variables, reflective and formative measurement models are not a problem, whereas in covariance-based SEM it can only be done for reflective models.

The structural model in the PLS technique identifies the relationship between constructs, while the measurement model determines the relationship between the indicator and the construct it represents (Chenhall, 2005). PLS is a powerful analytical method because it is not based on many of assumptions (Wiyono, 2011). The research findings by Smith and Langfield-Smith (2004) stated that in analyzing SEM using two steps, namely measurement model and measurement structural model. Besides, PLS-SEM has advantages over ordinary regression in the following reasons (Birkinshaw, Morrison, & Hulland, 1995):

1. PLS considers all coefficients simultaneously which allows all direct, indirect, and spurious relationships.
2. PLS estimates individual items better in the context of the theoretical model.

IV. RESULTS

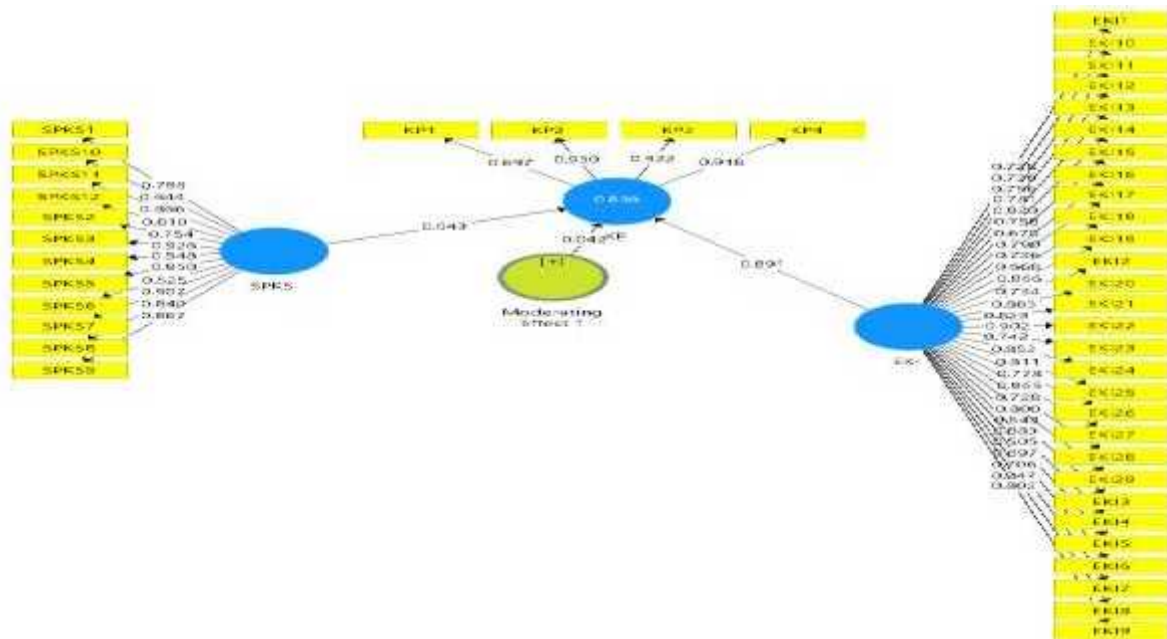
4.1 Data Analysis

Table 1. Measurement Model

Construct	Dimension	Items	Cross Loading	Composite Reliability	Average Variance Extract
Firm Performance	ROA	Y1.1	0.696	0.930	0.770
	ROIncome /	Y1.2	0.950		

	Revenue				
	ROI	Y1.3	0.951		
	Profit	Y1.4	0.919		
Strategic Performance Measurement System	Operating Guidance	X1.1	0.797		
		X1.2	0.753		
	Strategy	X1.3	0.924		
		X1.4	0.551		
		X1.5	0.850		
		X1.6	0.527	0.951	0.622
		X1.7	0.907		
	Evaluation	X1.8	0.840		
		X1.9	0.867		
	Recommendation	X1.10	0.646		
		X1.11	0.864		
		X1.12	0.812		
Islamic Work Ethics	Taqwa	X2.1	0.728		
		X2.2	0.734		
		X2.3	0.543		
		X2.4	0.883		
	Work dedication	X2.5	0.505		
		X2.6	0.697		
		X2.7	0.706		
		X2.8	0.847		
		X2.9	0.802		
	Honesty	X2.10	0.736		
		X2.11	0.756		
	Contribution to Community	X2.12	0.781		
		X2.13	0.820		
		X2.14	0.758		
		X2.15	0.669	0.977	0.595
		X2.16	0.790		
		X2.17	0.736		
		X2.18	0.668		
		X2.19	0.866		
	Creativity	X2.20	0.883		
		X2.21	0.823		
		X2.22	0.902		
		X2.23	0.742		
		X2.24	0.853		
		X2.25	0.811		
		X2.26	0.778		
	Continuous Improvement	X2.27	0.865		
		X2.28	0.728		
		X2.29	0.800		

Figure 1. Outer Model Original Sample Values



The evaluation of the measurement model or Outer Model is used to test validity and reliability (Camison and Lopez, 2010; Hulland, 1999). Outer models with reflective indicators are evaluated through convergent validity and discriminant validity from latent construct-forming indicators and composite reliability and cronbach alpha (Ghozali and Latan, 2015). Based on the estimation results of average variance extracted in table 1, it had a value above 0.50 which indicates good validity. The factor loading value was also greater than 0.50, which means that all indicators confirmed good validity.

Measurement of reliability can be valued by Cronbach Alpha, Rho_A, and composite reliability which was above 0.70. Table 2 below shows that all of the measurement of reliability firm performance, Strategic performance measurement system and Islamic work ethics variable was above 0.70 which forecasted a good result. The reliability from all of the variables and indicators of the instrument was satisfactory.

Table 2. Reliability Testing

Variable	Cronbach's Alpha	rho_A	Composite Reliability	Criteria	Information
Firm Performance	0.895	0.904	0.930	> 0.70	Reliable
Strategic Performance Measurement System	0.942	0.954	0.951	> 0.70	Reliable
Islamic Work Ethics	0.975	0.979	0.977	> 0.70	Reliable

4.2 Structural Model

After a careful examination of the measurement model in table 1 and 2, the assessment of the structural model is conducted in this section. The assessment of the structural model allows this study to test the hypothesis. This structural model evaluated with the Goodness of Fit Model which was measured by Stone-Geisser Q-Square's predictive relevance to measuring how well is the parameter estimation and the observation value derived from the model. The value of Q-Square > 0 shows that the model has predictive

relevance, otherwise if the Q-Square value ≤ 0 shows that the model doesn't have predictive relevance. Measurement of Q-Square is based on the formula:

$$Q^2 = 1 - (1 - R_1^2) (1 - R_2^2) \dots (1 - R_p^2)$$

Which $R_1^2, R_2^2 \dots R_p^2$ are the R-square of the endogenous variable from the model. The value of Q^2 has a range value of $0 < Q^2 < 1$, the closer to 1, the better the model. This Q^2 value was in line with the coefficient of determination in path analysis. The result of the R-square from the structural model was 0.836 which means that firm performance could be explained by strategic performance measurement system and Islamic work ethics by 83.6%. The rest 16.4% is explained by the other factors that were not researched. In addition, we could see how good the observation value by calculating: $Q^2 = 1 - (1 - 0.836) = 0.836$. The result shows that Q^2 had a value in the range $0 < Q^2 < 1$, where closer to 1 means the model was getting better.

A hypothesis test of the estimated parameters will provide useful information on the relationship between the research variables. The basis for testing the hypothesis was the output result from the inner weight test. The t-statistic value between the dependent variable and the independent variable to assess the significance of the prediction model in testing the structural model can be seen in the path coefficient table on the SmartPLS output. The limit for rejecting and failed to reject the proposed hypothesis is if the t-count value is \geq or \leq t table value.

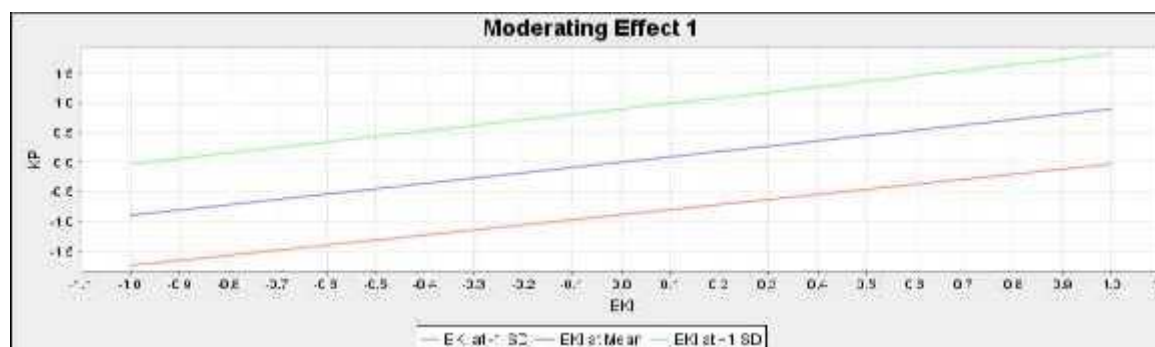
The hypothesis testing was conducted by using a bootstrapping method which was intended to minimize the problem of data abnormalities in the study. The result of the bootstrapping method is used as the basis of the hypothesis testing result. Table 3 shows the result of hypothesis testing.

Table 3. Hypothesis Testing

Hypothesis	Coefficient Value	t-value	T-Statistics (O / STDEV)	Lower Bound 5%	Upper Bound 95%	P Values	Explanation
Strategic Performance Measurement System → Firm Performance (H1)	0.043	0.344	0.114	-0.153	0.248	0.344	Not Supported
Islamic Work Ethics → Firm Performance (H2)	0.891	7.828	0.126	0.706	1.072	0.000	Supported
Strategic Performance Measurement System x Islamic Work Ethics → Firm Performance (H3)	0.042	2.142	0.020	0.013	0.074	0.016	Supported

The effect size (f^2) from the moderating effects of Islamic work ethics on the relationship between the strategic performance measurement system and firm performance is 0.16. This shows that the effect size is moderate. Islamic work ethics has positively moderated the effect of the strategic performance measurement system and firm performance. Figure 2 depicted that Islamic work ethics at +1SD has a positive gradient compared to Islamic work ethics at -1SD. This confirmed that the relationship between the strategic performance measurement system and firm performance will be higher if Islamic work ethics is stronger.

Figure 2. Simple Slope Analysis



V. DISCUSSION AND CONCLUSION

Based on the findings, the relationship between Islamic work ethics and firm performance is confirmed supported. The results of the hypothesis show that the effect of variables strategic performance measurement system towards firm performance is confirmed not supported. This is in line with the previous study Kihn (2007); Braam and Nijssen (2004). In addition, the role of Islamic work ethics on the relations of strategic performance measurement system variable against firm performance which is moderated by Islamic work ethics shows supported results and a positive slope. This means that when Islamic work ethics is stronger, the effect of the strategic performance measurement system on firm performance is higher.

Effect size analysis (f^2) 0.16 shows that Islamic work ethics has positively moderated the effect of the strategic performance measurement system and firm performance. Moreover, results showed that the predicted relevance value for the model was 0.836 which demonstrated that the research model has adequate predictive relevancy. The result of the R-square from the structural model was 0.836 which means that firm performance can be explained by strategic performance measurement system and Islamic work ethics as moderating variable by 83.6%. This finally extends the body of knowledge in this subject and suggested that managers and policymakers should focus on Islamic work ethics and strategic performance measurement system characteristics to enhance firm performance.

REFERENCES

1. Abbasi, A.S, Rehman, K., Abassi, S.H., (2012), "Islamic work ethics: How they affects shareholder value", *Science International Journal*, 24(4), pp. 521-530.
2. Abbasi, A.S, Rehman, K., Bibi, A., (2011), "Islamic work ethics: How it affects business performance", *Actual Problems of Economics*, 12, pp. 11-34.
3. Abushaiba, I. A, Zainuddin, Y. (2012), Performance Performance Measurement System Design, Competitive Capability, and Performance Consequences - A Conceptual Like. *International Journal of Business and Social Science*, Vol. 3 (11).
4. Adler, R. W. (2011). "Performance management and organizational strategy: How to design systems that meet the needs of confrontation strategy firms". *The British Accounting Review*, 43(4), pp.251-263.
5. Ahmad, M.S. (2011). Work ethics: an Islamic prospective, *International Journal of Human Sciences*, Vol. 8 Issue 1.
6. Ali, A., & Al-Kazemi, A. (2007). Islamic work ethic in Kuwait. *Cross Cultural Management: An International Journal*, 14(2), pp. 93-104.

7. Ali, A.J. dan Al-Owaihian, A. (2008), Islamic work ethic: a critical review, *Cross Cultural Management: An International Journal*, Vol. 15 No. 1, pp. 5-19.
8. Ali, Abbas. (1988). Scaling an Islamic Work Ethic. *The Journal of Social Psychology*, Vol 128 (5), pp. 575-583.
9. Aragon, A., Barba, A. and Sanz, V. (2003). Effects of training on business results. *International Journal of Human Resources Management*, Vol. 14, pp. 956-980.
10. Baines, A. and K. Langfield-Smith (2003). Antecedents to management accounting change: a structural equation approach. *Accounting, Organizations and Society*, Vol. 28 (7-8), pp. 675-698.
11. Baird, (2017), The effectiveness of strategic performance measurement systems, *International Journal of Productivity and Performance Management*, Vol. 66 Iss 1, pp. 3 – 21.
12. Beal, R. M. (2000). Competing effectively: environmental scanning, competitive strategy, and organizational performance in small manufacturing firms. *Journal of Small Business Management*, Vol. 38(1), pp. 27-47.
13. Birkinshaw, J., Morrison, A., & Hulland, J. (1995). Structural and competitive determinants of a global integration strategy. *Strategic Management Journal*, 16(8), 637-655.
14. Bisbe, J., Malagueño, R., (2012), Using Strategic Performance Measurement Systems For Strategy Formulation: Does It Work In Dynamic Environments? *Management Accounting Research*, Vol. 23, pp. 296-311.
15. Bourne, M., Pavlov, A., Franco-Santos, M., Lucianetti, L., and Mura, M. (2013). Generating organisational performance: The contributing effects of performance measurement and human resource management practices. *International Journal of Operations & Production Management*, Vol. 33(11/12), pp. 1599-1622.
16. Braam, G.J.M., Nijssen, E.J., (2004). Performance effects of using the balanced scorecard: a note on the Dutch experience. *Long Range Planning*, Vol. 37 (4), pp. 335–349.
17. Burney, L.L., Henle, C.A., & Widener, S.K. (2009). Path model examining the relations among strategic performance measurement system characteristics, organizational justice, and extra- and in-role performance. *Accounting, Organizations and Society*, Vol. 34(3-4): pp. 305-321.
18. Bustinza, O., Aranda, D., & Gutierrez, L. (2010). Outsourcing, competitive capabilities and performance: an empirical study in service firms. *International Journal Production Economics*, Vol. 126, pp. 276-288.
19. Camison, C., and Lopez, A. V. (2010). An examination of the relationship between manufacturing flexibility and firm performance: The mediating role of innovation. *International Journal of Operations and Production Management*, Vol 30(8), pp. 853-878.
20. Carpenter, M., and Sanders, W. (2002). Top management team compensation: The missing link between CEO pay and firm performance. *Strategic Management Journal*, Vol. 23(4), pp. 367-375.
21. Chenhall, R. (2005). Integrative strategic performance measurement system, strategic alignment of manufacturing, learning and strategic outcomes: an exploratory study. *Accounting, Organization and Society*, Vol. 30, pp 395-422.
22. Chenhall, R.H. and Langfield-Smith, K. (1998), The relationship between strategic priorities, management techniques and management accounting: an empirical investigation using a systems approach, *Accounting, Organizations and Society*, Vol. 23 No. 3, pp. 243-264.

23. Chenhall. (2003). Management control systems design within its organizational context: findings from contingency based research and directions for the future. *Accounting, Organizations and Society*, Vol. 24, pp.127-168.
24. Choe, J. (2003). The effect of environmental uncertainty and strategic applications of IS on a firm's performance. *Journal of information and management*, Vol. 40, pp. 257-268.
25. Cornwell, B, Cui, C.C., Mitchell, V., Schlegelmilch, B., Dzulkiflee, A. and Chan, J. (2005), "A cross cultural study of the role of religion in consumers' ethical positions", *International Marketing Review*, Vol. 22 No. 5, pp. 533-46.
26. Deshpande, R., Farley, J., & Webster, F. (1993). Corporate Culture, customer orientation, and innovativeness in Japanese firms: a quadrad analysis. *Journal of Marketing*, Vol.57, pp. 23-37.
27. Dessler, G. (2012). *Human resource management*. Upper Saddle River, NJ: Prentice Hall.
28. Drucker, P.F. (2002) . Delivering value to customers, *Measuring Business Excellence*, Vol. 6 Issue: 4.
29. El-Shishini, H. (2001). Integrating financial and non-financial performance measures: state of the art and research opportunities. *Birmingham: The Management Accounting Research Group Conference*.
30. Fullerton dan McWatters. (2002). The role of performance measures and incentive systems in relation to the degree of JIT implementation. *Accounting, Organizations and Society*, Vol. 27 (8), pp.711-735.
31. Gaspersz (2006). *Total Quality Management (TQM) Untuk Praktisi Bisnis dan Industri*.
32. Ghozali, I.,Latan, H.(2015). *Partial Least Squares untuk Penelitian Empiris*. Semarang: Badan penerbit Universitas Diponegoro Semarang.
33. Gimbert, X., Bisbe, J., & Mendoza, X. (2010). The Role of Performance Measurement Systems in Strategy Formulation Processes. *Long Range Planning* , pp. 477-497.
34. Gopalakrishnan, S. (2000). Unravelling the links between dimensions of innovation and Organizational performance. *The Journal of High Technology Management Research*, Vol.11(1), pp. 137-53.
35. Hair, J.,F, Jr. *et al.*, (2010). *Multivariate Data Analysis 7th Edition*. Pearson Education Limited. Harlow. England.
36. Hair, J.,F, Jr. *et al.*, (2013). *A Primer on Partial Least Squares Structural Equation Modelling (PLS-SEM)*. SAGE Publications, Inc. California, USA.
37. Hall, M. (2008), "The effect of comprehensive performance measurement systems on role clarity, psychological empowerment and managerial performance", *Accounting, Organizations and Society*, Vol. 33 No. 2, pp. 141-163.
38. Hall, M. (2011). Do comprehensive performance measurement systems help or hinder managers mental model development? *Management Accounting Research*, Vol.22(2), pp. 68-83.
39. Hambrick, D.C., Schechter S. M. (1983), Turn around Strategies for Mature Industrial-Product Business Units , *The Academy of Management Journal*, Vol. 26, No. 2, pp. 231-248.
40. Henri, J. F. (2006). Management control systems and strategy: A resource-based perspective. *Accounting, Organizations and Society*,31(6), pp. 529-558.
41. Hill, C., and Jones, G. (2005). *Strategic management: an integrated approach* : McGraw-Hill.
42. Hoque, Z. and James,W. (2000). Linking Balanced Scorecard Measures to Size and Market Factors: Impact on Organizational Performance. *Journal of Management Accounting Research*, 12, pp. 1-17.

43. Hulland, J. (1999). Use of partial least squares (PLS) in strategic management research: A review of our recent. *Strategic Management Journal*, 20(2): pp. 195-213.
44. Hyvonen, J. (2007). Strategy, performance measurement techniques and information technology of the firm and their links to organizational performance, *Management Accounting Research*, 18(3), pp.343-360.
45. Ittner, C., Larcker, D., and Randall, T. (2003). Performance implications of strategic performance measurement in financial services firms. *Accounting, Organizations and Society* , 28 (7-8), pp.715-741.
46. Kalemci, R.A, Tuzun, I.K, (2017). Understanding Protestant and Islamic Work Ethic Studies: A Content Analysis of Articles. *Journal of Business Ethics*, pp. 1-10.
47. Kaplan and Norton. (2001). Transforming the balanced scorecard from performance measurement to strategic management: Part I. *Accounting Horizons* , pp. 87-104.
48. Kaplan, R.S. and Norton, D.P. (1996a), "Linking the balanced scorecard to strategy", *California Management Review*, Vol. 39 No. 1, pp. 53-79.
49. Kaplan, R.S., and Norton, D. P. (1996b). Using the Balanced Scorecard as a Strategic Management System. *Harvard Business Review*, 74 (1), pp. 75-85.
50. Khadijah, A.M.S, Kamaluddin, N., Salin, A.S.A.P. (2015). Islamic Work Ethics (IWE) Practice among Employees of Banking Sectors. *Middle-East Journal of Scientific Research*, 23 (5), pp. 924-931.
51. Khalid, M., Bashir, S., Khan, A.K., Abbas, N., (2018) "When and how abusive supervision leads to knowledge hiding behaviors: An Islamic work ethics perspective", *Leadership and Organization Development Journal*, Vol. 39, Issue: 6, pp.794-806.
52. Kihn, L., (2007). Financial consequences in foreign subsidiary manager performance evaluations. *European Accounting Review*,16 (3), pp. 531–554.
53. Kumar, N and Rose, R, (2010),"Examining the link between Islamic work ethic and innovation capability", *Journal of Management Development*, Vol. 29 No.1, pp. 79 – 93.
54. Kumar, N and Rose, R, (2012),"The impact of knowledge sharing and Islamic work ethic on innovation capability", *Cross Cultural Management: An International Journal*, Vol. 19 Iss 2, pp. 142 – 165.
55. Li,X., Gu, X. J.,and Liu, Z.G. (2009). "A strategic performance measurement system for firms across supply and demand chains on the analogy of ecological succession". *Ecological Economics*, 68(12), pp. 2918-2929.
56. Lillis and Anne. (2002). Managing multiple dimensions of manufacturing performance - an exploratory study. *Accounting, Organizations and Society* , 27, pp. 497-529.
57. Malina, A., and Selto, H. (2001). Communicating and controlling strategy: an empirical study of the effectiveness of the balanced scorecard. *Journal of Management Accounting Research* , 13, pp. 47-90.
58. Malmi, T. (2001). Balanced scorecards in Finnish companies: a research note. *Management Accounting Research* ,12, pp. 207-220.
59. Marri, M.Y.K. *et al.* (2012). Measuring Islamic Work Ethics and Its Consequences on Organizational Commitment and turnover Intention, an empirical Study at Public Sector of Pakistan, *International Journal of Management Sciences and Business Research*, Vol. 2, Issue 2.

60. Mavondo, F., and Farrell, M. (2003). Cultural orientation: Its relationship with market orientation, innovation and organizational performance. *Management Decision*, 41(3), pp. 241-249.
61. Miller, J.M. Woehr, D.J. and Hudspeth, N. (2002), The Meaning and Measurement of Work Ethic: Construction and Initial Validation of a Multidimensional Inventory, *Journal of Vocational Behavior*, Vol. 59, pp.1-39.
62. Modrack, S. (2008) *The Protestant Work Ethic revisited: a promising concept or an outdated idea?* WZB Discussion Paper no. SP I 2008-101, Social Science Research Center Berlin, Research Unit: Labor Market Policy and Employment.
63. Munir, R., Baird, K. and Perera, S. (2013), Performance measurement system change in an emerging economy bank, *Accounting, Auditing and Accountability Journal*, Vol. 26 No. 2, pp. 196-233.
64. _____ Mulyadi. (2007). *Sistem Perencanaan dan Pengendalian Manajemen*. Jakarta: Salemba Empat.
65. Nashwan, S.A., Abdullah, N.S. and Obaid, M.M. (2017). A review of literature in management control system, business strategy, and firm performance, *International Journal of Management Research and Review*. Volume 7 Issue 2 Article No-4, pp. 99-112.
66. Neely, A., (2005). The evolution of performance measurement research. *International Journal of Operations and Production Management* 25 (12), pp. 1264-1277.
67. Neely, A., Gregory, M. and Platts, K. (1995), Performance measurement system design: a literature review and research agenda, *International Journal of Operations and Production Management*, Vol. 15 No. 4, pp. 80-116.
68. Nitisastro, W. (2010), *Pengalaman Pembangunan Indonesia*. Penerbit Buku Kompas. Jakarta.
69. Olson, E. (2005). The performance implications of fit among business strategy, marketing organization structure, and strategic behaviour. *Journal of Marketing*, 69(3), pp. 49-65.
70. Otley, D. (1999). Performance management: a framework for management control systems research. *Management Accounting Research*, 10(4), pp. 363-382.
71. Quddus, M., Bailey, H., and White, L. R. (2009). Business ethics: Perspectives from Judaic, Christian, and Islamic scriptures. *Journal of Management Spirituality Religion*, 6(4), pp. 323-334.
72. Ramalu,S and Rashid, Z. (2016). Islamic work ethic and organizational citizenship behaviour: a study among civil servants in malaysia, *South East Asia Journal of Contemporary Business, Economics and Law*, Vol. 11, Issue 2.
73. Roslender, R. and Hart, S., (2002). Integrating management accounting and marketing in the pursuit of competitive advantage: the case for strategic management accounting. *Critical Perspectives on Accounting* 13, pp. 255-277.
74. Sanchez, A., Marin, G. (2003). Top managers compensation, strategic orientations and firm performance: empirical evidence from Spanish firms. *Management Research*, 1, pp. 27-44.
75. Sharma, R. (2000). The balanced scorecard: mapping your organization. *Charter*, 71, pp. 62-63.
76. Smith, D., Langfield-Smith, K. (2004). Structural equation modeling in management accounting research: critical analysis and opportunity. *Journal of Accounting Literature*, 23, pp. 49-89.

77. Soltanizadeh, S. Rasid, S. Z.A.Nargess, R. Golshan, M. Khairuzzaman, W. Ismail, W. (2016), *Business strategy, enterprise risk management and organizational performance*, Management Research Review, Vol. 39.
78. Srivastava, P. (1983). A typology of organizational learning systems. *Journal of Management Studies* , pp.1-28.
79. Sugiyono. 2012. Metode Penelitian Kuantitatif, kualitatif dan Research and Development. Bandung: Alfabeta.
80. Sundary, R. I. (2010). Internalisasi Hukum-Hukum Islam tentang Etika Kerja dalam Perlindungan Hak Pekerja dan Pelaksanaan Hak atas Pekerjaan. *Jurnal Ilmu Hukum (Siyar Hukum)*, XII(2), pp. 178-188.
81. Turner, L., Weickgenannt, A., Copeland, M. (2017), *Accounting Information Systems: Controls and processes*, Third Edition, John Wiley and Sons, Hoboken, NJ. John Wiley and Sons Inc.
82. Ullrich, M. J., Turttle, B. M. (2004). The effects of comprehensive information reporting systems and economic incentives on managers' time-planning decision. *Behavioral Research in Accounting* , 16, pp. 89-105.
83. Van der Stede, W. A., S. M. Young, *et al.* (2005). Assessing the quality of evidence in empirical management accounting research: The case of survey studies. *Accounting, Organizations and Society*, 30(7-8), pp. 655-684.
84. Wadan, R., Bensberg, F., Teuteberg, F., Buscher, G. (2019). Understanding the Changing Role of the Management Accountant in the Age of Industry 4.0 in Germany. *Proceedings of the 52nd Hawaii International Conference on System Sciences*, pp. 5817- 5826.
85. Weber, M. (1958). *The Protestant Ethic and the Spirit of Capitalism*. New York: Scribners.
86. Wiyono, G. (2011). *Merancang Penelitian Bisnis dengan alat analisis SPSS 17.0 & Smart PLS 2.0*. Edisi Pertama. Yogyakarta: YKPN.
87. Yousef D.A. (2000), The Islamic work ethic as a mediator of the relationship between locus of control, role conflict and role ambiguity, *Journal of Managerial Psychology*, Vol. 15 No. 4, pp. 283-302.
88. Yousef D.A. (2001), Islamic work ethic, a moderator between organizational commitment and job satisfaction in a cross-cultural context, *Personel Review*, Vol. 30 No.2, pp.152-69.