Attitudes toward information and communications technology, mimetic isomorphism and strategic management in Islamic perspective: The moderating role of Qur’anic work ethics

Muafi

Department of Management, Business and Economics Faculty, Universitas Islam Indonesia, Indonesia

ABSTRACT

During the pandemic and post-pandemic of Covid-19, MSMEs are required to continue to survive, and even compete at the regional and global level. The improvement of technology and resources need to be optimized. The purpose of this study is to examine and analyze: (1) the influence of Attitudes toward Information and Communications Technology (ICT) and Mimetic Isomorphism partially on Strategic Management in Islamic Perspective (SMIP); (2) the moderating role of Qur’anic Work Ethics (QWE) in the relationship between Attitudes toward ICT and SMIP; (3) the moderating role of Qur’anic Work Ethics (QWE) in the relationship between Mimetic Isomorphism and SMIP. This study is conducted in Batik MSMEs in Pekalongan with the number of respondents of 134 MSMEs. The primary data is collected through purposive sampling using questionnaire. The results of this study show that: (1) there is a partial influence of Attitudes toward ICT and Mimetic Isomorphism on SMIP; (2) there is a moderating role of QWE in the relationship between Attitudes toward ICT and SMIP; and (3) there is a moderating role of QWE in the relationship between Mimetic Isomorphism and SMIP.

© 2021 by the authors. Licensee Bussecon International, Istanbul, Turkey. This article is an open access article distributed under the terms and conditions of the Creative Commons Attribution 4.0 International license (CC BY) (http://creativecommons.org/licenses/by/4.0/).

Introduction

The Covid-19 pandemic and post-pandemic requires MSMEs in Indonesia to improve their management aspect, especially strategic management. The performance and competitiveness of MSMEs in Indonesia is expected to continue to improve, and even produce innovative products and services. Currently, many countries around the world are doing everything possible to overcome the challenges of the Covid-19 pandemic through upgrading skills, introducing technology, and providing training to organizations at all levels (OECD, 2014). Likewise, in order to move towards Industry 4.0, MSMEs in Indonesia are also required to be able to take advantage and utilize digital technology. It is done to spur productivity and competitiveness, so that they are able to penetrate the export market (Kemenperin, 2018).

In the practice of batik production management in the MSMEs in Pekalongan, the adoption of ICT is still not developing. This is due to the quality of human resources and the low use of ICT for various reasons. The majority of people in Pekalongan still tend to have low education and only prioritize religious education (Triana, 2016). However, when an organization experience delays in their management or IT changes, it is feared that it will have a negative impact on business process sustainability in an organization (Mehta et al., 2019; Kanwal & Rehman, 2017; Sabelli & Harris, 2015). Therefore, the owners and managers of MSMEs should have sufficient knowledge for the changing process (Mehta et al., 2019). In addition, in order to not losing the competition with local, regional, and global competitors, MSMEs are also required to have good IT and strategic management. This is very essential considering that having a good IT and strategic management will be able to improve business sustainability (business performance, environmental performance, social performance (Muafi, 2021; Laskmi & Kennedy, 2017; Kwon et al., 2017; Yudatama et al., 2017; Willerding, et al., 2016).
Strategic management is critical for organization because it is a decision and action from the management to determine long-term performance of the organization that includes strategic formulation, strategic implementation, and evaluation (Hitt et al., 2003; Hoffman, 2007; Hitt et al., 2003). However, if a good strategic management is not supported by positive attitude from managers or owners, it is feared that it will have a negative impact on the organizational performance (Cohen, 1997; Calopa, 2017), as well as attitudes toward ICT (Babic & Golob, 2018). This is because the strategic management process of the company is not only affected by the environmental uncertainty (Cohen, 1997; Calopa, 2017; Rodriguez, 2013) but also by the attitudes of the manager and owner of a company toward IT usage (Babic & Golob, 2018). Attitude can be a force in understanding organizational behavior (Scott & Mitchell, 1976; Cohen, 1997; Calopa, 2017), especially for MSMEs owners (Calopa, 2017; Rodriguez, 2013). This study is conducted on the owners or managers of Batik MSMEs in Pekalongan, Central Java. Pekalongan is known as a world-famous Batik city. Almost every region in Pekalongan has a Batik center that has been passed down from one generation to the next. Therefore, in addition to attitudes toward ICT, environmental pressure must also be considered (Powell & Dimaggio, 1983). Each company can suppress and influence each other, which is known as isomorphism (De Simone, 2017). Surprisingly, even though they do imitate the strategies and policies of their rivals, Batik MSMEs in Pekalongan on average tend to have a usual business model. They also lack concern for the environment, especially for the Strategic Management in Islamic Perspective (SMIP), it is said that the SMIP concept can be a solution to strengthen Islamic-based business practices (Fontaine & Ahmad, 2003; Khalifa, 2001).

This study focuses on managerial attitude and mimetic isomorphism as a determinant for the implementation of SMIP moderated by Qur’anic Work Ethics (QWE). This is because Batik MSMEs in Pekalongan place more emphasis on the importance of having positive and consistent attitudes on ICT in addition to paying attention to the behavior and strategies implemented by their competitors. Researches regarding managerial attitudes, mimetic isomorphism, and SMIP are still very limited, especially if they are related to QWE. It becomes the novelties of this study and is used to fill the research gaps that have not been widely studied in strategic HRM research. In the long term, it is expected that these relationships can have an impact on business sustainability (business performance, environmental performance, and social performance) of the MSMEs.

**Literature Review**

**Theoretical and Conceptual Background**

**Attitudes Toward ICT And Strategic Management in Islamic Perspective**

The issue regarding MSMEs innovation and creativity in entrepreneurship context has been widely studied by previous researchers. The results turned out to be unsatisfactory in increasing the digital transformation capacity of MSMEs (Kwon & Park, 2017; Tehseen & Sajilan, 2016; Kafetzopoulos & Psomas, 2013). This has a relation with attitude, which is an evaluative statement that is pleasant or unpleasant towards objects, individuals, or events (Robins & Judges, 2013). Managerial attitude is a critical issue that is very important to shape and achieve organizational goals, as well as have an impact on future actions. Managers’ attitudes can have an impact on decision making and resource allocation related to competition and environmental issues (Hoskisson et al., 200; Rodriguez, et al., 2013). Robins & Judges (2013; Sears, et al., 1985) explained that there are there components used to measure attitude: (1) cognitive, namely an opinion or belief that can determine a person’s attitude; (2) affective or feeling, namely a part of the emotion or feeling of an attitude which can produce a behavior; and (3) behavior or action, namely an attitude that refers to tendency to behave towards something or someone.

Kotler & Armstrong (2010) further emphasized that company will find it difficult to change its existing attitude, so it should be maintained. This is because attitudes tend to be relatively consistent when it is reflected into behavior (Schiffman & Kanuk, 2010). Kotler & Keller (2009) explained that cognitive, affective, and conative responses are closely related to the five stages of a person’s decision making. The five stages include problem recognition, information seeking, alternative evaluation, decisions, and post-decision behavior. When it is associated with the implementation of strategic management, managers need to have a consistent attitude to implement it properly and on target, especially when using an Islamic approach.

Cohen (1997) studied about the importance of emphasizing the aspect of environmental uncertainty and managerial attitudes in affecting corporate strategic planning. The results prove that attitude is the biggest determinant in the company’s strategic planning. So far, companies often ignore aspects of managerial attitude and tend to pay more attention to environmental uncertainty. These results provide evidence that companies should not take the attitude issue lightly. Managers need to be equipped with good knowledge of strategic planning or good strategic management processes and attitudes toward ICT. Managers who think critically will have a formal strategic plan, so that the implemented strategy can be successful (Mintzberg, 1997). In the MSMEs context, the study from Calopa (2017) also proved that the attitudes of business owners and managers can increase the quality of financial decision making and corporate strategic planning. This results is also supported by Rodriguez, et al. (2013) that attitude is one of the causes of the successful implementation of strategic planning. Harrison (2007) even recommended that managers should attend formal education programs in order to have a positive attitude and expertise to design and implement strategic planning well.

Strategic planning, which in this study is referred to as SMIP, is adopted from Fontaine & Ahmad (2013) who argued that when a company has set its vision and mission carefully, implemented an Islamic work ethic, and complied with existing regulations from both government and society, it means that they have implemented Islamic strategic management. Companies must not run into other
competitors in an arrogant and unethical manner. Companies must have the principle of prioritizing cooperation (not competition) and having to instill it to increase intrinsic (human relationship with God) instead of extrinsic motivation. The vision, mission, and the goals of the company must be directed at the interests of the hereafter (afterlife) while still paying attention to worldly interests (this life). All of them are encouraged to maintain the relationship between human-God, human-human, and human-environment (Khairulryadi & Ahmad, 2017) in order to achieve the salvation of the world and the hereafter (Fontaine & Ahmad (2013; Khalifa, 2001). Therefore, the manager's attitude towards ICT is expected to improve the practice of SMIP in Batik SMEs in Pekalongan.

H1. Attitudes toward ICT has a positive influence on Strategic Management in Islamic Perspective

Mimetic Isomorphism and Strategic Management in Islamic Perspective

Gudono (2014; Powell & Dimaggio (1983) emphasized that institutional theory can explain individual and organizational action and attitudes. The existence of organization can be influenced by normative pressure that arises from both external and internal source of the organization itself. In another perspective, strategic management practice can be approached using institutional theory. This is because companies are usually faced with new policy and system adoption (Lestari, 2018; Fernando & Hor, 2017).

Muafi, & Kusumawati (2020; Masocha & Fatoki, 2018; Powell & Dimaggio, 1983; Lestari, 2018; Fernando & Hor, 2017; Martínez-Ferrero & García-Sánchez, 2017; Gudono, 2014) added that there are three components known in institutional theory, namely coercive, mimetic, and normative. The focus of this study is on mimetic isomorphism, because companies like MSMEs have a habit of copying and imitating the movements, actions, policies, and strategies of their rivals. They tend to imitate the success of competing companies because sometimes the company lacks knowledge and expertise (De Simone, 2017; Liang, et al., 2007) and pressure each other. Liu et al. (2010) found that there is a relationship between isomorphism pressure and corporate imitation behavior. It turns out that coercive and mimetic isomorphism has a relationship with imitation behavior carried out by the company.

Lestari (2018) also emphasized that coercive isomorphism has a significant positive effect on energy management practices. Surprisingly, mimetic and normative isomorphism has a negative effect on energy management practices. Likewise, the results from Astutiningrum et al. (2018) also concluded that organizational change in terms of new system adoption tends to be caused by coercive isomorphism. This finding is supported since mimetic isomorphism, or imitation of other organization, is conducted because they are perceived to have succeeded, even though they are weak. The results also conclude that normative isomorphism also dominate the normative beliefs of organization members.

H2. Mimetic Isomorphism has a positive influence on Strategic Management in Islamic Perspective

The Moderating Role of Qur’anic Work Ethics

The work ethic began in the post-industrial revolution. At that time, Max Weber had been researching the relationship between the Protestant work ethics and the growth of capitalism in the West. Max Weber introduced a link between one’s success in managing a business and religiosity in educated employees, business leaders, and capital owners (Weber, 1992). The research results eventually became a trigger for other researchers to emphasize the issue of religiosity and work ethics (Miller et al., 2001; 2002; Rokhman, 2010; Ali, 2008; Yousef, 2000; Ali, 1998). Miller et al. (2001; 2002) even already recommended that if someone wants to be successful, they should not be extravagant and have hedonic behavior. Employees must follow the values and principles adopted in the work environment and the society.

When someone can distinguish between what is right and wrong, it means that they understand the work ethic, thus it can be a guide and direction in behaving and working (Griffin & Ebert, 2010; Rokhman, 2010; Yousef, 2000; Ali, 1988; Ali & Al-Kazemi, 2007). It is also added by Rindjin (2010) that ethics is a critical and rational reflection of the norms that manifest and apply in human behavior. This indicates that ethics can function as self-reflection for both individual and organization, so that they can achieve positive goals based on applicable norms and values. The results from the study conducted by Miller et al. (2002) concluded that managers can assess an employee’s work ethic profile, so that it can serve to examine the relationship between work ethic and one’s work behavior. In its development, Weber’s concept and philosophy of work ethics also receives attention from other religions such as Islam, Christian, and Judaism (Kamri et al., 2014).

Today’s Islamic society also pays full attention to work ethics based on the Qur’an. This study focuses on the work ethics of the Qur’an. Islam has the principle that working is not just aimed to amass excessive wealth, work hard, and spends time to work alone. Work should be considered as worship and should be aimed to earn income from work solely based on the pleasure of Allah. Therefore, it is not only to increase social status and self-esteem, but also to improve social welfare and increase faith in Allah SWT (Hasbi, 2021; Zulaiifah, 2019; Helfaya, et al., 2018; Ali & Al-Owaihan, 2008). In its development, work ethics can be approached using an Islamic work approach, although currently it has drawn criticism from Hasbi (2021; Ibrahim & Kamri, 2013; Ma’rifah, & Indrayanto, 2013) since the development of the Islamic Work Ethics (IWE) is still relatively limited and has not shown any progress. Several studies on Islamic work ethics only examine the concept without providing a definition for the dimensions of IWE (Ma’rifah & Indrayanto, 2013). In this regard, Muslim integrity is a form of expression of the Islamic ummah, where the activities carried out must provide mutual benefits to fellow Muslims. There must be a spirit of togetherness and integrity in carrying out work (Ma’rifah & Indrayanto, 2013; Hasbi (2021; Ibrahim & Kamri, 2013). Based on the consideration of the weaknesses of the IWE concept, the concept of QWE emerged. It was first appeared and introduced by Rahman (1983) who explained that there are three concepts from
the Qur’an, namely Faith (Iman), Islam, and Taqwa, which together formed the basis of the ethics of the Qur’an. Faith is known as belief, action of the heart, and decisive to surrender to God in obtaining peace and security as well as a fortress against adversity. Islam is surrender to God’s law, and it cannot be practiced without faith. Islam is the open, concrete, and organized work of the Faith through the normative community. The last one, Taqwa, is often referred to as ‘God-fearingness’ or ‘piety’. Taqwa is described as the best ‘clothing’ that can be worn and as the ‘best stock’ that can be used as the best guarantee against harm and destruction. The goal is “to guard against moral harm” or “to protect oneself”. These three concepts were found to have implications for social and political life (Rahman, 1983). QWE is a person’s character with working principles where the main source of meaning comes from the verses of the Qur’an (Zulaifi, 2019). The indicators included in the QWE are: (1) the highest value in work (syakr); (2) the value of the process (tazkia); (3) the basic value of acting at work; (4) the core values related to duties/responsibilities; (5) the value of relations at work; and (6) the value of communication at work (Zulaifi, 2019). In addition, Kamri et al. (2014) stated that overall, values and ethics in the Qur’an can be classified into three main components of value, namely religious values, quality values, and personal values. These three components have a significant impact on the work culture within the organization and are the pillars of the QWE principles. The study from Helfaya et al. (2016) emphasized that QWE can have an impact on environmental responsibility. One can become aware of the importance of managing the environment as well as the implications for ethical business practices based on the Qur’an. When someone has a QWE, it is expected to be able to strengthen one’s attitude towards ICT and mimetic isomorphism, so that it can have an impact on the implementation of SMIP.

H3. Qur’anic Work Ethics (QWE) moderates the influence of Attitude toward ICT on Strategic Management in Islamic Perspective

H4. Qur’anic work ethics (QWE) moderates the influence of Mimetic Isomorphism on Strategic Management in Islamic Perspective

Research and Methodology

This study uses positivist approach to understand the relationship pattern between variables on a value-free basis (Hair et al., 2014; Ahnad et al., 1989). The data collection approach is using questionnaire that is distributed to the owners or managers of the MSMEs that includes 4 variables, namely: attitude towards ICT, mimetic isomorphism, SMIP, and QWE. The scale technique is using Likert with five answers, ranging from 5 (very strongly agree) to 1 (very strongly disagree).

This study uses all Batik MSMEs in Pekalongan as its population. The respondents of this study are targeted at 200 Batik MSMEs, which were selected purposively with the following characteristics: (1) has been operating for at least 3 years; (2) have high school as their latest education; (3) have Muslim religion; and (4) the net income earned is at least 10 million per month. The researchers identified all the questionnaires and found out that out of 200 MSMEs, there are 154 MSMEs that answer completely (response rate 77%), therefore the data obtained can be processed further. This means that this study has met the requirement for survey research using moderated regression analysis (MRA) (Hair et al., 2014). MRA is used as one of the tools to answer the research questions using the SPSS 16 software. The measurements of the variables are as follows:

1. Attitudes toward ICT, includes 3 items adopted and developed from Yang & Kwok (2017; Jaganathan et al., 2018).
2. Mimetic includes 4 items adopted and developed from Muafi & Kusumawati (2020; Masocha & Fatoki, 2018; Lestari, 2018).
3. SMIP, includes 12 items adopted and developed from Fontaine & Ahmad (2003; Khalifa, 2001)
4. QWE, includes 6 items adopted and developed from Kamri et al. (2014).

Then, the researchers tested the validity and reliability of the measurement, and found that all items and variables are valid and reliable. In order to test hypothesis 1 and 2, simple regression is used. On the other hand, MRA is used to test hypothesis 3 and 4 with the following regression equation:

\[ Y = a + b_1x_1 + e \]
\[ Y = a + b_1x_1 + b_2x_2 + b_3x_1,z + e \]
\[ Y = a + b_1x_2 + e \]
\[ Y = a + b_1x_2 + b_2z + b_3x_2,z + e \]

Analysis and Findings

Respondent Description

The majority of the respondents in this study is female (87%), have high school education (87%), have been operating for > 3 years (66%), use ICT for sales (87%), and do not have waste disposal (92%).

Hypothesis Test

The results of the hypothesis test are presented in Table 1.
Table 1: Results of Hypothesis Test

| Regression equation model | R²    | Constanta | Coefficients (beta) | t      | Sign     | Details          |
|---------------------------|-------|-----------|---------------------|-------|----------|------------------|
| H1. Y = a + b1X1+e        | 0.175 | 2.364     | 0.418               | 5.637 | 0.000*   | H1. accepted     |
| H2. Y = a + b1X2+e        | 0.190 | 2.318     | 0.436               | 5.394 | 0.000*   | H2. accepted     |
| H3. Y = a + b1X1 + b2Z+ b3X1Z+e | 0.454 | 2.222     | 0.674               | 11.177| 0.000*   | H3. accepted     |
| H4. Y = a + b1X2 + b2Z+ b4X2Z + e | 0.439 | 2.273     | 0.662               | 10.825| 0.000*   | H4. accepted     |

Note: *sign <0.05

Based on Table 1, it can be seen that all hypotheses are accepted. The details of the explanation are as follows:

i. There is an influence of Attitudes toward ICT on SMIP with the significance level of 0.000. It indicates that Attitudes toward ICT can improve SMIP with the R square value of 0.175 (17.5%).

ii. There is an influence of mimetic isomorphism on SMIP with the significance level of 0.000. It indicates that mimetic isomorphism can improve SMIP with the R square value of 0.190 (19.0%).

iii. There is a moderating role of QWE on the influence of Attitudes toward ICT on SMIP with the significance level of 0.000. The R square value in the first regression is 0.175 (17.5%). Meanwhile, on the second regression after the moderation, the R square value is 0.454 (45.4%). Thus, it can be concluded that QWE can strengthen the relationship between Attitudes toward ICT on SMIP.

There is a moderating role of QWE on the influence of mimetic isomorphism on SMIP with the significance level of 0.000. The R square value in the first regression is 0.19 (19%). Meanwhile, on the second regression after the moderation, the R square value is 0.439 (43.9%). Thus, it can be concluded that QWE can strengthen the relationship between mimetic isomorphism on SMIP.

Discussion

Based on the statistical test results, it is found that there is an influence of Attitudes toward ICT on SMIP (H1 accepted). This results supports the study from Cohen (1997; Calopa, 2017; Rodriguez, et al., 2013). The wave of digital transformation provides both opportunities and challenges for Batik MSMEs in Pekalongan. The presence of technological innovations such as cloud computing, artificial intelligence, and the internet of things (IoT) makes Batik MSMEs actors must be able to manage and mobilize resources efficiently and optimally, especially from the aspect of ICT. This is necessary so that companies can improve their efficiency and compete from the aspect of product and service quality in order to increase profits in the long term (Collis, 1994) and business sustainability (business performance, environmental performance, and social performance) in the future (Muafi, 2021; Laskmi & Kennedy, 2017; Kwon et al., 2017; Yudatama et al., 2017; Willetting, et al., 2016). Therefore, improving the quality of human resources is very necessary considering that the majority of people in Pekalongan are still low-educated (Triana, 2016). It should be done if the organization still wants to have sustainability in the future (Mehta et al., 2019; Kanwal & Rehman, 2017; Sabelli & Harris, 2015). Therefore, the right and on target implementation of strategic management must be supported by a positive attitude from managers, especially attitudes towards ICT (Babic & Golob, 2018; Cohen, 1997; Calopa, 2017).

It is very essential because the behavior of Batik MSMEs managers can be predicted from the consistency of positive attitude that can be a driving force for implementing SMIP (Scott & Mitchell, 1976; Cohen, 1997; Calopa, 2017; Rodriguez, 2013). If SMIP is implemented properly based on applicable rules and norms, it can be a solution to strengthen Islamic-based business practices (Fontaine & Ahmad, 2003; Khalifa, 2001) that are based on ICT. The attitude of the owners and managers of Batik MSMEs towards ICT should be closely related to the decision-making stage. Therefore, MSMEs must also pay attention to these stages to carry out SMIP with careful planning that is in accordance with the organizational goals.

Based on the statistical test results, it is also found that there is an influence of mimetic isomorphism on SMIP (H2 accepted). This results support the study conducted by Lestari (2018; Astutiningrum et al., 2018; Liu et al., 2010). In designing new policies or systems, MSMEs are also allowed to imitate, or do mimetic. This is important considering that MSMEs are usually faced with limited capital, human resources, as well as other resources. However, MSMEs must also be smart in choosing and sorting out the many sources of information, policies, and strategies of their rivals that can really be applied according to the capabilities and conditions of the company. It should be realized that being an imitator is not always detrimental, because Batik MSMEs in Pekalongan can learn a lot from products that fail and those that succeed. It turns out that MSMEs have several considerations, namely: (1) small production and investment costs, as well as allocated capital; (2) small research and development costs; (3) small training costs; and (4) can estimate the loss or profit that will be generated. It is also important to note that in imitating the policies, strategies, and actions of the rivals, MSMEs buat still pay attention to ethics in doing business. QWE must continue to adhere to the behavior of MSMEs owners or managers in increasing religious values, quality values, and personal values. Batik MSMEs in Pekalongan should not
solely seek profit at the expense of QWE (Kamri et al., 2014; Fontaine & Ahmad (2013; Khalifa, 2001). The vision and mission of MSMEs must be directed for the afterlife (the next life), although worldly aspects (this life) are also important. Islam is the way of life (Khalifa, 2001). The existence of Batik MSMEs in Pekalongan must be encouraged to be able to maintain the relationship between human-God, human-human, and human-environment (Khairulyadi & Ahmad, 2017), and can provide welfare to the surrounding community. Helfaya et al. (2016) recommended that by having QWE, MSMEs can also think and act to achieve environmental responsibility. If they can achieve it successfully, then it means that the MSMEs are able to implement SMIP well and kaffah (perfect). This explanation also supports the fourth hypothesis that QWE is able to strengthen the relationship between mimetic isomorphism and SMIP.

Conclusions

In business transactions in general, especially in the ICT usage, MSMEs are faced with several problems that include fraud, false information, fictitious stores, fictitious payments, data tampering and security, and other issues. This condition makes Batik MSMEs in Pekalongan sometimes have doubts, fears, and inconsistency of attitudes toward ICT usage, especially when they are not provided with intensive and good education and training. When attitudes towards ICT are low, it can reduce the implementation of SMIP. However, this condition will not occur if it is strengthened by the presence of QWE. With the QWE, it is expected that the owners or managers of MSMEs can have strategies or policies related to the increase of religious values, quality values, and personal values. This is very crucial considering that QWE can also optimize employee performance, has a principle that work is worship, establishes harmonious relationships, develops mutual trust, increases organizational commitment, and promotes teamwork and collectiveness (Kamri et al., 2014). This explanation also supports the third hypothesis that QWE is able to strengthen the relationship between attitudes towards ICT and SMIP. Fontaine & Ahmad (2013) recommended that MSMEs should remain careful and do not bump into other MSMEs, continue to carry out Islamic work ethics, and obey existing regulation while carrying out their businesses. The applicable rules and norms must be adhered to properly and ethically in order to carry out SMIP on target and in accordance with the company goals. In the long term, it is expected to be able to improve business sustainability (business, environmental, and social performance).

There are several limitations in this study, namely:

i. The respondents of this study are Batik MSMEs in Pekalongan. However, the number of respondents is still small, so it is feared that it cannot generalize the Batik population in Pekalongan.

ii. The respondents of Batik MSMEs should be examined by classifying Batik MSMEs that are oriented toward export and domestic markets. This is important considering that the ICT usage plays a major role in the company’s business operations.

iii. This study only analyzes SMIP’s antecedents of attitudes towards ICT and mimetic isomorphism. There are other factors that can be considered such as environmental uncertainty (Cohen, 1997), respondents’ education (Harrison (2007) and other aspects.

iv. Future research should examine and analyze the consequences of SMIP such as business sustainability (business, environmental, and social performance) (Muafi, 2021; Laskmi & Kennedy, 2017; Kwon et al., 2017; Yudatama et al., 2017; Willerding, et al., 2016).

References

Ahmad, Y. J., El Serafih, S., & Lutz, E. (1989). Environmental accounting for sustainable development. In The World Bank Symposium/The World Bank.

Ali, A. (1988). Scaling an Islamic work ethic. The Journal of Social Psychology, 128(5), 575-83.

Ali, A., & Al-Kazemi, A. (2007). Islamic work ethic in Kuwait. Journal of Management Development, 14(2), 366-75.

Ali, A.J., & Al-Owaithan, A. (2008). Islamic work ethic: a critical review. Cross Cultural Management: An International Journal, 15(1), 5-19.

Allport, G. W. (1954). The nature of prejudice. Reading, MA: Addison-Wes-ley.

Allport, G. W. (1979). The nature of prejudice (25th anniversary ed.). Read-ing, MA: Addison-Wesley.

Astutiningrum., Djamburi., A., & Prihatiningtyas, Y.W. (2017). New Institutional Theory: Implementasi Anggaran Berbasis Kinerja. Jurnal Riset dan Aplikasi: Akuntansi dan Manajemen, 2(2), 107 – 118

Babic, S., & Golob, M. (2018). Investigating Attitudes of Entrepreneurs Towards the Use of Information and Communication Technologies in Croatian SMEs in Two Northern Adriatic Counties. 41st International Convention on Information and Communication Technology, Electronics and Microelectronics. At: Opatija, Croatia, 1-7.

Calopa, M.K. (2017). Business Owner And Manager’s Attitudes Towards Financial Decision-Making And Strategic Planning: Evidence From Croatian SMEs. Management, 22(1), 103-116.

Cohen, J.F. (1997). Environmental uncertainty and managerial attitude: Effects on strategic planning, non-strategic decision-making and organisational performance. South African Journal of Business Management, 32(3), 17-31.

Collis D.J. (1994). How Valuable are Organizational Capabilities?. Strategic Management Journal, 15 , Special Issue, 143-152.
De Simone, S. (2017). Isomorphic Pressures and Innovation Trends in Italian Health Care Organizations. *International Journal of Business and Management, 12*(6), 26-32. https://doi.org/10.5539/ijbm.v12n6p26.

DiMaggio, P.J., & Powell, W.W. (1983). The Iron Cage Revisited: Institutional Isomorphism and Collective Rationality in Organizational Fields. *American Sociological Review, 48*(2), 147-160. https://doi.org/10.2307/2095101

Fernando, Y. & Hor, W. (2017). Impact of energy management practices in energy efficiency and carbon emissions reduction: A survey of Malaysian manufacturing firms. *Resources, Conservation, & Recycling, 126*(1), 62 – 73.

Fontaine, R., & Ahmad, K. (2013). Strategic management from an Islamic perspective: text and cases, John Willey and Sons: Singapore.

Griffin, R.W., & Ebert, R. J. (2009). BISNIS, 8th. Jakarta: Erlangga.

Gudono. (2014). Teori Organisasi Edisi 3. Yogyakarta: BPFE Yogyakarta.

Hair, J.F., Anderson, R.E., Tatham, R.L., & Black W.C. (1995). Multivariate Data Analysis. Fourth Edition. New Jersey: Prentice Hall

Harrison, D. L. (2007). Effect of strategic planning education on attitudes and perceptions of independent community pharmacy owners/managers. *Journal of the American Pharmacists Association, 47*, 599–604.

Hasbi, A.H. (2021). Pengembangan Dan Validasi Instrumen Akhlak Kerja Qur’ani. Tesis. Program Studi Magister Psikologi Profesi (S2). Fakultas Psikologi Dan Ilmu Sosial Budaya Universitas Islam Indonesia, Yogyakarta.

Helfaya, A., Kotb, A. & Hanafi, R. (2018) Qur’anic Ethics for Environmental Responsibility: Implications for Business Practice. *Journal of Business Ethics, 150*, 1105-1128.

Hitt, M. A., Ireland, R. D., & Hoskisson, R. E. (2003). *Strategic Management: Competitiveness and Globalization*. (5 ed.): Thomson/South-Eastern.

Hoffman, R. C. (2007). The strategic planning process and performance relationship: Does culture matter?. *Journal of Business Strategies, 24*(1), 27-48.

Hoskisson, R. E., Eden, L., Lau, C. M., & Wright, M. (2000). Strategy in emerging economies. *Academy of Management Journal, 43*(3), 249-267. doi: http://dx.doi.org/10.2307/1556394.

Ibrahim, A. & Kamri, A. (2013). Measuring the Islamic work ethics: An alternative approach. The International Convention on Islamic Management, Kuala Lumpur, 27-28 November 2013. doi: 10.13140/RG.2.1.2768.0725.

Jaganathan,M., Ahmad, S., Ishak, K.A., Nafi, S.N.M., & Utama, R. (2015). The impact of innovation capability on the performance of manufacturing companies: The Malaysian case. *Journal of Manufacturing Technology Management, 26*(7), 1258-12596.

Kafetzopoulos, D., & Psomas, E. (2015). The impact of innovation capability on the performance of manufacturing companies: The Greek case. *Journal of Manufacturing Technology Management, 26*(1), 104-130.

Kamri, N., Ramlan, S.F., & Ibrahim, A. (2014). Qur’anic Work Ethics. *Journal of Usuluddin, 40* (July – December), 135-172.

Kanwal, F., & Rehman, M. (2017). Factors Affecting E-Learning Adoption in Developing Countries–Empirical Evidence From Pakistan’s Higher Education Sector. *IEEE Access, 5*(June), 10968-10978.

Janganathan,M., Ahmad, S., Ishak, K.A., Nafi, S.N.M., & Uthamaputhran, L. (2018). Determinants For Ict Adoption And Problems: Evidence From Rural Based Small And Medium Enterprises In Malaysia. International Journal of Entrepreneurship, 22*(4), 1-13.

Kafetzopoulos, D., & Psomas, E. (2015). The impact of innovation capability on the performance of manufacturing companies: The Greek case. *Journal of Manufacturing Technology Management, 26*(1), 104-130.

Kamri, N., Ramlan, S.F., & Ibrahim, A. (2014). Qur’anic Work Ethics. *Journal of Usuluddin, 40* (July – December), 135-172.

Kanwal, F., & Rehman, M. (2017). Factors Affecting E-Learning Adoption in Developing Countries–Empirical Evidence From Pakistan’s Higher Education Sector. *IEEE Access, 5*(June), 10968-10978.

Kemenerpin (2018). Empat strategi Indonesia masuk revolusi industri keempat, diakses dari http://www.kemenerpin.go.id/artikel/17565/Empat-Strategi-Indonesia-Masuk-Revolusi-Industri-Keempat, tanggal 27 Mei 2018.

Khairulyadi, K., & Ahmad, M.Y. (2017). Development From An Islamic Perspective. *Jurnal Sosiologi USK, 11*(2), 188-207.

Khalifa, A.S. (2001). *Towards an Islamic foundation of Strategic Business Management*. Department of Business Administration Kulliyyah of Economics and Management Sciences International Islamic University Malaysia. Edition: 1. Publisher: Management Center, International Islamic University Malaysia. ISBN: 983-9772-28-1.

Kotler, P., & Armstrong, G. (2010). Principles of Marketing, 13th Edition, Upper Saddle River, New Jersey : Pearson Education, Inc. Kotler, P., & Keller, K.L. (2009). *Manajemen Pemasaran*. Edisi 13. Jakarta: Erlangga.

Kwon, E.H., and Park, M.J. (2017). Critical Factors on Firm’s Digital Transformation Capacity: Empirical Evidence from Korea. *International Journal of Applied Engineering Research, 12*(22), 12585-12596

Laskmi R. V., & Kennedy, H. (2017). The Role of Business Sustainability In Human Resource Management: A Study On Indian Manufacturing Companies. *The South East Asian Journal Of Management, 11*(1), 70-85.

Lestari, R.M. (2018). Pengaruh Strategi Dan Teori Institusional Terhadap Praktik Manajemen Energi Dan Efisiensi Energi Pada Industri Manufaktur. Departemen Manajemen Bisnis. Fakultas Bisnis dan Manajemen Teknologi. *Tesis*. Institut Teknologi Sepuluh Nopember Surabaya.

Liang, H., Saraf, N., Hu, Q. & Xue, Y. (2007). Assimilation of Enterprise Systems: The Effect of Institutional Pressures and the Mediating Role of Top Management. *MIS Quarterly, 31*(1), 59 - 87.

Liu, D., Liang, Y., Zhang, L., & Zhang, Y. (2010). The effects of human capital on competitive strategies and performance—Evidence from listed companies in China's SME board. *Proceeding, IEEE International Conference on Management of Innovation & Technology, 670-675.

Ma’rifah, D., & Indrayanto, A. (2013). Pengembangan Etika Kerja Berbasis Islam: Kajian Tentang Kepuasan Kerja, Komitmen Organisasional, Dan Perilaku Kewargaan Organisasional. *Journal and Proceeding FEB Unsoed, 3*(1), 1-7.

Martinez-Ferrer, J., & García-Sánchez, I.-M. (2017) 102–118 Coercive, normative and mimetic isomorphism as determinants of the voluntary assurance of sustainability reports. *International Business Review 26*, 102–118.
Masocha, R., & Fatoki, O. (2018). The Role of Mimicry Isomorphism in Sustainable Development Operationalisation by SMEs in South Africa. Sustainability, 10, 1264, 2-16.

Mehta, A., Morris, N. P., Swinerton, B., & Homer, M. (2019). The Influence of Values on e-Learning Adoption. Computers and Education, 141, 1-16.

Miller, J.M., Woehr, D.J., & Hudspeth, N. (2002). The Meaning and Measurement of Work Ethic: Construction and Initial Validation of a Multidimensional Inventory. Journal of Vocational Behavior, 60(3), 451-489.

Miller, J.M., Woehr, D.J., & Hudspeth, N. (2002). The Meaning and Measurement of Work Ethic: Construction and Initial Validation of a Multidimensional Inventory. Journal of Vocational Behavior, 59(September), 1-39.

Mintzberg, H. (1987). Crafting strategy. Harvard Business Review, 65(4), 66-75.

Mufa’, M. (2021). The Role of Human Capital in Islamic Perspective and Strategic Management in Islamic Perspective in Encouraging Business Sustainability. Primary Research, Economic and Business Faculty, Universitas Islam Indonesia.

Muafi, M. (2021). Strategic consensus on organizational performance: A contingency approach of organizational culture and isomorphic pressure. Journal of Industrial Engineering and Management, 13(2), 352-370.

OECD. (2014). Measuring Innovation in Education: A New Perspective. OECD Publishing. Paris, available at: http://dx.doi.org/10.1787/9789264215696-en (accessed August 30, 2016).

Rahman, F. (1983). Some Key Ethical Concepts of the Qur’an. The Journal of Religious Ethics, 11(2), (Fall), 170-185

Rindjin, K. (2010). Etika Bisnis dan Implementasinya. Jakarta: PT. Gramedia

Robbins, S.P., & Judge, T.A. (2013). Organizational Behavior, 16th Edition. Pearson Education, Inc., publishing as Prentice Hall.

Rodriguez, J.F.R., Ulhøi, J., & Madsen, H. (2013). Managerial attitudes, strategic intent, environmental initiatives and competitive advantage. Journal of Global Strategic Management, 7(1), 166-177.

Rokhman, W. (2010). The effect of Islamic Work Ethics on Work Outcomes. Electronic Journal of Business Ethics and Organization Studies, 15(1), 21-27.

Sabelli, N. H., & Harris, C. J. (2015). The role of innovation in scaling up educational innovations. In C.K. Looi & L. W. Teh (Eds.). Scaling educational innovations, 13-30, Singapore: Springer.

Schiffman, L.G., Kanuk, L.L., & Wisenblit, J. (2010). Consumer Behavior, 10th Edition. New Jersey: Pearson Education, Inc.

Scott, W.G. & Mitchell, T.R. 1976. Organization theory: A structural and behavioral analysis. 3rd Edition. Homewood: Irwin.

Sears., O., Scott, W.G. & Mitchell, T.R. 1976. Organization theory: A structural and behavioral analysis. 3rd Edition. Homewood: Irwin.

Schiffman, L.G., Kanuk, L.L., & Wisenblit, J. (2010). Consumer Behavior, 10th Edition. New Jersey: Pearson Education, Inc.

Sears., O., Scott, W.G. & Mitchell, T.R. 1976. Organization theory: A structural and behavioral analysis. 3rd Edition. Homewood: Irwin.

Seale, O., Freedman, J.L., & Peplau, L.A. (1985). Psikologi Sosial.Ed. 5.Jilid 2. Jakarta: Erlangga

Tehseen, S., & Sajilian, S. (2016). Impact of innovative practices on business growth under the moderating impacts of culture-A conceptual model. Review Of Integrative Business and Economics Research, 5(2), 28-46.

Triana, S. (2016). Perilaku curang dalam transaksi bisnis batik di kota Pekalongan, The 3rd University Research Colloquium, p. 197-206

Weber, M. (1992). Etika protestan dan spirit kapitalisme. Terjemahan: TW Utomo & Yusup Priya Sudiarja. Yogyakarta: Pustaka Pelajar.

Willerding, I.A.V., da Silveira, A.C.M., Berchin, I.I., Lapolli, E.M., & Guerra, J.B.S.O.de (2016). Strategic Management For Sustainable Development And The Organizational Aesthetic Perspective. Revista Eletrônica de Estratégia & Negócios, 9(2), 134-166.

Yang, S., & Kwok, D. (2017). A study of students’ attitudes towards using ICT in a social constructivist environment. Australasian Journal of Educational Technology, 2017, 33(5), 50-62.

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, 15(4), 283-302.

Yudatama, U., Hidayanto, A.N., & Nazief, B.A.A. (2017). Awareness and attitudes toward IT governance: empirical study. Journal of Theoretical and Applied Information Technology, 95(12), 2680-2687

Zulaiha, E. (2019). Work Ethic from Qur’anic Maqasid Approach: An Introduction and Preliminary Theoretical Development. Minbar. Islamic Studies. 12(1), 251–266 12.

Publisher’s Note: Bussecon International stays neutral with regard to jurisdictional claims in published maps and institutional affiliations.