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## THE INFLUENCE OF *UKHUWWAH* IN THE DYNAMIC INTERPLAY OF TECHNOLOGICAL CHANGE AND COMPETITIVE ADVANTAGE FOR BUSINESS SUSTAINABILITY: THE CASE OF SMALL AND MEDIUM ENTERPRISES (SMES) IN MALAYSIA

Muhammad Mikhail Gerinsa  
Kulliyah of Economics and Management Sciences  
International Islamic University Malaysia  
Email: [mat\\_gerinsa@yahoo.com](mailto:mat_gerinsa@yahoo.com)

Suhaimi Mhd Sarif  
Kulliyah of Economics and Management Sciences  
International Islamic University Malaysia  
Email: [albanjari@gmail.com](mailto:albanjari@gmail.com)

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### ABSTRACT

Technological change is continuous in the dynamic business world. In the competitive world, companies are struggling to create, maintain and sustain competitive advantage for superior performance and survival in the business. While survival for profitability and growth is essential, business continuity for sustainability is paramount. This is more challenging among small and medium enterprises when they are more vulnerable to the dynamic changes in the market. Nevertheless, the similar nature of SMEs in terms of size, nature and tenure, allows them to have more cohesiveness, or *ukhuwwah* in the Tawhidic paradigm. *Ukhuwwah* is long tenured relationship among members to attain for common goals. This study aims to explore the influence of *ukhuwwah* in the dynamic interplay of technological change and competitive advantage for business sustainability among SMEs in Malaysia. This study is very significant in terms of its contribution to the theory and practice from contingency perspectives, which is based on soul, spirituality and consciousness. The study used personal interview with managers of SMEs to solicit their views pertaining to the influence of *ukhuwwah* in sustaining their businesses. The informants argued that technological change helps to create competitive advantage for them through strategic alliances and smart partnership among the SMEs that facilitated by financing agencies and sponsors of ventures. The future study should use case study method to include more perspectives from key stakeholders.

Key words: Technological change, competitive advantage, business sustainability

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## INTRODUCTION

In recent years, sustainability has been debated by academics, practitioners and policy makers. In fact, it is very essential outcome for all sectors (Schaltegger & Burritt, 2018; Proka et al, 2018; Bansal & DesJardine, 2014). Malaysia has emphasized great concern on sustainability. Prime Minister Dr Mahathir has expressed commitment to practice sustainability in all sectors during a nation's address at 73rd UN General Assembly (NST, 28 Sep 2018), that includes transparency, accountability and responsibility. This is particularly important for sustainable practices of corporate governance. The concern of sustainability has been incorporated greatly into Mid-Term Review of 11th Malaysia Plan (NST, 18 Oct 2018). Deputy Prime Minister Dr Wan Azizah contended that women also have paramount role to attain sustainability within Malaysian context and United Nations Sustainable Development Goals by 2030.

Sustainability is essential in the free market competition. As for business sustainability, it requires continuity in exchange, engagement and network with the stakeholders. Merely engagement without commitment will not produce good results. Business sustainability is continuous in engagement (Schaltegger & Burritt, 2018). Thus, speed of change is very much transformative instead of transactional.

Sustainability requires a dynamic process. It is very close to transformative orientation (Proka, et al, 2018) instead of transactional. Transformational deals with dynamic and abrupt change. As for transactional, it is very routine. As such, transformational change needs resilience (Marchese, et al, 2018). The dynamism in business requires clear perspective of the direction.

Sustainability is influenced by many factors. Time has strong factor on business sustainability (Bansal & DesJardine, 2014). Time is associated with investment, performance and commitment. It needs reasonable time for investment to generate return on investment (Gao & Bansal, 2013). In fact, beyond bottom line is to secure competitive advantage on continuous basis (Labuschagne, Brent & Van Erck, 2005) with some enablers (Garrido, 2009).

Business practices have some influence on how business sustainability is attainable. The way of conducting business has an impact on business sustainability (Pedersen, Gwozdz & Hvass, 2018). A comprehensive business model includes various factors such as dynamic capabilities (Inigo, Albareda & Ritala, 2017) and unique approach (Breuer, Fichter, Lüdeke-Freund, & Tiemann, 2018). Dynamism of business continuity is beyond control when it interplays with the technology changes (Sunday & Vera, 2018).

*Ukhuwwah* or group cohesiveness combines people with shared goals, culture and attitude. Managing business with *ukhuwwah* enables business sustainability (Sarif, 2016). The primary factor for *ukhuwwah* to enable for sustainability is the wisdom of *Ulū al-Albāb* in each individual in the group (Sarif, 2015a). The dynamism of *ukhuwwah* to sustain business performance with the sustainable practices with the spirit of racing for goodness or *fastabiqul khairat* (Sarif, 2015b) and strategic cooperation or *ta'awun* among the members (Sarif, 2015c).

Technological change is continuous in the dynamic business world. In the competitive world, companies are struggling to create, maintain and sustain competitive advantage for superior performance and survival in the business. In such dynamic situation, strategic bonding and cooperation, which is termed as *ukhuwwah*, is paramount. Why? Self-serving interest is very high in the competition when every rival is attempting the best to offer superior value (Pedersen, Gwozdz & Hvass, 2018; Sunday & Vera, 2018; Sarif, 2015a, 2015b, 2015c, 2016).

While survival for profitability and growth is essential, business continuity for sustainability is paramount. This is more challenging among small and medium enterprises when they are more vulnerable to the dynamic changes in the market (Sarif, 2015a, 2015b, 2015c, 2016). Nevertheless, the similar nature of SMEs in terms of size, nature and tenure, allows them to have more cohesiveness, or *ukhuwwah* in the Tawhidic paradigm. *Ukhuwwah* is long tenured relationship among members to attain for common goals. This study aims to explore the influence of *ukhuwwah* in the dynamic interplay of technological change and competitive advantage for business sustainability among SMEs in Malaysia.

The discussion of this paper is divided into a few sections. Firstly, the literature review section discusses the key variables of the study by showing the gap in theory, policy and practice. Secondly, the methodology section explains the research design together with the protocol and procedure. Thirdly, this study presents the findings and discussion. Finally, the final section provides conclusion for the study.

## LITERATURE REVIEW

This section reviews key variables of the study, namely technological change, competitive advantage, small and medium enterprises (SMEs) and business continuity. The review allows for identification of gap in theory, policy and practice, which serves as proposition for the study. This is in line with the objective of this study is to explore the influence of *ukhuwwah* in the dynamic interplay of technological change and competitive advantage for business sustainability among SMEs in Malaysia.

## **TECHNOLOGICAL CHANGE**

Technological change is inevitable. In essence, technology serves as an application of scientific knowledge for practical purposes, especially in the industry. Khalil (2000) defines technology as the knowledge, processes, products, methods, tools and also systems applied in the production of goods or in rendering services. The complication of technology is apparent. Brey (2009) argued that people do indeed know what it is and can discern between things that are human-made and those that occur naturally. Indeed, technology is the driving force behind the burgeoning small business market (Breuer, Fichter, Lüdeke-Freund, & Tiemann, 2018; Sunday & Vera, 2018). Technology levels the playing field and allows small businesses to do business anywhere in the world from anywhere they choose. As technology continues to advance, small companies are enjoying the benefits of increased productivity and profitability.

Technological change has unique view. In economic point of view, technological change enables an increase in the efficiency of a product or process that results in an increase in output, without an increase in input. In other words, someone invents or improves a product or process, which is then used to get a bigger reward for the same amount of work (Sunday & Vera, 2018; Breuer et al, 2018; Thurik, 2007). Mostly considered as technological improvement, that is, more or better goods and services can be provided from a given amount of resources (production factors) (Marchese et al, 2018; Mohamad et al, 2017; Nakata, Zhu & Kraimer, 2008; Kuan & Chau, 2001). Economic models distinguish autonomous (exogenous), endogenous and induced technological change. Autonomous (exogenous) technological change is imposed from outside the model (i.e., as a parameter), usually in the form of a time trend affecting factor or/and energy productivity and therefore energy demand or output growth (Marchese et al, 2018; Mohamad et al, 2017; O'Regan et al, 2006a; 2006b).

Technological change drives for competition. It plays a major role in industry structural change, as well as in creating new industries. It is also a great equalizer, eroding the competitive advantage of even well entrenched firms and propelling others to the forefront. Many of today's great firms grew out of technological changes that they were able to exploit (Chae, Koh & Park, 2018; Schaltegger & Burritt, 2018; Chipika & Wilson, 2006). Of all the things that can change the rules of competition, technological change is among the most prominent.

Prominent change is expected. Endogenous technological change is the outcome of economic activity within the model (i.e., as a variable) so that factor productivity or the choice of technologies is included within the model and affects energy demand and/or economic growth (Marchese et al, 2018; Mohamad et al, 2017). Induced technological change implies endogenous technological change but adds further changes induced by policies and measures, such as carbon taxes triggering research and development efforts.

## **COMPETITIVE ADVANTAGE**

In competitive situation, every competitor attempt to offer superior value to the market. This ability is very dynamic. In securing competitive advantage, everyone needs to exert to the ability to excel in the market place due to price, product, service level, or performance. The strategies work for any organization, country, or individual in a competitive environment. A company must create clear goals, strategies, and operations to build sustainable competitive advantage (Chae, Koh & Park, 2018; Francesca, & Andrea, 2018; Bansal & DesJardine, 2014; Riemenschneider, Harrison, & Mykytyn Jr., 2003). The corporate culture and values of the employees must be in alignment with those goals.

The typical ways to secure competitive advantage are through cost, differentiation and focus (niche). Competitive advantage through cost is the ability to minimize cost of production at the minimal level for optimum output (Chae, Koh & Park, 2018; Francesca, & Andrea, 2018). The profitability is based on the volume of sales from the broad market share. As for differentiation, it is done by offering premium price in exchange for uniqueness. Lastly, the focus approach offers value to niche market for both cost advantage as well as uniqueness.

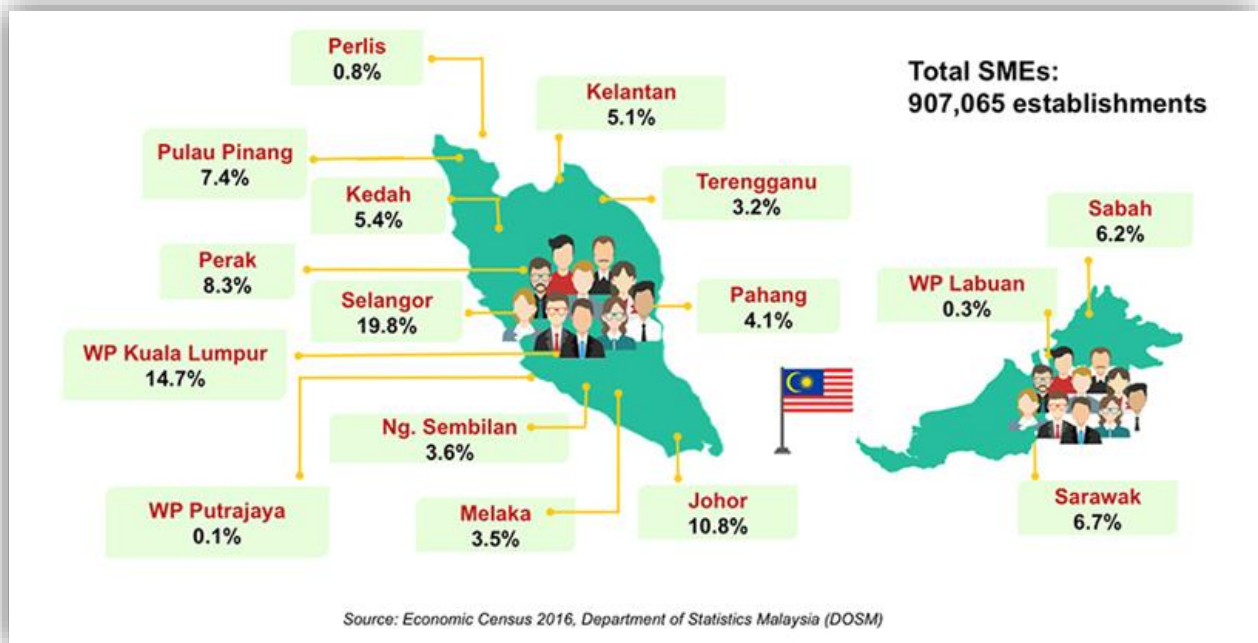
## **SMALL MEDIUM ENTERPRISE (SME) IN MALAYSIA**

Small and Medium Enterprises (SMEs) are vital in the economy. It is important in terms of growth and innovation of economies. Indeed, the long-term of economic development of the countries depends on the promotion of SME sector (Ramsey, 2003). Behind this lies a common recognition that SME play an important and a key role in revitalization and development of national economy in many countries (Pollard, 2006), by providing various goods and services, forming a structure of division of labour and developing regional economies and communities (Kaibori, 2001).

Furthermore, SME are considered key agents of social and economic growth and are increasingly becoming the most vital part of the economy since they play a key role in fostering growth, creating jobs and reducing poverty. There is no acknowledged universal definition of SME. The widely accepted definition points to Small Sized Enterprises with between 1 to 49 employees, while Medium Sized Enterprises are firms with between 50 to 100 employees (Mustafa & Gashi, 2006). According to this definition, Small Sized Enterprises are defined as firms that are registered and have less than 50 employees. On the other hand, Medium Sized Enterprises are defined as registered firms with less than 100 employees.

In Malaysia, SMEs are a vital component of the country's economic development. Based on data provided by Small and Medium Enterprise Development Corporation (SMIDEC), (2016), SMEs accounted for 82.2 per cent of companies in the Services sector with 20.6 are owned by women. According to Department of Statistics Malaysia, the SME sector has contributed 36.6 percent of country total GDP in 2015. In addition, SME has contributed 18.6 percent of country total export (statistic in 2015). Apart from this, according to Department of Statistic Malaysia in 2015 report, the SME sector has contributed to 65.3 percent of total employment Malaysia. Figure 1 shows the contribution of SME sector in Malaysia by state.

Figure 1: SMEs in Malaysia (by state)



The Malaysian Government's commitment to, and concern for, the development of SMEs has been clearly evident since the early 1970s. The 'New Economic Policy' was introduced in 1971, which aimed to improve people's welfare and restructure ethnic economic imbalances. The government's commitment to the development of SMEs can also be seen in the second Industrial Master Plan (IMP2), which ended in 2005, which is followed by the Third Industrial Mater Plan (IMP3) 2006–2020, to coincide with the country's vision for 2020 (MITI, 2005). The Malaysian Government has implemented various policies and strategies under these plans. The IMPs were formulated to enhance the growth of the manufacturing sector across the entire value chain and cluster-based industrial developments. Hence, this plan provides an integrated approach to the development of industrial areas and opportunities for growth of SMEs (MITI, 2005).

## BUSINESS SUSTAINABILITY

Business sustainability is very important concept for long term business. Sustainability strategies create many synergistic effects for SMEs working collaboratively, as well as systemic benefits for the commons (Chae, Koh & Park, 2018; Sunday & Vera, 2018; Schaltegger & Burritt, 2018; Thurik, 2007). Business sustainability is often related to managing the triple bottom line of process by which companies manage their financial, social and environmental risks, obligations and opportunities (Breuer, Fichter, Lüdeke-Freund, & Tiemann, 2018; Francesca, & Andrea, 2018).

Triple bottomline refers to profits, people and planet. However, this approach very much relies on an accounting based perspective and does not fully capture the time element that is inherent within business sustainability (Chae, Koh & Park, 2018; Sunday & Vera, 2018). Resilience is embedded in the sustainability (Breuer, Fichter, Lüdeke-Freund, & Tiemann, 2018; Francesca, & Andrea, 2018). Resilience allows businesses that can survive shocks because they are intimately connected to healthy economic, social and environmental systems. These businesses create economic value and contribute to healthy ecosystems and strong communities.

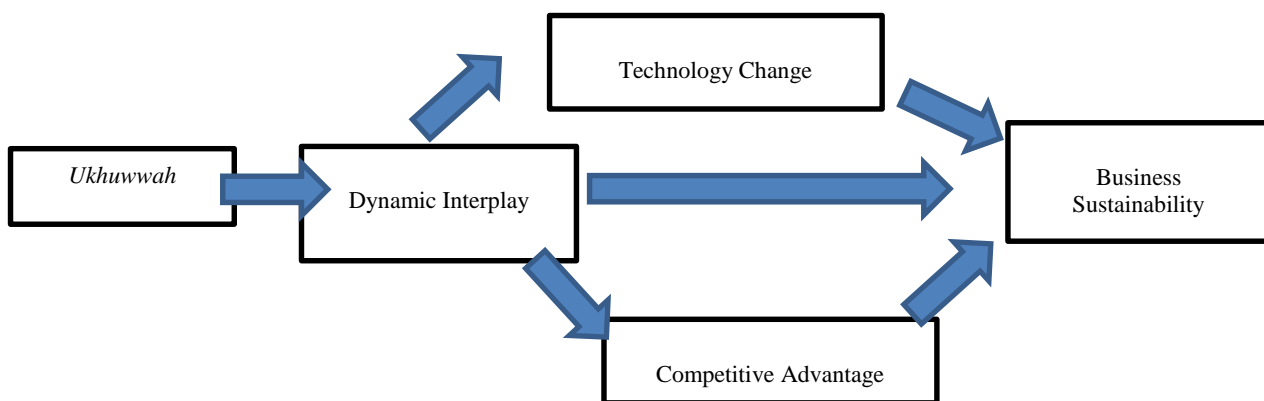
## UKHUWWAH

*Ukhuwwah* is defined as bonding among people or brotherhood. The primary driver for bonding in Islam (*ukhuwwah fi al Islam*) is based on the declaration of faith (*shahadatain*). It begins with the faith, then it works in the worship (*ibadah*) through a few processes, namely *ta'aruf* (knowing), *tafahum* (understanding), *ta'awun* (mutual cooperation), and *takaful* (mutual protection). Such process is continuous and dynamic. According to Sarif (2016), the faith (*aqidah*) is actually tied the heart, mind, soul and body of the individuals through worship (*ibadah*) and ethics (*akhlak*).

*Ukhuwwah* or group cohesiveness combines people with shared goals, culture and attitude. Managing business with *ukhuwwah* enables business sustainability (Sarif, 2016). The primary factor for *ukhuwwah* to enable for sustainability is the wisdom of *Ulū al-Albāb* in each individual in the group (Sarif, 2015a). The dynamism of *ukhuwwah* to sustain business performance with the sustainable practices with the spirit of racing for goodness or *fastabiqul khairat* (Sarif, 2015b) and strategic cooperation or *ta'awun* among the members (Sarif, 2015c).

Based on the above critical review of the literature, this study postulates that the gap for organizations to sustain competitive advantage and business performance is the influence of *Ukhuwwah* in the dynamic interplay of technological change and competitive advantage. The dynamic interplays on the technology change which of external driven to enable for business sustainability. Figure 2 depicts the research framework of the study.

Figure 2: Research Framework



## METHODOLOGY

This study aims to explore the influence of *ukhuwwah* in the dynamic interplay of technological change and competitive advantage for business sustainability among SMEs in Malaysia. In terms of the research philosophy, the research is under qualitative research with social constructionism and realism paradigm. The phenomenon of dynamic interplay in technology change and competitive advantage makes the business case complicated to sustain the business. Ontologically or the nature of the reality is that technology keeps changing very fast and produces dynamism as well as the competitive advantage for organizations.

Epistemologically, dynamic situation is complicated to control for superior value for organizations. As interference, *ukhuwwah* provides tangible aspect of dynamism into the technology change for competitive advantage and business sustainability. Therefore, the main question that needs the views of informants is "How did the company's managers respond the technological change so that the company could offer superior value (competitive advantage) that sustains the business.

Prior to obtain research permit, the study approached experts among practitioners and academics on the research instrument, interview questions, and interview protocol, for the validation of the research instrument. Some changes were made after the assessment of experts.

The study used personal interview with managers of SMEs to solicit their views pertaining to the influence of *ukhuwwah* in sustaining their businesses. Each interview took between 20 – 40 minutes, with note taking. The interview transcripts were sent to the informants for verification. Then, the results of the interview were analysed manually with some themes generated from the interview results. The interview results were given to qualitative research experts for expert opinion and verification to ensure consistency, valid and reliable.

## FINDINGS AND DISCUSSION

This section presents the results of the study. Each result is discussed with context, theory, practice and policy. Basically, the informants argued that technological change helps to create competitive advantage for them through strategic alliances and smart partnership among the SMEs that facilitated by financing agencies and sponsors of ventures. There are seven managers of SMEs participated in this study and responded to the interview questions.

The interplay of technological change and competitive advantage toward business sustainability in SME industry of Malaysia is necessary. Manager 1 said:

*“We live in digital era. Industry 4.0 requires us to keep with big data, artificial intelligence and so on, so that we could do things faster within shorter time.”*

Manager 2 argued that the fast changing technology is part of the system. Manager 2 mentioned:

*“Technology changes very fast. We have to keep pace with it. For us, we have our organizational mechanism to face technology change. Everything is recorded and evaluated.”*

Manager 3 contended that the use of technology had a great impact in all aspects of life, business and the global economy. Manager 3 said:

*“SME depends and uses technology to keep up the services with the trends and demands of the customers. There is no backward to undo every policy.”*

Technology has a very huge impact in most of industries and in all aspects of economy, while businesses and enterprises also continue to undergo considerable changes. According to Manager 4, the use of technology is revolutionizing the rules of business, resulting in structural transformation of enterprises.

Manager 4 said:

*“Anything that is not consistent, not conventional, not law abiding, has rejection merit.”*

Manager 5 uttered:

*“SMEs are not spared from the influence of technological change. We have to face them. It is about our survival. This is valid concern as in this modern businesses era it is almost possible without help of information technology.”*

Since roles of technology began to have an important impact on the way firms are both managed and organized, researchers have investigated the organizational factors behind the degree of adoption of computing, robotic or telecommunications technologies. For Managers 2, 3, 4 and 5 emphasised that organizational factors behind information technology adoption may be as important as other elements such as technical factors. This notion has been scholarly discussed (Premkumar et al., 1997), although they are usually seen as less significant by practitioners (Fletcher and Wright, 1995).

There are several organizational factors associated with technology change and attempt to secure competitive advantage. Managers 5, 6 and 7 argued that it hard to measure the complication and to influence the changes.

Manager 7 said:

*“We have to approach everyone so that they could respond to the technology change and competitive. Everyone here not just physical, but with heart, soul and mind.”*

The feedbacks from the informants are relevant to the dynamic changes of technology. In fact, technology adoption is an on-going business (Desai et al., 1998). This includes the management's direct and explicit support for the adoption of technology (Damanpour, 1991; Thong, 1999; Soliman and Janz, 2004); the existence of technology leaders (“champions” or “prominent actors”) who support the technological change (Sharma and Rai, 2003; Pitt et al., 2006).

Managers 3, 5 and 6 contended that there are differences in how technology change and responses to the change. It is about the level of technological education of the workers in the technical departments (Premkumar et al., 1994). In addition, the level of technological education of the rest of the workers can be important factor to match with the strategy choice and strategy implementation (proactive, reactive, technology leader/follower, etc.). Manager 6 said: “You may be able to formulate very good strategy to respond to the changes, but you do not have the mind, heart and hands to make things happen!” The concern of Manager 6 is concurred by Manager 7 when the invisible aspect of implementation is really a big concern. In most situation, managers took huge risks to execute strategy in great uncertainty (Swanson and Ramiller, 1997; Lewis and Cockrill, 2002; Teo and Pian, 2003, 2004).

The informants also expressed concern on the technology and the business. This concern is valid in terms of harmonizing the level of integration of the technology in the business strategy (Fletcher and Wright, 1995) as well as the size of the firm (Young et al., 1999; Raymond and Bergeron, 1997).

Other previous studies also focus on the existence of related technologies as a positive adoption factor, and mentioned that the inertia generated by old technologies and systems as a negative adoption factor (Hovav et al., 2004). Other than that, some dimensions of culture, such as, flexibility, communication, absence of conflict and orientation towards innovation have been identified as technology adoption facilitators (Powell and Dent-Micallef, 1997; Mirvis et al., 1991). Organic vs. mechanistic culture has also been identified as a predictor of the extent to which firms adopt and use information technology and how they go about it (Tung et al., 2000).

There are systems developed for various forms of organizations. As for informants, technology change is very much affected in small organizations. While the informants are valid, such concern may not have much big impact (Farhoomand and Hrycyk, 1985; Premkumar, 2003). SMEs are different from large firms in several ways.

In SMEs, most of the decision-making are centralized in a reduced number of persons, standard procedures are not well laid out, there is limited long-term planning, and there is more dependence on external expertise and services for information systems (Premkumar, 2003).

Furthermore, SMEs also might substantially face greater risks in information system implementation than large businesses, since they have inadequate resources and limited education about information systems (Cragg and King, 1993). They also may have difficulties in recruiting and retaining internal information system experts due to the scarcity of qualified information system experts and the limited career advancement prospect in SMEs (Kuan and Chau, 2001).

## IMPLICATIONS

The implication to the theory is the contingency perspective of *ukhuwwah* as variable in the dynamic capabilities of technology change for competitive advantage and business sustainability. The human factor in the *ukhuwwah* provides soul, mind and heart component to sustain human when dealing with technological change. The sustainability of business requires persistency, resilience and diligent people in the organizations.

*Ukhuwwah* is the practice of belief. In fact, *ukhuwwah* is available in the organizational context, depicted through organizational hierarchy and organizational chart. More organic, friendly, and more flexibility are necessary policy to support *ukhuwwah*.

## SIGNIFANCE CONTRIBUTION OF THE STUDY

The study has significance contribution in three areas, namely theory, policy and practice. Theoretically, *ukhuwwah* provides driver to the dynamic interplay in technological change for businesses in Small and Medium Enterprises to create, maintain and sustain competitive advantage. The underpinning theories of *ukhuwwah* related to theory of the firm, theory of social exchange, theory of networking and theory of dynamic learning.

In terms of policy, it is vital for policy makers in SMEs to provide policy direction. Direction is about future or way forward for SMEs to move with incentives and encouragement from the governments. This is more towards national direction. In the meantime, it is good to link with the regional direction on how the SME would continue to make significant contribution to the socio-economic development and performance.

The practice of *ukhuwwah* has been embedded in organizational culture and strategy. However, it needs movers and drivers to make sustainable.

## CONCLUSION

The influence of *ukhuwwah* in the dynamic interplay of technological change for competitive advantage and business continuity is into multiple ways. The dynamism goes with the continuous dynamism of the business world. While SMEs are struggling to create, maintain and sustain competitive advantage for superior performance and survival in the business, they should work collectively with the people and stakeholders to gain the survival for profitability and growth. There is no short cut but to work closely with people and stakeholders. The nature of SMEs in terms of size, nature and tenure, allows them to have more cohesiveness, or *ukhuwwah* in the Tawhidic paradigm. *Ukhuwwah* is long tenured relationship among members to attain for common goals. Indeed the informants asserted that technological change helps to create competitive advantage for them through strategic alliances and smart partnership among the SMEs that facilitated by financing agencies and sponsors of ventures. The future study should use case study method to include more perspectives from key stakeholders.

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