

CHAPTER SEVEN

CONCLUSION AND RECOMMENDATIONS

7.1 Introduction

This study has met its research aims in gaining an understanding of the role of intellectual capital, knowledge sharing and innovation in SMEs. This chapter presents the conclusion based on the results derived from the entire process of conducting this study. The limitations and areas for future research in the subject are also presented. Recommendations to practitioners and academicians of the studied practices are offered. This study examined the intellectual capital framework of SMEs in Malaysia. An integrated framework has been developed with the inclusion of knowledge sharing and innovation as a link between intellectual capital and organizational performance. Most SMEs are unaware of the advantage of their intellectual capital and seek support, especially in terms of financial support from the government to improve their performance. This study has shown that SMEs' intellectual capital together with its knowledge sharing practices and innovation can help SMEs to be independent without being heavily reliant on the government. The practical implications of this study have point the fact that SMEs are a KM player but might not be in an effective way.

Most researchers and authors (Levy et al. 2003, Lim and Aspinwall, 2006) stress that SMEs are not ready to embrace knowledge management as they are lacking in terms of finance, knowledge, expertise and human capital. However, this study has shown that knowledge sharing is actively practiced in SMEs; therefore, it will give SMEs an

opportunity to be further involved in knowledge management. Knowledge sharing is essential for the success of product development and business processes.

Recognizing the importance of intellectual capital may give practitioners further insights into how they can improve their intellectual capital. Again, motivating its human capital through knowledge sharing could encourage creativity and ideas. This study has attempted to increase the understanding and awareness of intellectual capital, knowledge sharing and innovation for owners and managers who are seeking to improve their organizational performance. Therefore, the results of this study can serve as a useful source of information for in-house training material on intellectual capital, knowledge sharing and innovation.

7.2 Limitations and Suggestions for Future Research

This study is not without limitations. These limitations can be addressed in future research work that may focus on studying the relationships among variables used in this study as well as in related areas of research.

The first limitation is the geographical factor. Most of the respondents are from the Central region of Malaysia where industrial operations are centralized. It was not possible to extend the survey to Sabah and Sarawak due to the limitation of time and logistics. This study perceives that the manufacturing sector of SMEs have a similar background, resources and environment, however, in reality, issues such as geographical factors could influence the operating system of the firm. Firms that operate in the industrial states such as Selangor, Kuala Lumpur and Johor might face tough competition that motivates them to be more innovative and to produce different types of innovation compared to firms that operate in smaller states like Terengganu, Perlis, etc. Therefore, future research should be

conducted throughout Malaysia to gain a better understanding and to observe the different practices.

Secondly, the data presented in this study is cross-sectional. These influencing factors were measured at a static point rather than as they were developing, thus, losing the richness of time explanation. It is important to focus on long-term effects, especially on knowledge sharing behaviour and innovation practices. Future research can gather longitudinal data to examine the causality and interrelationships between variables that are important to intellectual capital, knowledge sharing and innovation.

Thirdly, the data was collected in a single country (Malaysia). Potential culture limitations should be noted, especially the cultural differences among the firms or employees that influence the perceptions of sharing knowledge and innovation practices. The research model should be tested further using samples from other countries to generalize or modify the concepts. In addition, cultural differences influence employee perceptions regarding knowledge sharing and further testing would provide a more robust test of the hypotheses.

Fourthly, this study was done by empirically investigating Malaysian SMEs. As large organizations have more resources and are better structured, the research model should also be tested using samples from large organizations in Malaysia for a comparison with SMEs. In addition, a survey can be conducted to compare the manufacturing and services industries between SMEs and large organizations.

Lastly, having single-informant per firm is another limitation. Future research may also focus more explicitly on micro-foundations of routines, for example, by obtaining self-reports of knowledge sharing practices from individual members of each organization.

Although obtaining multiple respondents data per organization is challenging, it would allow for a more rigorous testing of micro-foundation to intellectual capital, knowledge sharing and innovation perspectives.

Furthermore, the background of the owners or managers could be another important factor in influencing the firm to practice knowledge sharing and become actively involved in innovation activities. Therefore, the entrepreneurial orientation should be given serious consideration in future studies.

Future research also needs to highlight the government incentives and assistance by investigating the impact of this assistance on SMEs performance. Even though most researchers of SMEs suggested using product and process innovation, it would be better to expand the dimensions of innovation. In this case, researchers would be able to identify the types of innovation being practiced in SMEs, for example, organizational innovation, management innovation, incremental innovation, radical innovation. In Thailand, the government and universities have collaborated to carry out a survey to quantify the types of innovation in SMEs and large organizations. This exercise is not only to gather data and information for the policy makers but also to educate entrepreneurs on innovation. It is important to carry out similar research in Malaysia in recognizing, identifying and classifying types and activities of innovation.

Researcher would also like to suggest for future research to look from the perspective reciprocity, power, influence and leadership in SMEs in influencing the structure of intellectual capital as well as the motivation of employees towards knowledge sharing and innovation.

It is suggested that the complete components of knowledge management are to be included in the framework to observe the knowledge management practices in SMEs rather than concentrating only on certain parts of knowledge management such as knowledge sharing.

7.3 Theoretical Contributions/ Implications

Theoretically, a framework is proposed for empirical studies to link intellectual capital and processes with organizational performance. This study is probably the first to establish an integrative view of intellectual capital. This framework may be used as a stepping stone for further empirical research. This study contributes to the overall understanding of the intellectual capital and the importance of human capital, structural capital and relational capital and how it affects organizational performance through knowledge sharing and innovation. Previously, the effect of intellectual capital on organizational performance has been thoroughly explored. However, instead of investigating the effect of intellectual capital from the view of three intellectual capital elements namely, human capital, structural capital and relational capital, this study regarded these capitals as one construct. These organizational resources are considered as one packaged as stated by Stewart (2001). From the theoretical perspective, this study has expanded the current intellectual capital framework by adding two mediating variables. This study has achieved what has been proposed by Skandia (1996a) that the intellectual capital model is to achieve a multiplicative effect in order to enhance rapid knowledge sharing and develop new business applications which can be facilitated by the right culture, infrastructure and leadership. SMEs will be more effective if they intentionally manage knowledge. Effective knowledge sharing process should improve performance. The

important findings of this study imply that intellectual capital is an important indirect factor to organizational performance through knowledge sharing and innovation. In addition, intellectual capital can play a critical role in forming an effective platform for knowledge sharing. Another finding revealed that knowledge sharing is the mediator of innovation and organizational performance in SMEs. Also in this study, knowledge sharing was found to be an important link between intellectual capital, innovation and organizational performance. The findings also confirmed previous findings on the mediation role of innovation between intellectual capital and organizational performance (Yli-Renko et al, 2001; Lee and Sukoco, 2007, Lee and Choi, 2006). In this study, innovation proved to be important link between knowledge sharing and organizational performance. However, the effect of intellectual capital on organizational performance cannot be conveyed through knowledge sharing. This could be explained that in Malaysia, knowledge sharing exist but have not been practice to the maximum speed, It would take some take time for organization to fully utilize knowledge sharing for the organizational benefits which can be translated into organizational performance. It is considered as a catalyst to promote better performance. Without this catalyst it would weaken the outcome of the organization.

Nevertheless, the main purpose of this study is to investigate the link between intellectual capital and organizational performance and the inclusion of knowledge sharing and innovation. The findings show that in order for intellectual capital to have a strong effect on organizational performance, it has to utilize knowledge sharing activities which in turn, lead to innovation. Knowledge sharing alone does not help SMEs' intellectual capital to have a better effect on organizational performance. Previous researches have shown that knowledge sharing would be strong agent on organizational performance if the organization

is relying heavily on knowledge or it is operating in dynamic environment or under pressure to be competitive. This can be observed in SMEs of Korea, Japan and Taiwan. One of knowledge management dimensions is knowledge sharing via interpersonal interaction. From this model, it is proposed that SMEs should start with knowledge sharing initiatives before fully committed to knowledge management practices. Knowledge sharing is the heart of knowledge management.

This model has also highlighted that innovation require more than individual knowledge – tacit knowledge. In creating innovation, knowledge has to be collective which is a product of knowledge sharing. Through knowledge sharing activities, more ideas could prevail for innovation to take place.

This study has shown that knowledge sharing is vital to SMEs to be innovative. This model has highlighted that knowledge must be shared or flow in the organization through knowledge sharing activities as a process mechanism to encourage innovation.

Utilizing knowledge sharing alone, does not contribute towards organizational performance in Malaysian SMEs. SMEs should promote and encourage the knowledge sharing activities in the organizations. This can be done through informal brainstorming sessions with an objective to create innovation. A collective knowledge sharing would help organization to gather all the good ideas towards innovation thus improve organizational performance.

However, SMEs have to take extra role in promoting knowledge sharing. Among others are the support from top management, provide a conducive environment and nurture the culture of sharing knowledge. SMEs have to create informal atmosphere to encourage

knowledge sharing to take place and build awareness on the importance of productivity which can be produced during knowledge sharing.

The main idea is to observe the practices among SMEs in identifying their organizational resources. The organizational resources are well established in every organization and the issue is whether the internal factors (human capital and structural capital) compliment the external factor (relationship to outsiders) in tapping the business opportunities. This framework offers other insights for SMEs to re-value their strengths and weakness and utilize their routine activity of knowledge sharing for productivity, which is innovation. SMEs have many advantages, being small in terms of size allows SMEs to forge a strong bond among employees, develop a close relationship with customers, create opportunities to share knowledge with every employee and flexibility in any environment or situation. Through this framework, SMEs will be able to re-set their strategies, especially in innovation to excel in competition. This study is the first study on the intellectual capital of Malaysian SMEs. Rather than total reliance on government assistance and incentives, SMEs should find their own path of progress by relying on their strategies based on their capabilities and resources to enable them to access new markets increase their revenue and expand their customer base. SMEs should consistently invest in R&D and innovation in order to increase their competitiveness. By embarking on knowledge, they should be better able to understand the needs and wants of the marketplace. This study offers an insight into how SMEs can capitalize on their knowledge, which is embedded in their organizational structure, relationships and people, through its common practice – knowledge sharing – to be innovative. However, SMEs should pay serious attention to ensure that these knowledge sharing practices become a platform that promotes a culture that encourages knowledge

sharing rather than allowing these knowledge sharing practices to become another platform for less important social networking. Owners or managers should lead the practice of encouraging employees to share their tacit and explicit knowledge freely and make it accessible to all organizational members. Innovation is crucial and a must-have for any organization in order to stay sustainable and profitable in the long run. In this regard, SMEs should establish a knowledge culture. Rewards and incentives need to be put in place to motivate knowledge workers to share their knowledge and, thus, encourage creativity and innovation.

Knowledge about the importance of intellectual capital in encouraging knowledge sharing and innovation could help owners or managers of SMEs in motivating their employees to be more active and productive. Providing a more conducive environment that will further encourage the activity of productive knowledge sharing sessions and create a strong network among members to create, generate, acquire and utilize knowledge and turn it into creativity and innovations for SMEs to make more profits.

It is very important for SMEs owners and managers to revisit their routine knowledge sharing activities and they must be willing to break away from practices that worked well in the traditional economy and embrace the changes of the knowledge-based economy. This study has practical implications. First, the relationships among intellectual capital, knowledge sharing, innovation and organizational performance may provide a guide as to how companies should achieve competitive advantage by using intellectual capital to develop knowledge sharing and innovation, Second, SMEs are advised of the important intellectual capital (human capital, structural capital and relational capital) that lead to the success of knowledge sharing and innovation. Third, the level of intellectual

capital offers a checklist for SMEs to evaluate themselves according to the degree to which they implement the practices necessary to develop knowledge sharing and innovation.

Understanding the impact of intellectual capital, knowledge sharing and innovation on organizational performance would assist owners or managers of SMEs in identifying their strategies in future development. And for SMEs to understand that knowledge sharing is crucial for success of companies operating in turbulent and uncertain environments.

7.4 Recommendations

The researcher would also like to suggest that SMEs should start auditing their intellectual capital in recognizing their strengths and weaknesses so that they are able to identify their capabilities before they become involved in innovation. This will give their entrepreneurship direction and allow them to compete in the right market at the right time. SMEs should also start hiring qualified people to help them achieving their goals through knowledge sharing and innovation. Tacit knowledge from these qualified and knowledgeable people are considered as future investment for SMEs to be competitive in Knowledge-Based-Economy (KBE).

The knowledge sharing network of SMEs should be extended beyond their organization and stakeholders. Policy makers, universities, centres of development, academics and scientists should work together with SMEs in helping them in acquiring, developing, utilizing knowledge inside and outside the organizations and, thus, transforming this knowledge into innovation. This connection allows for technological innovation and organizational innovation (Mitra, 2000). As proposed by Cavusgil et al. (2003), developing a close relationship with other firms plays an important role in

obtaining tacit knowledge from outside firms that provides opportunities to assess other firms' in-depth operation processes. In addition, in order for SMEs to be ready for knowledge management, time is needed to develop it through the deployment of various organizational resources such as management vision, team spirit, or external support from the government including funding and professional advice to devise a systematic knowledge management strategy.

Although, knowledge sharing is more effective in face-to-face interaction, the role of information technology (IT) is crucial in helping knowledge to be shared rapidly and for it to be accessible to as many people as possible. IT makes it easier to collect, store and distribute information. As SMEs are easy to manage because of its flatter structure and closer relationships among its member, it is easier to promote knowledge sharing. First of all, SMEs should nurture and cultivate the culture of knowledge sharing as well as culture of innovation which should cultivate corporate values and spirits which encourage employees to share knowledge and innovate.

The top management should play a role model to encourage knowledge sharing culture in the organizations. This can be done through involvement of every member of the organization even novices and newcomers especially when they believe that their knowledge is respected, valued and used to inform decisions. Besides, organizations should align rewards and recognition to support those who behaviours are an example to others. These knowledge sharers should be moved around in the organization in encouraging others to follow suits.

In promoting and encouraging innovation, SMEs also should establish flexible, competitive environments to nurture employees' creativity. Innovation culture helps the employees in SMEs own the sense of innovation and get use to regarding innovation as their behavior norms. It is important for Malaysian SMEs to cultivate innovation corporate culture in order to develop their sustained innovation capabilities. In addition, effective incentive mechanism should be established to motivate employees innovate. The compensation system should connect the employees' innovation actions with their incomes and ensure them get physical and mettle reward from their innovations. An effective motivation mechanism can mobilize employees' creative potential to use and develop innovations. Since the capacity of employees especially their innovative capabilities determine the enterprises' sustained innovation competence, SMEs should establish effective training system. The established effective training system is to develop their employees' creativity, expand the workers' skills and enables their staffs to be innovative and productive.

If Governments want to stimulate SMEs to become and remain innovative, they should encourage these companies to implement an innovation directed policy. According to Keizer et al. (2002), without such a policy SMEs seem unable to successfully digest stimulating measures and subsidy schemes. It is recommended that the relevant authorities extend scalable initiatives that meet the new demands of SMEs:

- Maximizing the use of scarce consulting resources available to help SMEs
- Providing tools to SMEs
- Leveraging experience across the community

A learning network should be developed for innovative SMEs. This will allow them to strengthen their core competencies, monitor their international business environment and build learning organizations as strategic priorities. In addition, SMEs should take advantage of external resources to enhance their sustained innovation capabilities. For example, SMEs may establish good relationship with universities and research institutes since it is an effective way to enhance SMEs' technology innovative abilities. In the meantime, favorable relations with government and bank help SMEs raise more funds to invest in corporate innovation. The opportunities to develop core competencies through cooperation with other types of partners, including universities, consultancy companies and international SME networks for knowledge sharing should be seriously addressed in broadening the strategic horizons of innovative Malaysian SMEs.

Observing and documenting how innovation takes place in SMEs is another way to identify the type of innovation of SMEs. In addition, it is important to understand how SMEs develop their creativity and innovation; therefore, third parties such as universities and consultants could further assist in imparting and sharing knowledge to improve the current practices. Because of the high cost of research and development and the long time lag to successful innovation and commercialisation, only a collaborative effort between Malaysian SMEs, large corporations and Malaysian public institutions will yield fruitful outputs.

This study has provides alternative approaches for SMEs to motivate their employees towards knowledge sharing and innovation activities. The leadership of SMEs would help employees to be able to contribute more in reciprocity to the organizational performance.

Despite the many researches on intellectual capital, there is very little research focusing on the scope of SMEs. Researchers interested in pursuing an even stronger understanding of intellectual capital in SMEs may want to investigate different industries, use other methods, or discuss different issues

It will be beneficial to the practitioners to have a framework that guides them on how to capitalize their intellectual capital and to start knowledge sharing practices and become involved in the innovation process from scratch. Local SMEs need to be proactive to seek to establish smart partnerships and strategic alliances and fully utilize their internal activities to maximize their outcomes.

7.5 Summary

This chapter concludes the findings and discussions of this study. The chapter highlights the purpose of the study in the Introduction. Limitations and Suggestions for future research were also identified to pave the way for future research in the area of intellectual capital. Implications concerning the practical and theoretical aspects were also discussed and elaborated upon. Finally, recommendations were offered to further enhance the research of the constructs that have been discussed and also for SMEs.