

The Participatory Development Conceptual Model for Creating a Competitive Advantage of Recycling Garbage Separately

Yananda Siraphatthada^a, Duangkamol Thitivesa^b, Anchalee Hiranphaet^c,
^aCollege of Innovation and Management, Suan Sunandha Rajabhat University, Bangkok Thailand, ^bSuan Sunandha Rajabhat University, Bangkok Thailand, Email: ^ayananda.si@ssru.ac.th, ^bduangkamol.th@ssru.ac.th, ^canchalee.hi@ssru.ac.th

The foremost objective of the present study is to examine the impact of personal management systems, communication and information technology systems, knowledge management systems and services quality management systems on the competitive advantage of a firm. The data has been obtained by using questionnaires while analysis has been conducted by using the Smart-PLS. The results revealed that personal management systems, communication and information technology systems, knowledge management systems and services quality management systems have a positive association with the competitive advantage of a firm. These findings provide guidelines to the regulation formulation authorities that they should focus on the personal, knowledge, services quality and information technology management systems of a firm that enhance the competitive advantage of the firm that ultimately enhance firm performance.

Keywords: *Personal Management System, Communication and Information Technology System, Knowledge Management System, Competitive Advantage.*

Introduction

The recycling situation of global markets is expanding continuously where the recycling of plastic products commercially has increased at a certain level from the past few years. Countries with eminent policies contributing various schemes to the business sector for the commercial rise of import and export products. The business of recycling has robustly increased where various elements prevail for such recycling, which includes garbage and plastic. Companies contributed significant measures by employing various strategies to attain a competitive advantage in global markets with certain implications of talent management qualities (Yeng, Jusoh, & Ishak, 2018). Various environmental crises occurred due to the heavy rise in waste material, which had an immense impact on the lives of people; therefore, the recycling process has somehow enabled the elimination of environmental impacts by making it a business mean (Hu, Leopold-Wildburger, & Strohhecker, 2017). After the establishment of this business, various models developed by organisations due to a competing environment for attaining a competitive advantage in the recycling of garbage (Widiyanto & Rahab, 2017). Organisations established various models for the attainment of a sustainable environment in a competitive world; therefore, the certain establishment of strategic measures enabled the mean of competitive advantage over various companies.

We were superfluous until almost all possibilities could not handle the global problems and environmental burdens on these continual consumption rates of natural resources continue to rise. Thailand represented a significant developing country in the world, which was considered in the global economic dimension; Thailand represented one of the countries that suffered an environmental crisis and lacked natural resources. Still, Thailand did not establish policies of renewable resources, recycling and renewable energy societies based on the enormous government expenditure, lack of knowledge in international green purchasing of government agencies and creating a competitive advantage in the commercial participatory waste recycling of business in Thailand. The problems of waste became a mission beyond national responsibility. Successful business execution required competitive advantages in management on efficiency, accuracy and fast response according to needs of the problems or opportunities that arose for the organisational survival and progress. Therefore, the individual responsiveness mission performed with a social mind to society about recycling waste and recognising recycling centres in terms of the price of recyclable waste and junk as gold to rectify problems with these incentives. If small waste buyers or general households knew or understood how to generate more income from waste recycling or to add value-added for recycling waste.

Companies vary due to their size in markets; therefore, personnel management inserts a vital role in the participatory factor, which significantly developed for competitive advantage (Mironova et al., 2017). Although the participatory model includes plenty of elements that contribute significant measures to the competitive advantage in markets, the eminent use of

personnel management insert positively enumerates wide benefits (Yang, Ishtiaq, & Anwar, 2018). Various measures contribute eminent means for creating and attaining the competitive advantage, while certain factors contribute a vital role in the creation of competitive advantage over different businesses.

Organisations strive in the markets to attain competitive advantage in various ways; therefore, the effective implication of the communication system can eminently perform for the creation of competitive advantage (Yeng et al., 2018). Markets vary with the sizes of firms and various capabilities that are eminently used in a competitive environment. However, the level of strategies asserting better results in the effective use of information technology also helps for significant creation (Coccia, 2017). Systems of communication and information dominant in the organisations, although some portion for the creation of competitive advantages contributed by systems, mainly insert the role of management in the organisations (Nawaz & Hassan, 2016).

The system of knowledge is pertinent to be mentioned due to its significance in sustainable organisations that strive for competitive advantages. In contrast, numerous organisations grow due to vast knowledge systems (Abualoush, Masa'deh, Bataineh, & Alrowwad, 2018; Akram, Siddiqui, Nawaz, Ghauri, & Cheema, 2011). A major contribution towards the competitive advantage creation belongs to the system of knowledge, where better knowledge could not only enumerate the competition but also helps to attain the advantages of the competition (Kimani & Ogutu, 2018). In organisations, a system of knowledge delivered to its employees asserts better results than that of untrained employees, which rather counted as an expense to the organisation. This modern era in which we are living is termed as the technological era (Hussain, Musa, & Omran, 2019). Humanity witnesses a number of inventions around the globe with the passage of time. The world has become a social village due to technological advancement. The cultures are coming closer and closer to each other. The world is at the few clicks of humanity. These technological changes also have an effect over business. In the past, competition existed with the country or a specific part of the country (Yeng et al., 2018). Later the competition level spread to the neighbouring countries. Further, this competition increases to some countries other than the neighbouring countries. Now with the technological advancement, the whole world has become the business market. There are no boundaries and distances for business. The significance of the knowledge system contributes towards various other measures that are eminent for the creation of competitive advantage.

Organisations elaborate on various factors that are dominant in the markets, and companies grow due to their effective systems; therefore, a service quality management system enables a vital role in the sustainable growth of organisations. While competing in the global markets, the dominant part that inserts a vital impact on the other organisations and consumers tends toward service quality management. In the participatory model, organisations usually strive for

higher incomes; therefore, some significant terms prevail in a competing environment that refers to better service enumerates better results, while better quality contributes vast customers (Yeng et al., 2018). For better results and rising customers, service quality systems counted as dominant elements for the organisation.

Literature Review

Due to the rise of the recycling business globally, numerous companies entered with eminent policies and schemes to contribute towards returns and competitive advantage. Some countries eminently waived off tax implications to the business of recycling to enhance the motivation level that significantly contributes to the economy (Kulkarni, Robles-Flores, & Popovič, 2017). Over the past few years, a portion of plastic recycling has increased to significant levels. Due to the rise in plastic recycling, some governments exempted the implication of custom duties that imply pieces of machinery imported for the recycling process (Sachitra & Chong, 2017). The literature mentions a variety of factors that are eminent for the creation of competitive advantage, while the participation factors are prevalent with significant importance in studies. Organisations contribute to competing environments through various decision-making elements that are eminent towards competitive advantage (Xinping, 2017).

At this time, organisations are facing a high gravity of competition at a national level, but also at an international level. The organisations put down to dust efforts to get success in such tough competition. The organisations that failed to update themselves with competitors are crushed by the market. Organisations remains in the process of bringing differentiation between their own products and services and those of competitors. The key element to bring differentiation is innovation. Innovation brings a competitive advantage, which is the demand of any organisation to win the competition. There a detailed process behind competitive advantage. There is usually called research and development. This makes enables the organisation to bring such a product to the market, which is batter, according to the requirement and need of the customer, but also different and better from those of competitors (Kulkarni et al., 2017). Many businesses prevail in economies of various countries that induce plenty of systems for the creation of advantage in a competitive environment. The implementation of participatory functions in organisations not only affects the global markets but also influences the performance of employees (Ngugi & Kising'u, 2017). For competitive advantage, organisations insert various models toward the management system, which inserts a significant part in the creation of competitive advantage. The tactics used by various businesses enables numerous beneficial environments for the growth of organisations; therefore, the system of participation also contributes significant measures for the creation of competitive advantage (Delery & Roumpi, 2017).

The participatory management meant the management of brainstorming thinking ideas and minds created the business synergy, supporting on the thinking of the miniature group of participants and enlarged them. Besides, this also indicated a process that allowed supervisors to participate in the decision-making process and support the creativity and expertise to rectify problems in term of empowerment for decisions making on crucial problems of the organisation. Most organisations required knowledge to increase capacity and improve products or services for the benefit of customers; organisations should change systems, structures and communication methods for rectifying problems. Moreover, knowledge was like power for a learning organisation that provided the organisational growth. The employee might come in and exit, the organisation loses valuable knowledge and the organisation could be unable to survive.

The success of knowledge requires the combination of work performance and the components of knowledge management that consisted of 1) People. Human development contributed an important proportion of 70 percent affecting by the organisation including creating a competitive advantage and leading the organisation to success. 2) Technology contributed an important proportion of 10 percent. Data collection, as well as a tool provided work standards in the workplace and better decision-making. 3) Process contributed a significant portion of 20 percent in organisational development such as knowledge management guidelines, agility working, and the knowledge integration for efficiency and working standards. The competitive advantage meant the creation of the identifiable differences and distinctions relating to competitors in the consumers' perception, but at the same time, competitors could not imitate strategic operations. Economic value could be achieved when consumers were satisfied to buy a product; the various values of products appealed to consumers' expectation; consumers were ready to pay for these products.

The personnel management system inserts a vital role in organisational performance; therefore, the eminent usage in an organisation contributes strong dimensions used for the creation of competitive advantage over firms. Global markets involve the bulk of organisations that move for a single objective (Vengerova, 2017). Still, various functions performed through induction of personnel management systems that include numerous managerial functions directly impact the organisations. For the attainment and creation of competitive advantage, personnel management inserts various procedures where planning tends to play an important part, even though, organising of various tasks is performed through the personnel system (Perepadya, 2017). Every task involves the procedure of planning within the personnel management system, and various achievements could be enumerated through the use of effective planning. Organising in personnel management enumerates various paths to attain the advantages in a competitive environment while the process of creation could be prevalent in the procedure of organising any task (Savchenko, Goleva, Korchagina, Ovsyannikova, & Lobanova, 2019). The creation of advantage passes through various modes used by organisations; therefore, staffing

and directing any function in markets endorse a significant part in a competitive environment. Where the creation of advantage in competitive markets prevails on the functions of the personnel management system, company division put enormous impacts on the strategies in markets (Hafez, AbouelNeel, & Elsaid, 2017).

H1: Personnel management system significantly contributes toward the creation of a firm's competitive advantage.

The use of technology has become a significant factor that contributes to a positive role in a competitive environment. In contrast, literature used various terminologies of technology that have endorsed a vital impact on competition. Communications in organisations provide a wider view of happenings in global markets (Yu, Zhang, Lin, & Wu, 2017). However, the variation is prevalent in the bulk of companies via strategy, and communication enhances levels of competition between organisations. Systems of technology widely induce significant measures in organisations with an enhanced level of systems to compete in a global environment, as stated in the literature (Park, El Sawy, & Fiss, 2017). The participation of various techniques to attain various advantages is prevalent in literature, but the inducing elements of communication and information technology inserts positive trends in organisations. Advancements trends in the world markets; therefore, effective strategies with grown technological measures assert better results in the competing world (Turel, Liu, & Bart, 2017). The circulation of various trends could be captured through the use of information technology, which widely enhanced the capabilities of organisations to create advantage positions. Although information technology rates various capabilities in a competitive markets, the level of communication also enhanced the capable systems through its significant usage (Rokanta, 2017).

H2: Communication and information technology systems play a vital role in the creation of the firm's competitive advantage.

While enhancing the dominance of participation that prevails in structural attitudes of organisations to create a competitive advantage, knowledge management is important by prioritising the element of participation (Abdelkader & Abed, 2016). The system of knowledge management significantly results in the creation of an advantage in competition, while the importance of knowledge management could be eminent in organisations. The trends in markets for the creation of advantage includes various factors from numerous organisations. At the same time, the eminent usage of the technology system induces prominent measures for numerous advantages (de Guimarães, Severo, & de Vasconcelos, 2018).

The phenomenon of knowledge management, although researched a lot is getting more and more attention from researchers as more knowledge brings the purity and perfection in the

organisation product in order to have a competitive advantage. If the organisation has a proper knowledge management system, this will definitely affect its performance. There is a positive association reported between the firm knowledge management system and firm success (Akram et al., 2011; García-Sánchez, García-Morales, & Bolívar-Ramos, 2017). Organisations survive in the global world during high competition due to the effective use of knowledge management systems. Although the knowledge management system contributes significant measures for the attainment of a sustainable environment, the dominant use mentioned in different studies includes the creation of a competitive advantage (Mahdi, Nassar, & Almsafir, 2019).

The development of various systems are intended to attain eminent growth by the use of knowledge management, while many other dimensions prevail in the literature of knowledge management that contributes values of advantages. Procedures that are used in various studies to attain a competitive advantage include participation systems where knowledge management is prevalent with significant importance (García-Sánchez et al., 2017). Studies, however, mentioned the system of knowledge management that contributes widely too many instances not only to create competitive advantage but also for the development of organisations from various aspects.

H3: Knowledge management systems significantly help the creation of a competitive advantage.

Participation for the creation of competitive advantage is eminently elaborated in literature with a variety of dimensions where the use of service quality tends some dominant measure over the organisations (Baumann, Hoadley, Hamin, & Nugraha, 2017). Service quality management successfully establishes competitive advantage through various ways in markets, which includes the facilitation of customers with dominant focus over customers. Improvements in qualities and services eminently result in the customers that are dominant in the creation of competitive advantage (Hossain, Tasnim, & Hasan, 2017).

Quality is the prime demand of the customer around the globe. The literature witnessed that a product with better quality usually secures its place in the market in comparison with a low-quality product. The same is the case with service quality. The quality which organisations provide to the customer directly affect the customer purchasing behaviour (Baumann et al., 2017). Once the customer purchasing behaviour changed toward the product in a positive manner, this leads to customer loyalty. Loyal customers are the intangible assets of the organisation. A lot of the time, firms initially provide a better service quality of the product but later fail to maintain it. This benefits the organisation initially, but in the long run, it affects badly on the organisation. Service quality management is a key player in competitive advantage.

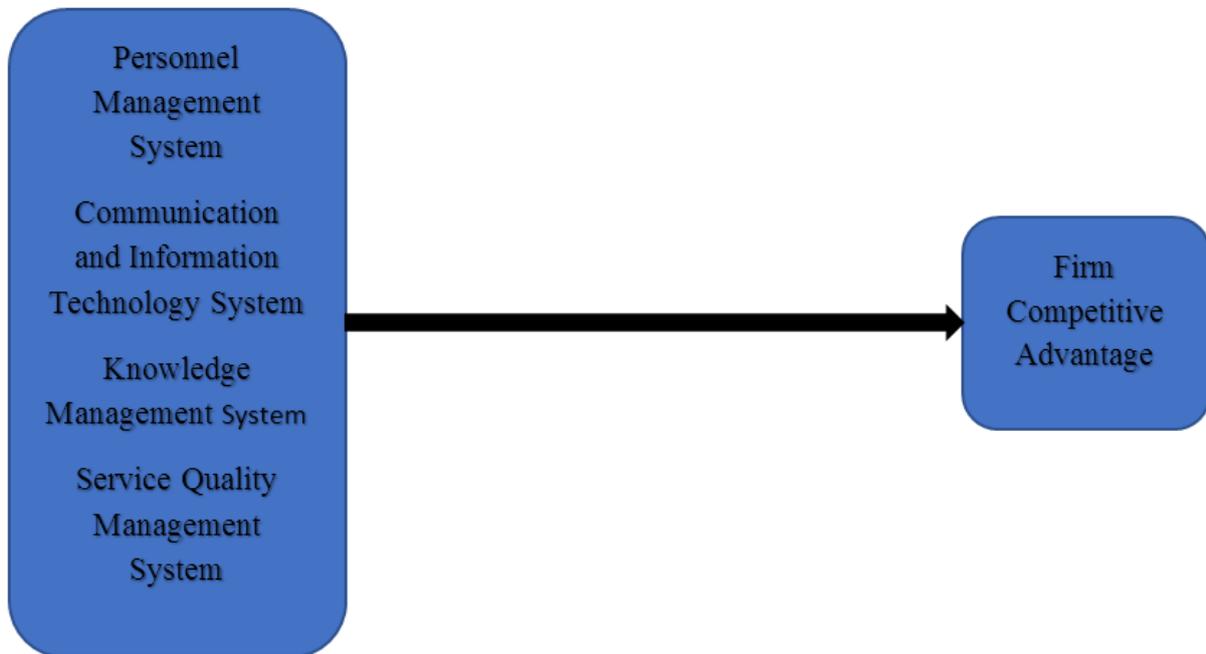
The literature stated service quality as an important aspect due to which some organisations induce a dominant impact over other organisations known as the significant factor for every organisation. Quality of service management successfully contributes to an important role in the creation of competitive advantage, while organisations strive for a sustainable and competitive environment (Kuo, Lin, & Lu, 2017). Organisations grow at a certain pace, but the effective use of participation strategies endorses a robust impact over the growth; therefore, service quality management is considered a significant participation strategy that helps in creating an advantage. Service quality not only helps to grow organisations but put robust influence over the attitudes of people, which could be countered in the future to attain competitive environments (Syapsan, 2019). Usually, profits of the organisation enhance due to the effective use of service quality measures that dominate the status of an organisation over the competing environment. The future is uncertain, as stated vastly in the literature. Still, the effective use of participation strategies inserts a dominant impact on the performance and results in higher profits with significant competitive advantages.

H4: Service quality management systems positively help the creation of a competitive advantage.

Methods and Material

The foremost objective of the present study is to examine the impact of personal management systems, communication and information technology systems, knowledge management system and services quality management systems on the competitive advantage of the firm. The data has been obtained by using questionnaires and 490 questionnaires were distributed to the respondents. After one month and a second personal visit, only 310 were returned and used for analysis that represented a response rate of approximately 63.27 percent. The analysis has been conducted by using the Smart-PLS due to several variables that are included in the model and as the model is considered complex. The variables that have been taken include four independent variables: personal management systems (PMS) that have three items, communication and information technology systems (CITS) that have eight items, knowledge management systems (KMS) that have five items, and services quality management systems (SQMS) that have six items. The dependent variables that have been used in this study, are firm competitive advantage (FCA) that has five items. These variables are shown in Figure 1.

Figure 1. Theoretical Framework



Results

The findings of the present study include the relationship between the items that are known as convergent validity. The figures show that the values of Alpha and CR are more than 0.70, while the values of loadings and Ave are more than 0.50. These values are evident in high relationships among items and valid convergent validity. These values are shown in Table 1.

Table 1: Convergent Validity

Constructs	Items	Loadings	Alpha	CR	AVE
Communication and Information Technology Systems	CITS1	0.754	0.880	0.905	0.544
	CITS2	0.711			
	CITS3	0.665			
	CITS4	0.679			
	CITS5	0.733			
	CITS6	0.733			
	CITS7	0.808			
	CITS8	0.805			
Firm Competitive Advantage	FCA1	0.738	0.798	0.868	0.623
	FCA2	0.751			
	FCA3	0.838			
	FCA5	0.824			

Knowledge Management Systems	KMS1	0.850	0.849	0.892	0.623
	KMS2	0.826			
	KMS3	0.760			
	KMS4	0.717			
	KMS5	0.785			
Personnel Management Systems	PMS1	0.720	0.746	0.806	0.581
	PMS2	0.817			
	PMS3	0.745			
Service Quality Management Systems	SQMS1	0.755	0.860	0.895	0.587
	SQMS2	0.731			
	SQMS3	0.747			
	SQMS4	0.751			
	SQMS5	0.769			
	SQMS6	0.839			

The findings of the current study also include the relationship among the variables that are known as discriminant validity. The first method that has been used is Fornell Larcker, along with cross-loadings. The figures show that values that show links with the variable itself are larger than the values that show links with other variables. From these values it is evident that there is no high relationships among variables and valid discriminant validity. These values are shown in Table 2 and Table 3.

Table 2: Fornell Larcker

	CITS	FCA	KMS	PMS	SQMS
CITS	0.738				
FCA	0.624	0.789			
KMS	0.552	0.655	0.789		
PMS	0.157	0.257	0.308	0.762	
SQMS	0.562	0.648	0.655	0.210	0.766

Table 3: Cross-loadings

	CITS	FCA	KMS	PMS	SQMS
CITS1	0.754	0.555	0.462	0.159	0.397
CITS2	0.711	0.376	0.298	0.037	0.411
CITS3	0.665	0.394	0.297	0.010	0.334
CITS4	0.679	0.410	0.389	0.004	0.396
CITS5	0.733	0.446	0.437	0.153	0.505
CITS6	0.733	0.496	0.398	0.105	0.465
CITS7	0.808	0.459	0.441	0.199	0.397

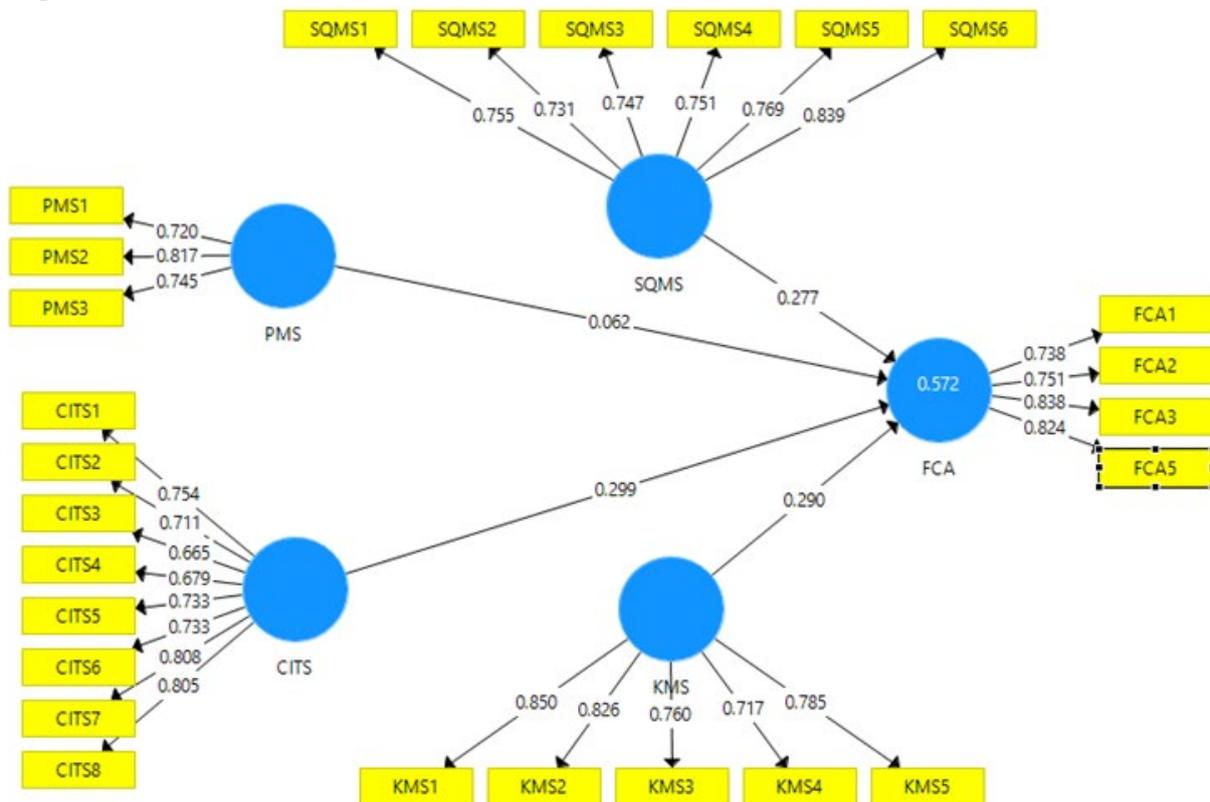
CITS8	0.805	0.502	0.490	0.209	0.413
FCA1	0.438	0.738	0.526	0.196	0.509
FCA2	0.451	0.751	0.429	0.175	0.455
FCA3	0.548	0.838	0.554	0.216	0.549
FCA5	0.525	0.824	0.548	0.220	0.525
KMS1	0.473	0.579	0.850	0.247	0.599
KMS2	0.442	0.518	0.826	0.248	0.523
KMS3	0.372	0.406	0.760	0.290	0.429
KMS4	0.423	0.452	0.717	0.193	0.424
KMS5	0.455	0.591	0.785	0.243	0.570
PMS1	0.180	0.220	0.197	0.720	0.129
PMS2	0.041	0.206	0.277	0.817	0.202
PMS3	0.141	0.143	0.232	0.745	0.147
SQMS1	0.526	0.471	0.434	0.128	0.755
SQMS2	0.406	0.625	0.711	0.256	0.731
SQMS3	0.349	0.405	0.380	0.123	0.747
SQMS4	0.360	0.459	0.481	0.122	0.751
SQMS5	0.439	0.434	0.440	0.168	0.769
SQMS6	0.492	0.518	0.472	0.133	0.839

The second method that has been used is the Heterotrait Monotrait (HTMT) ratio. The figures show that the values of the HTMT ratio are lower than 0.90. From these values it is evident that there are no high relationships among variables and valid discriminant validity. These values are shown in Table 4.

Table 4: Heterotrait Monotrait Ratio

	CITS	FCA	KMS	PMS	SQMS
CITS					
FCA	0.733				
KMS	0.626	0.780			
PMS	0.251	0.344	0.419		
SQMS	0.643	0.762	0.731	0.269	

Figure 2. Measurement Model Assessment

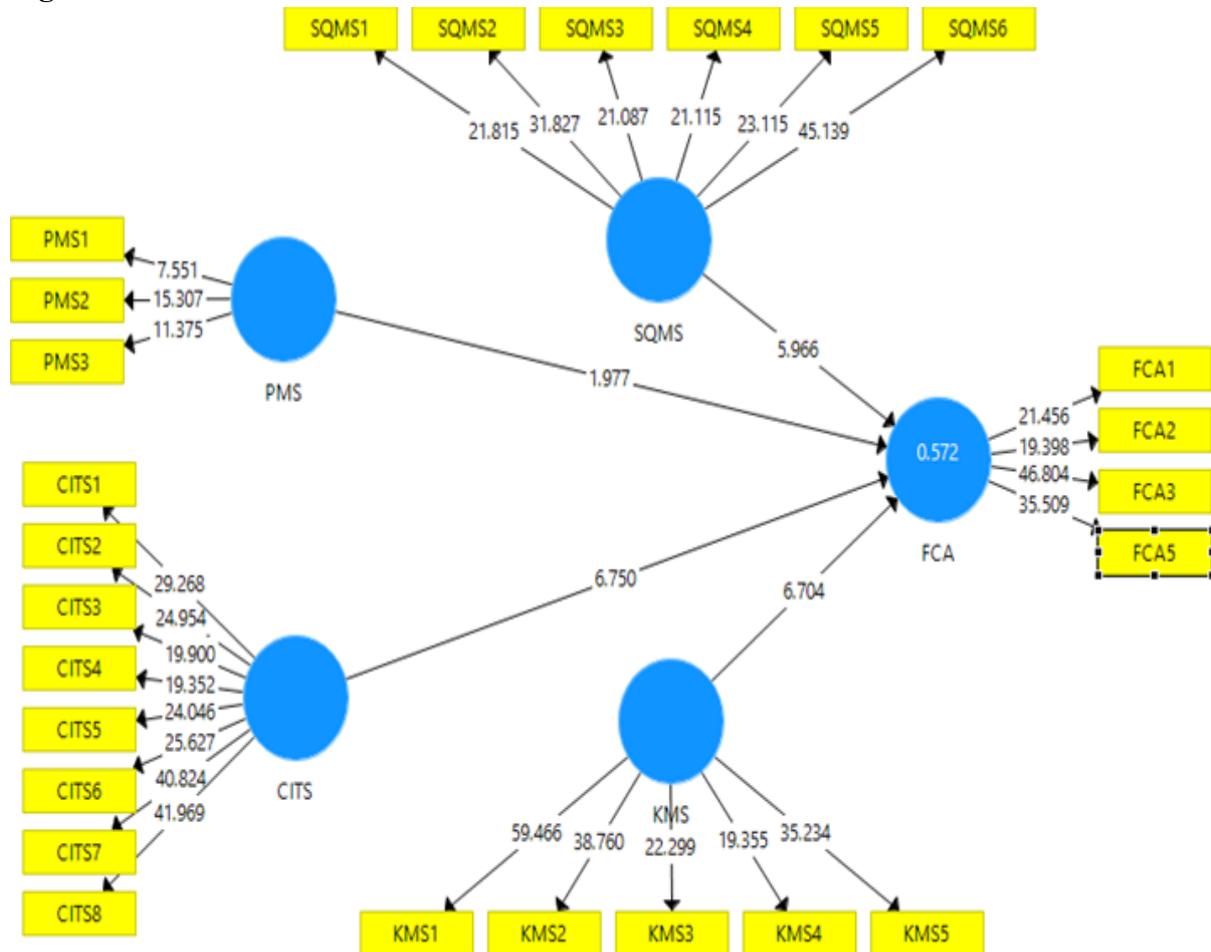


The path analysis shows the hypotheses testing, and the results show that personal management systems (PMS), communication and information technology systems (CITS), services quality management systems (SQMS) and knowledge management systems (KMS) have a positive association with a firm competitive advantage and H1, H2, H3 and H4 are accepted. These links are shown in Table 5.

Table 5: Path Analysis

Relationships	Beta	S.D.	t-statistics	p-values	L.L.	U.L.
CITS -> FCA	0.299	0.044	6.750	0.000	0.231	0.388
KMS -> FCA	0.290	0.043	6.704	0.000	0.188	0.354
PMS -> FCA	0.062	0.032	1.977	0.047	0.009	0.127
SQMS -> FCA	0.277	0.046	5.966	0.000	0.184	0.367

Figure 3. Structural Model Assessment



Discussions and Implications

The results revealed that personal management systems, communication and information technology systems, knowledge management systems and services quality management systems have a positive association with the competitive advantage of the firm. These findings are matched with the results of Mao, Liu, Zhang, and Deng (2016), who also examined that the competitive advantage depends on the information along with knowledge management of the firm. In addition, a study by Obeidat, Yousef, Tawalbeh, and Masa'deh (2018) found that services and product quality management systems are positively associated with the competitive advantage of the firm. Moreover, these outputs are similar to the findings of Lee, Foo, Leong, and Ooi (2016), who examined that competitive advantage could be achieved by employing knowledge management in the firm. These findings are providing the guidelines to the regulation formulation authorities that they should focus on the personal, knowledge, services quality and information technology management systems of the firm that enhance the competitive advantage of the firm that ultimately enhance the firm performance.



Conclusion and Future Directions

The present study has concluded that the firm has successfully implemented the knowledge, communication and information, personal and quality services management systems that are the reason for the highly competitive advantage among the companies in the country. The present study has recommended that future research should add any mediating and moderating variable to the model that is ignored by the present study. In addition, the current study also suggested that prospective studies should expand in scope by adding more factors that influence the competitive advantage of the analysis.

REFERENCES

- Abdelkader, B., & Abed, B. (2016). The effect of information technology on competitive advantage of firm: the role of environmental uncertainty. *The International Journal of Management Science and Information Technology (IJMSIT)*(22), 16-39.
- Abualoush, S., Masa'deh, R., Bataineh, K., & Alrowwad, A. (2018). The role of knowledge management process and intellectual capital as intermediary variables between knowledge management infrastructure and organisation performance. *Interdisciplinary Journal of Information, Knowledge, and Management*, 13, 279-309.
- Akram, K., Siddiqui, S. H., Nawaz, M. A., Ghauri, T. A., & Cheema, A. K. H. (2011). Role of knowledge management to bring innovation: An integrated approach. *International Bulletin of Business Administration*, 11, 121-134.
- Baumann, C., Hoadley, S., Hamin, H., & Nugraha, A. (2017). Competitiveness vis-à-vis service quality as drivers of customer loyalty mediated by perceptions of regulation and stability in steady and volatile markets. *Journal of Retailing and Consumer Services*, 36, 62-74.
- Coccia, M. (2017). Sources of technological innovation: Radical and incremental innovation problem-driven to support competitive advantage of firms. *Technology Analysis & Strategic Management*, 29(9), 1048-1061.
- de Guimarães, J. C. F., Severo, E. A., & de Vasconcelos, C. R. M. (2018). The influence of entrepreneurial, market, knowledge management orientations on cleaner production and the sustainable competitive advantage. *Journal of Cleaner Production*, 174, 1653-1663.
- Delery, J. E., & Roumpi, D. (2017). Strategic human resource management, human capital and competitive advantage: is the field going in circles? *Human Resource Management Journal*, 27(1), 1-21.
- García-Sánchez, E., García-Morales, V. J., & Bolívar-Ramos, M. T. (2017). The influence of top management support for ICTs on organisational performance through knowledge acquisition, transfer, and utilisation. *Review of Managerial Science*, 11(1), 19-51.
- Hafez, E., AbouelNeel, R., & Elsaid, E. (2017). An exploratory study on how talent management affects employee retention and job satisfaction for personnel administration in Ain Shams University Egypt. *Journal of Management and Strategy*, 8(4), 1.
- Hossain, M. Z., Tasnim, M., & Hasan, M. R. (2017). "Is Quality Ensuring to Get Competitive Advantages in Auto Manufacturing Industries?"—A Study of Volvo Group. *American Journal of Industrial and Business Management*, 7(1), 48-68.

- Hu, B., Leopold-Wildburger, U., & Strohhecker, J. (2017). Strategy map concepts in a balanced scorecard cockpit improve performance. *European Journal of Operational Research*, 258(2), 664-676.
- Hussain, M. S., Musa, M. M., & Omran, A. (2019). The Impact of Regulatory Capital on Risk Taking By Pakistani Banks. *SEISENSE Journal of Management*, 2(2), 94-103.
- Kimani, G. K., & Ogutu, M. (2018). The Effect Of External Environment And Firm Size On The Relationship Between Knowledge Management And Competitive Advantage. *European Journal of Business and Strategic Management*, 2(9), 71-84.
- Kulkarni, U., Robles-Flores, J. A., & Popovič, A. (2017). Business intelligence capability: the effect of top management and the mediating roles of user participation and analytical decision making orientation. *Journal of the Association for Information Systems*, 18(7), 1.
- Kuo, S.-Y., Lin, P.-C., & Lu, C.-S. (2017). The effects of dynamic capabilities, service capabilities, competitive advantage, and organisational performance in container shipping. *Transportation Research Part A: Policy and Practice*, 95, 356-371.
- Lee, V.-H., Foo, A. T.-L., Leong, L.-Y., & Ooi, K.-B. (2016). Can competitive advantage be achieved through knowledge management? A case study on SMEs. *Expert Systems with Applications*, 65, 136-151.
- Mahdi, O. R., Nassar, I. A., & Almsafir, M. K. (2019). Knowledge management processes and sustainable competitive advantage: An empirical examination in private universities. *Journal of Business Research*, 94, 320-334.
- Mao, H., Liu, S., Zhang, J., & Deng, Z. (2016). Information technology resource, knowledge management capability, and competitive advantage: The moderating role of resource commitment. *International Journal of Information Management*, 36(6), 1062-1074.
- Mironova, M. D., Zaitseva, N. A., Larionova, A. A., Akhpolova, V. B., Glagoleva, L. E., & Belozerova, J. M. (2017). Features of innovative personnel management of service companies in the period of implementation of organisational changes. *Eurasian Journal of Analytical Chemistry*, 12(5), 793-802.
- Nawaz, M. A., & Hassan, S. (2016). Tourism in South Asia. *International Journal of Economic Perspectives*, 10(4), 591-601.
- Ngugi, J., & Kising'u, T. (2017). Effect of competitive strategies on sustainable competitive advantage of savings and credit cooperative societies in Kenya (A survey of savings and credit cooperative societies in Mombasa County). *Strategic Journal of Business and Change Management*, 4(2), 1-15.

- Obeidat, D., Yousef, B., Tawalbeh, H. F., & Masa'deh, R. e. (2018). The relationship between human resource management (HRM) practices, total quality management (TQM) practices and competitive advantages. *Modern Applied Science*, 12(11), 25-44.
- Park, Y., El Sawy, O. A., & Fiss, P. (2017). The role of business intelligence and communication technologies in organisational agility: a configurational approach. *Journal of the Association for Information Systems*, 18(9), 1-3.
- Perepadya, F. (2017). Personnel management of industrial enterprises under preservation of human capital. *Науковий вісник Міжнародного гуманітарного університету. Серія: Економіка і менеджмент*(27 (2)), 28-32.
- Rokanta, S. A. (2017). *Information technology adoption and competitive advantage of higher education*. Paper presented at the 2017 International Conference on Information Management and Technology (ICIMTech).
- Sachitra, V., & Chong, S.-C. (2017). Relationships between institutional capital, dynamic capabilities and competitive advantage: Empirical examination of the agribusiness sector. *International Review of Management and Marketing*, 7(1), 389-397.
- Savchenko, Y., Goleva, O., Korchagina, I., Ovsyannikova, A., & Lobanova, Y. (2019). Innovative technologies of personnel management of industrial enterprises in terms of introducing professional standards. *MS&E*, 483(1), 012057.
- Syapsan, S. (2019). The effect of service quality, innovation towards competitive advantages and sustainable economic growth: Marketing mix strategy as mediating variable. *Benchmarking: An International Journal*, 26(4), 1336-1356.
- Turel, O., Liu, P., & Bart, C. (2017). Board-level information technology governance effects on organisational performance: The roles of strategic alignment and authoritarian governance style. *Information Systems Management*, 34(2), 117-136.
- Vengerova, O. (2017). The Concept of Internal Marketing in the Process of Personnel Management at the Enterprise. *Sustainable Development Of Economy*, 61.
- Widiyanto, A. F., & Rahab, R. (2017). Community participation in bank of garbage: Explorative case study in Banyumas regency. *Masyarakat, Kebudayaan dan Politik*, 30(4), 367-376.
- Xinping, S. (2017). Conceptual Model of Employees' Effective Participation in Competitive Intelligence in Web 2.0. *Information Studies: Theory & Application*(3), 2.
- Yang, S., Ishtiaq, M., & Anwar, M. (2018). Enterprise risk management practices and firm performance, the mediating role of competitive advantage and the moderating role of financial literacy. *Journal of Risk and Financial Management*, 11(3), 35-39.



- Yeng, S. K., Jusoh, M. S., & Ishak, N. A. (2018). The impact of total quality management (TQM) on competitive advantage: a conceptual mixed method study in the Malaysia Luxury Hotel Industries. *Academy of Strategic Management Journal*, 17(2), 1-9.
- Yu, C., Zhang, Z., Lin, C., & Wu, Y. J. (2017). Knowledge creation process and sustainable competitive advantage: The role of technological innovation capabilities. *Sustainability*, 9(12), 2280-2296.