

PalArch's Journal of Archaeology of Egypt / Egyptology

THE MODERATING ROLE OF SUPPLY CHAIN MANAGEMENT AMONG THE ORGANISATIONAL PERFORMANCE AND COMPETITIVE ADVANTAGE IN RANONG THAILAND

Witthaya Mekhum¹, Waleerak Sittisom²

^{1,2}Suan Sunandha Rajabhat University, Bangkok, Thailand

¹witthaya.me@ssru.ac.th, ²waleerak.si@ssru.ac.th

Witthaya Mekhum, Waleerak Sittisom. The Moderating Role of Supply Chain Management among the Organisational Performance and Competitive Advantage in Ranong Thailand. – Palarch's Journal of Archarology of Egypt/Egyptology 17(2), 118-130. ISSN 1567-214X

Keywords: Competitive advantage, Organisational performance and SCM.

ABSTRACT

The following study is aimed towards evaluating the moderating role of supply chain management in between organisational performance and competitive advantage. The manufacturing sector of Thailand has been taken into consideration. The research design was quantitative in nature where positivism philosophy was utilised to carry out the quantitative analysis. The survey questionnaire has been selected as the research instrument which is based on 5-point Likert scale. The final sample size of the study was taken as 400 which are entirely based on the employees working in manufacturing sector of Thailand. For analysis, Smart PLS has been used through Structural Equating Modelling (PLS-SEM). The findings of the study revealed that SCM moderates the relation between organisational performance and competitive advantage. The key limitations of this research have been mainly linked with the type of research methodology that was incorporated in this study. Since, researcher in this study has only emphasised on quantitative research design by collecting numerical and factual information, thus, the absence of detailed and qualitative data about the research topic has been one of the major shortcomings of this study.

INTRODUCTION

The for-profit organisations have always been in the race of gaining the position of market leader within the particular sector that they operate. In this context, organisations compete based on prices and quality but now, the competition has become so stiff that now organisations are competing based on their resources and capabilities where the supply chain is the most important element in competition (AlMazrouei & Pech, 2015; Gilal, Gilal, Jian, Gilal, & Gilal, 2016). Organisations, for extracting the best performance, are dependent upon their capabilities which in turn lead them to perform exceptionally well and gain competitive advantage. In this process, many factors can play the intermediary role between organisational performance and competitive advantage.

Since the advent of globalisation, the supply chain management has become the core component of open-system organisations that tend to interact frequently with the outside environment (Gawankar, Gunasekaran, & Kamble, 2020; Kerdpitak, 2019). This chain needs to be proactive and continuously provide information and goods from and to the company without interruption because distortion of any kind can lead to the company losing its profitability and eventually the market share to competitors that are in awe of overtaking the market leaders. Also, the green supply chain has become an emerging concept in companies which shapes the positive behaviour of customers ultimately impact the profitability positively and contributing to competitive advantage (Kerdpitak, Hotrawaisaya, & Khaengkhan, 2019; Khaksar, Abbasnejad, Esmaeili, & Tamošaitienė, 2016). With regards to this discussion, the study intends to analyse that in what way the supply chain can be managed effectively for enhancing profitability and attaining competitive advantage.

Many companies operating in a number of industries have conducted several studies on the implementation of supply chain management practices. For example, from the information technology sector, information technology providers such as SAP, PeopleSoft and JDEdwards have described in detail their successful implementation of supply chain management. Blended with all of this literature, the studies are reflective of the efforts required for addressing various aspects of supply chain management practices. However, it must be noted that there exists an absence of a framework of an integrated nature which tends to incorporate all the different activities both downstream and upstream aspects of the supply chain. In the same way, another type of literature is absent which links all of a supply chain activity to both the constructs that are being explored in this paper, namely organisational performance and competitive advantage.

In this study, therefore, the operational measures for the different constructs and variable involved have been developed and empirically tested. The study is based on quantitative data collection from primary sources using a survey questionnaire. The relationships have been hypothesized using structural equation modelling. The underlying expectation from this present research study is that this research will be able to help scholars and researchers that are conceptualized the scope and the activities associated with the supply chain management practices. In addition to this, through offering an instrument to gauge the supply chain management practices and through the provision of empirical evidence on the impact of the practices on the (a) organisational performance and (b) competitive advantage, the expectation is that the research will be able to draw appropriate and relevant recommendations to facilitate further investigation into the given subject area.

The underlying objective of this research is that of investigating the role of supply chain management practices in organisational performance and competitive advantage of the organisation. However, this aim has been divided into the following objectives: to examine the emerging role of the supply chain over the past decade, to examine factors of organisational performance that help in attaining competitive advantage, to analyse the relationship among organisational performance and competitive advantage, and to assess

the moderating role of supply chain management among organisational performance and competitive advantage (Hailiang, Ramzani, & Long, 2020).

The overall scope of this research is restricted to the manufacturing sector of Thailand. Over the years, several studies have been carried out to assess the role of supply chain management for improving organisation performance and enabling organisation to achieve competitive edge in the market; however, in the context of developing countries like Thailand there is found to be lack of investigation and researches in the existing literature. Therefore, research is aimed to fill this research gap by conducting the study on Thailand's manufacturing sector. As per the report of ING (2019) Thailand's manufacturing industry is regarded as the backbone of the country, which produce wide ranging goods like plastics, garments and textile, electronics, footwear, computers and components, integrated circuits, electronics, cement, and automobiles and parts. In accordance with another report of Oxford Business Group (2016) the manufacturing industry of Thailand makes around 27.4% of contribution to country's GDP in 2016. Moreover, Thailand's manufacturing sector is also accounted for employing 16% of the overall labour force in the country, as it has created around 9.3 millions jobs in 2016.

The competitive investment, well established infrastructure and economic stability have made an important contribution in ensuring the stable flow of financing to manufacturing sector of Thailand from both domestic and foreign sources. This has led towards making it one of the most prominent and major manufacturing bases in the ASEAN region, and also the second largest economy with respect to trade block (ASEAN Briefing, 2019; Irshad, 2017). However, the manufacturing sector of Thailand has also faced with several challenges from stagnant domestic and global economy. In these scenarios, carrying out the investigation on the manufacturing sector of Thailand has increased the value of this study, as it promises to make valuable contribution in the existing literature. The following section reviews the contemporary theoretical research literature and also outline the research framework for the study. In the third section of this paper, the research methodology has been presented; all important aspects of the data connection and data analysis have been presented. Finally, towards the end of this research study, the results have been presented and analysed using the aforementioned data analysis techniques (Handika & Ekananda, 2019).

LITERATURE REVIEW

Supply chain management practices constitute an eclectic range of activities which are undertaken by an organisation for effectively managing the supply chain. Ali, Gongbing, and Mehreen (2018) have described the most modern evolution of supply chain management that includes outsourcing, supplier partnerships, continuous process flow and cycle time compression. At the same time, information technology and information sharing have also been included in the most modern supply chain management practices. Yu and Huo (2019); Adebola (2018) uses quality, purchasing and customer relations for discussing supply chain management. Similarity, in the study conducted by Tripathi (2020) supply chain management practices in include a concentration of the core competencies and more importantly, the elimination of extractive inventory level. This is achieved by delaying any sort of customisation for ending the supply chain. Cai, Huang, Liu, and Liang (2016); Guneri and Yildiz (2019) have identified as many as 6 different aspects of supply chain management practices with the help of factor analysis. These aspects include information sharing, supply chain integration, customer service management, supply chain characteristics, the capability of just in time inventory, and geographical proximity. On the other hand, Ojha, Acharya, and Cooper (2018) used something that is referred to as supplier base reduction, along with cross-functional teams, long-term relationships, effective communication and supplier involvement for assessing the relationship between the purchasers and the suppliers. Leonidou, Christodoulides, Kyrgidou, and Palihawadana (2018) have identified the supply chain management concept and including mutual goal and objectives, the sharing of risks and

profits, mutual cooperation, information, and integration, and a mutually agreed leadership pertaining to the supply chain. Consequently, a number of perspectives may be considered for accurately conceptualizing the construct of supply chain management with an objective of enhancing the organisational performance in the long-term strategic time frame.

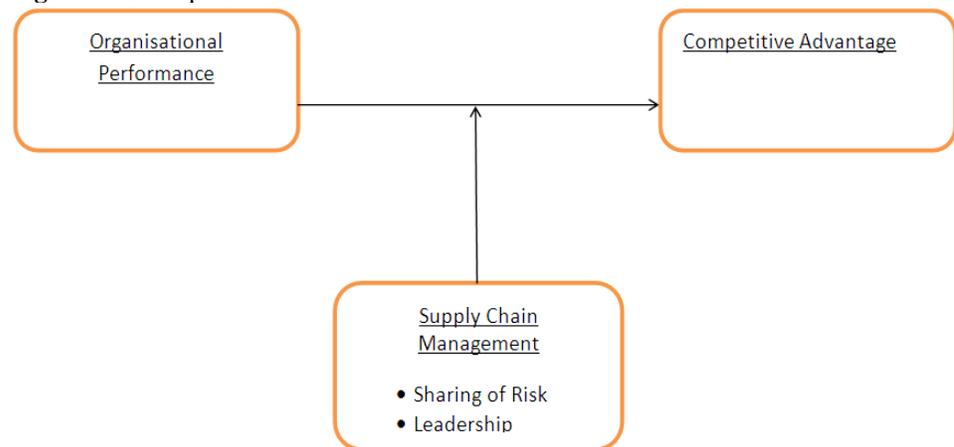
It must be noted that although the dimensions of supply chain management that have been pointed out in the preceding text are capable of conceptualising a majority of aspects of supply chain management practice, they do not give a comprehensive overview of the concept. There are other factors which complete the picture in this case. For example, the factors of just in time capability, geographical proximity and logistics integration are all pertinent for the discussion and they have also been adequately covered in the contemporary research literature. These factors, although are of critical importance in the analysis of the concept of supply chain management, have not been included in the research instrument that has been developed for this particular study (He, 2019).

Competitive advantage refers to a defensible position which a firm can hold in the industry against its competitors. The competitive advantage of an organisation is comprised of those skills and capabilities which fundamentally allow a business to differentiate itself from that of its competitors as a payoff of management decisions of a critical nature. The most recent literature review incorporates time-based competition as a very critical priority of this message operating in the contemporary corporate landscape. For instance, studies conducted by various authors have identified the resource of time as an ultimate source of competitive advantage. Roespinoedji, Afghan Prawira, Solihin, Saudi, and Alaeddin (2019) describe a number of dimensions of competitive advantage for a firm. These dimensions include competitive pricing, value to customer quality, premium pricing, and innovation in the production process. The dimensions of competitive advantage that have been selected for this present research study include quality, dependability of delivery, price, time to market and product innovation. The third construct of the study is organisational performance. Organisational performance reflects how well an organisation have been successful in achieving its goals that are related to the market as well have its finances. It has been discussed in the contemporary research literature that the short-term objective of supply chain management is to increase productivity and also minimise the inventory and cycle time. On the other hand, the long-term objective is to maximize profitability and enhance market share.

A number of financial metrics have been serving as potential tools for the comparison of organisations and evaluation of the behaviour of an organisation over a period of years. Any sort of organisational activities that have been initiated, including the supply chain management practices, must lead to enhanced organisational performance. Many different studies have been conducted in the past that have attempted to measure organisational performance using the market as well as financial criteria the return on investment, the profit margin on sales, market share and the growth of sales.

CONCEPTUAL FRAMEWORK

The conceptual framework of the study is designed as,

Figure 1: Conceptual Framework.**HYPOTHESES**

H1: Sharing of Risk moderates the relation between organisational performance and competitive advantage

H2: Leadership moderates the relation between organisational performance and competitive advantage

H3: Mutual Cooperation moderates the relation between organisational performance and competitive advantage

It has been established in the research literature that supply chain management practices influence organisational performance as well as a competitive advantage for any organisation under consideration. These practices are always expected to make an improvement to the overall competitive position of the organisation with the help of price, delivery dependability, quality, innovation related to the product, and the time to market. Previous research studies on this subject have established that there are various components of supply chain management practices that influence a number of dimensions of competitive advantage. For instance, the research literature argues that supplier performance may be enhanced using strategic supplier partnerships and that a higher level of supply chain integration may be seen through vast information sharing. However, it must be noted that any strategy that postpones supply chain management practices increases supply chain flexibility but at the same time, tends to balance customer responsiveness and global efficiency.

Hypothesis 4. The improved performance of the company leads to an increase in competitive advantage.

In the contemporary corporate landscape, having a competitive advantage reflects that any organisation can potentially carry a range of capabilities when it is compared to its competitors operating in the same industry. Reduced prices and higher levels of quality are all categorised under price capability. Overall performance of the organisation is much enhanced when used in all of the capabilities. A competitive advantage can, therefore, lead to a very high level of performance, and loyalty and satisfaction from the customers (Ipole, Agba, & Okpa, 2018). The effectiveness of the relationship between the organisation and its customers can also be thus enhanced. The brands that have a high customer loyalty level tend to confront a very minimum competitive switching amongst their target segment, thereby leading their profitability and sales to the maximum.

METHODOLOGY

Research design and data collection process

This study is characterized by quantitative research design. The underpinning research philosophy is the philosophy of positivism and the research approach that has been adopted towards the data collection and return analysis is the deductive approach. In this essence, the researcher has selected primary method of data collection which is used for the purpose of gathering questionnaire. Moreover, there has been a use of close-ended survey questionnaire which has helped in collection data. The questionnaire was based on 5-point Likert scale which ranged from the scale of strongly disagrees to strongly agree. The scales were coded from 1-Strongly Disagree to 5-Strongly Agree. For the purpose of carrying analysis in this study, the data was collected from the employees working in the manufacturing sector of Thailand which has direct understanding regarding the SCM practices, competitive advantage and the organisational performance. In order to approach the participants, the researcher accessed different platforms which include, online surveys, distribution of surveys through Google form and through email so as to have higher response rate of the questionnaire.

Sampling technique and sample size

The present research is based assessing the moderating role of SCM on performance of company and the competitive advantage. For this purpose, the employees belonging manufacturing sector working in the SCM department have been considered for this research. The researcher used purposive sampling technique which is the type of non-probability sampling and it is selected because of the nature of the study as it involves employees who are working in the supply chain department of manufacturing sector companies in Thailand. The total sample size of the study was 400 samples were considered as it was appropriate for the analysis.

Data analysis technique

For the purpose of obtaining results, the researcher has used Smart PLS software for carrying out the test using SEM. The test included CFA along with the Path assessment. Moreover, the validity and reliability of the results were also considered for which discriminant validity and construct reliability were considered. In addition to the above mentioned test, the researcher also used blindfolding which is used for determining the relevance of model.

RESULTS

Measurement model- partial least square algorithm (PLS)

The main purpose of this section is to provide CFA analysis which is mainly used for determining the measurement model. In this analysis, the reliability for each variable has been tested in accordance with the study of Hubona (2009) in which the minimum value for the composite reliability along with the Cronbach Alpha is estimated at 0.6. In this consideration, the results which are highlighted in the table 1 explain the latent constructs of variables which are taken into consideration for this study. In the context of composite reliability of the study, it can be asserted that composite reliability for competitive advantage is estimated at 0.930; however, the value for Cronbach Alpha is 0.899. In addition to the above statement, the other significant factor which needs to be considered is the outer loading having threshold of 0.6 on the standard level. In this essence, the table 1 depicts that there is no requirement of dropping any factor because the values represented in the table are above the threshold values. The minimum computed value in this regard is 0.838. Furthermore, the outer loadings are also considered to be significant

as they are found to be significant using the steps of bootstrapping. The table presented below also reflected average variance extracted which is considered as a measure for extracting convergent validity. AVE is known as the average amount of variance as the indicator variables in which a construct manage to explain. As per the factor loading of this study, the minimum value estimated is 0.6 and the maximum value estimated is 1 reflecting the amount of variance captured by each construction with the measurement error.

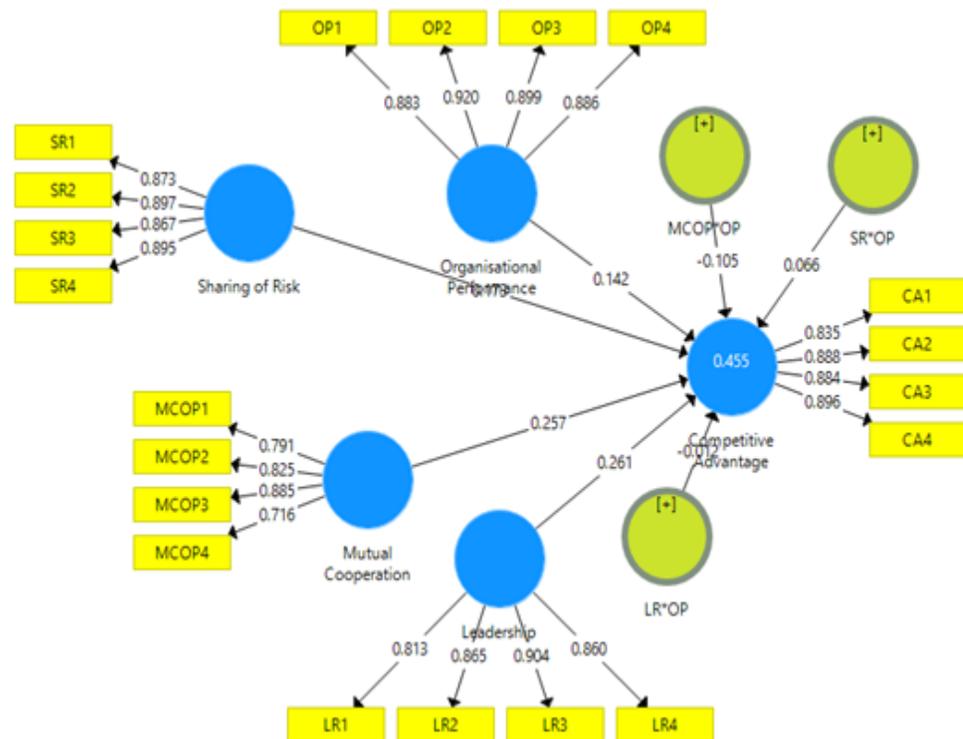
Table 1: Reliability Testing.

	Cronbach's Alpha	Outer Loadings	Composite Reliability	Average Variance Extracted (AVE)
Competitive Advantage	0.899	0.900	0.930	0.767
Leadership	0.885	0.903	0.920	0.742
Mutual Cooperation	0.819	0.838	0.881	0.650
Organisational Performance	0.919	0.920	0.943	0.805
Sharing of Risk	0.906	0.907	0.934	0.780

Furthermore about the explanation of the convergent reliability, it is significant for assessing the distinctiveness for the variables. In this manner, the researcher has used HTMT ratio which has been used for assessing the similarity and distinct characteristics of the variables along with their acceptability values. As per the study of Temme, Kreis, and Hildebrandt (2006) the acceptable value of HTMT ratio is valued at 0.85 based on the conservative criteria. In this manner, the results which are depicted in table 2 highlights that there is no value which is abandoning the pre-set criteria of HTMT ratio and it is also inferred that such variables can be effectively utilised for the path analysis due to their maximum computed value.

Table 2: Discriminant Validity using HTMT Ratio.

	Competitive Advantage	Leadership	Mutual Cooperation	Organisational Performance	Sharing of Risk
Competitive Advantage	0.876				
Leadership	0.511	0.861			
Mutual Cooperation	0.528	0.362	0.807		
Organisational Performance	0.470	0.451	0.399	0.897	
Sharing of Risk	0.472	0.367	0.460	0.700	0.883

Figure 2: Measurement Model.**Path assessment**

The following section is aimed towards providing assessment for the measurement model which has been used in the research that mainly helps in explaining the reliability and validity of the factors, constructions, hypothesis significance in the light of the paths which has been tested through the structural equation modelling. The research conducted by Ringle, Da Silva, and Bido (2015) has proposed that PLS path models helps in the evaluation of the predictive performance of the constructs and variables. Moreover, the path assessment enables the researchers to cross-validate the prediction errors for the variables, latent variables of the constructs. The significance of the constructs has been evaluated with the help of bootstrapping where the results have been presented in the table presented below. According to the study conducted by Wong (2013) the bootstrapping is referred as the process for determining the significance of the variables with the subsampling and resampling.

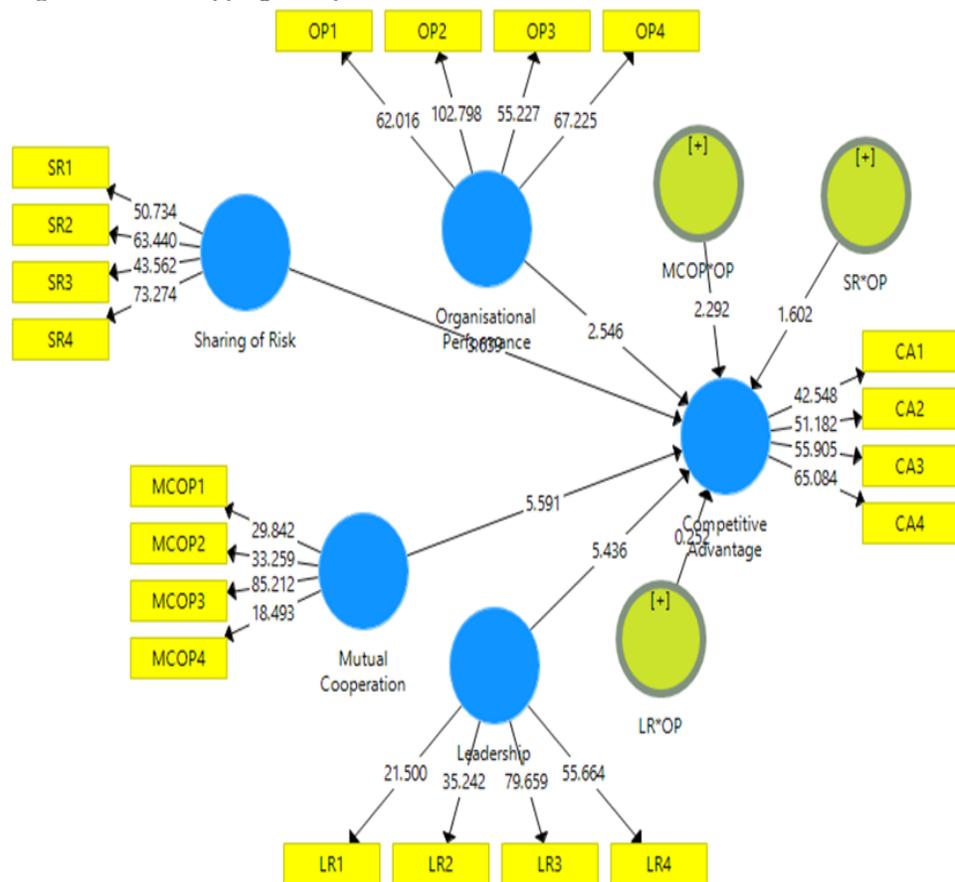
It is also considered as the non-parametric procedure which enables the research to test the statistical significance of PLS-SEM results that includes HTMT, R-square values, Cronbach Alpha and path coefficients. As per the results displayed in table 3, it can be observed that the leadership*organisational performance has insignificant relation with the competitive advantage as the path coefficient is estimated at -0.012 with the p-value of 0.801 which is greater than the significance level of 0.05 ($B = -0.012$; $p\text{-value} = 0.801 > 0.05$). In addition, the relation between the leadership and competitive advantage is significant because the path co-efficient is positive and the p-value is less than 0.05 which is estimated at 0.000 ($B = 0.261$; $p\text{-value} = 0.000 < 0.05$). When considering the relation in mutual cooperation*organisation performance with the competitive advantage, again a significant result is identified which implies that moderating role of mutual cooperation between organisational performance and competitive advantage exist within the study ($B = -0.105$; $p\text{-value} = 0.002 < 0.05$). Considering the relation between mutual cooperation and competitive advantage, a significant relation can be observed because of

the p-value which is estimated at 0.000 which is lesser than 0.05. The results are significant when it comes to assessing the relation between organisational performance and competitive advantage along with risk sharing and the competitive advantage. This implies that factors pertaining to the SCM are having significant moderation between organisational performance and competitive advantage.

Table 3: Path Analysis.

	Path Coefficients	T Statistics	P Values
LR*OP -> Competitive Advantage	-0.012	0.252	0.801
Leadership -> Competitive Advantage	0.261	5.436	0.000
MCOP*OP -> Competitive Advantage	-0.105	2.292	0.022
Mutual Cooperation -> Competitive Advantage	0.257	5.591	0.000
Organisational Performance -> Competitive Advantage	0.142	2.546	0.011
SR*OP -> Competitive Advantage	0.066	1.602	0.109
Sharing of Risk -> Competitive Advantage	0.173	3.639	0.000

Figure 3: Bootstrapping with p-values.



Quality criterion of the model and predictive relevance

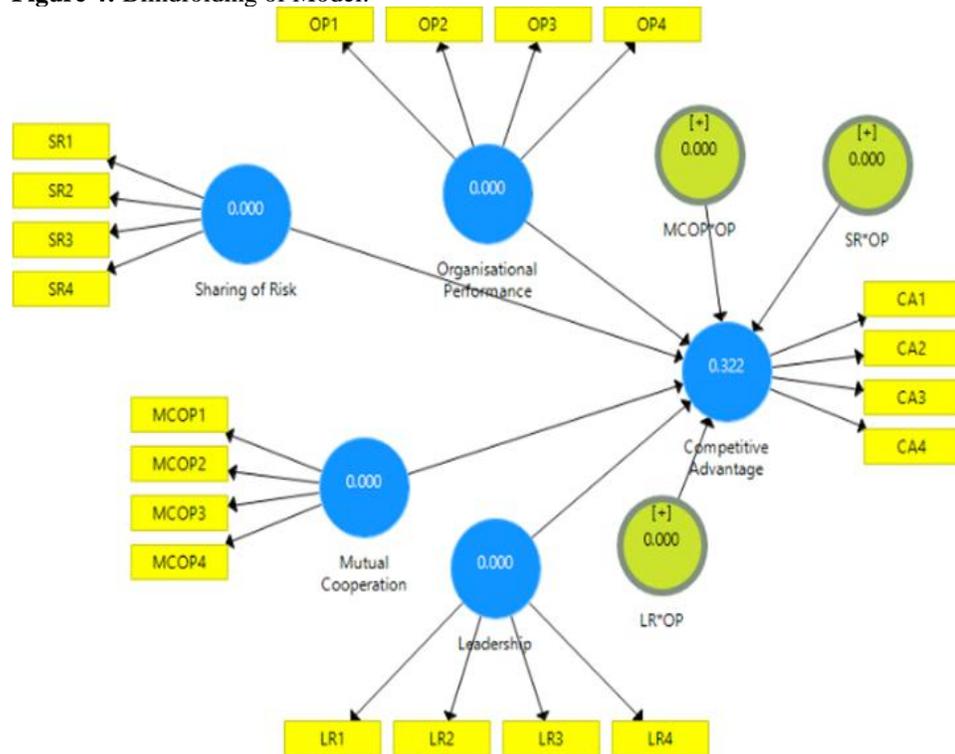
The following section discusses about the quality criterion of the model which explains the R-squared and adjusted R-squared values. Based on the table presented below, the results can be observed that the factors of SCM which includes mutual cooperation, leadership and sharing of risk is explaining 45.5% variance for the competitive advantage

in the firms operating in Thailand. However, after adjustments of the errors, the R-square adjusted is estimated at 44.7% showing the fitness of the model.

Table 4: Quality Assessment of the Model.

	R Square	R Square Adjusted
Competitive Advantage	0.455	0.447

Figure 4: Blindfolding of Model.



Summary of hypotheses

This section is based on the assessment of hypothesis which has been summarised that is based on the findings derived from the study. In this essence, three hypotheses have been focused on SCM practices which include mutual cooperation, sharing of risk and leadership. Rest of the hypothesis belongs to organisational performance and competitive advantage.

Table 5: Table of Hypotheses Assessment Summary.

Propositions	Decision
H1: Sharing of Risk moderates the relation between organisational performance and competitive advantage	Accepted
H2: Leadership moderates the relation between organisational performance and competitive advantage	Rejected
H3: Mutual Cooperation moderates the relation between organisational performance and competitive advantage	Accepted
H4: The improved performance of the company leads to an increase in competitive advantage.	Rejected

DISCUSSION

In previous section, the overall results of this study are presented through different statistical methods and measures. However, this section is about the discussion of key research findings. Firstly, the test for measurement model has been carried out to test reliability of each variables. In this regard, the values of composite reliability, Cronbach Alpha, and outer loading of all the variables are identified, as above the threshold, thus there was no need to drop any factor or variable from this study. Apart from that, the distinctiveness and similarity of the variables have been tested through HTMT ratio. With respect to the results of HTMT ratio, no variable was found to violate the criteria of HTMT ratio; hence, all the variables were qualified for path analysis.

In order to found the association between different variables of this study, the researcher has conducted path analysis. With regards to the sharing of risk, the results of path analysis identify the significant moderating role of sharing of risk between organisational performance and competitive advantages. Similarly, the mutual cooperation is also identifies as another important variable that moderates the relationship between organisational performance and competitive advantage. In contrast, the moderating role of leadership is found to insignificant between organisational performance and competitive advantage. These results are also found to be consistent with previous researches, as study of Leonidou et al. (2018) identifies sharing of risk and mutual cooperation as the most influential factors of organisational performance and competitive edge. Lastly, the findings path analysis outlines insignificant association between improved organisation performance and competitive advantage.

CONCLUSION

The main goal of this research has been to examine the role of supply chain management practices in organisational performance and competitive advantage of the organisation. To achieve this main purpose of the study, researcher has outlined three main factors of supply chain management, which involves sharing of risk, leadership and mutual cooperation. The role of all these variables has been investigated on organisational performance and competitive advantage. The research design that researcher has followed in this study was quantitative, for which different statistical measures and techniques have been followed to analyse the quantitative data. The overall findings of this study confirm that sharing of risk and mutual cooperation significantly moderates the relationship between organisational performance and competitive advantage. However, the variable of leadership was found not to significantly moderate the relationship between organisational performance and competitive advantage. On the other hand, the result reveals no significant relationship between organisational performance and competitive advantage. Conclusively, On the basis of overall findings the H1 and H3 are accepted whereas H2 and H4 are rejected.

LIMITATIONS AND FUTURE RESEARCH

The key limitations of this research have been mainly linked with the type of research methodology that was incorporated in this study. Since, researcher in this study has only emphasised on quantitative research design by collecting numerical and factual information, thus, the absence of detailed and qualitative data about the research topic has been one of the major shortcomings of this study. This as a result has limited the comprehensiveness of research findings. Hence, the future researchers are recommended to incorporate both quantitative and qualitative research design to provide more comprehensive and conclusive research findings. The incorporation of both quantitative and qualitative research design will also enable the future researchers to validate their research outcomes by comparing both the results. On the other hand, the scope of this research has been too broad and general; however, the sample size taken for this study has not been sufficient enough to meet the scope of this research, as overall outcomes of this study cannot apply to every organisation. Therefore, in future the scope of this study

can be considered for more than one specific country and industry, or researchers can consider increasing the sample size of the study.

References

- Adebola, B. D. (2018). Impact of information communication technology on bank performance of selected banks in Ondo state Nigeria. *International Journal of Business Tourism and Applied Sciences*, 6(2), 22-30.
- Ali, Z., Gongbing, B., & Mehreen, A. (2018). Does supply chain finance improve SMEs performance? The moderating role of trade digitization. *Business Process Management Journal*, 26(1), 150-167.
- AlMazrouei, H., & Pech, R. J. (2015). Working in the UAE: Expatriate management experiences. *Journal of Islamic Accounting and Business Research*, 3(1), 19-28.
- ASEAN Briefing. (2019). Asean as Asia's new manufacturing Hub: Too good to be true?. Retrieved from: <https://www.aseanbriefing.com/news/asean-asias-new-manufacturing-hub/on> [Accessed 1st July, 2020].
- Cai, Z., Huang, Q., Liu, H., & Liang, L. (2016). The moderating role of information technology capability in the relationship between supply chain collaboration and organizational responsiveness. *International Journal of Operations & Production Management*, 36(10), 1247-1271.
- Gawankar, S. A., Gunasekaran, A., & Kamble, S. (2020). A study on investments in the big data-driven supply chain, performance measures and organisational performance in Indian retail 4.0 context. *International Journal of Production Research*, 58(5), 1574-1593.
- Gilal, F. G., Gilal, R. G., Jian, Z., Gilal, R. G., & Gilal, N. G. (2016). Supply chain management practices as a contemporary source of securing competitive advantage and organisational performance: Evidence from the FMCGs of Pakistan. *International Journal of Information Systems and Change Management*, 8(3), 246-267.
- Guneri, A. F., & Yildiz, O. (2019). Selection of logistics company in facility management sector with topsis and electre from multi-size decision making methods. *International Journal of Business Tourism and Applied Sciences*, 7(1), 1-9.
- Hailiang, L., Ramzani, S. R., & Long, H. C. (2020). Antecedents of firm's performance: A conceptual model. *International Journal of Emerging Trends in Social Sciences*, 8(1), 25-32.
- Handika, R., & Ekananda, M. (2019). Benefits and Consequences of Diversification: Evidence from Financialized Commodity Portfolios. *Asian Business Research Journal*, 4, 17-28.
- He, S. (2019). In search of determinants of FDI forward spillovers: A meta-analysis. *Humanities and Social Sciences Letters*, 7(1), 10-19.
- Hubona, G. S. (2009). *Structural equation modeling (SEM) using smart PLS software: Analyzing path models using partial least squares (PLS) based SEM*. Paper presented at the AMCIS 2009 Proceedings.
- ING. (2019). Thailand: Manufacturing surprisingly swings back to growth in April. Retrieved from: <https://think.ing.com/articles/thailand-manufacturing-swings-back-to-growth-in-april/> [Accessed 1st July, 2020].
- Ipole, P. A., Agba, A. O., & Okpa, J. T. (2018). Existing working conditions and labour unions agitations in cross river state civil service, Nigeria. *Global Journal of Social Sciences Studies*, 4(1), 39-51.
- Irshad, M. S. (2017). SWOT analysis of Pakistan-China free trade agreement: Pros and Cons. *International Journal of Asian Social Science*, 7(1), 45-53.
- Kerdpitak, C. (2019). Effect of drivers pressures on green supply chain management performance within the hotel industry. *Polish Journal of Management Studies*, 20(2), 290-299.

- Kerdpitak, C., Hotrawaisaya, C., & Khaengkhan, C. (2019). Assisting tourism supply chain performance in Thailand through big data analytics: Moderating role of IT capability. *International Journal of Supply Chain Management*, 8(6), 189-197.
- Khaksar, E., Abbasnejad, T., Esmaeili, A., & Tamošaitienė, J. (2016). The effect of green supply chain management practices on environmental performance and competitive advantage: A case study of the cement industry. *Technological and Economic Development of Economy*, 22(2), 293-308.
- Leonidou, L. C., Christodoulides, P., Kyrgidou, L. P., & Paliawadana, D. (2018). Internal drivers and performance consequences of small firm green business strategy: The moderating role of external forces. *Journal of Business Ethics*, 140(3), 585-606.
- Ojha, D., Acharya, C., & Cooper, D. (2018). Transformational leadership and supply chain ambidexterity: Mediating role of supply chain organizational learning and moderating role of uncertainty. *International Journal of Production Economics*, 197, 215-231.
- Oxford Business Group. (2016). Thailand's manufacturing sector to move further up the value chain. Retrieved from: <https://oxfordbusinessgroup.com/overview/upwards-march-raft-well-performing-industries-manufacturing-sector-set-move-further-value-chain>. [Accessed 1st July 2020].
- Ringle, C., Da Silva, D., & Bido, D. (2015). Structural equation modeling with the SmartPLS. Bido, D., da Silva, D., & Ringle, C. (2014). *Structural Equation Modeling with the Smartpls*. *Brazilian Journal of Marketing*, 13(2), 1-18.
- Roespinoedji, D., Afghan Prawira, E. P., Solihin, I., Saudi, M. H. M., & Alaeddin, O. (2019). Determinants of supply chain performance: Moderating role of firm size in tourism hotel industry in Indonesia. *International Journal of Supply Chain Management*, 8(1), 219.
- Temme, D., Kreis, H., & Hildebrandt, L. (2006). *PLS path modeling*. Humboldt-Universität zu Berlin: Wirtschaftswissenschaftliche Fakultät.
- Tripathi, A. (2020). The integration of the supply chain in the core company strategy: The moderating role of supply chain uncertainty. *SMART Journal of Business Management Studies*, 16(1), 43-54.
- Wong, K. K.-K. (2013). Partial least squares structural equation modeling (PLS-SEM) techniques using SmartPLS. *Marketing Bulletin*, 24(1), 1-32.
- Yu, Y., & Huo, B. (2019). The impact of environmental orientation on supplier green management and financial performance: The moderating role of relational capital. *Journal of Cleaner Production*, 211, 628-639.