

---

# Exploring the Nexus Between the Market Orientation, Market Performance And Financial Performance Of Manufacturing Firms in KSA: Does The Supply Chain Strategy Matter?

---

Abdullah Mohammed Aldakhil<sup>a</sup>, Alamzeb Aamir<sup>b</sup>, Abdelmohsen A. Nassani<sup>c</sup>, Sameh E. Askar<sup>d</sup>

## Abstract

The main purpose of the current study is to examine the impact of the market orientation and financial performance on the market performance of manufacturing firms in KSA. Additionally, the study has examined the mediating role of supply chain strategy in the relationship between the market orientation and market performance, and between the financial performance and market performance. For the present study we had distributed total 350 questionnaires among the operation managers of manufacturing firms in KSA. Whereas we have received 280 questionnaires back from respondents. The response rate for this study was 80%. We have employed the PLS-SEM technique which is referred as second-generation structural equation modelling in the present study for inferential statistics. Findings suggest that those managers who aim to achieve customer satisfaction can successfully achieve market orientation through SCM strategy adoption. While those managers who attempt to improve SCM for enhancing their financial and marketing performance are required to particularly emphasize upon firm and supply chain performance and competition. The study is among the pioneer on the issues related to market orientation, financial performance, SM strategy, market performance of Saudi manufacturing firms.

Keywords: SCM, Market, Financial, KSA

## 1.0. Background

The philosophy of supply chain management (SCM) and its practices emerged for the successful achievement of SCM to gain competitive advantage. The origin of SCM philosophy goes back to the organizational extension theory by Zare (2017), which was primarily developed in context to the marketing framework. According to the organizational extension theory, an organization is suggested to include all the distribution channel

members, which is similar to the concept of Porter's Value System (Seman, Govindan, & Mardani, 2019). Several scholars attempted to define the SCM concept. For instance, supply chain refers to the processes starting from raw materials to the finished product, i.e. the supply chain connects the company suppliers to the final product users (Rouru, 2016). In another definition, integrated SCM is the alignment of customers, buyers, suppliers with the processes for advanced competitive advantage (Lambert & Enz, 2017). In addition, supply chain structure is defined as the collective efforts of firms (two or three), to integrate and manage the related material and information to earn customer loyalty (Cai & Li, 2018). In Zainuddin, Ridzwan, and Ridzwan (2020) and Thatte, Agrawal, and Dhumal (2020) definitions, they particularly emphasized upon customer service. In view of Tiwari, Wei, and Mubarak (2019), SCM is

---

*Abdullah Mohammed Aldakhil, (1st author)*  
*Department of Management, College of Business Administration, King Saud University, P.O. Box 71115, Riyadh 11587, Saudi Arabia*  
*Alamzeb Aamir, (Corresponding author)*  
*Department of Management Sciences, FATA University NMD Kohat.*  
*Email: alamzeb.aamir@fu.edu.pk*  
*Abdelmohsen A. Nassani (Third author)*  
*Department of Management, College of Business Administration, King Saud University, P.O. Box 71115, Riyadh 11587, Saudi Arabia*  
*Sameh E. Askar, (fourth author)*  
*Department of Statistics and Operations Research, College of Science, King Saud University, P.O. Box 71115, Riyadh 11587, Saudi Arabia*

considered as a key trend in the 21<sup>st</sup> century which is important for the professionals in the supply chain management and in purchasing areas. In the 21<sup>st</sup> century, the scope and the significance of SCM have expanded, since the concept of SCM emerged from the supply and purchasing management, therefore, the SCM based research primarily focuses upon business results, integration and customer satisfaction. However, the SCM efforts not always bring desirable results, but is a significant area of concern among the top-level managers, as it serves as a key strategic tool for improving a firm's competitive position (Shaharudin, Govindan, & Zailani, 2017).

The SCM related articles started to emerge during the late 1980s, when scholars shifted their attention from the manufacturing plant towards identifying opportunities to achieve competitive advantage for developing a customer-supplier relationship (Bagais & Aljaaidi, 2020). During mid-90s, the firm manufacturers started to embrace SCM practices and its philosophy with a purpose to achieve efficiency in terms of time and cost which encourage the expansion of logistics and purchasing operations to the marketing and manufacturing units (Lambert & Enz, 2017). Thus, the SCM's philosophy adoption and the related activities are viewed by firms as a key competitive advantage source. Competitive advantage can primarily be achieved through revenue enhancement and cost reduction. Supply chain management philosophy has evolved from EOQ, JIT, MRP, MRP II, Theory of Constraints, Time-based competition to TQM theory. A combination of new Enterprise Resource Planning System and SCM uses an approach i.e. vertical integration approach, which includes various consumer and vendors from all levels into the organization without the necessary member ownership. In an effort to include customers and suppliers from the international market, the domestic supply chains tend to expand, therefore, SCM mastery acts as a key factor for competitive advantage. Khan and Qianli (2017) stated that in the current global business environment, supply chains are facing an increasing competition as compared to the competition among companies. Majority of the recent studies in this area emphasize the significant role of marketing orientation in the success of an organization and on relationship between organizational success and SCM. Till date, no study had attempted to test the nature of interrelationships among market orientation, SCM strategy and organizational performance.

## 2.0. Literature review

A company's market orientation indicates the efforts made by firms for the successful adoption of a marketing concept, i.e. striving to achieve customer satisfaction. Considerable research evidence is available in this area which indicates that businesses having market orientation are likely to become more successful as compared to those who do not adopt market orientation (Guilbault, 2018; Liao, 2018). Marketing orientation involves a decision-criteria (which considers profitability and long-term focus) and three behavioral components, namely, inter-functional coordination, customer orientation, and competitor orientation. Coordinated marketing and customer focus are identified as the marketing orientation themes (Carpenter, 2017), and profit as the firm's marketing outcome. Other prior study Carpenter (2017) also emphasized and analyzed whether business profitability is influenced by the marketing orientation, and found a link between profitability and market orientation (Liao, 2018) and business performance and marketing. They investigated that is there any linkage among marketing orientation, profitability and SCM? Furthermore, supply chain performance is essential to achieve financial success by a business (Kwak, Seo, & Mason, 2018). Thus, effective collaboration and communication between the SC partners ensure that the suppliers, retailers and manufacturers get timely and error free orders. This notion coincides with the concept of market orientation, which ensures to meet customer demands and needs at profit level. In view of Kwak et al. (2018), effective SCM can be achieved by coordinating and collaborating with suppliers as well as with customers, to reduce cost and improve customer service through marketing orientation, which ultimately leads to the improvement in financial performance. Therefore, the present study aims to investigate a linkage among marketing performance, financial success and supply chain performance. A study attempted to analyze the mechanism through which the SCM is used by the companies for gaining a competitive advantage. For this purpose, explicit correlations were demonstrated among financial success and supply chain performance and reported that expertise in supply chain can be achieved by integrating SCM as a key business strategy. In another study, the researchers Cáceres and Escobar (2016) identified that SCM involves decision-making related to the organizational processes, therefore, six sets of metrics were developed for measuring supply chain performance and profitability. The developed sets of metrics covered different organizational areas, including the research operations, system dynamics,

organization and strategy, marketing and logistics. These areas are considered as the main contributors and major disciplines of the SCM.

Thus, the present study assumes that there exists a linkage among marketing, bottom-line, strategy and the SCM. However, instead of just investigating the relationship between these variables, this study particularly emphasizes to develop metrics for different areas. According to Na, Kang, and Jeong (2019), firm performance is influenced by strong supplier relationships if not wholly then at least partially, since such relationships enable firms to timely and quickly respond to the customer needs (Gligor, Gligor, & Maloni, 2019). In addition, these relationships help firms to improve their customer responsiveness and leverage market orientation. Moreover, cross-functional information sharing is also found as a factor which facilitates in developing a linkage among supplier relationships and market orientation. Thus, keeping in view the idea that there is increasing competition prevailing not among firms rather among supply chains, therefore, a sand cone model was expanded by Soolaki and Arkat (2018) in their study, in which they included agility variable while developing a comprehensive framework for achieving sustainable and cumulative performance, which in turn provide sustainable competitive advantage to the supply chain. Furthermore, supply chain is taken in this model as the extension of an enterprise and concluded that firms having supply chain are required to emphasize more upon their cumulative and sequential efforts toward cost efficiency, quality, agility, flexibility and dependability. Under dynamic environment, this framework can prove to be helpful in improving the SC competitiveness. Basically, this approach would allow all the SC firms to determine their set of priorities that are consistent to market orientation (Guilbault, 2018; Liao, 2018). Thus, marketing orientation and effective SCM are assumed to be positively related, which implies that there exists a relationship among SCM, organizational success, marketing success, supply chain success, and marketing orientation. Furthermore, the structural equation modeling (SEM) was employed by Zainuddin et al. (2020) with an aim to develop and test a theoretical model including customer relationship strategies, supplier management, firm performance and SCM strategy (Gligor et al., 2019). Results of the structural equation modeling revealed a bi-directional causality among customer relationship strategy and the supplier management. Results shows that customer relationship strategy and supplier management positively influence the SCM strategy, which in turn

bring changes or improvement to the firm performance. Thus, the Wisner's model supports the existence of relationships between customer relationship management, firm performance and supply performance. In a US based study, Shaharudin et al. (2017) conducted a survey and collected responses from the seniors and the professionals in supply and materials management in the US. The study analyzed the concerns and contemporary practices in the field of SCM. His study includes the following objectives: identifying major concerns regarding successful SCM implementation; identifying those SCM practices which are believed to affect the firm's competitive position; and identifying concerns and practices that ensure the success of the supply chains. Thus, effective and efficient SCM were found to have a positive influence on the customer service, competitive position and product quality. Another study Thatte et al. (2020) attempted to examine whether marketing initiatives affect the supply chain operations and reported a significant impact of marketing operations on the supply chains (SCs). They explained this influence in terms of bull-whip effect, which is explained as a huge variance in the sales arising from trade deals and price discounts. Researchers also found a bidirectionality between the marketing efforts and supply chain.

In a similar vein, a study investigated the supplier management's effect on the performance of the automotive supply chain in Korea. For this purpose, a conceptual model was developed by Quang and Castro (2017) for analyzing the relationship between performance and supplier management practices. Their model explains that the first tiered supply chain practices influence the second-tier suppliers and their performance, which supports this idea that the best SC practice must be adopted throughout the SC to ensure the overall improvement in the SC performance. Similarly, Kim and Yi (2018) also investigated the nature of relationship among perceived organizational success and SCM, by collecting responses from the organizational managers from different industries, using a survey process. The statistical analysis of the data was performed by performing a regression analysis to examine the strength of the relationship between organizational effectiveness and SCM programs, in terms of productivity, quality, cycle time and cost. Study reported that although SCM significantly contributes to the organizational performance (Khan & Qianli, 2017), but for majority of the companies, the productivity and profits, magnitude of cost improvements, organizational success and risk reduction bring relatively less profitable outcomes as assumed by Kim and Yi

(2018). The study also identified the SCM related issues and concerns. Another noteworthy and interesting finding reported by the researcher is that out of all the companies surveyed, only a few of them consider the needs of their end product users while adopting their SCM practices. Thus, one can assume that in the SCM area, the suboptimal performance may occur as a result of weak market orientation (Guilbault, 2018; Liao, 2018). It has been further argued by Kim and Yi (2018) that not enough empirical evidence is available concerning the SCM definition, and its impact on the overall performance of a firm. Thus, the present study proposes a model that assumes to a linkage among marketing orientation, organizational success and SCM.

### 3.0. Conceptual Framework

On the basis of the empirical findings and theoretical propositions discussed in the previous section, we formulated a set of five hypotheses to assess the relationship between marketing orientation, organizational performance, and SCM strategy (Khan & Qianli, 2017). The proposed model suggests that marketing performance is positively influenced by the marketing orientation, which ultimately improves the organization's financial performance. The SCM strategy of an organization plays the role of a mediator between the market orientation and marketing performance relationship. H1 and H2 hypotheses specify the relationship among market orientation and organizational performance, and are formulated on the basis of Carpenter (2017) work, which suggests that organizational performance is significantly improved through market orientation. This marketing orientation and the performance relationship outcome is also supported by Wang, Lee, and Yap (2020) and Guilbault (2018). Keeping in view Iqbal, Huq, and Bhutta (2018) study which measured the firm's market performance in terms of customer satisfaction, because customer satisfaction improves the firm's financial performance, such as, increase in the return of investment, therefore the present study categorized the organizational performance into two dimensions, namely financial and marketing performance (Khan & Qianli, 2017). The study then hypothesized that a firm's financial performance is positively influenced by its marketing performance. Thus, the present study proposes that an organization's marketing orientation influences the market performance, which thus affects the organization's financial performance.

H1. Marketing performance is positively influenced by the market orientation.

H2. Marketing performance is positively influenced by the Financial performance.

In this study, the third hypothesis proposes the expected relationship between SCM strategy and market orientation. Prior research studies (Na et al., 2019; Soolaki & Arkat, 2018; Zainuddin et al., 2020) report a positive relationship between SCM and market orientation, therefore, we propose that the higher the organization's market orientation the greater the chance of implementing SCM strategies by the organization (Kaur, Singh, & Singh, 2019). In other words, market orientation is considered as an essential antecedent of SCM strategy. Supply chain management works well when all participants in the supply chain (SC) simultaneously collaborate to meet the customer needs. Several prior studies (Cáceres & Escobar, 2016; Na et al., 2019; Zainuddin et al., 2020) also reported a significant linkage among organizational performance and the effective SCM. Hence, it is hypothesized that there exists a positive linkage among marketing performance and SCM strategy. Considering this relationship, marketing strategy is emphasized as a strength of an organization's SCM strategy that aims to fulfill the needs of the end users. In the last hypothesis of this study, it is proposed that the effect of market orientation on the performance of an organization is moderated by the SCM strategy.

H3. SCM strategy is positively influenced by the marketing orientation.

H4. SCM strategy is positively influenced by the financial performance.

H5: Marketing performance is positively influenced by the SCM strategy.

H6: SCM strategy mediates the relationship between the market orientation and market performance.

H7: SCM strategy mediates the relationship between the financial performance and market performance

### 4.0. Methodology

For the present study we had distributed total 350 questionnaires among the operation managers of manufacturing firms in KSA. Whereas we have received 280 questionnaires back from respondents. The response rate for this study was 80%. Faruk (2019) has suggested that there will be more chances of error if we have small sample size and there are chances of accurate results with large sample size. In Addition to this the issue of non-cooperation of respondents can also be resolved with the help of over sampling (Ahmad & Halim, 2017). The main reason of over sampling is that it ensures that because of the non-response rate biasness the results will not affected. In the surveys

of social studies, the minimum response rate should be 50% (KOG, 2019).

In the next step after the completion of data collection for the process of data analysis we have used the descriptive and inferential statistics. We have employed the PLS-SEM technique which is referred as second-generation structural equation modelling in the present study for inferential statistics. This method performs well with models which consist of multiple latent variables and cause and effect relations (Phadermrod, Crowder, & Wills, 2019). PLS is an adaptable measure that can be used to make up the assumptions and for the development of statistical models as well (Ringle, Sarstedt, & Mitchell, 2018; Zahra, Hameed, Fiaz, & Basheer, 2019). For creating the structural and measurement model the current study has employed the Smart PLS. For analyzing the construct the reliability and validity in the present study we have applied the measurement model, whereas in structural model we have conducted bivariate correlation and regression analysis for checking the correlation and relationship effects among the different constructs of model.

5.0. Results

We have implemented a two-step process for reporting the outcomes of PLS as suggested (Henseler, Hubona, & Ray, 2016; Henseler, Ringle, & Sarstedt, 2015). Where the first step consists of estimation of measurement model and in the second step, we have estimated the structural model. The measurement model analysis includes internal consistency reliability, individual item reliability, content validity, convergent validity and Discriminant validity (Hair, Hult, & Ringle, 2016; Henseler et al., 2016; Ong & Puteh, 2017). We can evaluate the Discriminant validity by making the comparison between the indicator loadings and cross loadings (Basheer, Hafeez, Hassan, & Haroon, 2018; Richter, Cepeda, & Roldán, 2016). We can realize the suitable value of discriminant validity if the loading values of indicators are high as compare to the values of cross-loadings. For all the measures we have calculated the outer loadings for checking the individual item reliability (Hair et al., 2016; Hair, Matthews, Matthews, & Sarstedt, 2017; Richter et al., 2016). Abide by the rule of thumb we have kept those item loadings which falls in range between 0.70-0.99 (Basheer, Siam, Awn, & Hassan, 2019; Richter et al., 2016)

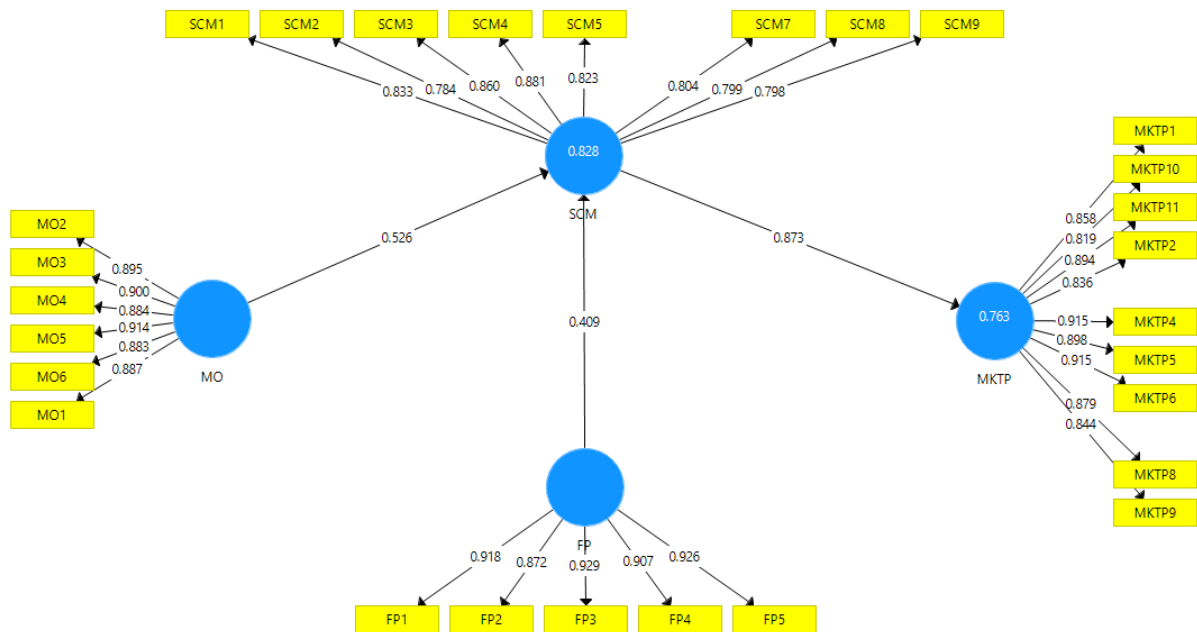


Figure 1: Measurement Model

Table 1: Cross Loadings

	FP	MKTP	MO	SCM
FP1	<b>0.918</b>	0.640	0.830	0.828
FP2	<b>0.872</b>	0.555	0.781	0.734
FP3	<b>0.929</b>	0.659	0.821	0.812
FP4	<b>0.907</b>	0.634	0.815	0.797
FP5	<b>0.926</b>	0.671	0.813	0.822
MKTP1	0.572	<b>0.858</b>	0.586	0.754
MKTP10	0.533	<b>0.819</b>	0.553	0.686
MKTP11	0.585	<b>0.894</b>	0.611	0.767
MKTP2	0.531	<b>0.836</b>	0.553	0.734
MKTP4	0.669	<b>0.915</b>	0.661	0.800
MKTP5	0.636	<b>0.898</b>	0.623	0.819
MKTP6	0.667	<b>0.915</b>	0.653	0.817
MKTP8	0.611	<b>0.879</b>	0.587	0.750
MKTP9	0.651	<b>0.844</b>	0.591	0.730
MO1	0.824	0.609	<b>0.887</b>	0.792
MO2	0.764	0.596	<b>0.895</b>	0.792
MO3	0.798	0.589	<b>0.900</b>	0.790
MO4	0.752	0.601	<b>0.884</b>	0.778
MO5	0.834	0.688	<b>0.914</b>	0.846
MO6	0.809	0.616	<b>0.883</b>	0.776
SCM1	0.796	0.648	0.777	<b>0.833</b>
SCM2	0.766	0.626	0.786	<b>0.784</b>
SCM3	0.797	0.668	0.808	<b>0.860</b>
SCM4	0.815	0.684	0.831	<b>0.881</b>
SCM5	0.852	0.614	0.800	<b>0.823</b>
SCM7	0.571	0.841	0.636	<b>0.804</b>
SCM8	0.598	0.847	0.624	<b>0.799</b>
SCM9	0.581	0.826	0.598	<b>0.798</b>

In Table 2 we have presented the results of AVE coefficients that were falling between the range 0.50 to 0.86 which for all the variables indicates the accomplishment of convergent validity. The convergent validity results indicate the satisfactory

AVE coefficient and adequate item loadings for each indicator, which basically provide proofs that the latent constructs are represented by the items which are different and have an accurate convergence.

Table 2: Reliability

	Cronbach's Alpha	rho_A	Composite Reliability	Average Variance Extracted (AVE)
FP	<b>0.948</b>	<b>0.950</b>	<b>0.960</b>	<b>0.829</b>
MKTP	<b>0.961</b>	<b>0.963</b>	<b>0.967</b>	<b>0.763</b>
MO	<b>0.950</b>	<b>0.950</b>	<b>0.960</b>	<b>0.799</b>
SCM	<b>0.932</b>	<b>0.932</b>	<b>0.944</b>	<b>0.678</b>

The measures which are not linked with each other are indicated by Discriminant validity. For individual constructs by taking the square root of AVE we have determined the discriminant validity (Basheer et al.,

2019; Shuhaiber, 2018; Basheer et al., 2019b). The square roots and AVE coefficients are diagonally presented in correlation matrix. The square root value of AVE must be less than the square

correlation value for getting the satisfactory discriminant validity (Hair et al., 2016; Hameed, Nawaz, Basheer, & Waseem, 2019; Richter et al., 2016). In simple words for the achievement of

satisfied value of discriminant validity the paralleled components or off diagonal coefficients in columns and rows must be less than diagonal components.

Table 3: Validity

	FP	MKTP	MO	SCM
FP	<b>0.899</b>			
MKTP	0.795	<b>0.874</b>		
MO	0.892	0.690	<b>0.894</b>	
SCM	0.878	0.873	0.891	<b>0.823</b>

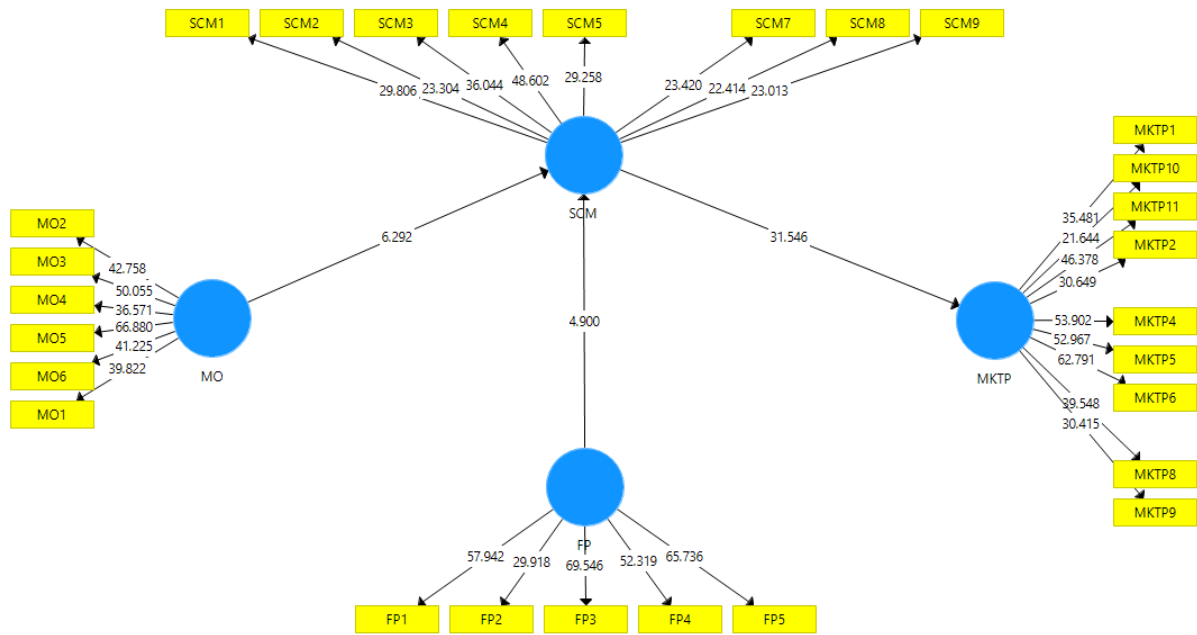


Figure 2: Structural model

The structural model analysis was conducted after evaluating the measurement model. For the determination of path coefficients significance, the bootstrapping procedure was employed by taking 5000 samples of bootstraps (Hair et al., 2017; Henseler et al., 2016; Ong & Puteh, 2017). We have presented the structural model’s complete analysis

in table 3 and figure 2 which includes the moderating variables. The direct results of the regression analysis are shown in the table 4 below. All the direct paths namely, FP -> MKTP, FP -> SCM, MO -> MKTP, MO -> SCM, and SCM -> MKTP are significant at p-value less than 0.05.

Table 4: Direct Relations

	(O)	(M)	(STDEV)	( O/STDEV )	P Values
FP -> MKTP	0.357	0.363	0.074	4.842	<b>0.000</b>
FP -> SCM	0.409	0.415	0.083	4.900	<b>0.000</b>
MO -> MKTP	0.459	0.454	0.076	6.049	<b>0.000</b>
MO -> SCM	0.526	0.520	0.084	6.292	<b>0.000</b>
SCM -> MKTP	0.873	0.873	0.028	31.546	<b>0.000</b>

The mediation results of the regression analysis are shown in the table 5 below. All the mediating paths namely, FP -> SCM -> MKTP, , and MO ->

SCM -> MKTP are significant at p-value less than 0.05.

Table 5: Mediation

	(O)	(M)	(STDEV)	( O/STDEV )	P Values
FP -> SCM -> MKTP	0.357	0.363	0.074	4.842	<b>0.000</b>
MO -> SCM -> MKTP	0.459	0.454	0.076	6.049	<b>0.000</b>

To check the PLS-SEM structural model the most important measure is the R-square value, which is known as the coefficient of determination (Hair et al., 2017; Naala, Nordin, & Omar, 2017; Ong & Puteh, 2017). The proportionate change in dependent variable which demonstrate the one or more predicted variables of model described by the value of R-square (Hair et al., 2017; Naala et al., 2017; Ong & Puteh, 2017). Though it's the context

of the research that determine the acceptable level for R-square value (Hafeez, Basheer, & Rafique, 2018; Hair et al., 2016). According to the study of Akter, Fosso Wamba, and Dewan (2017) for the R<sup>2</sup> value the least acceptable value is 0.10. Moreover Mikalef and Pateli (2017) and Muneer et al. (2019) have recommended that in PLS we can consider R-square value 0.67 as substantial, whereas 0.33 and 0.19 are known as moderate and weak.

Table 6: R-Square

	R Square
MKTP	0.763
SCM	0.828

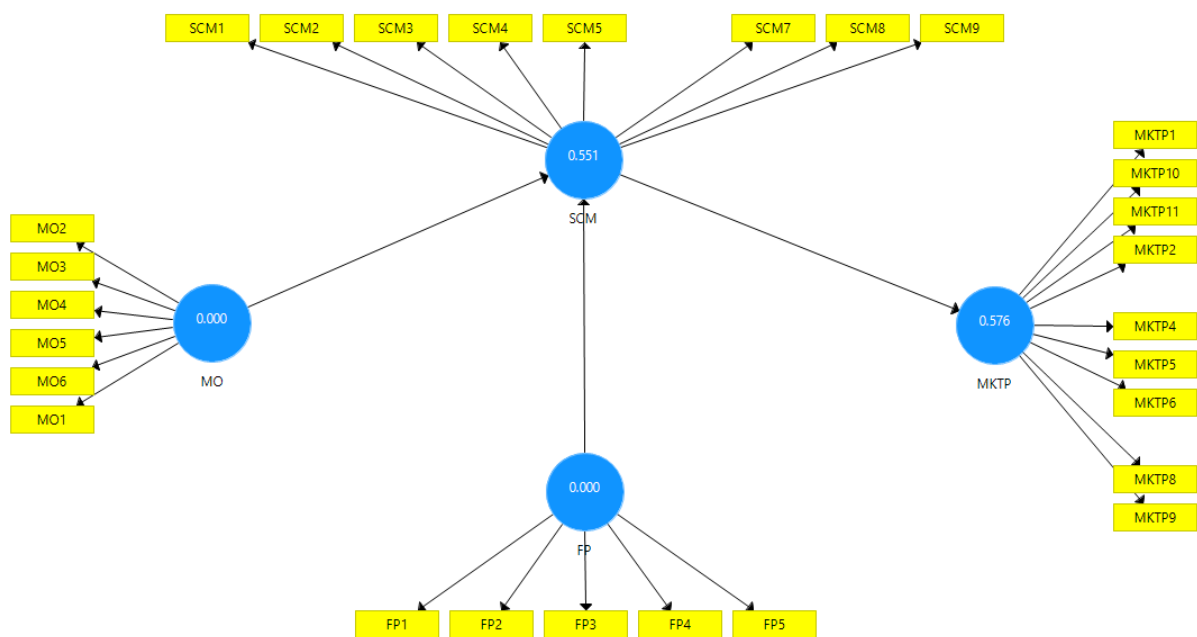


Figure 3: Blindfolding

We have implemented the predictive relevance test of Stone-Geisser by employing the blindfolding

method by following the recommendations of (Hair et al., 2016; Hameed, Basheer, & Anwar, 2018).

Table 7: Q-Square

	SSO	SSE	Q <sup>2</sup> (=1-SSE/SSO)
EMP	1519.000	523.503	0.655
EWB	1736.000	1049.329	0.396
PC	1302.000	1302.000	
PO	1085.000	1085.000	
SE	1085.000	1085.000	

In PLS it's a supplementary measure for performing the goodness-of-fit test suggested by Shiau, Sarstedt, and Hair (2019). While by using the blindfolding, we have calculated the predictive relevance of model. As in the present study the nature of all the variables is reflective, we have purposely used the blindfolding method.

**5.0. Conclusion**

No further investigation is required for the relationship between firm performance and market orientation. However, the way firms compete in current competitive environment has changed since the time it was first proposed. In today's competitive business environment, firms have to



compete as a SC member and not as an individual entity. Various prior studies have confirmed that market orientation has an influence on the firm performance, however, the impact of SCM strategy on this relationship is still unclear (Gligor et al., 2019). Therefore, the present study attempted to examine this relationship in context to SCM. Findings of this study reveal the significant role of SCM strategy as a mediator in the relationship between organizational performance and market orientation. Thus, we conclude that an effective SCM strategy is likely to improve a firm's market orientation, which in turn brings improvement in the financial and marketing performance. The present study involves some limitations, these are: 1) the scope of this study was limited to the US sales managers in large manufacturing firms (Singh & Misra, 2019). Thus, the results obtained in this research cannot be generalized in other sectors, such as, government and service sectors. Though, the implementation of SCM strategies and market orientation may provide beneficial outcomes for these sectors. 2) A rather simple model is developed in this study to assess the relationship between SCM strategy, market orientation and performance at the organizational level (Henzab, Tarhini, & Obeidat, 2018). The SCM strategy focuses on the actions of individual firms that are taken for the strengthening of the SC relationships. Supply chain management offer implications at both supply chain and firm levels, therefore, in future research, it is important to expand the number of supply chain performance measures and analyze how supply chain performance influences the organizational performance (Khan & Qianli, 2017). Lastly, a mail survey technique was employed in this study and found a low response rate, which raised a non-response bias concern. However, no evidence for any bias was recognized even after two waves of comparing the responses. Hence, the study can be strengthened by integrating a third wave of assessment and conducting a follow-up session with the non-respondents. The empirical results support the relationship between SCM strategy and market orientation at firm level. Therefore, it is suggested that the future research must assess the role of SCM strategy adoption on the firm's market orientation at supply chain as well as at the organizational levels (Henzab et al., 2018). In addition, researchers must perform similar studies to observe this phenomenon in government and the services sectors, for assessing whether SCM strategy implementation also strengthens the market orientation of other sectors.

Results have explained that manufacturers are required to adopt market orientation. Results further suggest that SCM adoption must be identified as a strategic initiative by the firms to enhance overall market orientation of the organization (Bamgbade, Kamaruddeen, & Nawi, 2017). Meanwhile, the firm's ability to implement SCM strategy and to satisfy its customers determine the success of a manufacturing firm, and thus bring improvement in its marketing performance. The present study primarily contributes to the literature by identifying that SCM is a marketing tool and initiative and a strong relationship exists among the SCM and market orientation (Kaur et al., 2019). Findings suggest that those managers who aim to achieve customer satisfaction can successfully achieve market orientation through SCM strategy adoption. While those managers who attempt to improve SCM for enhancing their financial and marketing performance are required to particularly emphasize upon firm and supply chain performance and competition (Laari, Töyli, & Ojala, 2018), and also strive for developing a strong relationship among the partners of supply chain. In particular, firm managers make significant efforts for establishing seamless communication, more frequent contacts, develop trust among the SCM members, integrate other SC members in developing marketing plans, all these activities are likely to enhance the SCM strategy of an organization (Zainuddin et al., 2020). Hence, the study concludes that an improvement in the firm's organizational performance can be achieved by the managers of top manufacturing firms, through adopting an SCM strategy.

#### **Acknowledgements:**

Researchers Supporting Project number (RSP-2020/167), King Saud University, Riyadh, Saudi Arabia.

#### **References**

- Ahmad, H., & Halim, H. (2017). Determining Sample Size for Research Activities. *Selangor Business Review*, 2(1), 20-34.
- Akter, S., Fosso Wamba, S., & Dewan, S. (2017). Why PLS-SEM is suitable for complex modelling? An empirical illustration in big data analytics quality. *Production Planning & Control*, 28(11-12), 1011-1021.
- Bagais, O., & Aljaaidi, K. (2020). Empirical investigation of the associations of technological capability, logistics capability and supply chain management strategies with competitive advantage: Evidence from Saudi manufacturers.

- Uncertain Supply Chain Management*, 8(4), 799-804.
- Bamgbade, J., Kamaruddeen, A., & Nawir, M. (2017). Towards environmental sustainability adoption in construction firms: An empirical analysis of market orientation and organizational innovativeness impacts. *Sustainable Cities and Society*, 32, 486-495.
- Basheer, Hafeez, M. H., Hassan, S. G., & Haroon, U. (2018). Exploring the Role of TQM and Supply Chain Practices for Firm Supply Performance in the Presence of Organizational Learning Capabilities: A Case of Textile Firms in Pakistan. *Paradigms*, 12(2), 172-178.
- Basheer, Siam, M., Awn, A., & Hassan, S. (2019). Exploring the role of TQM and supply chain practices for firm supply performance in the presence of information technology capabilities and supply chain technology adoption: A case of textile firms in Pakistan. *Uncertain Supply Chain Management*, 7(2), 275-288.
- Basheer, M. F., Hameed, U., Sabir, A., & Jehangir, S. ISLAMIC BUSINESS ETHICS AND ISLAMIC BANKS PERFORMANCE IN MALAYSIA: DOES SINCERITY MATTER?. *Hamdard Islamicus*, 42 (4), 217-224
- Cáceres, R. G., & Escobar, J. W. (2016). Characterization of supply chain problems. *Dyna*, 83(198), 68-78.
- Cai, J., & Li, X. (2018). Logistics and stock market inter-dependence: the case of China. *International Journal of Logistics Economics and Globalisation*, 7(3), 292-306.
- Carpenter, G. S. (2017). Market orientation: reflections on field-based, discovery-oriented research. *AMS Review*, 7(1-2), 13-19.
- Faruk, S. (2019). The Mediating Effect of Trust on the Relationship between Psychological Contract and Psychological Employment Contract Breach. A Pilot Test. *Journal of Research in Psychology*, 1(3), 26-29.
- Gligor, D., Gligor, N., & Maloni, M. (2019). The impact of the supplier's market orientation on the customer market orientation-performance relationship. *International Journal of Production Economics*, 216, 81-93.
- Guilbault, M. (2018). Students as customers in higher education: The (controversial) debate needs to end. *Journal of Retailing and Consumer Services*, 40, 295-298.
- Hafeez, M. H., Basheer, M. F., & Rafique, M., Siddiqui, Sulaman Hafeez. (2018). Exploring the Links between TQM Practices, Business Innovativeness and Firm Performance: An Emerging Market Perspective. *Pakistan Journal of Social Sciences (PJSS)*, 38(2).
- Hair, Hult, G. T. M., & Ringle, C. (2016). *A primer on partial least squares structural equation modeling (PLS-SEM)*: Sage publications.
- Hair, Matthews, L. M., Matthews, R. L., & Sarstedt, M. (2017). PLS-SEM or CB-SEM: updated guidelines on which method to use. *International Journal of Multivariate Data Analysis*, 1(2), 107-123.
- Hameed, Basheer, M. F., Iqbal, Jawad, & Anwar, A., Ahmad, Hafiz Khalil. (2018). Determinants of Firm's open innovation performance and the role of R & D department: an empirical evidence from Malaysian SME's. *Journal of Global Entrepreneurship Research*, 8(1), 29.
- Hameed, Nawaz, M., Basheer, M. F., & Waseem, M. (2019). The Effect of Amanah Ikhtiar Malaysia (AIM) on Microenterprise Success in Sabah State Malaysia. *Dialogue (1819-6462)*, 14(2).
- Henseler, J., Hubona, G., & Ray, P. A. (2016). Using PLS path modeling in new technology research: updated guidelines. *Industrial Management & Data Systems*.
- Henseler, J., Ringle, C. M., & Sarstedt, M. (2015). A new criterion for assessing discriminant validity in variance-based structural equation modeling. *Journal of the academy of marketing science*, 43(1), 115-135.
- Henzab, J., Tarhini, A., & Obeidat, B. Y. (2018). The associations among market orientation, technology orientation, entrepreneurial orientation and organizational performance. *Benchmarking: An International Journal*.
- Iqbal, T., Huq, F., & Bhutta, M. K. S. (2018). Agile manufacturing relationship building with TQM, JIT, and firm performance: An exploratory study in apparel export industry of Pakistan. *International Journal of Production Economics*, 203, 24-37.
- Kaur, M., Singh, K., & Singh, D. (2019). Synergetic success factors of total quality management (TQM) and supply chain management (SCM). *International Journal of Quality & Reliability Management*.
- Khan, S. A. R., & Qianli, D. (2017). Impact of green supply chain management practices on

- firms' performance: an empirical study from the perspective of Pakistan. *Environmental Science and Pollution Research*, 24(20), 16829-16844.
- Kim, G.-J., & Yi, S.-G. (2018). A Study on the Effect of the Information System Factors and the Organizational Factors of Venture Firms on Procedural Management Performance. *Journal of Convergence for Information Technology*, 8(2), 209-218.
- KOG, Y. C. (2019). A structured approach for questionnaire survey of construction delay. *Journal for the Advancement of Performance Information and Value*, 11(1), 21-33.
- Kwak, D.-W., Seo, Y.-J., & Mason, R. (2018). Investigating the relationship between supply chain innovation, risk management capabilities and competitive advantage in global supply chains. *International Journal of Operations & Production Management*.
- Laari, S., Töyli, J., & Ojala, L. (2018). The effect of a competitive strategy and green supply chain management on the financial and environmental performance of logistics service providers. *Business Strategy and the Environment*, 27(7), 872-883.
- Lambert, D. M., & Enz, M. G. (2017). Issues in supply chain management: Progress and potential. *Industrial Marketing Management*, 62, 1-16.
- Liao, Z. (2018). Market orientation and FIRMS' environmental innovation: The moderating role of environmental attitude. *Business Strategy and the Environment*, 27(1), 117-127.
- Mikalef, P., & Pateli, A. (2017). Information technology-enabled dynamic capabilities and their indirect effect on competitive performance: Findings from PLS-SEM and fsQCA. *Journal of Business Research*, 70, 1-16.
- Muneer, S., Basheer, M. F., Shabbir, R., & Zeb, A. (2019). Does Information Technology Expedite the Internal Audit System? Determinants of Internal Audit Effectiveness: Evidence from Pakistani Banking Industry. *Dialogue* (1819-6462), 14(2).
- Na, Y. K., Kang, S., & Jeong, H. Y. (2019). The effect of market orientation on performance of sharing economy business: Focusing on marketing innovation and sustainable competitive advantage. *Sustainability*, 11(3), 729.
- Naala, M., Nordin, N., & Omar, W. (2017). Innovation capability and firm performance relationship: A study of pls-structural equation modeling (PLS-Sem). *International Journal of Organization & Business Excellence*, 2(1), 39-50.
- Ong, M. H. A., & Puteh, F. (2017). Quantitative Data Analysis: Choosing Between SPSS, PLS, and AMOS in Social Science Research. *International Interdisciplinary Journal of Scientific Research*, 3(1), 14-25.
- Phadermrod, B., Crowder, R. M., & Wills, G. B. (2019). Importance-performance analysis based SWOT analysis. *International journal of information management*, 44, 194-203.
- Quang, H. T., & Castro, R. (2017). Impact of Supply Chain Alignment on Construction Performance: A developed model for Vietnam. *International Journal of Construction Supply Chain Management*, 7(7), 68-92.
- Richter, N. F., Cepeda, G., & Roldán, J. L. (2016). European management research using partial least squares structural equation modeling (PLS-SEM). *European Management Journal*, 34 (6), 589-597.
- Ringle, Sarstedt, M., & Mitchell, R. (2018). Partial least squares structural equation modeling in HRM research. *The International Journal of Human Resource Management*, 1-27.
- Rouru, J. (2016). Guidance to international business to consumer logistics through online marketplace Weecos. com.
- Seman, N. A. A., Govindan, K., & Mardani, A. (2019). The mediating effect of green innovation on the relationship between green supply chain management and environmental performance. *Journal of Cleaner Production*, 229, 115-127.
- Shaharudin, M. R., Govindan, K., & Zailani, S. (2017). Product return management: Linking product returns, closed-loop supply chain activities and the effectiveness of the reverse supply chains. *Journal of Cleaner Production*, 149, 1144-1156.
- Shiau, W.-L., Sarstedt, M., & Hair, J. F. (2019). Internet research using partial least squares structural equation modeling (PLS-SEM). *Internet Research*.
- Shuhaiber, A. (2018). *The role of perceived control, enjoyment, cost, sustainability and trust on intention to use smart meters: An empirical study using SEM-PLS*. Paper presented at the World Conference on Information Systems and Technologies.

- Singh, S., & Misra, S. C. (2019). Identification of barriers to PLM institutionalization in large manufacturing organizations: A case study. *Business Process Management Journal*.
- Soolaki, M., & Arkat, J. (2018). Incorporating dynamic cellular manufacturing into strategic supply chain design. *The International Journal of Advanced Manufacturing Technology*, 95(5-8), 2429-2447.
- Thatte, A., Agrawal, V., & Dhumal, P. (2020). A DIMENSION LEVEL EXPLORATORY STUDY OF SUPPLY CHAIN RESPONSIVENESS AND SCM PRACTICES. *Journal of International Business Disciplines*, 15(1).
- Tiwari, S., Wei, C. S., & Mubarak, M. F. (2019). Sustainable procurement: a critical analysis of the research trend in supply chain management journals. *International Journal of Business Performance and Supply Chain Modelling*, 10(3), 266-282.
- Wang, C., Lee, Y. L., & Yap, J. B. H. (2020). Non-technical innovation and entrepreneurship in project-based small service firms. *South African Journal of Economic and Management Sciences*, 23(1), 1-13.
- Zahra, M., Hameed, W. U., Fiaz, M., & Basheer, M. F. (2019). Information Technology Capability a Tool to Expedite Higher Organizational Performance. *UCP Management Review (UCPMR)*, 3(1), 94-112.
- Zainuddin, A., Ridzwan, S. I., & Ridzwan, S. B. (2020). The role of halalan-toyyiban supply chain practices as significant predictors towards excellent customer service management. *Advances in Business Research International Journal*, 6(1), 1-10.
- Zare, S. (2017). Identifying and Prioritizing Supply Chain Management Strategic Factors Based on Integrated BSC-AHP Approach.