

Supply Chain Management Practices and Organizational Performance: An Investigation from Service Industry

Inda Sukati^{*1}, Shouvik Sanyal^{#2}, Ali Mohsin Ba Awaain^{#3}

^{*1,2,3} *Department of Marketing and Entrepreneurship, College of Commerce and Business Administration, Dhofar University Salalah, Sultane of Oman*

¹abaawain@du.edu.om

²Shouvik@du.edu.om

*Corresponding Author E-mail Address: isukati@du.edu.om/indasukatiutmjb@gmail.com

Abstract – The service industry involved various industry such as banking industry, insurance industry, professional service industry, healthcare industry hospitality industry, and many other related industries. The objective this study was to evaluate how SCM practices dimension (supply chain partnerships, company relationships with customers, information sharing in supply chains, information technology, employee training and company internal operations) are related to the performance of business organizations in the tourism service industry. The data collection instrument used was a questionnaire which was administrated to a total sample of 85 managers in hospitality organization (hotel, restaurant and transportation company). In this research, the following finding were obtained: (1) The strategic supply chain partnership and organizational performance was positive significant correlated. (2) There is significant impact of customer relationship on organizational performance. (3) Information sharing was related to organizational performance. (4) Information technology was significant impact on organizational performance. (5) The research finding also show that there was significant correlation between internal operations and organizational performance.

Keywords: *Supply chain management practices, organizational performance.*

1. Introduction

In currently competitive global market, SCM has been become a significant role and recognized as one of critical factor for performance of business and business organization competitive advantage. [22] [30]. A business competitive environment required the business organizations producing high quality products and services that are needed by target customers [17] [27] [44].

Most of the SCM reviews have focused on manufacturing industries and there is little emphasis on the service industry, especially the tourism services industry [15]. However, the service industry is the largest part of the modern economy, not only in developed countries like

USA, UK, Germany, France and others, but also in other developing countries throughout the world such as Indonesia, Malaysia, India, China and others. As consumers, every time we consume services from any services company. For example, starting from wake up in the early morning until we go to sleep in the night, or our daily activities; watching TV, talking on the telephone, driving cars, visiting medical doctors, cutting hair, refueling cars, are examples of services consumption at the individual level. On the other hand, the education institution where students learn is also include service organization. In addition, Universities facilities usually include libraries and cafeterias, counseling, bookstores, placement officers, photocopying services, telecommunications, health care, post offices etc. All of the examples above are examples of how much we depend on service industries in our daily lives [33].

2. Literature Review

2.1. SCM Practices

SCM practices consist of multi-dimensional construction which includes integration between companies and suppliers or upstream and integration between companies and customers or referred to as the downstream SC and integration that occurs within the company itself, such as integration between departments within the company [15] [2] [31][16] stated that outsourcing, company partnerships with suppliers, sharing of information in the SC, cycle time, concretion and all flows within SC, for example the flow product, the flow of information and the flow of financial, are a part of SCM practices. While [45] stated that SCM practices also included the quality of products and services, purchasing activities, and fostering relationships with customers. An important aspect of SCM practices according to [45] was supply chain integration both inward integration and outward integration, information sharing in the SC and customer service management.

The aim of SCM practices is to build an organizational network between upstream organizations and downstream organizations as activities to produce more customer value in the term of improving the quality of products and services for end consumers. [11] suggested that SCM practices need to involve an integrated approach to design,

implement and control of any SC activities, with the aim of generating more value for end consumers. [9][21] also stated that the practice of SCM has two main objectives, the first goal is to improve the performance of organizations individually and all organizations in the SC. The other goal of SCM practices can reduce the total cost of the organization that makes a company can operate more efficiently [31]. By reviewing the latest literature, it can be seen that SCM(SCM) is a relatively new discipline and still needs to develop a theoretical conceptual framework and an established methodology so that disciplines are generally accepted. [28] stated that the SCM was initially introduced by business management consultants in the early 1980s. In a relatively short period of time, ten years later, in the early 1990s, scholars have tried to develop a conceptual structure for the development of SCM. Although studies in the field of SCM are still limited, the SCM literature has developed rapidly [30] [2]. SCM excels that SCM combines concepts from various disciplines such as management strategic and theory of the firm; logistics, operation and management inventory; management accounting, forecasting and marketing, and operations research.

[12] [2] also conducted research on SCM practices, they focused on investigating long-term relationships with all companies in the supply chain, cross-functional collaboration within the company, building comprehensive relationships with suppliers, and supplier involvement in activity processes. so the company can design products and services that meet the needs of the target customers. The same thing with [12] [35] [18] also examined in their study long-term relationships among companies incorporated in the supply chain, sharing information with supply chain partners, integration of business processes and collaboration and supply chain leadership that underlie management practices supply chain. [32] [1] discusses SCM practices in the form of supplier partnerships with companies in a strategic way, the relationship between companies and customers, and information sharing. Similar to [1] [[35] investigated the practice of SCM consisting of strategic supply chain partnerships or partnerships, fostering customer relations, information sharing in the supply chain, information technology development, training for employees and company internal operations. This research adopts the same SCM practices (strategic supplier partnerships, customer relations, information sharing, information technology, and internal operations). However, this research was conducted in an Indonesian perspective, especially banking services. In this research researchers focused on the Islamic banking industry. [32] [1] [18] have developed valid and reliable instruments to measure SCM practices. The researcher also used a similar instrument adopted in this study. The literature also describes SCM practices from various perspectives with the aim of improving business performance. The five main dimensions (strategic supply chain partnerships (SSCP), customer relationships (CR), information sharing (IS), information technology (IT) and internal operations (OP) SCM practices generate on organizational performance.

2.1.1 Strategic Supply Chain Partnership

Strategic supply chain partnerships are long-term reciprocal relationships between business organizations or individuals who serve as material suppliers to focus companies. the partnership system between them must be on the basis of mutual benefit [32] [7]. Strategic supply chain partnerships can involve good relationships based on the quality of goods and services that suppliers can provide on a regular basis in solving problems with suppliers, helping suppliers improve the quality of their products, continuous improvement programs that include suppliers, including key suppliers in business planning organizations and goal setting activities, which involve major suppliers in the process of developing new products. [46] [1]. Through strategic supplier partnerships, organizations can work with suppliers who can share responsibility for product success. [18] [31] [35] [42] Such strategic supplier partnerships should enable SCM to succeed. partnership relationships like this are expected to increase customer satisfaction which in the end will also improve the overall performance of the company

Thus, strategic supply chain partnership may have positive correlation with organizational performance, and the we proposed hypothesis is:

H₁: Strategic supply chain partnership has positive influence organizational performance.

2.1.2. Customer Relationship

Strong collaboration between business companies and customers or customer relationships is interacting with customers to manage customer service, measure customer satisfaction, determine customer expectations, facilitate customer assistance, evaluate important relationships with customers. [46] [1] [43] [4] [13] states that maintaining good customer relations will enable organizations to be more responsive to customer needs, thereby creating greater customer loyalty, repeat purchases and willingness to pay premium prices for high-quality products. Customer loyalty and customer satisfaction are the main goals of SCM. The success or failure of the company's SCM depends largely on the accuracy and speed of the information provided by each business partner.

Thus, customer relations may have a positive correlation with organizational performance, and the hypothesis we propose is:

H₂: Customer relationship has positive affect organizational performance

2.1.3. Information Sharing

It is alike awareness that relevant information is important for a tourist. Right from information on how to achieve a destination, down to where to dine and stay would make a difference to the tourist experience. The airport is right the first touch-point for a tourist in any destination. It is quite likely that tourist would expect additional information about the destination at the airport, if the same information has been not sufficiently made available on the Internet. Obviously, it is equally applicable at the place of stay.

Information in the form of pamphlets at the tourist spots is yet another requirement for a tourist.

[31] sharing information in the supply chain as to what extent important information and property rights are communicated to the company's supply chain partners. The useful sharing of useful information between supply chain partners can result in reduced inventory and production costs, a better understanding of customer needs and a faster response to market changes [47] [13] [23] [14].

Thus, information sharing may have a positive correlation with organizational performance, and the hypothesis we propose is:

H₃: Information sharing has positive affect organizational performance

2.1.4. Information Technology

Implementation of information technology such as EDI, ERP, CRM systems can improve supply chain performance and customer satisfaction. The practices of information technology also increase supply chain partners to share information when needed in a timely manner [4] [3] [42]. The practice of SCM requires better changes such as the integration of information in the supply chain, integrating and collaborating with targeted customers, suppliers of raw materials and finished materials, and can even collaborate with competitors in the supply chain. Therefore, for the company to successfully implement SCM, there needs to be a change in the corporate culture and strong support from the workers [18]

Thus, information technology may have positive correlation with organizational performance, and the we proposed hypothesis is:

H₄: Information technology has positive affect organizational performance

2.1.5. Internal Operation

Internal operations are all activities related to the company's operating system and internal logistics flow [29] [37] [34] [48]. Strong internal organization operations are an important foundation in creating supply chain performance before the company's external coordination. To gain a competitive advantage over rapid environmental changes, manufacturing operational processes must be flexible in responding to any market changes. With SCM, a product is pulled through a factory based on customer needs. This activity requires the flexibility of frequent changes to accommodate mass customization and thus increase customer response. [29] [37] states that the quality and reliability of the manufacturing company's internal operations will improve operational efficiency and improve overall organizational performance.

Thus, internal operation may have positive correlation with organizational performance, and the we proposed hypothesis was:

H₅: internal operation has positive affect organizational performance

2.1.1. Organizational Performance

Organizational performance is a result of organizational goals achieved through the effectiveness of comprehensive strategies or the wright technique. Financial and non-financial performance related to certain aspects of strategy and operations in SCM are two important indicators in measuring company performance [22] [7] [15]. According to [24] [7] several companies and researchers have focused on financial performance, while others have concentrated on operational performance.

To achieve how effective, the strategy and tactics have been implemented in a company, it is necessary to measure organizational performance [9] [42] [7] [15] Many indicators have been used to measure organizational performance such as the level of reliability of production, distribution, inventory, shipping, and customer satisfaction based on the type of industry. [41] [13] [18] [23] identified two main performance factors, namely supplier performance in the supply chain as measured by cost, waiting time, quality, delivery reliability, and timely delivery; and the second is the buyer's performance as measured by the product's reliability, suitability, features and durability. [27] measure organizational performance in terms of product quality, business competitive position, and customer satisfaction. [4] propose organizational performance to evaluate the effects of SCM using product quality, competitive position, and customer service.

Based on above discussion, we propose the research framework as follow:

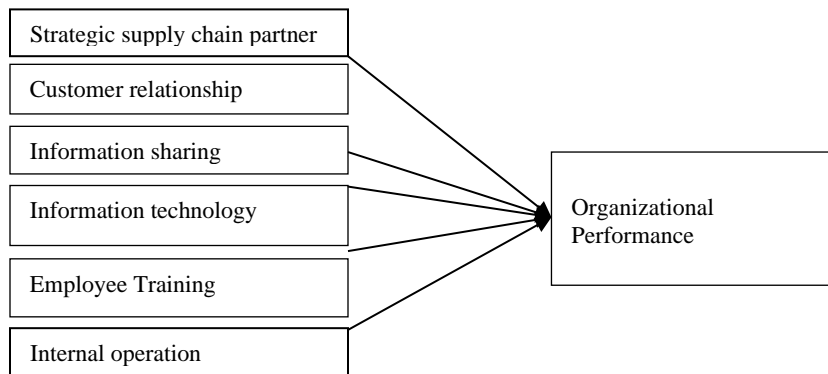


Figure:1.1 The Propose Research Model

3. Methodology

3.1. Sample

3.2. Data Collection

This research is to empirically analyze the effect of the SCM practices on the performance of tourism industry organizations (e.g. hotels, restaurants, transportation companies) Salalah, Oman. The questionnaire was tested in survey involving ten hotels, twenty apartments, fifty restaurants and eleven transportation companies.

3.3. Analysis Methods

All of the hypotheses were tested using SPSS and the AMOS program. SEM was chosen due to it provides all of the necessary tools in hypotheses testing. This study analyzes reliability (e.g., Cronbach's alpha value) and validity (e.g., confirmatory factor and principle component analysis). To test the proposed hypotheses, SEM was employed to measure value of goodness of fit and the coefficients of path analysis.

4. Data analysis Results

4.1. Reliability Analysis

Reliability was used to estimate Cronbach's alpha values. All of the coefficients for the proposed

4.3. Conclusion

The finding of the significance analysis for the model are summarized in Table 4-1. For the H₁ test, the standard path coefficient between the strategic SC partnership and organizational performance was .56 and is significant at the level of .001. Thus, H₁ was supported. For the H₂ test, the standard path coefficient

model more than 0.70 for exploratory constructs [21]. Cronbach's alpha for organization performance was (.87) and SCM practices was (.85). All of the construct component for the six dimension had Cronbach's alpha more than .7, that indicate high reliability.

4.2. Validity Analysis

Analysis of the PCA and CFA are indicated that the variance percentage explained were higher for each of the dimension on statistics of PCA. Strategic supply chain partnership (75.678), Customer relationship (70.765), Information sharing (64.765), information technology (77.665), Internal operation (76.677) and organizational performance (80.612). As [8a] recommended that the average variance extracted by each dimension should be more than 0.5, all measurement items met the criteria. The values loading of each factor ranged from .718 to .916

The standardized loadings factor and *t* values for measurement items, results of CFAs to test measurement models for each construct separately using the AMOS program. The values of standardized regression weight of ALL SCM practices and organizational performance were all more than .5 and all items proposed by the study were statistically significant at the .05 level.

between customer relations and organizational performance was .15 and was significant at the .05 level. Therefore, H₂ was supported. H₃ examines the effect of information sharing and organizational performance. The standardized path coefficient between information sharing and organizational performance was .52 and was significant at the .01 level. Thus, H₃ is supported. For the H₄ test, the standard path coefficient between information

technology and organizational performance is .62 and was significant at the level of .001. Therefore, H₄ was also supported. And the last hypothesis was H₅ examines the effect of internal operations and

organizational performance. The standardized path coefficient between internal operations and organizational performance was .42 and was significant at the 0.01 level. Thus, H₅ is supported.

Table 4.1. Summary of hypotheses testing

Hypotheses	Path	Predicted Relationship	Result
H ₁	Strategic supply chain partnership has positive correlation with organizational performance.	Positive	Supported
H ₂	Customer relationship has positive influence on organizational performance	Positive	Supported
H ₃	Information sharing has positive correlation with performance of organizational	Positive	Supported
H ₄	Information technology has positive correlation with performance of organizational	Positive	Supported
H ₅	Internal operation has positive affect performance of organizational	Positive	Supported

4.4. Discussion

The purpose of this research is to analyze the linkage between supply chain management practices and organizational performance in service industry. The following five hypotheses were initiated in this study: (1) Strategic supply chain partnership has positive correlation with organizational performance, (2) Customer relationship has positive influence on organizational performance, (3) Information sharing has positive correlation with performance of organizational, (4) Information technology has positive correlation with performance of organizational, and (5) Internal operation has positive affect performance of organizational.

The current study shown that there is a positive impact between Strategic supply chain partnership and organizational performance (H₁). This finding is inline which [32] [7]. They argue that strategic supply chain partnerships are important activities in organization especially the firm relationship with main suppliers. The strong collaboration with supplier will generate the company performance. Through strategic supplier partnerships, organizations can work with suppliers who can share responsibility for product success. [18] [31] [35] [42] Such strategic supplier partnerships should enable SCM to succeed. partnership relationships like this are expected to increase customer satisfaction which in the end will also improve the overall performance of the company. According to [7][8] [11] [16] [22] [23] [25] supply chain partnership refers to agreement on the practice between the company and its suppliers, which could the transfer of any important information and resources, which are needed to produce mutual benefits.

Suppliers for any business plays crucial role in the smooth operational activities and considered as an important factor for success of firms. Integration with suppliers needs effect communicative mechanism for collaboration and information sharing at strategic, tactical and operational level [15]

Customer relationship has positive influence on organizational performance also investigate in this research

(H₂). We found that there is a strong linkage customer relationship on organizational performance. The research finding is related which some previous study [4] [13]. The collaboration between firms and their customers could manage and improve customer service, measure customer satisfaction, determine customer expectations, facilitate customer assistance, evaluate important relationships with customers. [46] [1] [43] [4] [13] states that maintaining good customer relations will enable organizations to be more responsive to customer needs, thereby creating greater customer loyalty, repeat purchases and willingness to pay premium prices for high-quality products. Customer loyalty and customer satisfaction are the main goals of SCM.

Research finding also show that Information sharing has positive correlation with performance of organizational (H₃). Some previous study [14] [19], shows [31] sharing information in the supply chain network as to what extent important information and property rights are communicated to the company's supply chain partners. The useful sharing of useful information between supply chain partners can result in reduced inventory and production costs, a better understanding of customer needs and a faster response to market changes [47] [13] [23] [14]. Obviously that the strong information sharing among supply chain partners could generate the organization performance.

Information sharing has crucial importance in organizational operational and strategic decision making and routine activities. Researchers have depicted information sharing (IS) as organizational capital which shows the flow of information across the organization and its participants. Effective utilization of information on time among stakeholders and participants enable firm to take decision timely and quality also matters in information dissemination [15]

The link between Information technology has positive correlation with performance of organizational (H₄) also investigate in this research. The research finding indicated that there is strong correlation between Information technology and performance of

organizational. The practices of information technology also increase supply chain partners to share information when needed in a timely manner [4] [3] [42]. The practice of SCM requires better changes such as the integration of information in the supply chain, integrating and collaborating with targeted customers, suppliers of raw materials and finished materials, and can even collaborate with competitors in the supply chain. Therefore, for the company to successfully implement SCM, there needs to be a change in the corporate culture and strong support from the workers [18]

Internal operation has positive affect performance of organizational also investigate in this research (H₅). We found that there is a strong linkage Internal operation and performance of organizational. Internal operations are all activities related to the company's operating system and internal logistics flow

References

- [1] A.A. Thatte (2007), "Competitive advantage of a Firm Through Supply Chain Responsiveness and Supply Chain Management Practices", Published PhD Dissertation. University of Toledo.
- [2] Abdelsalam Hamid, Siddig Balal Ibrahim (2014) "Supply Chain Management Practices and Supply Chain Performance Effectiveness". *International Journal of Science and Research (IJSR)* - August 2014
- [3] Achuora John (2018) 'Effect of green supply chain management practices on performance of manufacturing firm in Kenya'. *G.S.J: Volume 6, Issue 8*, August 2018, Online: ISSN 2320-9186.
- [4] Antonio K. W. Lau, Esther Tang, and Richard C. M. (2010) 'Effects of Supplier and Customer Integration on Product Innovation and Performance: Empirical Evidence in Hong Kong Manufacturers'. *J PROD INNOV MANAG* 2010;27:761-777 2010 Product Development & Management Association
- [5] Andreas Zolnowski, Tilo Böhmman (2013) "Customer Integration in Service Business Models". *2013 46th Hawaii International Conference on System Sciences*
- [6] Bernardino Quattrociochi, Perano Mirko, Francesco Mercuri, Mario Calabrese, Tourism Supply Chain Management & Strategic Partnerships for managing the complexity in tourism industry: Enlightening Tourism. *A Pathmaking Journal*, Vol 7, No 1 (2017), pp. 62-93
- [7] Baofeng Huo, Yinan Qi, Zhiqiang Wang and Xiande Zhao (2014) "The impact of supply chain integration on firm Performance The moderating role of competitive strategy". *Supply Chain Management: An International Journal* 19/4 (2014) 369-384© Emerald Group Publishing Limited [ISSN 1359-8546
- [8] Bowersox, D.J. and Closs, D.J. (1996), *Logistical Management: The Integrated Supply Chain Process*, McGraw-Hill.
- [9] Bowersox, D.J., Closs, D.J., and Stank, T.P. (1999), *21st century logistics: making supply chain integration a reality*. Oak Brook, IL: Council of Logistics Management.
- [10] Chow, W.S., Madu, C.N., Kuei, C.H., Lu, M.H., Lin, C., and Tseng, H. (2008), "Supply chain management in the US and Taiwan: an empirical study", *Omega*, Vol. 36 No 5, pp. 665-679.
- [11] Christopher, M. G. (1992), *Logistics and Supply Chain Management*, Pitman Publishing, London, UK.
- [12] Chen, I. J. and Paulraj, A. (2004), "Understanding Supply Chain Management: Critical Research and a Theoretical Framework", *International Journal of Production Research*, 42(1), pp. 131-163.
- [12] Chairit Thongrawd, Narumon Chomchom, Pongtep Phudetch, Jureerut Somboon (2019) "The Mediating Effect of the Key Supplier Relationship Management Practices in the Relationship between the Supply Chain Orientation and the Organizational Buying Effectiveness". *Int. J. Sup. Chain. Mgt* Vol. 8, No. 4, August 2019. Pp 205 – 215
- [13] Danese, P., P. Romano, and M. Formentini, 2013, The impact of supply chain integration on responsiveness: The moderating effect of using an international supplier network: *Transportation Research Part E: Logistics and Transportation Review*, v. 49, p. 125-140.
- [14] Danese, P., 2013, Supplier integration and company performance: A configurational view: *Omega-International Journal of Management Science*, v. 41, p. 1029-1041
- [15] Djoko Roespinoedji, Afghan Prawira EP, Ismail Solihin, Mohd Haizam Mohd Saudi, Omar Alaeddin (2019) 'Determinants of Supply Chain Performance: Moderating Role of Firm Size in Tourism Hotel Industry in Indonesia'. *Int. J. Sup. Chain. Mgt* Vol. 8, No. 1, February 2019. PP 219-230
- [16] Donlon, J. P. (1996), "Maximizing Value in the Supply Chain", *Chief Executive*, 117, pp. 54-63.
- [17] Fawcett, S.E. and Magnan, G.M. (2001), "Achieving world-class supply chain alignment: benefits, barriers, and bridges", *Center for Advanced Purchasing Studies*. Arizona State University Research Park.
- [18] Frank Augustine Elisha Mkumbo, Abdul Razak Ibrahim, Abdul Latif Salleh, Veera Pandiyan Kaliani Sundram, Atikah Shamsul Bahrin (2019) "The Influence of Supply Chain Practices and Performance Measurement Practices towards Firm Performance". *Int. J. Sup. Chain. Mgt* Vol. 8, No. 3, June 2019. Pp 809-819
- [19] Flynn, B. B., B. Huo, and X. Zhao, 2010, The impact of supply chain integration on performance: A contingency and configuration approach: *Journal of Operations Management*, v. 28, p. 58-71.
- [20] Fornell, C. and Larcker, D.F. (1981), "Evaluating structural equation models with unobservable variables

- and measurement error”, *Journal of Marketing Research*, Vol. 18 No 1, pp. 39-50.
- [21] Giannocearo, L. And Pontrandolfo, P. (2002), “Inventory Management in Supply Chains: A Reinforcement Learning Approach”, *International Journal of Production Economics*, 78(2), pp.153-161.
- [22] Gunasekaran, A., Patel, C., and McGaughey, R. (2004), “A framework for supply chain performance measurement”, *International Journal of Production Economics*, Vol. 87 No 3, pp. 333-347.
- [23] Huo, B., 2012, The impact of supply chain integration on company performance: an organizational capability perspective: Supply Chain Management: An International Journal, v. 17, p. 596-610
- [24] Kaplan, R.S. and Norton, P.D. (1992), “The balanced score board measures that drives performance”, *Harvard Business Review*, Vol. 70 No 1, pp. 71-79.
- [25] Lai, K.-h., C. W. Y. Wong, and Y. H. V. Lun, 2014, The role of customer integration in extended producer responsibility: A study of Chinese export manufacturers: *International Journal of Production Economics*, v. 147, p. 284-293
- [26] Lee, H. L. (2002), “Aligning Supply Chain Strategies with Product Uncertainties”, *California Management Review*, 44(3), pp. 105-119
- [27] Lin, C., Chow, W.S., Madu, C.N., Kuei, C., and Yu, P. (2005), “A structural equation model of supply chain quality management and organizational performance”, *International Journal of Production Economics*, Vol. 96 No 3, pp. 355-365.
- [28] Lambert, D. M., Cooper, M. C., and Pagh, J. D. (1998), "Supply Chain Management: Implementation Issues and Research Opportunities," *International Journal of Logistics Management*, 9(2), pp. 1-20.
- [29] Lambert, D. M. and Cooper, M. C. (2000), “Issues in Supply Chain Management”, *Industrial Marketing Management*, 29, pp. 65-83.
- [30] Larson, P. D. and Kulchitsky, J. D. (1998), “Single Sourcing and Supplier Certification: Performance and Relationship Implications”, *Industrial Marketing Management*, 27, pp. 73-81.
- [31] Li, S., Ragu-Nathan, B., Ragu-Nathan, T. S., and Rao, S. Subba (2006), “The Impact of Supply Chain Management Practices on Competitive Advantage and Organizational Performance”, *Omega*, 34(2), pp. 107-124.
- [32] Li, S., Rao, S. Subba, Ragu-Nathan, T. S., and Ragu-Nathan, B. (2005), “Development and Validation of A Measurement Instrument for Studying Supply Chain Management Practices”, *Journal of Operations Management*, 23(6), pp. 618-641.
- [33] Lovelock, C., & Gummesson, E. (2004). Whither Services Marketing? In search of a new paradigm and fresh perspectives. *Journal of Service Research*, 7(1).
- [34] Martin Boakye Osei, Celal Hakan Kagnicioglu. (2018) “The impact of supply chain integration of firm’s business operational performance at the food retail sector/industry”. *Journal of Management, Marketing and Logistics – (JMML)*, ISSN: 2148-6670,
- [35] Min, S. and Mentzer, J. T. (2004), “Developing and Measuring Supply Chain Concepts”, *Journal of Business Logistics*, 25(1), pp. 63–99.
- [36] Nunnally, J. C. (1978), *Psychometric theory* (2nd ed.), McGraw-Hill, New York, pp. 244-245.
- [37] Philipp Horn n, PaulScheffler, HolgerSchiele (2014) “Internal integration as a pre-condition for external integration in global sourcing”: *A social capital perspective. Int. Production Economics*153(2014)54–65
- [38] Schneller, E.S. and Smeltzer, L.R. (2006), *Strategic management of the health care supply chain*. Jossey-Bass, San Francisco, CA.
- [39] Roeshartono Roespinoedji, Annisa lisdayanti, Samsi Farida, Azizan Mohamed Isa (2019) “Supply Chain Management Practices and Operational Performance: The Mediating Role of Process Control and Improvement”. *Int. J Sup. Chain. Mgt* Vol. 8, No. 2, April 2019
- [40] Siravit Koolrojanapat, Chayanan Kerdpitak (2019) ‘Determining the Impact of Supply Chain Contributors on Financial Performance: Mediating Role of Supply Chain Performance’. *Int. J Sup. Chain. Mgt* Vol. 8, No. 4, August 2019. PP 417-426
- [41] Shin, H., Collier, D., and Wilson, D. (2000), “Supply management orientation and supplier/buyer performance”, *Journal of Operations Management*, Vol. 18 No 3, pp. 317-333.
- [42] Soosay, C.A. and Chapman, R.L (2006), “An empirical examination of performance measurement for managing continuous innovation in logistics”, *Knowledge and Process Management*, Vol. 13 No 3, pp. 192-205.
- [43] Stalk, G. and Hout, T. (1990), *Competing Against Time*, The Free Press, New York, NY.
- [44] Teece, D.J. (2009), *Dynamic capabilities and strategic management: organizing forinnovation and growth*. Oxford University Press, Oxford; New York.
- [45] Tan, K. C., Kannan, V. R., and Handfield, R. B. (1998), “Supply Chain Management: Supplier Performance and Firm Performance”, *International Journal of Purchasing and Materials Management*, 34(3), pp. 2–9.
- [46] Tan, K. C., Lyman, S. B., and Wisner, J. D. (2002), “Supply Chain Management: A Strategic Perspective”, *International Journal of Operations and Production Management*, 22(6), pp. 614–631.
- [47] Tompkins, J. and Ang, D. (1999), “What are Your Greatest Challenges Related to Supply Chain Performance Measurement?”, *IIE Solutions*, 31(6), pp. 66.
- [48] Vikas Kumar, Esinaulo Nwakama Chibuzo, Jose Arturo Garza-Reyes, Archana Kumari, Luis Rocha-Lona, and Gabriela Citlalli Lopez-Torr (2017) “The Impact of Supply Chain Integration on Performance: Evidence from the UK Food Sector”. *Procedia Manufacturing* 11 (2017) 814 – 821
- [49] White, A.D. and Mohdzain, M.B. (2009), “An innovative model of supply chain management: a single case study in the electronics sector”, *International Journal of Information Technology and Management*, Vol 8 No. 1, pp 69-84