

The Mediating Impact of Supply Chain Performance on the Relationship of Supply Chain Management Practices and Business Performance of the Textile Sector in Indonesia

Hamsinah Baharuddin^{a*}, Luh Putu Mahyuni^b, Imas Masriah^c, Ugeng Budi Haryoko^d, ^{a,c,d}Universitas Pamulang, ^bFaculty of Economics and Business, Universitas Pendidikan Nasional, Bali, Indonesia, Email: ^{a*}hamsinahbaharuddin12@gmail.com, ^bmahyuniluhputu@undiknas.ac.id, ^chimasriah68@gmail.com, ^ddosen00962@unpam.ac

The aim of the current study is to investigate the mediating impact of supply chain performance (SCP) in the relationship of supply chain management practices (SCMP) and business performance (BP) of the textile sector of Indonesia. To achieve this objective, the data was collected from the supply chain managers of the textile sector of Indonesia. The key findings of the study have shown that SCMP directly and indirectly through the SCP effect the BP of the textile sector of Indonesia. These findings indicate that the textile sector of Indonesia has a greater importance on the SCMP to increase the BP. The findings of the study could also provide help to the supply chain managers to know about the importance of SCMP and SCP to increase their BP. In addition, the empirical findings of the study could also have added a body of knowledge which could become a new area of research in future. Based on the findings of the study, there are some limitations which could become a new area of research in future.

Key words: *Supply chain management practices, supply chain performance, business performance, textile sector, Indonesia.*

Introduction

Nowadays, the supply chain of management (SCM) is become a more crucial strategy to firms so that they can stay competitive and increase their profitability (Sukati, Hamid, Baharun, & Yusoff, 2012). Accordingly, SCM is recognised as an important phenomenon which has created extensive interest for both academic researchers and managers. Therefore, over the last decade academic research has placed more emphasises on SCM. This increased attention on the particular aspects of the SCM field has highlighted the importance of the aspect of; selection of suppliers (Pimenta & Ball, 2015; Salleh, 2017; Santoso, et al., 2020), the involvement of suppliers (Huo, 2012), alliances of suppliers (Kannan & Tan, 2005; Zhao, Huo, Sun, & Zhao, 2013; Wiyati, et al., 2019), management of suppliers (Vanichchinchai & Igel, 2011). Research has also been associated with the upstream of supply chains (de Almeida, Marins, Salgado, Santos, & da Silva, 2015; Michalski, Montes-Botella, & Narasimhan, 2018), resilience of supply chains (Sampaio et al., 2016), the association between retailers and manufacturers (Hong, Zhang, & Ding, 2018), green supply chains and sustainability (Choi, Min, & Joo, 2018; Choi, Min, Joo, & Choi, 2017), and SCM practices (Foerstl, Franke, & Zimmermann, 2016; Sukati et al., 2012), etc.

The extensive and various research streams conducted in diverse SCM aspects accurately explain the subject area through interdisciplinary viewpoints. Thus, SCM is explored from various perspectives on a diverse basis (Bigliardi, Bottani, & Galati, 2010). Specifically, there are the SCM concepts considered from dual perspectives such as supply management and purchasing. Therefore, these perspectives pay more attention on materials management as well as purchasing as a process of basic strategic enterprises, rather than the narrow function of specialised supporting (Cook, Heiser, & Sengupta, 2011; Huo, 2012) Logistics management and transportation are emphasised on the integration of logistic systems for example vendor management, inventory management, warehouse, transportation, delivery services and distribution. The elements may lead to an inventory decreasing both inside and through the supply chain of firms (Basheer, Siam, Awn, & Hassan, 2019); (Abdallah, Obeidat, & Aqqad, 2014). On the other hand, this area of subject matter in spite of the extensive research, (Li, Ragu-Nathan, Ragu-Nathan, & Rao, 2006) and (Sukati et al., 2012) doubts remain specifically considering that academic research is unsatisfactory in contributing towards SCM practices. They have recognised that this is not just SCM interdisciplinary nature it is also evolutionary characteristics that have created conceptual confusion in its understanding. While these aspects play their role in creating a gap among SCM theory or its applicability towards practices, a search conducted on generic nature will also played a very important role. Consequently, this defined SCM practices studies as being adopted by many industries and specific countries which permits that individual characteristics remain understood in the particular contexts.

Therefore, this plays a vital role in the creation of a gap between SCM application and its theory. Different studies of SCM were conducted from several sectors like pharmaceutical (Barber, Garza-Reyes, Kumar, & Abdi, 2017), automobile (Tortorella, Miorando, & Marodin, 2017);(Zhu, Sarkis, & Lai, 2013), apparel/textile (Barber et al., 2017), chemical (Wolf, 2014), toy (Jonsson, Andersson, Boon-itt, & Wong, 2011), aerospace (Flynn, Huo, & Zhao, 2010), construction (Koh, Demirbag, Bayraktar, Tatoglu, & Zaim, 2007), telecommunication (Jaska et al., 2010), electronics (Tortorella et al., 2017), agriculture/food (Kache & Seuring, 2014). While, the studies have covered a varied array of sector they have paid little attention on the specific sector of textiles specifically in Indonesia.

In the same way, studies of different aspects of SCM tend to pay more attention on the developed countries as well as their collaboration within developing economies like supply sources. There is also substantial focus on many developing nations such as the Kyrgyz Republic (Barber et al., 2017), China (Zhu et al., 2013), Taiwan (Kuei, Madu, Chow, & Chen, 2015)and Brazil (Tortorella et al., 2017); (Barber et al., 2017) but none have adressed Indonesia. Hence, taken together, inside the country and given the specific industrial context it allows for a unique perspective for a researcher to gain understanding about SCM practices. On the other hand, in spite of this, there are deficiencies of the studies about SCM in association to practices with respect to textile industries in developing countries for development it is very essential to make a strong competitive vehicle of sector supply chains (SC).

Indonesia has unique geographical, economic and political characteristics (Zhu et al., 2013); (Tortorella et al., 2017);(Barber et al., 2017). Indonesia is a developing economy which is dominated by the textile sector however it has limited but developing infrastructure of transport, for the purpose of making an essential and prospective gateway, and increasing the manufacturing sector by the current government, creation of SC for its sector of manufacturing are anentirely unique context and this demands more investigation.

The basic objectives of this study is to conduct empiricaltesting of the framework which is recognised as an association amongst SCM practices in Indonesia's textile sector. Specifically it will measure their SC performance, as well as their entire business performance. In line with this, at this stage practices of SCM remain defined as the concept of being multi-dimensional which is seen as including with SC both sides for example downstream as well as upstream. There are seven SCMPs which areconsidered in the study and that have been tested, developed and validated inliterature by various researchers like (Sukati et al., 2012), (Green, Zelbst, Meacham, & Bhadauria, 2012), (Sessu, Sjahrudin & Santoso, 2020), (Hsu, Tan, Kannan, & Keong Leong, 2009)and (Abdallah et al., 2014). Therefore, these practices were considered as a crucial, as they also cover upstream plus downstream showcasing both SC sides.

Using data which is collected with the survey questionnaire there is operational measures that are developed for the theories that are being empirically tested. The structural equation of modelling (SEM) and inferential statistics are utilised to validated and test the association of hypothesis. The main objectives of this study is to provide help for researchers and especially for textile companies to significantly understand the scope and associated activities with their practices of SCM. This is due to the prominent role just not on their SC performance but also on their whole business. In this way, by considering SC, especially both sides the study permits the researchers to verify the consequences' as well as the antecedents of the SCM practices. It allows measurement in the significant context of a developing country and in the specific sectors. Therefore, this study provides a very useful guide to the textile firms of Indonesia and a validated implementation approach for them to measure practices of SCM. This study also plays their role in academic theory with increasing limits of existing body knowledge at SCM in the context of developing countries (Sukati et al., 2012), (de Souza Miguel & Brito, 2011), (Li et al., 2006). The paper is organised in this way: framework of the theoretical research and review of the theory and definitions that underline all dimensions and the constructs which will comprise of Section 2; in Sections 3 and 4 methodology of the research and analysis results will be presented; after that these results will be discussed in Section 5; conclusions of this study are provided in Section 6.

Theoretical Research Framework and Hypothesis Development

Figure 1 is explaining the research theoretical framework which is developed for the research. The framework of this research permits understanding of consequences and background of SCM that is described by a causal association among the MFP, SC performance and SCM practices (see figure 1). This framework is also underlined rationally which is a great degree of the SCM practices that lead SC performance towards higher levels as well as the improvement of business performance (BP). The framework suggest that the SCM practices have influences on FP not only on a direct basis on the other hand, but also that SC performance also have indirect influence (Vanichchinchai & Igel, 2011). In this way, with the help of seven-dimensional modelling built for conceptualisation of SCM practices that is also indicated inside the SCM practices into the box of figure1 at that place FP and SC remain conceptualised with two and four dimensional constructs in that order in (figure 1). In previous studies these dimensions are validated and verified (Vanichchinchai & Igel, 2011); (Green et al., 2012); (Hsu et al., 2009);(Abdallah et al., 2014), all the dimensions are considered as positive and significant factor which have influence on the performance of manufacturing organisation.

Supply Chain Management Practices

For the purpose of increasing competitive individual FP on a long-term basis, its SC performance must ensure the integrating functions on an internal basis inside an organisation as well as significantly associated them through outer operation of other members of the channel like suppliers, customers, manufacturers, and distributors (Lee, Kim, & Choi, 2012). All the activities remain involved in the procurement and sourcing, management and planning, conversion as well as the whole of the logistics activities of management and collaboration with other partners of the channel (Schaltegger & Burritt, 2014).

Literature states that the concept of SCM reveals various definitions (Adebayo, 2012). The definitions of SCM are classified in three categories: supply management and purchasing, integration of logistic management, as well as integrated SCM. It is clear that the concept of SCM reflects to the SCM reality as a managerial philosophy, that is strategic for all partners of SC- from manufacturers, suppliers, achieving competitive advantages, obtaining significant performance towards customers, and enhance the satisfaction of customers. SCM is defined for the research as a business function coordination process which flows across an organisation into other organisations with SC to the adequate providing and developing of information flows and products from suppliers for the purpose of increasing FP and satisfying needs of customer, It must also cater to the requests, that are aligned by integrated of SCM stream.

SCM practices remain executed to achieve and increase performance with SC, that is the need for increased integration of cross-functional on an internal basis inside an organisation as well as external integration that must be successful with both customer and suppliers (Vanichchinchai & Igel, 2011);(Lee et al., 2012). Furthermore, in modern states, mostly managers as well as entrepreneurs ignore the SCM concept, and also even where it has been applied this is generally done incompletely by missing its totality and true spirit ((Barber et al., 2017); (Barber et al., 2017). Most of an organisations remain obliged towards redesign of its manufacturing network because many countries have totally changed their traditional production processes (Lai, Wong, & Lam, 2015) In addition, various organisation enhance the efficiencies just but the enhancements are not done sufficiently enough. Merely sole organisational change is not sufficient it is also necessary for their entire SC so innovate. In this way the SCM growth and development must not pay attention only on internal motives it is also pays attention on a number of external aspects such as: changed globalisation improve the information availability and minimise barriers to trade on international level, as well as environmental concerns. Consequently, in the SCM many factors provide for enhancement of existing trends the enhancements consist of: build qualified industrial zones (QIZs) and create guidelines of the global agreement of trade as well as tariffs (GATT), utilising the world trade an organisation (WTO) and production schedules which being generated by the

computer, enhancing significances of inventory controlling, activities and regulations of government such as making of an individual European market (Kurien & Qureshi, 2011). For increasing profitability and staying in global race SCM should be considered as a very important prerequisite (Sukati et al., 2012). There are numerous researchers have characterised SCM practices as being of a multiplicity of perspectives, on the other hand all them agree that the ultimate goal enhancement of FP (Vanichchinchai & Igel, 2011); (Sezen, 2008); (Hsu et al., 2009);, (Paulraj & Chen, 2007); (de Souza Miguel & Brito, 2011). SCM practice is sued into this research and integrates these findings in seven dimensions which is indicated in figure (?).

According to the (Vanichchinchai & Igel, 2011) strategic supplier partnership (SSP) is considered as having a significant association between suppliers and an organisation. It also pays more attention on long-term direct relationship and make efforts to solve problems and pays attention on mutual planning (Barber et al., 2017). It is planned to increase strategic efforts and operationalgoals as well as creating a signal for participating firms capabilities to obtain their objectives (Sundram, Ibrahim, & Govindaraju, 2011). The sufficient partnerships are a very critical component which is leading SC (Agus, 2011).

Level of information sharing (LIS) is defined in the study of (Vanichchinchai & Igel, 2011) it is the extent in which proprietary or critical informations are communicated towards one's partner within SC. That information which is shared can vary from being strategic towards being tactical in nature as well as logistics, customer's information and general information about the market (Li et al., 2006). Paying more attention on the integration of information prompts the enhancement and establishment of strategic partners of SC. Furthermore, in previous studies this theory has been validated and tested by numerous authors like (Nosratpour, 2016; Thakkar, Kanda, & Deshmukh, 2008), and (Ramanathan, 2014). Practices of knowledge management (KM) are supported for learning and also enhance the manufacturing growth of organisation and are associated to the SC. That way KM practices remain based on information sharing in the tiers of SC so that participants share their experience and skills, on the other hand are are continuously learning in respect of mutual matters which exist in the SC network. Consequently, the indicators of performance for SCP and the MFP indicated in this paper are very helpful to measuring development level of organisational skills, behaviour and knowledge aspects.

Quality of information (QIS) is consists of the following facets like timeliness, information exchanged credibility, and accuracy (Qrunfleh, 2010). Hence (Thakkar et al., 2008)suggested that quality of information sharing is essential for achieving effective SCM. According to the study (Ramanathan, 2014) showed that by ensuring that the information must come from the organisation and must flow without distortion and timeliness. The significances of quality of the information sharing were given in numerous pieces of academic literature through

association to its SCM influences (Barber et al., 2017; Thakkar et al., 2008), in this way these were included as dimensions of the theory of SCM practices.

According to (Ramanathan, 2014) it is stated that the level of information sharing (LIS) concerned with implementing, and planning, and including an the evaluating of successful association among recipients and providers either flowing downstream and upstream of its supply chain. Moreover, LIS mostly refers to an activity like sharing information about products to customers, to manage their demands and cooperating with them and to satisfy their needs and requirements, This information can pertain the acceptance of the customer order, duration of the order scheduling, sharing the status of the order with the customers, and the place of delivery (Ramanathan, 2014). In academic literature LIS was studied on a wide basis as it has been considered essential for successful SCM (Lee *et al.*, 2007; Li *et al.*, 2006; Li *et al.*, 2005; Tan *et al.*, 1998).

Lean practices in the industrial sector which have increased in popularity all around of the world, and now is spread beyond manufacturing (Barber et al., 2017). Nowadays in the manufacturing sector it is considered influential of a new paradigm increasing competitiveness of the firms (Thakkar et al., 2008). Therefore, lean practices include paying more attention on identifying as well as minimising waste throughout the products whole value stream, covering not just within the firms but also along the whole network of SC. As a result, in academic literature lean practices of SC concepts are widely studied (Barber et al., 2017; Nosratpour, 2016). These studies reveal that in most cases practices and principles enable an effectiveness of SCM. In line with this evidence this study will consider this dimension through proportion of SCM practices theory.

According to Thakkar et al. (2008) postponement is distinct as a practice to postponing and moving forward in organisational operations and activities “for example sourcing, delivering, and making” towards a considerably later point into the SC. The basic purpose of postponement is to push the final product accomplishment as close to consumption by the final customers that is possible in this way of minimising inventory and reducing unsold product risk (Barber et al., 2017). Therefore, this aspect was studied widely, and was thoroughly validated and verified in the literature of SCM by other writers like (Nosratpour, 2016; Qrunfleh, 2010; Thakkar et al., 2008). In the SC practices theory this dimension is included because of the unstable demand of environment in Indonesia. Therefore, postponement plays a role as a fundamental aspect of SC practice for manufacturing firms of Indonesia.

In addition, total quantity management (TQM) is the philosophy of management that emphasises on meeting both the internal and an external need of customer’s and significances of correctly doing things at first instance (Nosratpour, 2016). In addition, (Thakkar et al.,

2008) disputes that no agreement is found among authors about what constitutes of TQM. On the other hand, in academic literature, supplier relations, benchmarking responsibility of top management, customer satisfaction, and continuous improvement remain as the most cited aspects of TQM (Barber et al., 2017). While there is disagreement about the result which is gained from TQM implementation in association of FP (Qrunfleh, 2010; Ramanathan, 2014), quality management is a basic constituent of practices of SCM (Ramanathan, 2014). Therefore, TQM including as a dimensions of SC practices theory.

Supply Chain Performance

In supply chain performance, the customer responsiveness described as an organisations speed with responses towards customers' requirements and orders (Ramanathan, 2014). Numerous researchers defined that customer responsiveness a key factor which could be measured by SC performance. As stated by Qrunfleh (2010), basic objectives of customer responsiveness remain: enhanced response to the customers' wants and requirements, and also turning savings in extra value to customers. Sufficient measurement of performance could be obtained through SC association to particularly the satisfaction of the customer. Hence, responsiveness is generally associated with new products and products lead with short time that describes the needed collaboration level (Ramanathan, 2014). In addition, according to Thakkar et al. (2008), the supplier performance of suppliers is defined as a supplier's capabilities towards delivering components, products, raw materials to an organisation in better condition and on time. In practice, several organisations pay more attention on the significances of utilising minimum number of qualified suppliers because of the reason of effective shift occurring within the traditional adversarial relationship of buyer and seller. Thus, supplier's involvement is very essential for buyers' identifications and expectations in quality terms, service or price, delivery, minimised competition and reduction of cost, and it also support the firms to enhance its overall quality (Thakkar et al., 2008). When all expectations are met, that make a sufficient association as well as creating the appropriate tool which is very helpful for an organisation to achieve its advantages (Zelbst, Green, Sower, & Reyes, 2009; Santoso, 2020).

Business Performance

Performance of the firms is a compound theory that reveals the organisational performance of a business. Basically, it discusses how a firm can achieve its financial goals as well as market goals in more efficient manner (Vanichchinchai & Igel, 2011). SCM objectives on a short-term basis are specifically to minimise inventory, minimise the cycle time of services or products and increase productivity, searching for new markets. Objectives on a long-term basis are to enhance profits, and for all SC units to enhance the market share (Barber et al., 2017). In addition, (Barber et al., 2017) recommended that for the purpose of achieving

firms' performance it is essential to align and associate with operations, for example those SCs towards financial metrics. Sundram et al. (2011) stated that an effective organisational system for tracking financial and measuring operational performance is beneficial for finances and improves operations.

Research Framework

Based on the previous literature review sections, the research framework of the study is formulated. The current framework of the study is consisting of three types of variable, the independent variables are supply chain management practices (SCMP), supply chain performance (SCP) that is the mediating variable, and business performance (BP) is the dependent variable. All of these variables are depicted in Figure 1.

Figure 1. Research Framework of the study



Research Hypothesis

H1: There is a significant relationship between strategic partnership with supplier and business performance of the textile industry of Indonesia.

H2: There is a significant relationship between level of information sharing and supply chain performance of the textile industry of Indonesia.

H3: There is a significant relationship between strategic partnership with supplier and supply chain performance of the textile industry of Indonesia.

H4: There is a significant relationship between level of information sharing and supply chain performance of the textile industry of Indonesia.

H5: There is a significant relationship between internal supply chain and supply chain performance of the textile industry of Indonesia.

H6: There is a significant relationship between lean practices and supply chain performance of the textile industry of Indonesia.

H7: There is a significant relationship between postponement and supply chain performance of the textile industry of Indonesia.

H8: There is a significant relationship between total quality management and supply chain performance of the textile industry of Indonesia.

H9: The supply chain performance is significantly mediating on the relationship of supply chain management practices and business performance of the textile industry of Indonesia.

Research Methodology

The current study has used the cross sectional research design and used the quantitative research approach. Moreover, the current study is correlational in nature. The data was collected by using a self-administered questionnaire among 450 supply chain managers. The questionnaires returned back numbered 400 which yielded an 89 percent response rate. The aim of the current study is to investigate the mediating impact of supply chain performance on the relationship of supply chain management practices and business performance of the textile sector of Indonesia. The research questionnaire has been adopted based on the extant literature which is tested and considered to be a reliable questionnaire. Among the indicators of the supply chain management practices, the strategic partnership with supplier (SPS) was measured by five items, level of information (LIS) was also measured by five items, quality of information sharing (QIS) was also measured through five items. Postponement was measured by three items, the internal supply chain management (ISC) was measured by three items and at last the lean practices (LP) is measured by three items. The following items have been adopted from the extant study of (Sundram et al., 2011). Other SCMP dimension is total quantity management (TQM) was measured by three items. In addition, the business performance was measured by ten items which were adopted from the previous study of (Sharabati, Naji, & Bontis, 2010). In addition, the supply chain performance was measured by four dimensions, namely, flexibility of supply chain that is measured by seven items, integration of supply chain that is measured by four items, customer responsiveness that measured by three items, supplier performance is measured by three items. All of these dimensions were adopted from the study of (Barber et al., 2017).

Measurement Model

This study used the PLS-SEM to investigate the relationships among study variables. The validity of the items and constructs must be checked before to test the relationships between variables. There are four criteria to check the convergent validity of the items (Hair, Hollingsworth, Randolph, & Chong, 2017); the first criteria is outer loadings that should be greater than 0.50. According to the results of this study, the outer loadings of almost all items are greater than 0.05 that means no problem with convergent validity. The second criteria are Cronbach's Alpha that should be greater than 0.07, and the results show that the value of Cronbach's Alpha is more than the limit that means no issue with convergent validity. The third criteria are composite reliability (CR) that should be greater than 0.07, and the results show that the value of CR is more than the limit, that means no issue with convergent validity. The last criteria are Average Variance Extracted (AVE) that should be greater than 0.05, and the results show that the value of AVE is more than the limit that means no issue with convergent validity (Hair et al., 2017; Henseler, Ringle, & Sarstedt, 2015). In addition, the validity of the model could also be assessed by the discriminant validity of the model.

The discriminant validity of model could be assessed by the following three areas, for instance, fornell lacker, HTMT, and cross-loading. In the fornell lacker the diagonal value should be greater than from other value and for HTMT the construct association should be less than from 0.90 (Henseler et al., 2015). All of the following measurement model results are depicted in the following Table 1, 2 and 3.

Table 1: Measurement Model Results

Constructs	Items	Loadings	Alpha	CR	AVE
strategic partnership with supplier	SPS1	0.814	0.907	0.931	0.729
	SPS2	0.888			
	SPS3	0.853			
	SPS4	0.895			
	SPS5	0.816			
Level of information sharing	LIS1	0.826	0.905	0.934	0.78
	LIS2	0.909			
	LIS3	0.92			
	LIS5	0.875			
Quality of information sharing	QIS1	0.783	0.869	0.902	0.607
	QIS2	0.849			
	QIS3	0.756			
	QIS4	0.734			
	QIS5	0.723			
Internal supply chain	ISC1	0.856	0.908	0.935	0.784
	ISC2	0.916			
	ISC3	0.885			
Lean practices	LP1	0.82	0.869	0.911	0.718
	LP2	0.864			
	LP3	0.82			
Postponement	POS1	0.882	0.844	0.906	0.763
	POS2	0.862			
	POS3	0.875			
Total Quality management	TQM1	0.891	0.890	0.900	0.670
	TQM2	0.897			
	TQM3	0.901			
Flexibility of supply chain	FOSC1	0.945	0.942	0.958	0.851
	FOSC	0.920			
	FOSC 3	0.915			
	FOSC4	0.912			

Integration of supply chain	IOSC1	0.958	0.915	0.959	0.922
	IOSC2	0.962			
	IOSC3				
	IOSC4				
Responsiveness to customer	RTC1	0.823	0.57	0.823	0.699
	RTC2	0.849			
	RTC3				
Supplier performance	SP1	0.872	0.908	0.936	0.785
	SP2	0.930			
	SP3	0.915			
	SP4	0.824			
Business performance	BP1	0.782	0.884	0.890	0.872
	BP2	0.672			
	BP3	0.721			
	BP4	0.589			
	BP5	0.892			
	BP6	0.921			
	BP7	0.909			
	BP8	0.931			

Note: SPS-strategic partnership with supplier, LIS-logistic information system, QIS-quality information system, ISC-internal supply chain, LP-lean practices, POS-postponement, TQM-total quality management, FOSC- flexibility of supply chain, ISC-integration of supply chain, RTC, responsiveness to customer, SP-supplier performance, BP-business performance.

Table 2: Discernment Validity: Fornell Lacker

	SPS	LIS	QIS	ISC	POS	LP	TQM	FOSC	ISC	RTC	SP	BP
SPS	0.708											
LIS	0.051	0.960										
QIS	0.572	0.119	0.90									
ISC	0.766	0.156	0.189	0.95								
POS	0.521	0.364	0.133	0.499	0.86							
LP	0.285	0.332	0.231	0.416	0.357	0.845						
TQM	0.476	0.204	0.125	0.578	2.026	3.079	0.865					
FOSC	0.683	0.187	0.238	0.704	0.579	0.49	0.748	0.905				
ISC	0.431	0.077	0.454	0.495	0.836	0.482	0.846	0.390	0.890			
RTC	0.444	0.176	0.342	0.469	0.615	0.751	0.451	0.513	0.451	0.892		
SP	0.236	0.104	0.231	0.578	.0260	.079	0.689	0.104	0.710	0.076	0.895	
BP	0.033	0.087	0.698	0.704	0.579	0.49	0.748	0.087	0.698	0.693	0.301	

Note: SPS-strategic partnership with supplier, LIS-logistic information system, QIS-quality information system, ISC-internal supply chain, LP-lean practices, POS-postponement, TQM-total quality management, FOSC- flexibility of supply chain, ISC-integration of supply chain, RTC, responsiveness to customer, SP-supplier performance, BP-business performance.

Table 3: Discernment Validity (HTMT)

	SPS	LIS	QIS	ISC	POS	LP	TQM	FOSC	ISC	RTC	SP	BP
SPS												
LIS	0.071											
QIS	0.562	0.119										
ISC	0.796	0.056	0.589									
POS	0.511	0.164	0.533	0.499								
LP	0.275	0.032	0.41	0.416	0.557							
TQM	0.476	0.104	0.715	0.578	1.026	1.079						
FOSC	0.693	0.087	0.698	0.704	0.579	0.49	0.748					
ISC	0.511	0.177	0.46	0.495	0.836	0.482	0.846	0.390				
RTC	0.334	0.076	0.579	0.469	0.615	0.751	0.451	0.513	0.451			
SP	0.476	0.104	0.715	0.578	.026	.079	0.689	0.104	0.710	0.076		
BP	0.693	0.087	0.698	0.704	0.579	0.49	0.748	0.087	0.698	0.693	0.301	

Note: SPS-strategic partnership with supplier, LIS-logistic information system, QIS-quality information system, ISC-internal supply chain, LP-lean practices, POS-postponement, TQM-total quality management, FOSC- flexibility of supply chain, ISC-integration of supply chain, RTC, responsiveness to customer, SP-supplier performance, BP-business performance.

Structural Model

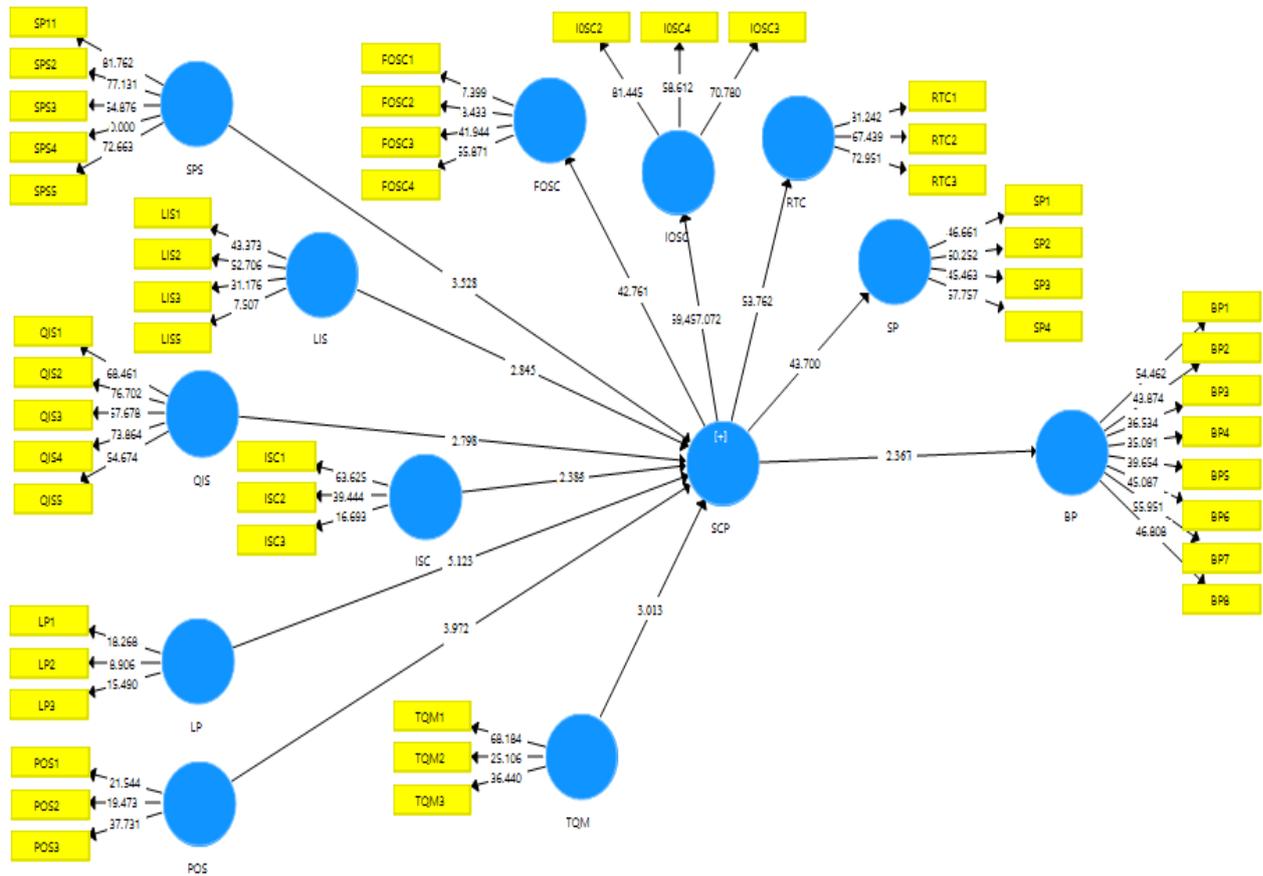
After the assessment of the model, for the hypothesis testing, the regression model structural model was run. The structural model of the study has shown that strategic partnership with supplier (SPS) has a positive and significant association with the supply chain performance (SCP). In the same vein other indicators, logistics information system (LIS), quality of information system (QIS), total quality management (TQM) postponement (POS), lean practices (LP), internal supply chain (ISC) also have a positive and significant association with the SCP. In addition, the SCP also has a positive and significant association with business performance (BP). On the other hand, the indirect effect of the study also shows that SCP has a significant impact among all of the supply chain management practices namely, logistics information system (LIS), quality of information system (QIS), total quality management (TQM) postponement (POS), lean practices (LP), internal supply chain (ISC), strategic partnership with supplier (SPS) and business performance. These findings indicate that supply chain management practices (SCMP), directly and indirectly, effect the BP of the textile industry of Indonesia. Therefore, it could be explained that for increasing the performance of the textile industry of Indonesia, the SCMP should be considered to an important factor.

Table 4: Structural model results

	Beta	S.D	T Statistics	P Values	Results
SPS->SCP	0.250	0.071	3.528	0.000	Supported
LIS-> SCP	0.255	0.086	2.845	0.005	Supported
QIS-> SCP	0.203	0.075	2.798	0.007	Supported
ISC->SCP	0.188	0.075	2.385	0.018	Supported
LP-> SCP	0.291	0.055	5.123	0.000	Supported
POS-> SCP	0.384	0.096	3.973	0.000	Supported
TQM-> SCP	0.178	0.059	3.013	0.003	supported
SCP-> BP	0.209	0.079	2.637	0.009	supported
SPS->SCP->BP	0.154	0.057	2.686	0.007	Supported
LIS-> SCP->BP	0.407	0.069	5.905	0.000	Supported
QIS-> SCP->BP	0.220	0.071	3.117	0.002	Supported
ISC->SCP->BP	0.205	0.070	2.913	0.004	Supported
LP-> SCP->BP	0.660	0.042	15.861	0.000	Supported
POS-> SCP->BP	0.188	0.06	3.138	0.002	Supported
TQM-> SCP->BP	0.434	0.064	6.83	0.000	Supported

Note: SPS-strategic partnership with supplier, LIS-logistic information system, QIS-quality information system, ISC-internal supply chain, LP-lean practices, POS-postponement, TQM-total quality management, SCP-supply chain performance, BP-business performance.

Figure 2. Structural Model of the Study



Conclusion

The aim of the current study is to investigate the mediating impact of supply chain performance (SCP) in the relationship of supply chain management practices (SCMP) and business performance (BP) of the textile sector of Indonesia. To achieve this objective, the data was collected from the supply chain managers of the textile sector of Indonesia. The key findings of the study have shown that SCMP directly and indirectly through the SCP effects the BP of the textile sector of Indonesia. These findings indicate that the textile sector of Indonesia has a greater importance on the SCMP to increase BP. The findings of the study could also provide help to the supply chain managers to know about the importance of SCMP and SCP to increase their BP. In addition, the empirical findings of the study could also have added a body of knowledge which could become a new area of research in future. Based on the findings of the study, the current study has some limitations which could become a new area of research in future. Firstly, the current study was limited to one industry, therefore, the generalisability is also limited. In this regards, future research could be established on more sectors. Secondly, the current study is limited on the mediating effect, hence a future research could be established along with any organisation level moderating variable. Thirdly, the



current study is conducted using a cross sectional research design in which data is collected only in one time, thus, future research could be established on longitudinal research design. Fourthly, the current study was limited on an individual unit of analysis, future research could be established on an organisational level analysis.

REFERENCES

- Abdallah, A. B., Obeidat, B. Y., & Aqqad, N. O. (2014). The impact of supply chain management practices on supply chain performance in Jordan: The moderating effect of competitive intensity. *International Business Research*, 7(3), 13-26.
- Adebayo, I. T. (2012). Supply chain management (SCM) practices in Nigeria today: impact on SCM performance. *European Journal of Business and Social Sciences*, 1(6), 107-115.
- Agus, A. (2011). Enhancing production performance and customer performance through total quality management (TQM): Strategies for competitive advantage. *Procedia-Social and Behavioral Sciences*, 24, 1650-1662.
- Barber, K. D., Garza-Reyes, J. A., Kumar, V., & Abdi, M. R. (2017). The effect of supply chain management practices on supply chain and manufacturing firms' performance. *Journal of Manufacturing Technology Management*. 22, 156-166.
- Basheer, M., 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.
- Bigliardi, B., Bottani, E., & Galati, F. (2010). Open innovation and supply chain management in food machinery supply chain: a case study. *International Journal of Engineering, Science and Technology*, 2(6). 22-23.
- Choi, S.-B., Min, H., & Joo, H.-Y. (2018). Examining the inter-relationship among competitive market environments, green supply chain practices, and firm performance. *The International Journal of Logistics Management*. 21,36,236-239.
- Choi, S.-B., Min, H., Joo, H.-Y., & Choi, H.-B. (2017). Assessing the impact of green supply chain practices on firm performance in the Korean manufacturing industry. *International Journal of Logistics Research and Applications*, 20(2), 129-145.
- Cook, L. S., Heiser, D. R., & Sengupta, K. (2011). The moderating effect of supply chain role on the relationship between supply chain practices and performance. *International Journal of Physical Distribution & Logistics Management*. 2(6). 22-23
- de Almeida, M. M. K., Marins, F. A. S., Salgado, A. M. P., Santos, F. C. A., & da Silva, S. L. (2015). Mitigation of the bullwhip effect considering trust and collaboration in supply chain management: a literature review. *The International Journal of Advanced Manufacturing Technology*, 77(1-4), 495-513.

- de Souza Miguel, P. L., & Brito, L. A. L. (2011). Supply Chain Management measurement and its influence on Operational Performance. *Journal of Operations and Supply Chain Management*, 4(2), 56-70.
- Flynn, B. B., Huo, B., & Zhao, X. (2010). The impact of supply chain integration on performance: A contingency and configuration approach. *Journal of Operations management*, 28(1), 58-71.
- Foerstl, K., Franke, H., & Zimmermann, F. (2016). Mediation effects in the ‘purchasing and supply management (PSM) practice–performance link’: Findings from a meta-analytical structural equation model. *Journal of Purchasing and Supply Management*, 22(4), 351-366.
- Green, K. W., Zelbst, P. J., Meacham, J., & Bhadauria, V. S. (2012). Green supply chain management practices: impact on performance. *Supply Chain Management: An International Journal*. 77(1-4), 495-513.
- Hair, Hollingsworth, C. L., Randolph, A. B., & Chong, A. Y. L. (2017). An updated and expanded assessment of PLS-SEM in information systems research. *Industrial Management & Data Systems*, 117(3), 442-458.
- 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.
- Hong, J., Zhang, Y., & Ding, M. (2018). Sustainable supply chain management practices, supply chain dynamic capabilities, and enterprise performance. *Journal of Cleaner Production*, 172, 3508-3519.
- Hsu, C.-C., Tan, K.-C., Kannan, V. R., & Keong Leong, G. (2009). Supply chain management practices as a mediator of the relationship between operations capability and firm performance. *International Journal of Production Research*, 47(3), 835-855.
- Huo, B. (2012). The impact of supply chain integration on company performance: an organizational capability perspective. *Supply Chain Management: An International Journal*. 2(4), 31-36
- Jaska, P., Reyes, P., Collins, J. D., Worthington, W. J., Reyes, P. M., & Romero, M. (2010). Knowledge management, supply chain technologies, and firm performance. *Management Research Review*. 22. 25, 237-256.
- Jonsson, P., Andersson, D., Boon-itt, S., & Wong, C. Y. (2011). The moderating effects of technological and demand uncertainties on the relationship between supply chain integration and customer delivery performance. *International Journal of Physical Distribution & Logistics Management*. 8(1), 5-7

- Kache, F., & Seuring, S. (2014). Linking collaboration and integration to risk and performance in supply chains via a review of literature reviews. *Supply Chain Management: An International Journal*, 22, 45, 188-193.
- Kannan, V. R., & Tan, K. C. (2005). Just in time, total quality management, and supply chain management: understanding their linkages and impact on business performance. *Omega*, 33(2), 153-162.
- Koh, S. L., Demirbag, M., Bayraktar, E., Tatoglu, E., & Zaim, S. (2007). The impact of supply chain management practices on performance of SMEs. *Industrial Management & Data Systems*, 22, 25, 237-256
- Kuei, C.-h., Madu, C. N., Chow, W. S., & Chen, Y. (2015). Determinants and associated performance improvement of green supply chain management in China. *Journal of cleaner production*, 95, 163-173.
- Kurien, G. P., & Qureshi, M. N. (2011). Study of performance measurement practices in supply chain management. *International Journal of Business, Management and Social Sciences*, 2(4), 19-34.
- Lai, K.-h., Wong, C. W., & Lam, J. S. L. (2015). Sharing environmental management information with supply chain partners and the performance contingencies on environmental munificence. *International Journal of Production Economics*, 164, 445-453.
- Lee, S. M., Kim, S. T., & Choi, D. (2012). Green supply chain management and organizational performance. *Industrial Management & Data Systems*, 5, 13-17
- Li, S., Ragu-Nathan, B., Ragu-Nathan, T., & Rao, S. S. (2006). The impact of supply chain management practices on competitive advantage and organizational performance. *Omega*, 34(2), 107-124.
- Michalski, M., Montes-Botella, J.-L., & Narasimhan, R. (2018). The impact of asymmetry on performance in different collaboration and integration environments in supply chain management. *Supply Chain Management: An International Journal*, 1, 6, 111-114.
- Nosratpour, M. (2016). *The Mediating Impact of Innovation of the Relationship of Supply Chain Quality Management and Performance in the Iranian Automotive Industry*. Universiti Teknologi Malaysia,
- Paulraj, A., & Chen, I. J. (2007). Environmental uncertainty and strategic supply management: a resource dependence perspective and performance implications. *Journal of Supply Chain Management*, 43(3), 29-42.
- Pimenta, H. C., & Ball, P. D. (2015). Analysis of environmental sustainability practices across upstream supply chain management. *Procedia Cirp*, 26(26), 677-682.



- Qrunfleh, S. M. (2010). *Alignment of information systems with supply chains: Impacts on supply chain performance and organizational performance*. University of Toledo,
- Ramanathan, U. (2014). Performance of supply chain collaboration—A simulation study. *Expert Systems with Applications*, 41(1), 210-220.
- Salleh, N. R. (2017). The Effects of Supply Chain Management Practices on Manufacturing Firms in Malaysia. *Available at SSRN 3084427*.
- Sampaio, P., Carvalho, M. S., Fernandes, A. C., Quang, H. T., An, D. T. B., & Vilhenac, E. (2016). An extensive structural model of supply chain quality management and firm performance. *International Journal of Quality & Reliability Management*, 7, 142-156.
- Santoso, A. (2020). Impact Of Psychological Ownership On Innovation And Growth In Indonesia Business Firms. *International Journal of Psychosocial Rehabilitation*, 24 (7), 1002 – 1012.
- Santoso, A., Kessi, A. M. P., & Anggraeni, F. S. (2020). Hindrance of quality of knowledge sharing due to workplace incivility in Indonesian pharmacies: Mediating role of co-worker and organizational support. *Systematic Reviews in Pharmacy*, 11(2), 525-534.
- Sessu, A., Sjahruddin, H., & Santoso, A. (2020). The Moderating Effect Of Supply Chain Dynamic Capabilities on the Relationship of Sustainable Supply Chain Management Practices, Supply Chain Integration and Business Performance. *Journal of Talent Development and Excellence*, 12(1), 1339-1353.
- Schaltegger, S., & Burritt, R. (2014). Measuring and managing sustainability performance of supply chains. *Supply Chain Management: An International Journal*, 4 (7), 100 – 101
- Sezen, B. (2008). Relative effects of design, integration and information sharing on supply chain performance. *Supply Chain Management: An International Journal*.
- Sharabati, A.-A. A., Naji, J., Shawqi, & Bontis, N. (2010). Intellectual capital and business performance in the pharmaceutical sector of Jordan. *Management decision*, 48(1), 105-131.
- Sukati, I., Hamid, A. B., Baharun, R., & Yusoff, R. M. (2012). The study of supply chain management strategy and practices on supply chain performance. *Procedia-Social and Behavioral Sciences*, 40, 225-233.
- Sundram, V. P. K., Ibrahim, A. R., & Govindaraju, V. (2011). Supply chain management practices in the electronics industry in Malaysia: Consequences for supply chain performance. *Benchmarking: An International Journal*, 18(6), 834-855.



- Thakkar, J., Kanda, A., & Deshmukh, S. (2008). A conceptual role interaction model for supply chain management in SMEs. *Journal of Small Business and Enterprise Development*, 4 (7), 1 – 10
- Tortorella, G. L., Miorando, R., & Marodin, G. (2017). Lean supply chain management: Empirical research on practices, contexts and performance. *International Journal of Production Economics*, 193, 98-112.
- Vanichchinchai, A., & Igel, B. (2011). The impact of total quality management on supply chain management and firm's supply performance. *International Journal of Production Research*, 49(11), 3405-3424.
- Wiyati, R., Dwi Priyohadi, N., Pancaningrum, E., Prawironegoro, D., Santoso, A., Dewantara Jombang, P., & Swadaya Jakarta, S. (2019). Multifaceted Scope of Supply Chain: Evidence from Indonesia. *International Journal of Innovation, Creativity and Change*. www.ijicc.net, 9(5).47-158.
- Wolf, J. (2014). The relationship between sustainable supply chain management, stakeholder pressure and corporate sustainability performance. *Journal of business ethics*, 119(3), 317-328.
- Zelbst, P. J., Green, K. W., Sower, V. E., & Reyes, P. (2009). Impact of supply chain linkages on supply chain performance. *Industrial Management & Data Systems*, 93, 98-112
- Zhao, L., Huo, B., Sun, L., & Zhao, X. (2013). The impact of supply chain risk on supply chain integration and company performance: a global investigation. *Supply Chain Management: An International Journal*, 18(2), 115-131.
- Zhu, Q., Sarkis, J., & Lai, K.-h. (2013). Institutional-based antecedents and performance outcomes of internal and external green supply chain management practices. *Journal of Purchasing and Supply Management*, 19(2), 106-117.