

A REVIEW OF RELATIONAL CAPABILITIES ON SUPPLY CHAIN PERFORMANCE IN TEXTILE AND APPAREL INDUSTRY

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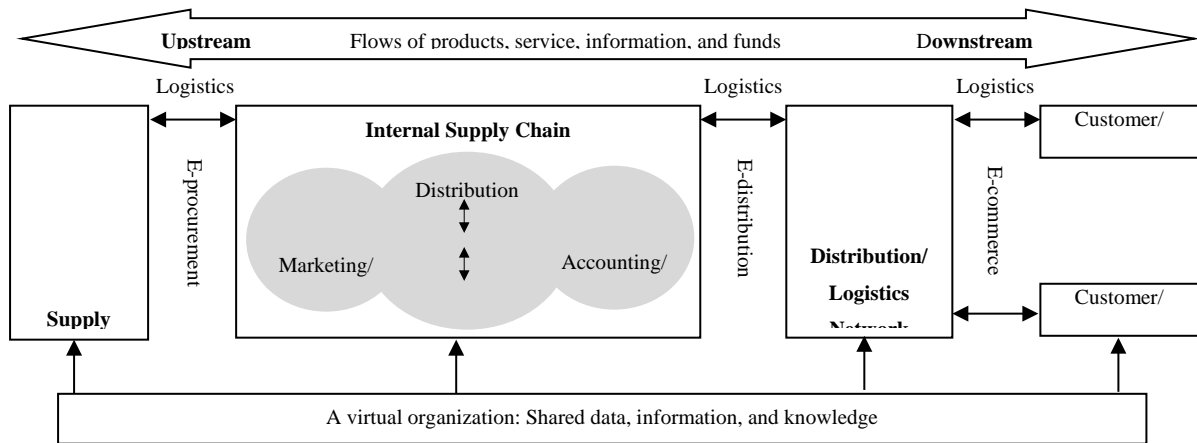
Abstract. In today's dynamic business environment, the competition is no longer between firms, but between supply chains to gain competitive advantages. Its nature changed the business environment not only sensitive to tangible resources, but also intangible resources. The trends have made industrial practitioners pay special attention to the concept of relational capabilities as a critical factor in improving supply chain performance. The motivation of this study is derived from the concept of relational capability, which includes a supplier partnership, customer relationship, information sharing, and information quality in supply chain management to achieve reliable, responsive, agile, and cost effective supply chain performance in the textile and apparel industry. Textile and apparel industry has a remarkable position as a confident industry, starting with the supplier of the processing of raw materials to the delivery of completed products to the end user, with impressive value added at each process. Obviously, textile and apparel provide necessary protection and image for people, thus it is one of the most basic necessities for human being. Current supply chain environment accentuated the necessity for relational capability to smoothen the supply chain management. The power of relational capability in managing the supply chain gains attention from researchers and practitioners, because the business benefits from enhanced organizations' supply chain performance. Hence, this study provides a unique conceptual diagram expected to aid researchers and practitioners to create a more comprehensive understanding of the linkages between relational capability and supply chain performance. This is the main objective of this study, which is attempting to identify and explain the relationship between relational capability and supply chain performance in the textile and apparel industry.

Keywords: Relational capability; supply chain performance; textile and apparel industry; supply chain management

1. Introduction

Supply chain is an essential segment of world trade. However, a supply chains itself is insufficient; it is more critical to comprehend its characteristics, and the role played by each function in the overall supply chain to work efficiently and effectively [1]. Beske [2] noted that supply chain was not a one-way street. It includes all activities in satisfying customer requests and demands. Thus, the emphasis on upstream and downstream flows of material and information is notable. As Tseng, Wu, and Nguyen [3] suggested, firms could obtain data from various fields to become competitive. Figure 1 illustrates the general flow and the basic concept of supply chain management. As the figure shown, the study realized that supply network, internal supply chain, distribution network, logistics, information sharing, and customer are important elements in supply chain management. Therefore, this study focused on information sharing, information quality, supplier partnership, and customer relationship as relational capability to achieve higher supply chain performance.

The concept of supply chain management started to emerge in the mid-1960s, and the first publication took place in 1982. It has attracted attention of researchers since 1990 [4], [5] and gained an incredible attention from both academics and practitioner's community since 2000 [6]. Over the last 30 years, the significance of supply chain performance to organization has been indicated in literature [7]. Several studies supported that firm should emphasize supply chain performance due to its huge direct effect on organization performance [8]–[10]. This is because the current business trend tends to a global market and stress firm to become multi-national [11]. Succeeding the trend, the business competition is no longer between firms, but between supply chains [8]. Hence, this increases the complexity of the supply chain which necessitates the involvement of all partners in the chains to hold the key of competitiveness [2]. Nowadays, supply chain management becomes a common management tool in assisting firms expand their competitiveness. Therefore, concepts of supply chain management have proven to be vitally important for textile and apparel industry [12].



Source: Adopted from Li [13]

Figure 1: Overview of Supply Chain Management

This paper provides a comprehensive overview of literature pertaining to relational capability and supply chain performance in the textile and apparel industry. The first portion discussed the relational capability, and follow by the types of relational capability and the roles of relational capability in textile and apparel supply chain. The next portion discussed the overview of supply chain performance and the types of supply chain performance. Further, the relationship between relational capability and supply chain performance are discussed based on the review of previous studies. Lastly, a conclusion and some recommendation for future studies are provided at the end of this study.

2. Relational Capability

Literatures show that relational capabilities have been discussed in many different contexts. However, there is no common definition of relational capabilities is universally accepted. Thus, several researchers have been broadly defined their understanding towards relational capability in their study. Based on the previous study, Table 1 presents an overview of existing conceptual definitions of relational capabilities.

Relational capability steadily created the lasting relationship between two or more companies [17]. From the process viewpoint, relational capabilities can be defined as superior skills utilized to manage the resources that have an impact in a single activity shared between companies [17]. Relational capability enables partners active in business interaction to better understand specific information that related to relationships [20]. Besides, relational capability provides better communication, collaboration, and management of reciprocal business relationship in the near future [20]–[22]. A common element of the relationship capabilities required the flow of information in both forward and rearward directions in the supply chain [23]. If a firm's relational capability have been made to create more mutual benefits, then the firm may feel swayed to stretch out collaborative activities to

encourage further market improvement activities [18]. Moller and Torronen [24] noted that relational capabilities should consist of eight indicators, which are (1) ability to view things from the customer’s perspective, (2) organization-wide relational orientation, (3) working key-account management, (4) qualified technological support personnel, (5) committed personnel with team-working skills, (6) making propositions enhancing the customer’s business processes, (7) sharing of proprietary information, and (8) information systems integration. The study believes that specific information and relationship able to enhancing performance.

Authors	Definition
[14]	Firm’s willingness and ability to create relationships with partners.
[15]	The capability to interact with other firms that accelerate the lead firm’s knowledge access and transfer with relevant effects on organizational growth and innovativeness.
[16]	A type of dynamic capabilities with the capacity to purposefully create, extends, or modifies the firm’s resource base.
[17]	The superior skills used to manage resources shared between organizations.
[18]	The willingness and structured exchange of ideas and experiences.
[19]	Having a link with a relational ontology that has a universal perspective toward the ability to form positive relationships with fellow human beings and with the cosmos, in the context of a given society.
[20]	The partner active in business interaction can better understand and gain profits from specific information related to relationships.

Table 1: Conceptual Definition of Relational Capabilities

3. Supply Chain Performance

Generally, supply chain performance is looking for the inter-organizational performance, while, organizational performance is referred to the internal or individual organization performance [25]. Nowadays, the competition in business is more on among supply chains, rather than among organizations. In twenty-first century, the objectives of researchers and practitioners towards performance of the supply chain have progressively focused more than ever before [26], [27]. The effective supply chain management has become a popular tool to locked competitive advantages in business competitions [28]. Consequently, practitioners give special attention to supply chain performance in the market competitions [29]. The study found that the new supply chain agenda had highlighted five steps of the supply chain drive real value to achieve excellence supply chain performance. The five steps include hire the right talent, select the appropriate technology, external collaboration, internal collaboration, and managing change in the supply chain [30].

Essentially, the definitive objective of a supply chain is to efficiently deliver goods and services to customers in littlest time, least total cost, and higher quality. It is supported by study of Jacques [31] and Omar et al. [32]. firms are doomed to failure if they are not aware of the reality of the success factors in the supply chains which is low costs, high quality, flexible and quick response. Hence, supply chain performance is usually determined in terms of flexibility, responsiveness, reliability, cost, and asset management [29].

The role of performance measurement i Firms for firms and supply chain to enhance performance [32]. While, performance measurement system is a performance assessment tool that use in stage of monitoring the supply chain performance [33]. Generally, performance measurement can be defined as “a process of quantify the efficiency and effectiveness of actions” [34]. Whereas, performance measurement system can be defined as “a set of metrics used to quantify the efficiency and effectiveness of actions” [34], [35]. Efficiency and effectiveness are used to define the levels of the performance. Efficiency is used to define internal performance, while effectiveness is used to define external performance [36]. Efficiency and effectiveness in modern supply chain management are critical importance for firms to be competitive [31]. According to Ip, Chan, and Lam [37],

effectiveness and efficiency can be measured by six components, which are on-time delivery, product reliability, profitability, employee fulfillment, customer fulfillment, and work efficiency.

Traditionally, productivity, cost, quality asset management, and customer service are frequently used performance measures in supply chain functions of purchasing/sourcing, production/operations, and logistics [38]. Vinodh, Prakash, and Selvan [39] pointed out that supply chain management must possess flexibility, profitability, quality, innovativeness, proactive, responsiveness, cost efficiency, and robustness in order to be competitiveness. Basically, many approaches were developed to measure the effectiveness and efficiency of supply chain performance. The often used include game theory, fuzzy theory, balance scorecards, ARIMA model, supply chain operations reference (SCOR) model, and theory of constraints thinking [29]. In addition, it also can be categorized into two categories, which are financial and non-financial performance measures [29], [40].

4. Relational Capability and Supply Chain Performance

Firm that possesses relational capabilities gain advantages from wider the business networks and relationships in managing the supply chain [24], [41]. In business environments, relational capability not only can achieve order fulfillment, but also flexibility in supply chain process [42]–[44]. Relational capabilities enable small and medium-size enterprises (SMEs) to improving business transactions and strengthen the relationship within supply chain partners to achieve higher goals [20]. Generally, closer relationship between supply chain partners provides supply chain management in reducing cost and improving revenue as well as flexibility in managing uncertainties of supply and demand [45]. The study of Fynes, Burca, and Voss [46] and Srinivasan, Mukherjee, and Gaur [47] pointed out that supplier partnership significant and positive effect to supply chain performance. Besides, the study of Narasimhan, Kim, and Tan [48] and Sukati, Hamid, Baharun, and Yusoff [49] is aligned with the study of Sezen [50] which found that information sharing, supplier partnership, and customer relationship are the significant factors of supply chain performance. Qrunfleh [51] is aligned with the study of Narasimhan, Kim, and Tan [48] and Sezen [50] by an added one factor which is information quality is a significant and positive effect to supply chain performance. Figure 2 illustrates the basic concept of relational capability and supply chain performance.

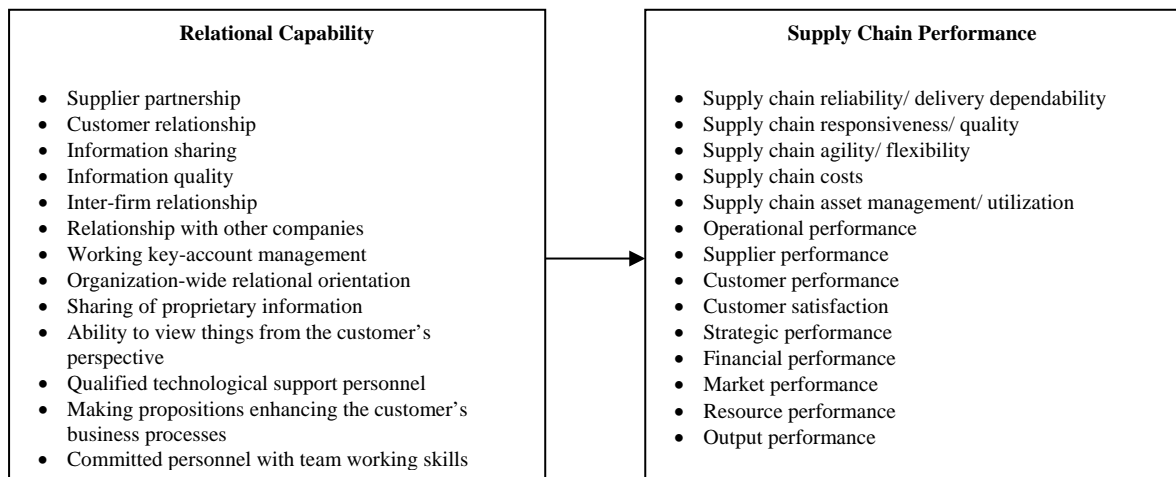


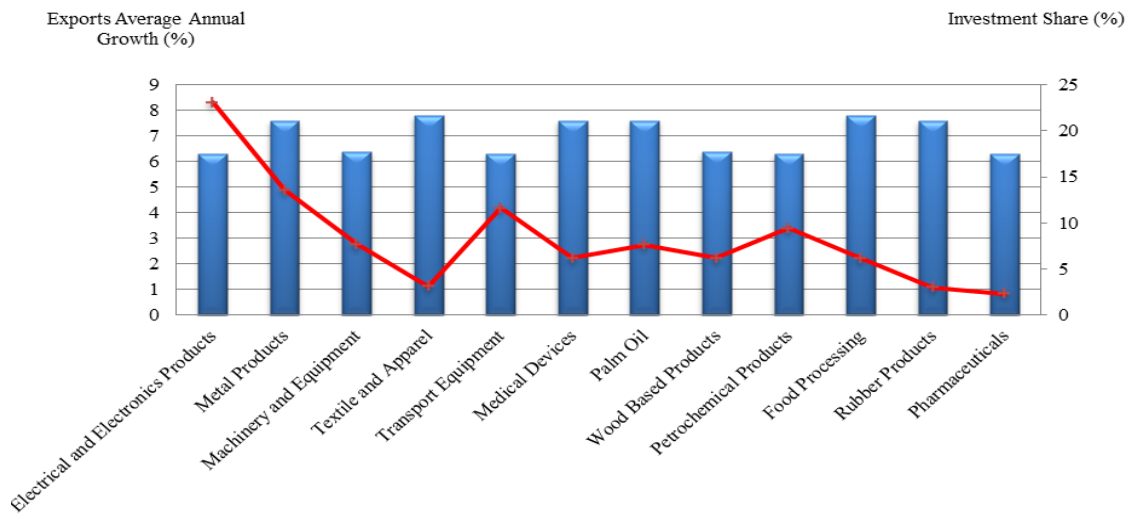
Figure 2: Concept of Relational Capability and Supply Chain Performance

5. Textile and Apparel Supply Chain

Textile and apparel are one of the significant components of physiological needs in Maslow's hierarchy of needs. The industry has an extraordinary position as it is a basic consumption item that gives vital protection to individuals. Additionally, the industry has added value to each single movement in the supply chain beginning from the supplier of the production raw materials to the delivery of completed product to end consumer [52]. This industry has an incredible potential to be

researched, since it has been recognized by the Third Industrial Master Plan (2006-2020) [53] for further advancement, and it has the highest estimate of annual growth of export, which is 7.80% annually. Moreover, Department of Statistics Malaysia [54] reported that textile and apparel has contributed 1.70% to the growth of Gross Domestic Product (GDP) on manufacturing sector in 2012. This shows the industry’s potential to be researched primarily because of its contribution to Malaysia’s GDP.

In the Third Industrial Master Plan [53], textiles and apparel industry has been recognized for further improvement. This is depending upon their potential to extend further and contribute at a higher level to the growth of the manufacturing sector and to exports. Fundamentally, the majority of the Malaysian made textile and apparel are exported to Canada, United States, Turkey, and Europe. The major import markets of Malaysia are China, Taiwan, and Japan [55]. While Indian textiles and apparel exporters are facing strong competition and challenges from low cost countries such as Indonesia, Cambodia, China, Bangladesh, and Vietnam. Nonetheless, Malaysia managed to sustain the operation even with the economic slowdown in 2009 [56]. This is because Malaysia is known as an international standard for its quality, reliability, and prompt delivery. In Malaysia, the textile and apparel sector has extensive experience as a producer of the world known brands such as Brooks Brothers, Ralph, Kohl’s, Calvin Klein, Alain Delon, Gucci, Polo, Lauren, Adidas, Nike, Yves St Laurent, Walt Disney, Reebok, Puma, GAP, Oshkosh, Burberry, Ashworth, etc. Those brands is produced by Malaysian contract manufacturers, while, Somerset Bay, East India, Seed, Anakku, etc. is warm ups to venture overseas [55]. Furthermore, as an Islamic country, Malaysia is right now known as the producer of fashionable Islamic apparels. Based on the report provided by Third Industrial Master Plan [53], Figure 3 illustrates the exports and investment targets for the 12 targeted manufacturing industries. In addition, the textiles and apparel industry possesses the highest estimate of annual growth of export, which is 7.80% annually from 2006 to 2020. This means that the industry has the potential for further development.



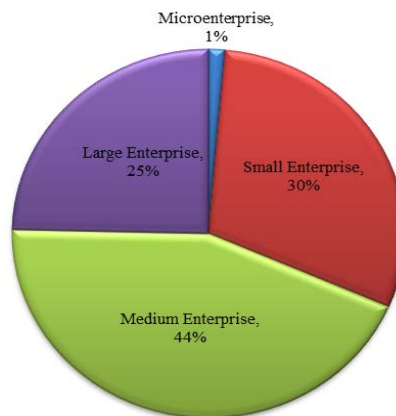
Source: Adapted from Third Industrial Master Plan [53]

Figure 3: Comparison between Estimated Percentage of Exports Average Annual Growth and Investment Share among Twelve Selected Industry

The reason behind of Malaysian textile and apparel factories’ relocation, layoffs, and closures is because of the global economic crisis in 2009. The industry expert voiced out that the industry is no longer competitive, which brought new challenges for practitioners to sustain the business [57]. Nowadays, textile and apparel industry in Malaysia is surviving by relying on contracts from United States and Europe. However, textile and apparel supply chain is no longer a chain. In information flow perspective, it has become a complicated net with enormous figures of small and medium-sized

vendors as illustrated in Figure 4 [58]. In value nets, the business value is created by all supply chain members who give distinctive services to a firm [59]. Effective firms now concentrate on creating value nets, wherein a great relationship is built with supplier and customer through information sharing and information quality [60].

Today's textile and apparel's fashion marketplace are characterized by dynamic competition and short life cycles, tremendous product variety [61], high volatility [59], low predictability [12], high impulse purchasing [62], unclear market boundaries, non-linear direction [2], and a colossal number of product codes [59]. Therefore, the competitive fashion supply chain systems are characterized by three critical lead times, which is time to respond, time to serve, and time to market [62]. Case in point, Zara, the Spanish apparel organization gives a true illustration of a hybrid supply chain. It is one of Spain's most successful and dynamic apparel organization, producing fashionable apparel to a general target market of 18 to 35 year olds. Since the major difficulty in most supply chains is lacked of visibility in real demand, so forecast driven was superior to demand driven [63]. Hence, Zara created a quick response system in the industry to handle visibility issues.



Source: Adapted from FMM Directory [58]

Figure 4: Size of Textile and Apparel Enterprises in Malaysia

MATRADE [64] noted that there are three textile and apparel industry associations in Malaysia, which is Malaysia Textile Manufacturers Association (MTMA), Malaysian Garment Manufacturers Association (MGMA), and Malaysian Knitting Manufacturers Association (MKMA) [65]. According to MATRADE [64], the structure of Malaysian textile and apparel industry can be classified into two main sectors, which are upstream and downstream. In the initial stage, upstream consists of fibre, yarn, fabric, and wet processing activities, while downstream consists of apparel, textile products, home textiles, and clothing accessories. However, in recent years, textiles and apparel industry has covered a board range of activities, including spinning, knitting, weaving, dyeing, printing, silk screening, and embroidery making.

As stated by MATRADE [64], textile and apparel industry change in strategy from import substitution to export oriented industrialization. The strategy changed during the Second Malaysia Plan (1971-1975) and prompted the positive evolution of the textiles and apparel industry in Malaysia. As reported by MATRADE [64] and MKMA [65], the textile and apparel manufacturers have contributed to the growth of the industry in Malaysia, which was positioned ninth and represented 2.3% share of Malaysia's total exports of finished goods in the year 2011. In Malaysia, almost 90% of the apparel exports are from contract manufacturers [55]. This is because they kept up a worthy reputation in terms of quality and timely delivery. In fact, the exports of textile and apparel grew by 15.9% in 2011 from RM9.32 billion to the RM10.81 billions.

6. Conclusion

Current supply chain environment accentuated the necessity for relational capability to smoothen the processes of supply chain management in order to achieve more effective and efficient supply chain performance. The results from literature review revealed that the power of relational capability in managing the supply chain gains attention from researchers and practitioners, because the business benefits from enhanced organizations' supply chain performance. Conclusively, the comprehensive literature review has identified four main relational capabilities, which include information sharing, information quality, customer relationship, and supplier partnership that may lead to achieve effective and efficient supply chain performance includes higher supply chain reliability, responsiveness, agility, and minimize supply chain costs. The authors believe that this paper would be valuable in providing future directions of relational capabilities and supply chain performance studies.

7. Recommendations

Overall, most studies in relational capabilities literatures have shown a momentous role played by relational capabilities on various business performances. Future studies on relational capabilities are suggested to focus on the supply chain operational performance, since the relational capabilities initially reflect on operational performance. Besides, the study of the relational capabilities and supply chain performance, especially in the textile and apparel industry are still scarce. Thus, empirical study in this field looks potential to be researched.

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9. References

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