

SUPPLY CHAIN COMPETITIVENESS WITH THE PERSPECTIVE OF SERVICE PERFORMANCE BETWEEN SUPPLY CHAIN ACTORS: A THEORETICAL MODEL

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Abstract:

Supply Chain Competitiveness is the capability of supply chain to deliver value to the customer for the sake of competitive advantage. Supply Chain competitiveness is the current issue of interest because now supply chains compete rather than firms. A proposed theoretical model is build upon literature and integrating theories of value chain, network theory, customer value theory, and expectancy disconfirmation paradigm theory to explain the phenomenon of supply chain competitiveness with the perspective of service performance. It is conceived that service performance between supply chain actors including functions of focal firm would result into supply chain competitiveness and ultimately competitive advantage in the market.

Keywords: supply chain competitiveness, service performance in supply chain, service quality in supply chain, competitive advantage by supply chain, networks and supply chain, customer value, value supply chain, value chain

1. INTRODUCTION

The subject of this research is supply chain competitiveness explained with the logic of service quality. Supply Chain competitiveness is of current subject of interest as argued in studies conducted (Drucker, 1998), (Segarra-Moliner, Moliner-Tena, & Sánchez-García, 2013), (Lambert & Cooper, 2000), (Shemwell et al. 1998), (Ketchen Jr & Hult, 2007), that now, competition and rivalry exist between one supply chain with the other supply chain rather than between two firms on the basis of value delivered to the customer. In the context of supply chain, when parties interact concerned with the flow of goods, information and financials, they have certain expectations and perceptions related to each other. In this interaction, they are concerned with best services provided while interacting with each other in forward and reverse flow, to have supply chain competitiveness. Supply Chain competitiveness refers to the ability of the supply chain as a whole to gain competitive advantage as compared to other competing supply chain/s (Rajagopal, 2010), (Shang, Zhou, & van Houtum, 2010), (Sahay, Gupta, & Mohan, 2006), (Verma & Seth, 2011), (Pace & Stephan, 1996), (Bravo, Cortes, Aguilar, Granados, & Amaya-Leal, 2007), (Lambert & Cooper, 2000), (Verma & Seth, 2010). The improved supply chain management and competitiveness can be explained with the logic of service quality (Mentzer, Flint, & Kent, 1999), (Perry & Sohal, 1999), (Stanley & Wisner, 2002), (Kearney, 1994), (Chow, Heaven, & Henriksson, 1994). Seth, Deshmukh, and Vrat (2006) conceptualized and proposed a model for assessment of service quality within the supply chain interfaces. The purpose of this research is to find the relationship of service quality with the supply chain competitiveness to deliver value in competition for competitive advantage. Second purpose is to identify and develop the scale of service quality dimensions within the firm's value chain for supply chain competitiveness. Different researchers like Pine (1999) use the perspective of mass customization to explain supply chain competitiveness. La Londe and Powers (1993) explain about the competitiveness of supply chain with the logic of improved communication and information sharing. With the perspective of operations strategies and operational effectiveness Fuller, O'Connor, and Rawlinson (1993), Simchi-Levi (2009), Hayes and Wheelwright (1984), Fisher (1997) argued about supply chain competitiveness and regarded them as necessary ingredients. According to La Londe (1997), Vokurka and Flidner (1998) agility, flexibility and responsiveness are necessary for supply chain competitiveness which can be achieved by the collaboration of supply chain partners. Supply Chain Competitiveness is also addressed with the perspective of coordination (Cachon & Lariviere, 2005), (Kanda & Deshmukh, 2008), (Wee & Wang, 2013). It is also addressed With the logic of supply chain members' collaboration and supply chain synergy by information sharing, joint decision making, sharing incentives and benefits to gain supply chain competitive advantage (Lorentz, 2008), (Anbanandam, Banwet, & Shankar, 2011), (Barratt, 2004), (Lehoux, D'Amours, & Langevin, 2010). There are numerous studies available explaining supply chain practices, supply chain competitiveness, and supply chain performance with the perspective of Quality Management and assurance and its constructs like customer satisfaction, leadership, management support, management commitment, customer focus, continuous improvement, supplier management, employee involvement, etc . Mentzer (2004) argued that it is not the product only which provides competitive advantage, but it requires how the management of flow is performed within the supply chain. Howgego (2002) argued about the supply chain competitiveness with the logic of Product Management, Supply chain flow management, Supply chain Synergy, and Demand Management.

2. RESEARCH GAP AND SIGNIFICANCE

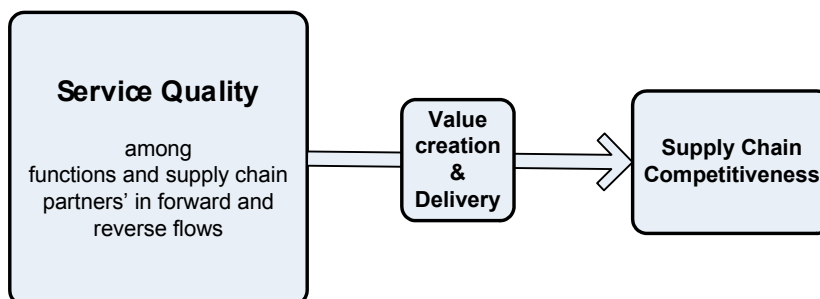
The dimensions of service quality in the previous studies have focus on the supplier, distribution, and logistics service quality. The gaps exist while the service quality dimensions within the firm's value chain between primary and support functions is concerned, with the objective of supply chain competitiveness and customer value. There are no known service quality dimensions for firm's value chain to deliver customer value. Therefore, this gap can be filled by identifying dimensions of service quality within the firm to achieve supply chain competitiveness. Secondly, the significant theoretical gap exists, as the dimensions of service quality in the previous studies are the same as of SERVQUAL dimensions like assurance, empathy, tangibles, Reliability, and responsiveness with the application in distribution, suppliers, and logistics services. This gap can be filled by developing a theoretical model including new dimensions of service quality which have relevance for supply chain competitiveness. Thirdly, the gap exist in the previous research, that no study has embedded the customer value theory, network theory, value chain theory, perspectives into the service quality frame for the supply chain context. These theories can provide the significant explanations to understand the phenomena of supply chain competitiveness with the perspective of service quality.

Therefore, keeping in view the significant research and theoretical gaps, this study is designed to explore the new dimensions of service quality with the underlying theoretical perspectives of service performance, value chain theory, customer value and network theory in the supply chain context with the core emphasis on the firms' value chain functional coordination to achieve supply chain competitiveness. The existing dimensions of service quality presented by different studies will be taken into consideration while exploring the new dimensions theoretically and empirically with the qualitative and quantitative study designs.

One of the objectives of this research is to find out the role of service quality in value creation from within the firm as well as among the partnering firms in supply chain network to achieve the supply chain competitiveness. The second objective is to explore, determine, and develop a scale of the dimensions of those service quality dimensions, which could create value for the customer and supply chain competitiveness in the firm's value chain, while collaborating and integrating the functions of firm.

3. CONCEPTUAL FRAME

Figure 1: Conceptual frame



Based on the conceptual model of Seth et al. (2006), and the link between quality gaps and the superior value delivery to customer to achieve competitive advantage (Christopher, Payne, & Ballantyne, 1991), (Porter, 1985), the conceptual model is developed. Conceptual model argues that supply chain competitiveness is achieved by cross-functional integration, collaboration, and harmony within the firm value chain to translate it into customer value by reducing service quality gaps within these functions, as well as focal firm role is concerned for the delivery of value.

4. SUPPLY CHAIN COMPETITIVENESS AND COMPETITIVE ADVANTAGE

To understand the concept of supply chain competitiveness, it is necessary to conceptualize the definition of competitiveness. The competitiveness is the relative strength of an entity which is needed for competing in the competition against the direct and indirect competitors (Cho, 1998). In this view, competitiveness can be divided into three categories with respect to the unit entity like competitiveness of nations, competitiveness of firms, and competitiveness of industries.

Antai (2011) proposed a clear definition of supply chain competitiveness with the feature of explanation of the difference between competitiveness and competitive advantage with the argument that no clear definition of competitiveness is available in the literature. The definitions available are confusing and lacks coherency. Competitiveness is the preparatory stage for appearing in the competition. It is the stage in which firms strive for the creation of competence, efficiencies, and effectiveness to deliver value offerings for their customers. Competitiveness refers to the preparation for the competition by creating capabilities and capacities. On the other hand, competitive advantage is the advantage stage after appearing the firm into competition. Competitive advantage is may be the outcome of competitiveness when competition is encountered. It should be clear that, even though, the firm creates competitiveness from its supply chain by efficient and effective supply chain activities and practices, it is not necessary that it is better than competitors in the competition are and in turn result into competitive advantage. The preparation of supply chain for superior value performance increase chances to get competitive advantage. However, it is possible that the supply chain performance of competitors is more value providing and superior. Antai (2011) articulated a pyramid model in which the stages of supply chains are presented. In the bottom of the pyramid the supply

chain is holding the status quo, with no efforts to increase performance, develop competencies, skilled base, efficiencies, value driven strategies etc. On the second stage showing in the pyramid a supply chain started to develop skills, competencies, capabilities, knowledge, and regulations. This stage refers to the supply chain competitiveness. Then comes competition phase where supply chains are interacted by the competing supply chains and if one particular supply chain become able to prove itself as a superior value providing supply chain then it will reach to the advantage phase, in the above of the pyramid. Competitive advantage phase is the phase where firm's supply chain is superior performer, having highest market share, profitability, and superior value creating entity.

Figure 2: Competitive position



Source: Antai, 2011, p. 85

Supply Chain competitiveness is defined by Jones and Riley (1985) as the efficient management of supply chain activities to gain competitive advantage. Supply Chain activities deal with the total flow of material from suppliers to end customer. The three elements are proposed which constitute of efficient supply chain; the detection of service level requirements of customers, the placement of inventory with the requirement of quantity along the whole supply chain, and the policies and procedures specification for the management of supply chain as a single integrated entity. Supply Chain activities should be integrated to have optimal utilization of resources with a best necessary level of value delivery to customers. Customers' value changes with the changes in the needs of customers individually as well as the whole segment. Supply Chain to gain competitive advantage lies in the delivery of value, keeping in view the dynamic nature of customer segments' value. Competitive advantage from supply chain management is taken as a relative performance of supply chain with comparison to the competitors having necessary feature of inter-organizational as well as intra-organizational performance (Giménez & Ventura, 2003). It is argued that a company's performance keeping in view the internal standardization like reduction to cost, lean processes, and lead-time reduction is the Absolute performance. The performance management keeping in view the competitors' current activities to manage their supply chains and improvement in unique ways better than competitor is regarded as supply chain competitiveness. Therefore, supply chain performance provide competitive advantage if it is better than competitors' supply chain performance. The variables identified in inter-organizational coordination consist of Informal teamwork, Shared ideas, information and other resources, Established teamwork, Joint planning to anticipate and resolve operative problems, Joint establishment of objectives, Joint development of the responsibilities' understanding, Joint decisions about ways to improve cost efficiencies. The intra-organizational integration within the whole supply chain include; Informal teamwork, shared information about sales forecasts, sales and stock levels, Joint development of logistics processes, established work team for the implementation and development of continuous replenishment programs, joint planning to anticipate and resolve operative problems, joint establishment of objectives, joint development of the responsibilities' understanding, joint decisions about ways to improve cost efficiencies. Absolute performance composed of cost of serving, transportation cost, order processing cost, stock out reduction rate. Relative performance composed of responding to customer needs, satisfying special requirements, delivery rate, ordered quantities fulfillment, collaboration in new product launches, and prior intimation about stock out to customers.

Competitiveness of a company is its strategic position in the market, which is the outcome of operational efficiency using efficient logistics system in place. It is the management flow of products and services to deliver value to customers in the whole supply chain (Bravo et al., 2007). The

competitive advantage of supply chain lies in the superior value delivery to customers by managing the material flow from suppliers to end customer by developing and sustaining the upstream and downstream relationships with the whole supply chain partners and actors. The overall supply chain strategy should be developed and adopted by integrating supply chain objectives, processes of supply chain and management commitment towards the supply chain activities. The supply chain competitive advantage can be achieved by the coordinating, synergizing and collaborating to integrate these three dimensions. The supply chain management strategy should be coherent with the overall business strategy (Sahay et al., 2006). Competitive advantage concept can be studied using different premises, the resource based view, customer value theory, profitability of the firm, Resource advantage theory, the comparative advantage theory. Customer value theory incorporates the customer value creation and delivery as of the source of competitive advantage. The other theories explaining the competitive advantage lacks the element of customer value focus and attention.

Supply Chain competitiveness is considered a substantial tool for gaining the competitive advantage. Due to speedy technological innovations, globalization, widely used information technology, now, the supply chain competitiveness is necessary for firms to be the strategic focus. The strategic focus of supply chain demands to make alliances, reengineer, renovate, or refine the operations and develop strategies. Supply chain competitiveness is the actual solution to survive in hyper-competitive market environment. Supply chain competitiveness requires the integration, and coordination of different components of supply chain to make it as a joint alliance for unified purpose. Supply chain competitiveness is possible with joint efforts of manufacturer, suppliers, and distributors. SCC is composed of three components "suppliers' competitiveness", "manufacturer competitiveness", and "distributor competitiveness". Supply chain competitiveness can be achieved by efficient delivery, customer satisfaction, better quality of products, profitability, better responsiveness, shorter lead times, demand fulfillment, optimal utilization of facilities etc (Verma & Seth, 2010). Verma and Seth (2011) proposed a conceptual framework for supply chain competitiveness. It is described that supply chain competitiveness requires some input elements and then supply chain competitiveness yield particular outcomes out of a supply chain. It is described that SCC requires agility, coordination, collaboration, cooperation, synergy among partners, mass customization, customer orientation, process orientation, demand management, strategic alliances as inputs. While, supply chain competitiveness will yield outcomes like customer value, customer satisfaction, quickness in response to changes, innovation, improvement, profitability, and ultimately the competitive advantage. The global competitive environment is also conceptualized to have influence on the overall phenomena of supply chain competitiveness, like socio-economic forces, cultural forces, customer requirements, financial and capital forces, government policies, behavioral forces etc.

Different researchers like Pine (1999) use the perspective of mass customization to explain supply chain competitiveness. La Londe and Powers (1993) explain about the competitiveness of supply chain with the perspective of improved communication and information sharing. With the perspective of operations strategies and operational effectiveness Fuller et al. (1993) articulated about the tailored logistics concept to provide superior value to the customer. Logistic system tailored with the needs of customers can create distinctiveness in serving customers. Tangible products should be delivered in the envelope of services. Distinction just on the base of product is not more yielding competitive edge. Fisher (1997) argued about the best supply chain mode selection based on the nature of products; primary functional or primary innovative. Primary innovative nature of products like fashion products requires the supply chain process to be "market responsive" and primary functional nature of product requires the supply chain processes to be "physical efficient". Agility, flexibility, and responsiveness are necessary for supply chain competitiveness that can be achieved by the collaboration of supply chain partners. The competitive strategic focus on mass production and cost saving by reducing unit cost has been changed. Before 1970s, the cost efficiency was the primary focus for competitive advantage and in 1970s the quality paradigm was dominant strategic focus. In 1980s, the strategic focus is shifted towards "dependability and speed of delivery" but keeping quality and cost saving as the necessary elements to be competitive. The competitive position based on the flexibility and agility in supply chain processes is the dominant strategic focus of the current era while managing cost efficiency, quality management, and waste reduction. The agility is defined as the capabilities to manufacture and market the variety of products having lower cost, higher quality, and lower lead times and with the features of flexible lot sizes to create value for customer. The agility focus needs special attention for coordination and collaboration of the supply chain members (Vokurka & Fliedner, 1998). Supply chain competitiveness is also addressed with the logic of supply chain members' collaboration and supply chain synergy by information sharing, joint decision-making, sharing incentives, and

benefits to gain supply chain competitive advantage (Lorentz, 2008), (Anbanandam et al., 2011), (Barratt, 2004), (Lehoux et al., 2010). To achieve the desired unified objectives of all supply chain members and supply chain competitiveness, it is necessary for members to collaborate and integrate the resources inside and outside their firms' boundaries (Lorentz, 2008). The supply chain collaboration consist of some key enablers and variables "top management commitment", "information sharing", "trust among supply chain members", "long term relationships", "risk and reward sharing" (Anbanandam et al., 2011). Supply chain collaboration has main two types; "vertical collaboration" and "horizontal collaboration". The vertical collaboration includes the capability of supply chain partners to share resources and knowledge with suppliers, customers, and internal cross-functional collaboration. Horizontal integration includes the collaboration between competitors, non-competitors to share the capabilities and knowledge. Collaboration is phenomena depending on number of elements. There are some strategic elements like corporate focus, Intra-organizational support, Business case, and Technology and some cultural elements such as Openness & communication, information exchange, Mutuality, and Trust. These strategic and cultural dimensions make it possible to collaborate by strengthening collaboration culture and Resource & commitments and to gain competitive advantage. Collaboration include "Joint Decision Making", "Process alignment", "cross functional activities" and "supply chain matrices sharing" (Barratt, 2004).

There are numerous studies available explaining supply chain practices, supply chain competitiveness, and supply chain performance with the perspective of Quality Management and assurance and its constructs like customer satisfaction, leadership, management support, management commitment, customer focus, continuous improvement, supplier management, employee involvement, etc . Mentzer (2004) argued that it is not the product only which provides competitive advantage, but it requires how the management of flow is performed within the supply chain. Howgego (2002) argued about the supply chain competitiveness with the logic of Product Management, Supply chain flow management, Supply chain Synergy, and Demand Management.

5. CUSTOMER VALUE THEORY

The customer value theory (Slater, 1997) explain that firms survive in the industry by partnering and competing with other firms in the dynamic and heterogeneous market segments in hyper-competitive environment. In this view of the firm, there are four fundamental notions taken into account; the firms strive for customer satisfaction by delivering value to the customers, the firms are considered to be the best if the focus is value driven offerings by understanding, addressing the specific needs of market segments and even individual customers using the dynamic capabilities and resources, the firms having customer value focused offerings are better able to attract the capital to enhance the scale and scope the firms activities, the superior performance of firms is only possible if the firm is following the market orientation. Customer value theories clearly explain that process orientation and market orientation makes the firm to deliver superior customer value performance and gain competitive advantage in the hyper-competitive markets. Acquiring, sharing, transfer and application of customer knowledge increase the firms' competitiveness and chances to gain competitive advantage by exploiting their resources. The customer value theory highlights a unique perspective of understanding the customer value known as development of collaborative market intelligence capability by coordination and collaboration with suppliers, customers and other partners (Slater, 1997). Customer value theory provides the fundamental holistic base for the competitive advantage. , as, Porter (1985) describe that competitive advantage is gained if the firm is able to create value for its customers that exceeds the firm's cost of creating it. Similarly, the source of competitive advantage is value delivery to the buyers better than the competitors is the notion described by the Mentzer (2004), Wilding and Newton (1996) and Ma (2000).

Supply Chain competitiveness is achieved by developing capabilities of superior value delivery to the customer through supply chain as compared to other competing supply chain and it can yield competitive advantage (Mentzer, 2004), (Bourlakis, Maglaras, & Fotopoulos, 2012), (Christopher et al., 1991), (Bhatnagar & Teo, 2009), (Porter, 2008).

Value is the notion, which generates benefits for companies, customers, and shareholders. It influences the profitability, and competitive advantage (Bourlakis et al., 2012). Value is categorized into two streams of research and practice; value of products and services offered to customers and the value created between the buyer and seller depending on the relationships among them. The concept of value concerned with the relationships open the issues related to relationships types, development

of network/s, interactions, co-ordinations, and collaborations to create the value within these interactions and encounters. Relationship value is not just concerned with bi-lateral relationships but multi-actors relationships in a network, at the whole supply chain level, to create value between them and then to deliver to end customer (Bourlakis et al., 2012), (Lindgreen & Wynstra, 2005). In this view, the value creation is the responsibility of all the supply chain members to create for the end consumer in the form of value of final products and service offerings. Supply chain management is the integration of business processes to provide value in the form of products, services, and information ranging from the original suppliers to the end consumers, according to the Global supply chain forum. So, the value plays a very important role for the firms to be able to gain competitive advantage (Lambert & Cooper, 2000).

Traditional supply chain is focused more on cost efficiencies, shorter lead-time, and lower cost and supply chain activities are taken into linear form. Contrary to this view, Value supply chain does not deal with one aspect of supply chain properties like cost or agility etc, it is combination of drivers of value addition to the customer. The value supply chain consists of speed, flexibility, cost, and quality as the components of competitiveness for overall value creation for customers. Cost effectiveness deals with the minimum utilization of resources and facilities in overall offerings to customers. Cost effectiveness makes the supply chain capable of gaining competitive advantage. Speed is the second component in overall total value addition out of supply chain that refers to the capability of delivering products and services in a timely manner to the customer. Flexibility is the third characteristic of value addition which emphasis on the ability of supply chains to be adoptive and flexible in their process to handle the changing needs of customers. Quality of products and services is the fourth basic characteristic make the supply chain a value supply chain (Ketchen Jr & Hult, 2007).

6. NETWORK THEORY

Networks theory prominently provides a insightful, precise and clear explanation of value supply chain. The value theory and network theory have a significant link with each other in explaining the central issues of supply chain and supply chain competitiveness.

The actual aim of supply chain is the development of networks. The network theory implications explain clearly about the mission of supply chain management, as it is a form of network between the supply chain members. Network theory has the ability to explain about the complex phenomena of chains (Ketchen Jr & Hult, 2007). The concept network refers to the long term relationships between the two or more organizations. Strong relationships among the members of supply chain, keeping in view the dynamics of whole supply chain are positively related to the drivers of the value supply chain and supply chain performance (Thorelli, 1986).

Networks are developed with relationships, long term relationships for the sake of overall supply chain objectives with the vision of ultimate mutual profitability and competitive advantage of all supply chain actors. In this view of networks the nature, level, and type of relationships matter a lot. The main concern and strategic intent of supply chain management is the strategic focus on the co-operation, coordination, collaboration, trust, etc. elements of networks. Christopher (2005) argues that the focus of supply chain is the relationship management to achieve the profitable outcomes for the mutual benefits of all partners. It is argued categorically that the term of supply chain management may be changed with "demand network management", as demand refers to the notion of market driven chain not suppliers' driven and network refers to the system of relationships with the suppliers' suppliers, suppliers, focal firm, distributors, wholesalers, and customers. It is argued that supply chain management should be defined as "*A network of connected and interdependent organizations mutually and co-operatively working together to control, manage and improve the flow of materials and information from suppliers to end user*". The purpose of network is to deliver superior customer value with optimal utilization of resources and cost effectiveness.

7. VALUE CHAIN THEORY

The relationship value generated within the networks of supply chain is directly linked with the value delivery to the end consumer. If the relationship value is not generated within supply chain networks, it will not be possible to deliver value for end consumer. The implication of Michal porter's value chain is necessary to understand the premise of networks and relationships and cross-functional integration in the firm as well as between the partners of supply chain for the sake of value creation. Network theory

support in understanding the weak or strong relationships and does not discuss clearly that how the value is created out of network. Porter (1991) proposed the value chain to explain the phenomena of value creation out of a firm. It is argued that firm is composed of discrete activities but inter-related to each other such as product manufacturing, logistics, selling, order booking etc. Therefore, competitive advantage lies in the lower cost and differentiated way of doing these activities better than rivals do to create value and then deliver do to end consumer. The value generation at the initial by cross-functional integration to perform inter-related activities predicts the customer value. The firm's strategy revolves around the performance of inter-related activities in the firm. These discrete activities are part of interdependent system in which one activity, its cost and effectiveness is dependent on other tasks and activities. The linkage between the activities is not just restricted to firm but it may be expanded to the activities of suppliers, distributors, and customers. The end user value will be the outcome of upstream value, and downstream value creation by combining the distributors' value chain, firm's value chain and suppliers' value chain. Value chain activities can be categorized into two types; the primary activities and support activities. These activities are inter-related by cutting across the traditional functions of firms. Keeping in view the implications of network theory for supply chain networking and relationship building, and value chain theory for the creation of value within the supply chain and within the firm, the relationship marketing cannot be ignored. The relationship strategy with the context of value creation within the functions and delivery to customer with the logic of coordination of external customers and collaboration within the internal market is addressed by Christopher et al. (1991). From this study, the implications for networks and relationships in supply chain activities for value creation and delivery can be drawn. The context of service quality management within the firm and to deliver customer value comes here, as, Christopher et al. (1991) explains that customer service is not just the issue related to the firm and the relationships with external customer but it is related to the downstream relationships and upstream relationships. Customer value is the outcome of relationship value in the form services performance between the firm's functional members as well as between the external firms of upstream value chain as well as downstream value chain. It is asserted that internal exchange processes between functions is necessary in achieving the unified goal of customer satisfaction and value. The focus is on internal marketing activities which emphasis on taking the employees as suppliers and customers. The coordination, and collaboration can be done by addressing the concerns of service quality between the functional members of the organization at individual exchange level. The joint efforts of working of crossfunctional members is necessary for the creation of value among them and then connected to the customer value delivered to the customer.

8. SERVICE QUALITY AND SUPPLY CHAIN

The improved supply chain management and competitiveness can be explained with the logic of service quality (Mentzer et al., 1999), (Perry & Sohal, 1999), (Stanley & Wisner, 2002), (Kearney, 1994), (Chow et al., 1994). Seth et al. (2006) conceptualized and proposed a model for assessment of service quality within the supply chain interfaces. He argued that there are service quality gaps within the supply chain between supply chain partners, which cause lower supply chain performance and competitiveness. Bienstock, Mentzer, and Bird (1996) developed an Instrument to measure the physical distribution service quality for the industrial customers. Ahmad, Awan, Raouf, and Sparks (2009) developed a service quality scale for distribution of pharmaceutical sector in Pakistan. Prakash (2011) investigated empirically the determinants of service quality in supply chain context in manufacturing automotive industry of India. This empirical investigation resulted into an instrument to assess the service quality in the supply chain with the perspective of service quality between focal firm and supplier. A few researches found about service quality in the whole supply chain collaboration and relationships context. However, the researches related to different links and functions of supply chain exist such as in the context of logistics, purchasing, and distribution. In the context of logistics the service quality scale (Mentzer et al., 1999) is developed for focal firm having multiple market segments. Kersten and Koch (2010) investigated the relationship of quality management, service quality and business success. The instrument of service quality is developed to measure the service quality of logistics service provider by embedding concepts of service marketing and operations management. In the context of purchasing, Stanley and Wisner (2002) wrote a paper and emphasized the role of purchasing activities to provide best quality services to the internal customers of the firms to meet the customer expectations of the internal customers. Another model developed (Bienstock, Royné, Sherrell, & Stafford, 2008) of logistics service quality incorporated the information system for better supply chain performance expectations. In the same way in the context of logistics, Saura, Francés, Contrí, and Blasco (2008) investigated the role of quality, satisfaction and loyalty in

logistics service quality. In another study, (Mentzer, Flint, & Hult, 2001), the determinants of logistics service quality are explored emphasizing the importance of logistics performance on competitive advantage of a firm and the differences of customer perceptions related to different segments. Keeping the logistics service quality a source of customer satisfaction, Rafiq and Jaafar (2007) tested and validated the LSQC scale of Mentzer et al. (2001) for third party logistics services. In the retail logistics sector a study was conducted (Bouzaabia, Bouzaabia, & Capatina, 2013) in which the service quality of Romanian and Tunisian customers were tested comparatively and differences of customers' perception regarding logistics services were analyzed. Juga, Juntunen, and Grant (2010) determine the relationship of operational, personal, and technical service quality of third party logistics on buyer satisfaction and buyer loyalty. Focusing on the significance of third party logistics as substantial solutions for the organizations to manage the supply chain performance, Panayides and So (2005) argued that there is relationship of integrated approaches and orientation among supply chain partners on overall service quality and performance of supply chain.

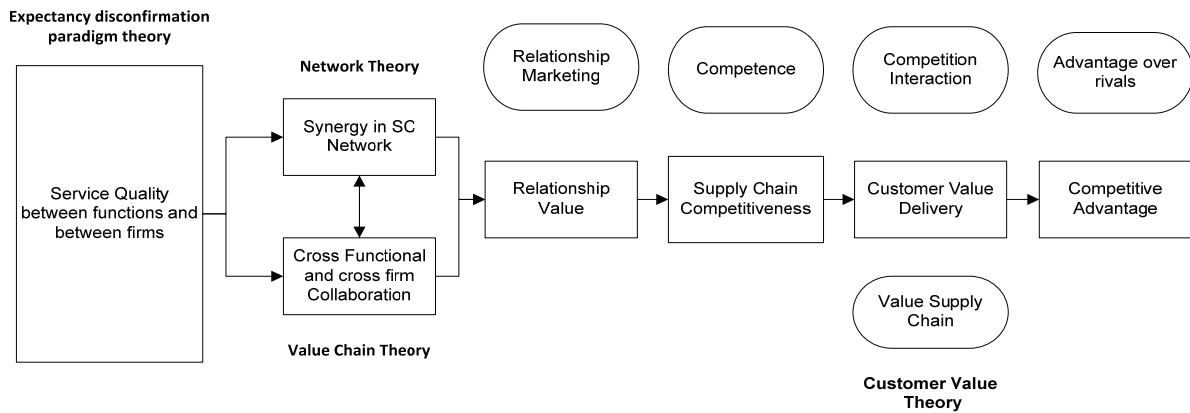
Now the supply chain competitiveness in the form of value creation and delivery with the theory of service quality as it also creates and delivers value in supplier buyer settings. To understand the logic of service quality in supply chain context, it is necessary to understand the conceptualization, and theoretical development of service quality. Service quality is mostly conceptualized and studied in supplier and end consumer context. The conceptualization and theorizing of service quality is grounded in the literature like (Berry, Zeithaml, & Parasuraman, 1985; Berry, Zeithaml, & Parasuraman, 1990; Cronin Jr & Taylor, 1992; Gronroos, 1988; Grönroos, 1984, 2001; Anantharathan Parasuraman, Zeithaml, & Berry, 1985; A. Parasuraman, Zeithaml, & Berry, 1988; Arun Parasuraman, Zeithaml, & Berry, 1994) etc. Different perspectives of service quality are available. Service Quality is defined as degree to which a service fulfils customer needs and wants and it also involves the comparison between customer expectations and customer perceptions (Anantharathan Parasuraman et al., 1985). Armstrong (1996) has defined service quality as "the sum of features and characteristics of a good or service that stand on its ability to satisfy stated or implied needs". Anantharathan Parasuraman et al. (1985) developed a conceptual model of service quality by identifying some gaps that can affect the customer's perception of service quality in various service industries. Five gaps are identified that are "customer expectation and management's perception gap", "management perception and service specification gap", "service specification and service delivery gap", "service delivery and service communication gap" and last gap is "expected versus perceived service gap". A. Parasuraman et al. (1988) later developed a new service quality model that is named as "SERVQUAL" that carries multi-item dimensions that are tangibles, reliability, responsiveness, assurance, and empathy. Cronin Jr and Taylor (1992) revealed the perspective of overall service performance based on the customer experience of service encounter. Instead of customer expectations, another model is developed by examining the gap between perceived performance and ideal amount of features in services (Teas, 1993). Another researcher anticipated a multi-dimensional framework to measure the service quality, in this model service quality is assessed by three dimensions that are "interaction quality", "physical environment" and "outcome quality" (Brady & Cronin Jr, 2001). Another service quality model "SERVQUAL-P" lessens the five dimensions to four dimensions; Reliability, Responsiveness, Personalization, and Tangibles dimension (Lee, 2009). Another perspective of service quality revealed 3 basic attributes: "physical facilities & processes", "people's behavior" and "professional judgment" (Haywood-Farmer, 1988). For evaluation of service quality in Non-Western context, Raajpoot (2004) developed a new scale having "Tangibility", "Reliability", "Assurance", "Sincerity", "Personalization" and "Formality" as its dimensions. This model is named as "PAKSERV". Klaus and (Maklan, 2012) developed a multiple-item scale in order to evaluate service quality that is named as "EXQ" scale. Its dimensions are "product experience", "outcome focus", "moments-of-truth", and "peace-of-mind".

9. PROPOSED THEORETICAL FRAMEWORK

Service performance according to expectations between functions of focal firm and between firms creates synergy. Now, the answer of "why" service performance creates synergy lies in the logic that higher service performance according to expectations creates collaboration, coordination, strong relationships in network, as explained by the network theory. Synergy in the result of strong relationship network creates the ability of actors to adopt the new ways of doing activities and create uniqueness. The ability of uniqueness to perform supply chain activities is the supply chain competitiveness. Supply chain Competitiveness based on unique activities create the competitive

advantage as explained by the Michal porter in his theory of value chain and the notion of competitive advantage.

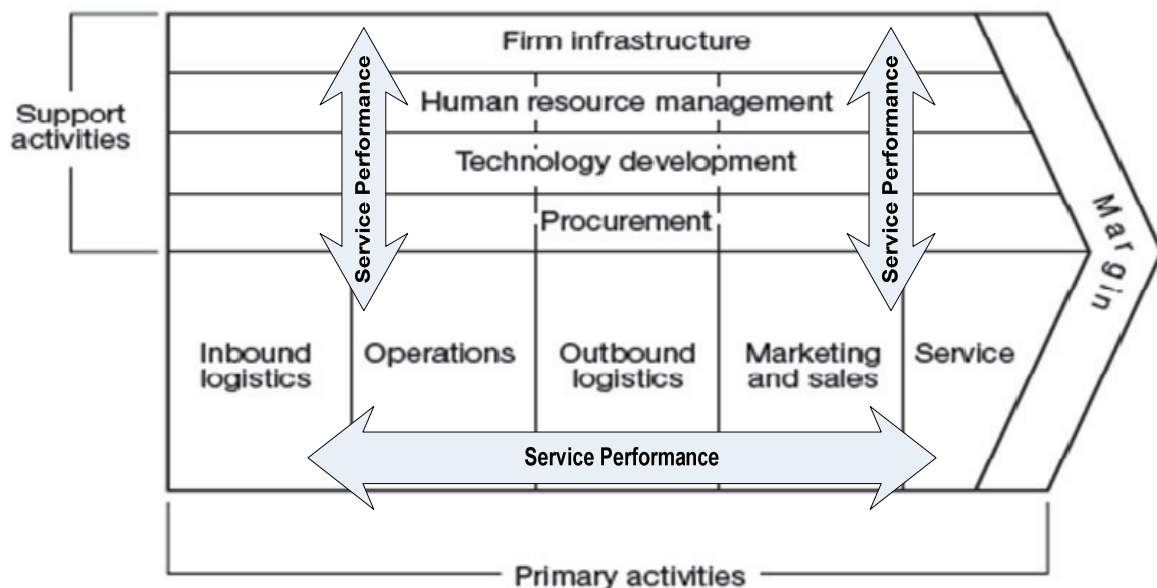
Figure: 3 Theoretical model - Supply Chain Competitiveness and Competitive advantage



The proposed theoretical model explains that service quality within firm across functions and within supply chain across firms will create synergy in supply chain network. The network of supply chain actors including focal firm functions will generate the relationship value among them. Relationship value will create capability of supply chain to deliver customer value in the market competing with other supply chains. The supply chain will be a source of competitive advantage if the supply chain deliver superior value to customer better than others do.

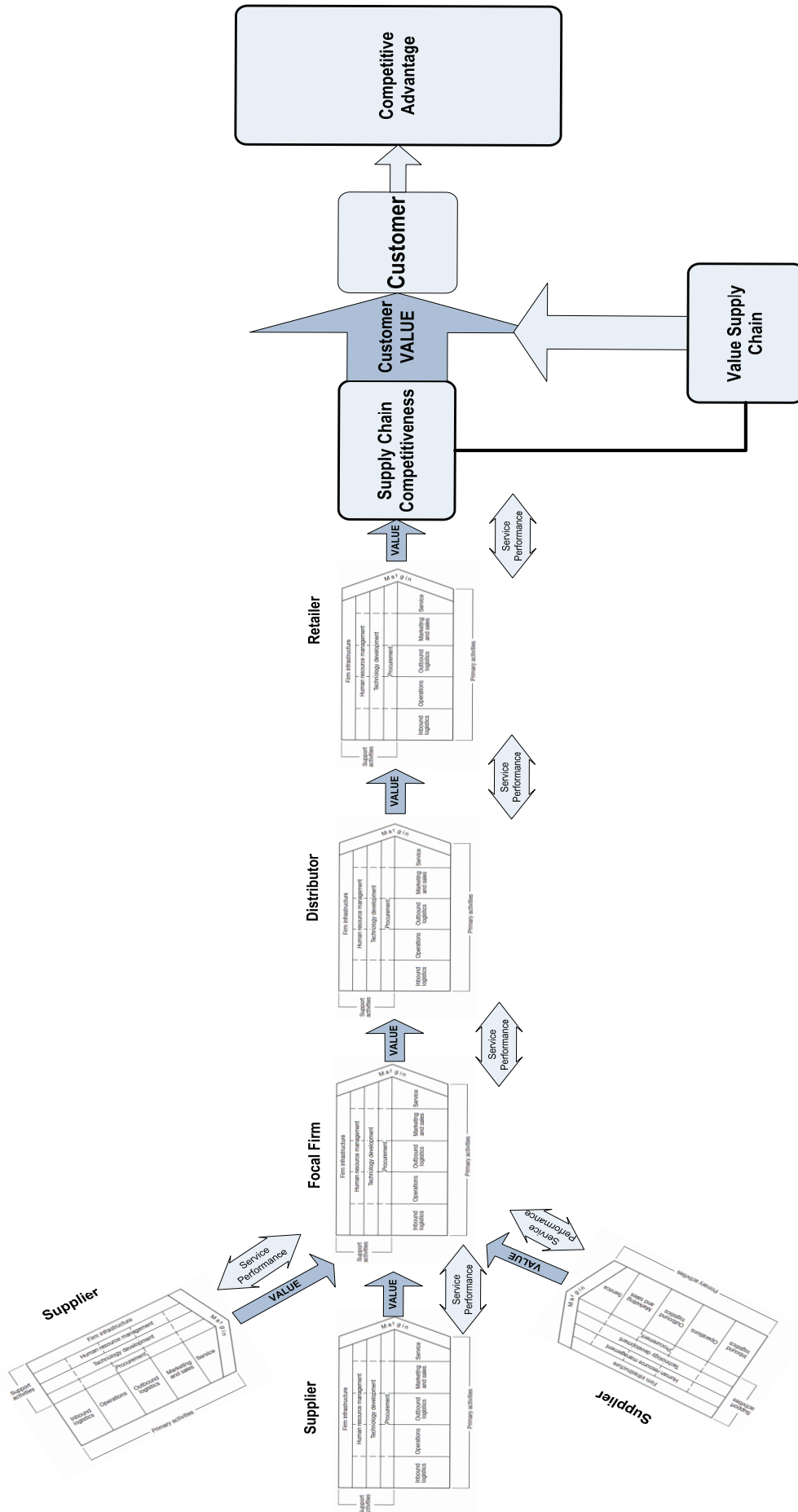
The logic of connection comes from customer value theory, network theory, value chain theory, and service performance - expectation viewpoint backed by expectancy disconfirmation paradigm theory. The value residing inside the firm value chain within the boundary of one firm is created by making service performance of one function up to the level, matching with the expectations of other functions and vice versa. The reason is, when service performance is according to the level of expectation relative to the two functions, it also creates value delivered by one function to another. The value delivered by one function support another function to deliver value in a more enhanced manner to another function.

Figure 4: Service Performance in Value Chain



In a similar vein, value transferred in a subsequent manner from one function to second function and from second function to the third function and so on and vice versa, in forward and reverse flow, in the firm value chain, creates value for the next firm out of firm's value chain. This firm is also another partner firm in the supply chain (Distributor, Retailer in the lower stream, Supplier and the suppliers of supplier in the upstream). The partner firm in turn creates value from its own value chain by ensuring same service quality between functions, and deliver to the next firm. In this way, the inter firm value creation and delivery due to better service quality among them causes the superior value to be delivered by the whole supply chain to the end customer, ultimately leads to the supply chain competitiveness. In a simpler notion, value will be created from within the individual firm value chain as well as from the combined firms' value chain by managing service quality within the functions and between the partnering firms. Therefore, value creation and delivery by service quality is an individual firm phenomenon as well as inter firm phenomena for the sake of supply chain value creation and competitiveness. This value creation by service quality is a two way process, in forward flow as well as in reverse flow. It requires managing the service performance relative to the expectations of the other partner in a network either within firm or outside the firm to create value out of whole supply chain.

Figure: 5 Service Performance in whole supply chain



10. DISCUSSIONS

The theoretical model presented is build upon literature and theories. The service performance between supply chain actors and functions of focal firm make the supply chain competitive as compared to other supply chains. Service performance would be a cause of removal of isolation and silos between supply chain actors and focal firms' functions due to better relationships, coordination, collaboration, and value generation between them for customer value. There are limitations in this theoretical model. There may be further studies in this regard by taking perspective from service-dominant logic to explain the phenomena of value co-creation between actors, functions, and customers to create supply chain competitiveness instead of customer value theory, and value chain theory. On the other hand, this model can be tested and generalized based on same theoretical bases using empirical investigation. There can be another significant contribution by exploring and confirming the determinants of service performance and development of service performance scale between functions of focal firms and supply chain actors leading towards supply chain competitiveness.

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