



Strategic, Structural Supply Chain Orientation and Operational Adaptiveness

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Abstract

Supply chain orientation (SCO) has become one of the most important dynamic capabilities that has a strategic significant contribution on improving companies operational adaptability and performance. Based on RBV This paper aims to investigate the relationship between Strategic, structural SCO and operational adaptiveness of Sudanese industrial companies. the data was collected through a survey of 180 manufacturing companies.using Structural equation modeling was used to analyze the data, and the results show that a positive relationships between SCO and operational adaptiveness, moreover the study confirmed the relationship between strategic and structural SCO, In addition to the results found that Structural SCO mediation the relationship between Strategic SCO and operational adaptiveness, which is support the strategic SCO as preliminary for structural SCO and the necessity of the fit between strategy and structure. Furthermore companies will get more operational adaptability benefits when adopted internal culture that enhance mutual and cooperative work with supply chain partners.

Key Words: Strategic Supply chain orientation, Structural Supply chain orientation, Operational Adaptiveness.

Introduction

The change of today's business environment acts a catalyst for the constant emergence of new Problems which is required a new business philosophy and directions where companies try to minimize the impacts of changes, through the adjustment strategies companies seek to optimally

adapt to dynamic changes in the environment in order to optimally use the situation. In the adjustment to externally induced changes in the environment a completely new strategic direction and complete redesign of the organizational structure, processes and culture of the company may be demanded. (Rahimić. & Kozo ,2010). The adaptation perspective considers pro-active behaviour as the best condition for adaptive performance, whereas the selection perspective advances inert firm behaviour as the best alternative to achieve successful adaptation innovations. (Meeus & Oerlemans (2000). However, when looking across a number of organisations, it is difficult to find a common and acceptable innovation outcome that is not organization dependent and related to an internal culture or individual practices (Hagedoorn and Cloudt, 2003). An organisation's ability to innovate is recognised as one of the determinant factors for it to survive and succeed (Wang & Ahmed, 2004) firm adaptability consists of one variety component (i.e., innovativeness: as manifestation of reacting and adaptiveness) and speed component (i.e., adaptability) or adaptiveness which is refer to firm's ability to react to customer demand or changes in the marketplace within an appropriate time scale (Holweg, 2005).

Braganza and Nada (2000) argue that a firm's strategic orientation directly affects the Business adaptability. As one of the important strategic orientations Supply chain orientation. cited in (Li., et al, 2011) At the same time, firm philosophy of doing business can be inflexible or unresponsive to change to the point where rigidity traps emerge. Supply chain orientation could, therefore, become a limiting factor in a firm's ability to react to threats or opportunities (Liu and Chang, 2017, Walker and Phillips.2006). For firms in every industries change is both expected and routine, a lack of adaptability in key business processes – defined as the ease and speed with which firms can alter their processes to respond to threats or opportunities in their markets (Grawe, Chen & Daugherty, 2009) – could seriously limit short-term performance. (Esper, et al., 2010; Sheth, Sharma, and Gopalkrishnan, 2009) said that SCO has to be an organizational capability that engenders organizational performance In spite of, some scholars have recommended that it is essential to consolidate the upstream and downstream processes in the supply chain however The SCO basically involves making a strategic choice so as to make the firm competitive based on firm's supply chain capabilities (Lengnick-Hall et al., 2013 ;Stank et al., 2005).while (Omar, et al ,2012) argue that organizations are called to adopt the mindset that cooperation, mutual dependence, trust, and shared goals between supply chain partners should positively impact performance. In recognition of this mindset, SCO has been shown to positively affect supply chain performance (Hult et al. 2008) and meet overall customer needs such as delivery information.(Forman, 2014)

The observation of business practices reveal that the competition has shifted from company orientation to supply chain orientation, thus supply chain improvement has become a necessity for survival (Vonderembse, et al. 2006) the recent shifts in supply chain management theory from total cost to customer-value driven theory (Hall, Hall and Rigsbee ,2013 ; Mentzer et al., 2001; Min, Mentzer, & Ladd, 2007). Although the crucial role of SCO in new business era but the Previous work of supply chain orientation (SCO) still demands more consolidation so as to reveal in more effective management of the structure, systems and individual behaviours. Many authors (e.g. Min & Mentzer, 2004; Esper *et al.* 2010; Lynch, 2015.) and Hall., et al 2013; Miocevic and Karanovic.,2012; Min & Mentzer, 2004; Min, Mentzer, & Ladd, 2007 find out that SCO strongly associated with organizational performance (Whilst SCO has been linked as a business model solution there is little evidence in the literature which examines how and why SCO creates a business model solution for manufacturing firms and how it leads to more adaptiveness. The firm's business model encapsulates how managers create, deliver and depict value and adaptability (Osterwalder & Pigneur, 2010). From more holistic view (Morgan, Richey and Autry, 2016; Gligor,

2014.; Patel, Azadega and Ellram.2013.;Esper, Defee &Mentzer.2010.)Stand for supply chain orientation SCO as function of both the strategic and structural perspectives. More specifically, it proposed that the essence of SCO lies in the fit between a firm's supply chain strategy and its support for performance, therefore Building a successful of SCO mainly depend on a high level of fit between organisations' structure and strategy. The structural perspective involves create and maintaining internal behavioural elements that facilitate relational exchange (Min, Mentzer, &Ladd 2007). According to (Mello and Stank, 2005) cultural elements support the organisation's structure which in turn supports the coordination and partnership. Furthermore (Patel, Azadega & Ellram,2013) argue that with increased dynamism in the firm's operating environment, sequential implementation of structural SCO and strategic SCO becomes more important and The strategy-Structure performance (SSP) framework suggests that changes to strategy need to be accompanied by an appropriate structure in order to gain performance benefits (Wasserman, 2008). Despite of this most of the studies operationalized SCO as one variable with many dimensions (Huit, et al,2008; Tinney,2012; Woo 2010; Tucker 2011; Defee, Esper &Mollenkopf,2009) instead of strategic and Structural orientation.

the impact of SCO on adaptiveness has rarely been tested because of the focusing of most studies of Supply chain management(e.g. Al-Shboul et al.2016; Papalexli et al., 2016; Blos et al., 2009; Chow et al.,2008; Abylaev et al., 2014). This implies that the benefits of adopting Supply chain orientation SCO may not be extensively and theoretically proven. Woo(2010) in addition to the nature of the relationship between SCO and adaptiveness is appeared sometimes as indirect support for the positive sum perspective of supply chain interactions, where developing a supply chain orientation among buyers and suppliers leads to stronger alignment through customer relationships, and innovation. (Huit et al ,2008) beside that some concept related to SCO like green supply chain orientation (SCO). Firms' orientation reflects their inclination to innovation and green oriented companies are believed to be more innovative in their process and product (Hong, Kwon and Roh 2009.;Biazzo, 2009; Routroy, 2009). On the other hand business adaptiveness recently have received increased attention as both input and output factors in business processes, While several scholars (e.g., Tuomine, Rajala, &Mollet, 2004; Zahra and Pearce, 1990;Child, 1997) have acknowledged that adaptability is a construct of strategic, operational or functional (e.g market, technology, and organization-related factors), while another authors examine adaptiveness from different perspectives such as(Adaptive management practices, behavior Adaptiveness, Firm adaptiveness, Institutional Adaptiveness, Strategic Adaptiveness Relationship)(Akgün, et al, 2013; Gibbon, Kennealy, &Lavin, 2003; Reisel, Chia, Maloles,2005.;Vakratsas and Ma.2009; Nyuur, Brec'ic and Simintiras,2016: Grunsven &Hutchinson,2016) in therefor adaptiveness has no one accepted construct, although there is many studies on flexibility and adaptiveness but operational adaptiveness has been little tested specially with supply chain orientation . Thus the study addressed the following questions : what the relationship between Strategic , structural supply chain orientation and operational adaptiveness. and does structural orientation mediate the relationship between Strategic Supply chain orientation and operational adaptiveness.

This paper provide multiple contributions in the area of SCO research. First, it provides a more insight and explanation for SCO from strategic and Structural perspectives and why SCO enhance the operational adaptiveness. By doing so the study test Structural SCO as mediator between Strategic SCO and operational adaptiveness moreover , it generate empirical results on the relative importance relationship among the Construct of strategic and structural SCO in under developing countries particularly in Sudanese Industrial Companies .

The remainder of this paper is organized as follows: Section 2 focuses on literature review and discussion from a different view of Supply chain orientation(Strategic and Structural),and operational daptiveness. Section 3 explains the research methodology with details of data collection. The data analysis, These antecedents were confirmed through confirmatory factor analysis (CFA) using the measurement model of structural equation modeling (SEM) which is covered in Section 4. In Section 5, the relationships between Supply Chain orientation and operational adaptiveness hypothesized are tested using multivariate linear regression and SEM techniques. Section 6 gives a detailed discussion on the analysis of results and model outcomes. Finally, in Section 7 the discussion, limitations, and future research.

2.Literature Review

As the nature of business firms always looking for a high performance and continuous improvement in term of (process, behaviors, outcomes) for theirs competitive position, Supply chain is now the field of competition for business globally and domestically which is lead the firm's to depend on supply chain strategic as cornerstone for its competitiveness and should be integrated in the business strategy, and firm's objectives and strategic principles (Lintukangas, Kähkönen &Tuppura ,2013).

supply chain orientation has been the focus of numbers of authors studies such as(Acar, et al, 2017; Morgan, Richey and Autry, 2016; Gligor, 2014;Lengnick-Hall et al., 2013 ;Hult et al.,2008;) as (Min et al., 2001) SCO is “the recognition by an organization of the systematic, strategic implications of the tactical activities involved in managing the various flows in a supply chain. This concept stressed by most of the studies in SCO according to this (Ketchen &Hult, 2007) explained that supply chain orientation Its more mphasizing on relationship with supplier &customers management. In addition to Supply base oriented looking for long-term relationships and communication with Buyer's, suppliers and other partners . (Morita et al (2014) argued that SCO needs to be a kind of internal culture ,a system of knowledge (Morita, et al, 2014) in the firm, rather than a specific course of action. Thus SCO has become viewed mainly from two perspectives strategic and structural perspectives (Patel, Azadegan, &Ellram 2013; Esper, Defee &Mentzer.2010.). The strategic SCO paradigm builds on the original conceptualization of the construct, where SCO was conceived as a philosophy focused on the implications of managing supply chain flows (Mentzer, 2001).

Therefore referring back to mentioned discussion SCO perspectives will be adopted in the conceptual framework of this study from the perspective above.

2.1 SCO Strategic Perspective

The nature of this perspective involves making a strategic choice to compete on the basis of supply chain capabilities (Defee &Stank, 2005) and utilizing this strategic emphasis to drive the performance of strategic business units within the firm, Strategic SCO conceptualized in previous work through an emphasis on the importance of strategic direction in managing supply chains (Esper, Defee &Mentzer 2010). Strategic SCO is integrating an SCM philosophy into the firm's strategy development, and reflects the extent to which top managers' decisions and strategic direction incorporate an SCM philosophy (Patel, Azadegan, &Ellram 2013)

The firm strategy considered as basic requirements for Succession of business because strategic directives strongly influence a firm's resource allocations. In the reality strategy adds value through the alignment and direction that it provides to firm resources and capabilities (Hult

et al., 2008). A well-defined and specific strategic orientation allows the firm to quickly determine the strategic response to changes in the external environment, thereby enhancing its performance (Stank, Davis, & Fugate, 2005; Slone et al., 2007; Ashenbaum, et al, 2009). Strategic SCO provides a more feasible set of strategic options to mitigate challenges in its operating environment (Kaufmann, Michel, & Carter, 2009). This increases the firm's viable choices in the face of environmental threats and opportunities. In turn, an increase in options allows the firm to more effectively utilize its resources in meeting customer needs and to thereby improve its performance.

The strategic SCO perspective involves encouraging firm personnel to act in a manner that manages flows from supplier to customer, taking a systems approach to viewing the supply chain holistically rather than as constituent parts, and seeking integration, synchronization and convergence of intra- and inter-firm operational and strategic capabilities (Esper, Defee & Mentzer, 2010).

Top management support is essential for setting up vision and goal, for cross-functional training, integration of departments within the organization and vendor development for a responsive supply chain (K. Singh 2013). In addition, they enable supply management to establish close relationships where appropriate with suppliers to improve the quality and delivery of materials to customers (Eltantawy, 2008). Therefore, the importance of top management support for successful SCM implementation has for a long time been recognized in the SCM literature (Gibson et al., 2005; Lambert & Cooper, 2000; Moberg et al., 2003; Slone et al., 2007).

Organizational Compatibility refers to the importance of shared values. The shared values in buyer-seller relationships include such factors as the common beliefs of each interacting party with respect to the importance of factors including policies, goals and behaviours (Wilson, 1995)

compatibility defines as the degree to which using an innovation is perceived to be consistent with existing socio-cultural values and beliefs, as well as past and present experiences and needs of the potential adopters. Wilson (1995) First, corporate culture compatibility has been deemed necessary given that for supply chain members to operate as a single channel, individual attitudes and behaviors must be congruent between exchange partner firms

In general, compatibility consists of people, technology, processes, and standards among supply chain partners, which enables them to work smoothly together (Choi et al., 2001).

Commitment is the important variable in the partner relationship and measurement for the relationship in the future (Wonglorsaichon 2002). It is the desire to continue the relationship and to work to ensure its continuance. Commitment also implies that the relationship will bring future value and benefit to the relationship, as well. Commitment demonstrates that the partner's ultimate goal is to make the relationship work. There is usually an element of reciprocity with commitment (Terawatanavong, Whitwell, & Eding, 2006).

2.2 Structural perspective

SCO from structural perspective focusing on organizational practices that facilitate supply chain management. (Gligor, 2014). SCO include building and maintaining internal behavioral elements that facilitate relational exchange. Structural SCO also involves operational-level behaviors and actions of the firm that reflect the SCM philosophy, as embodied through strategic SCO. Operating levels consist of the firm's functional and business units (Floyd & Lane, 2000; Janowicz-Panjaitan & Noorderhaven, 2009). Structural SCO is appearance in behaviors that reflect benevolence, embrace cooperative norms, and demonstrate credible commitment towards its supply chain partners

Structural SCO is embodied in the behavioral norms and interactions among the firm's operating units and with its supply chain members (Min, Mentzer, & Ladd, 2007; Defee, Esper, &

Mollenkopf, 2009). Indicators of structural SCO include the firm's concern for the welfare of other supply chain members (benevolence), truthfulness and openness in its interactions with suppliers (credibility), and willingness to collaborate for mutual benefit in its interactions (cooperative norms) (Mello & Stank, 2005).

Cooperative Norms (Siguaw et al. 1998) State that Cooperative norms are described as a "perception of the joint efforts of both the supplier and distributor to achieve mutual and individual goals successfully while refraining from opportunistic actions. (Robinson, 2014) Cooperation is required due to the interdependent structure and competitive nature of internal and external integrative relations (Desivilya & Lidogoster 2009) Thus, the goal of integrative efforts in view of cooperation is to establish common interests among distinct parties. Organizations must have a belief that collaboration is necessary, the will to make changes cooperatively with business partners and faith that mutual effort will result in value to customers (Min & Meltzer, 2004). Processes that allow business information, such as purchase orders, requisitions, advance shipping notices, receiving tickets, and invoices, to flow seamlessly within an organization must be in place before collaboration with supply chain partners can begin (Pramatari, 2007). The 'norms' create "shared structures of social meaning" (Tillquist 2002, p.40), which inform how members of the organisation should approach interactions with internal functions in the firm, customers and suppliers.

credibility as a multidimensional concept and some authors argue that credibility is overlapped with of trust when total view and may be regarded as a "subclass of trust because it comprising the perceiver's assessment of the communicator's relevant knowledge, honesty and positive intentions towards the perceiver (Simons 2002: 22) Credibility reflects the extent to which a firm believes their relationship partner has the expertise to perform effectively. Herbig & Milewicz (1995:7) contend that credibility is the "believability of an organisation's intentions at a particular moment in time". (Ganesan, 1994) in other hand firm's belief that its partner stands by its word, fulfills promised role obligations, and is sincere" (Min & Mentzer 2004, p. 65). Credibility as one of the two dimensions of trust that captures an organization's perception of an exchange partner's reliability and competence (Robinson 2014).

Benevolence (Stank et al. 2005) explained that benevolence represent relationship in supply chain where your supply chain partner understand your business circumstances and support your business, and they care about your welfare also They expect that the relationship will endure in the long run. When they make decisions, they show their respect towards you and consider the impact of the decision upon you. In other word benevolence is expressed as "the extent to which a trustee is believed to want to do good to the trustor. (Mayer, Davis & Schoorman 1995, p. 718) benevolence occurs when a firm believes their relationship partner has intentions and motives that will benefit the relationship (Ganesan, 1994) and where managers perceive the other firm willing to look after their firm's interests moving forward. The next section take illustrate the dependent variable operational adaptiveness.

2.3 Operational Adaptiveness

Operational adaptiveness is an important indicators that may explain why some firms are able to responses effectively to environmental turbulence than others. (Tu et al. 2006), Changing trends in technology and customer needs in turbulent and unpredictable environments require firms to become more aware of their adaptability for sustainable competitive advantage in general, (Akgün et al. 2013) Because of this dramatic change firms often find their competencies become outdated quickly and they need to have profound changes in their core business or competence (Chang, 2007), systematic and effective response requires rapidly analyze and interpret

information about changes in the operational environment, and initiate necessary reconfiguration, realignment, and renewal of operational capabilities (Patel et al.2012). operational adaptiveness refers to the managerial capabilities that can be set up quickly in order to provide a rapid response to environmental changes that are familiar or routine in an organization (Verdu-Jover et al., 2004). flexibility has a broader scope taking into consideration all the operations taking place, namely, design, purchasing, distribution, marketing, services, etc. According to (Aranda, 2003), adaptability more emphasis on the quick introducing of new designs, products/ into the delivery system, handling changes in the products mix and variations in customer delivery schedules, rapid adjustment of capacity and customizing products.

3. Supply Chain Orientation(SCO) and Operational Adaptiveness

3.1 Strategic SCO and Operational Adaptiveness

A dynamic competitive environment requires companies to quickly react to the external change, depending on their strategic orientation (supply chain orientation) as such toward change. Therefore companies with high supply chain orientation tend to be more adaptive and innovative (Vicari, 2006). In addition Strategic orientation as a strategic choice may provide a source that helps firms build dynamic capabilities in fast changing environments (Zhou & Li, 2007). As the focus shifts from single firm resources and capabilities to its supply chain, it comes to including multiple companies. In this view, realizing new cross-organizational supply chain capabilities becomes the new challenge to compete through a more responsive, adaptive, agile and better performing supply chain. When companies act individually, and have not yet developed a supply chain orientation strategy. They realize that their processes are no more consistent with the external environment and they become conscious of the need of a specific change in their strategy and processes

(Patel et al. 2013; Elmuti, 2002) stated that SCO is positively associated with operational and firm performance. Firms that recognize the strategic importance of managing their supply chains can achieve superior operational efficiencies by integrating their operations with those of their supply chain members. Such integration can facilitate the identification of redundant aspects of their interfirm operations. (Patel et al. 2013). Reveal out that SCO is positively associated with operational performance. Firms that recognize the strategic importance of managing their supply chains can achieve superior operational efficiencies by integrating their operations with those of their supply chain members (Gligor, 2014).

3.2 Structural SCO and Operational Adaptiveness

Frazier et al. (1988) argue that SCO is a necessary prerequisite of operational fitting, collaboration, and. Establishing the organizational relationships among partners to attain system and operational, therefore Adopting a Supply Chain Orientation reducing redundancies in the supply chain (Min & Mentzer, 2004) and instead to utilize the existing resources of each supply chain partner, thus facilitating the accessing routines and practices between supply chain members. This way requires firm to create and maintain top management support, trust, commitment, cooperative norms, dependence, and organizational compatibility, which is represent supply chain orientation dimensions, this behavioral components allows relationships to be collaborative and effective (Mentzer, 2004) thus A more efficient use of the resources over the supply chain, which implies leveraging on separated external dynamic capabilities among the partners that form the supply chain, requires a supportive organizational culture oriented to share information, join

resources which lead to more aligned and innovative operational (Barratt, 2004, Zamboni, 2011). the relationship approach which this study adopted can be viewed as a philosophical culture that puts the buyer-seller relationship at the centre of the firm's strategic or operational thinking" (Sin et al. 2005, p.186) therefor Cooperative and collaborative relations represent interesting opportunities for companies to better respond to the ever changing need in term of ,operations or markets.(Zamboni,2011).

3.3 Strategic, Structural SCO and operational adaptiveness

Zhou and Li (2010) Illustrate that strategic supply orientation as a strategic choice should drive the way firms acquire, allocate, and utilize resources to create dynamic capabilities resource like (culture people collaborative orientation..) which is resulting as ability to reconfigure resources and coordinate processes promptly and effectively to meet rapid environmental changes (Gibson and Birkinshaw,2004)

Esper et al. (2010) stated that "SCO cannot be understood without incorporating both a firm's strategic intention to compete via supply chain capabilities and the firm's internal structural Elements(benevolence, compatibility and creditability).

4. Theory of RBV

RBV suggests that firms ought to identify resources that will most likely make them more competitive in the market, and then use these resources to exploit their value (Sirmon,Hitt, & Ireland, 2007).

Strategic orientation guides the focused commitment of resources to achieve desired outcomes(Grawe,Chen &Daugherty,2009;Day,1994). According to the selected strategic orientations, the firms are guided to focus resources toward the development of capabilities to achieve competitive advantage. capabilities that enable the firm to outperform the competition must be managed with the focused commitment of resources, which are necessity to be valuable, rare, inimitable and nonsubstitutable (VRIN) (Barney, 1991). the resources include the assets, information, skills, knowledge, etc. of a firm that enable to develop and implement strategies to improve its efficiency and effectiveness, therefore supply chain orientation will direct resources to developing a supply chain capability to support supply chain management to be a source of competitive advantage RBV literature indicates that combinations of resources are more likely to explain higher performance in firms (Newbert, 2008)

Conceptual Framework

The framework in Figure 1 was developed to investigate the relationships between SCO Strategic and Structural, and operational adaptiveness. We posit that Structural SCO has a mediating effect on the relationship between Strategic SCO and operational adaptiveness.

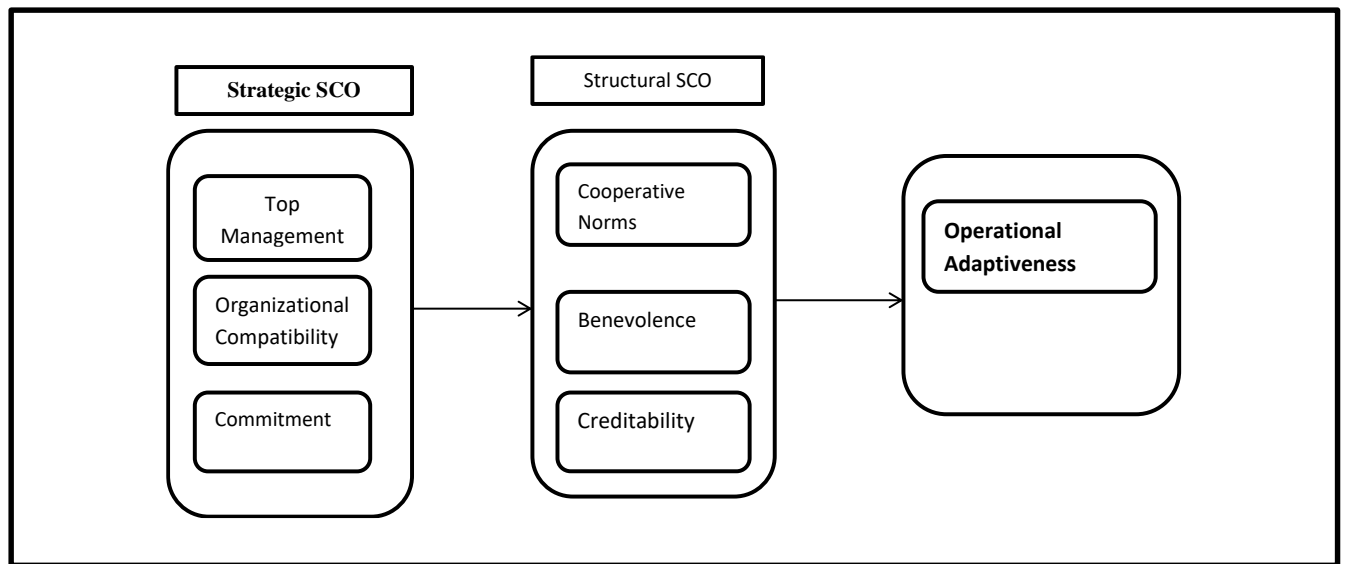


Fig. (1): the conceptual framework

5. Hypotheses Development

Resource based view (RBV) of the firm, we posit that supply chain orientation is a strategic capability (Black and Boal, 1994; Godfrey & Hill, 1995) that contributes to competitive advantage and positively influences organizational performance (Hult et al, 2002) argued that supply chain orientation serves as a strategic capability. As such, the RBV suggests that a supply chain orientation will positively affect desired outcomes.,also (Esper, et al., 2010; Sheth, Sharma, &Gopalkrishnan, 2009) said that SCO has to be an organizational capability that engenders organizational performance. (Braganza &Nada ,2000) argue that a firm’s strategic orientation directly affects the Business adaptability. As one of the important strategic orientations Supply chain orientation.cited in (Li., Su., Liu &Li,2011). Supply chain orientation could, therefore, become an antecedent factor in a firm’s ability to react to threats or opportunities (Liu &Chang, 2017; Walker and Phillips.2006) thus supply chain improvement has become a necessity for survival (Vonderembse, et al.,2006) moreover (Tinney,2012) reveal out SCO and collaboration are linked to firm performance also the association between SCO and operational performance and firm performance has been pointed out by (Patel et al. 2013) furthermore Firms that recognize the strategic importance of managing their supply chains can achieve superior operational efficiencies by integrating their operations with those of their supply chain members. (Silveira et al. 2001) explained The impact of SCO on performance flexibility by firm’s recognition of the strategic implications of managing the supply chain facilitates the adjustments of supply chain tactics and operations. That, in turn, allows firms to deliver customer tailored products at or close to mass production costs Part of structural implication for firms is to determine how to allocate resources to create capabilities and how sets of capabilities should be coordinated and organized (Stank et al. 2005). SCO guides the development and deployment of the flexible capability.

Firms cannot develop adaptability without partnering with their supply chain partners. Partners of the supply chain must be capable of rapidly aligning their capabilities to respond to changes in environment (market and customer demand) (Gligor &Holcomb 2012). The joint Interfirm collaboration is the key to providing a response capability to customers’ needs. This requires members of the supply chain to be linked together as an integrated unit . the joint cooperation is at the very core of SCO. (Gligor,2014.p.284) Supply chain oriented firms recognize

the strategic implications of managing the upstream and downstream flows of products, services, and information (Mentzer et al. 2001). This provides the necessary platform for collaborating with supply chain partners and achieving the high level of alignment and adaptability. The real value of supply chain orientation which figured out by the previous work is improvement of flexibility in the use of firm resources (Patel et al. 2013). Firms that recognize the strategic importance of managing their supply chain (i.e., supply chain oriented) can achieve a higher level of alignment and adaptability (Malhotra & Mackelprang 2012).

Therefore the study propose that

Hypothesis 1: SCO positively impacts on operational adaptiveness.

Hypothesis 2: Structural SCO positively impacts on operational adaptiveness

Based on (Wadhawa & ROA, 2003). organization not operates in isolation and accordingly flexibility and adaptability appear as a feature of collaboration such as supply chain orientation. In addition to (Christopher, 2000) contends that agility as a “business-wide capability” encompasses structures, information systems, logistics and mindsets. Moreover Min, Mentzer, & Ladd (2007). successful creation of SCO requires a high degree of fit between organisations’ structure and strategy. The structural perspective involves building and maintaining internal behavioural elements that facilitate relational exchange. The collaborative relationship dimension reflects an organisational stance and refers to the coordination between units and departments. SCM with its cross-disciplinary nature can potentially be structured into different internal departments, such as distribution, logistics, manufacturing and/or procurement (Storey et al. 2006) cited in (Jüttner & Christopher, 2013) Such a focus on firm strategy is required because strategic directives strongly influence a firm’s resource allocations (Hult et al., 2008) strategic supply chain and relationship orientation results in improved coordination of tasks or activities between buyer and supplier firms (De Toni & Nassimbeni, 1999). Such an orientation enables exchange partners to develop greater confidence in one another, display cooperative and trusting behaviors, and this in order to accomplish mutual goals., supply chain partners who adopt a long-term orientation are able to synergistically combine their resources and capabilities in order to develop a stronger basis for strategic advantage (e.g., Shan et al., 1994; Madhok, 2002). Back to this evidence it can be hypothesized that:

Hypothesis 3: Strategic SCO positively impacts on Structural SCO

6. Methodology

6.1 Data Collection

A cross-sectional survey research design with a self-administered questionnaire was conducted to test the hypotheses. A draft questionnaire was developed, based on the measurement of the previous studies in marketing and supply chain, firstly developed in English then back to back translation from English to Arabic was conducted. This procedure guarantees that the English and the Arabic versions of the questionnaire have equal measures. Subsequently, a number of researchers in the same field assessed the correctness and the clearance of questions and measurement items. In the second stage a sample of questionnaire was developed and sent to five academicians to judges and assess the questionnaire's face validity. Several alterations to question wording, modification of items, as well as the format and esthetics of the questionnaire were made for clarity. A pilot test was performed on 30 industrial companies operating in Khartoum in various industries. After the pretest, the survey was changed slightly for clarification All constructs were initially operationalised by a set of four or more items, each measured with a seven-point Likert

response scale ranging from 'strongly disagree' to 'strongly agree' The 7-point Likert scale has also been applied since it 'reaches the upper limits of scale reliability' (Allen & Seaman 2007, p. 64). the measurement items of SCO adopted from (Patel, Azadegan & Ellram, 2013.; Truck, 2011) and items of operational adaptiveness adopted from (Gligor, 2014). A non probability sample of 270 Sudanese industrial companies. Company was considered as a unit of analysis and target respondents were executive/senior managers responsible for SCM or related position in their organisations., Secondly, given that both marketing and SCM may have a wider, strategic or more narrow, operational meaning across companies (Storey et al. 2006), the questionnaire provided the definitions relevant for our study in the introductory section of the questionnaire. Here, were used. Overall, 185 questionnaires were received and after several purification rounds, 180 usable questionnaires were maintained, representing a response rate of 73%. Most respondents are from food industry companies (29.3%) or engineering (18.8%) , chemical (17.7%) Construction (11%) and (8.8%) print and packaging. In term of size (number of employees) (26.5%) large companies employees number above (200) , the companies employees number ranged between (101- 200) represent (17.1%) and the companies employees number ranged from (51-100) represent (23.2%) while the small one's with less than 50 employees are (29.8%). in addition classifying companies based on company age (26.5%) well-established companies with more than 20 years also (17.1%) are above 15 year, (22.1%) above 10 and less than 15 years and (32.1) less than 10 years. Regarding to the types of product (47%) producing finished goods, (14.4) whole selling/retailing, (11.6%) raw/parts. Concerning the numbers of suppliers (29.3%) have more than 20 suppliers, (10.5%) have more than 15 suppliers, (10.5%) have more than 10 suppliers, and (44.2%) have less than 10 suppliers.

The response bias was assessed by comparing the means of the responses in the last quartile of respondents Using this design, a Chi-square and DF of all the variables used in the study revealed significant differences between the groups. So a control test is conducted for the variables (gender, age, job title, company ownership, company size) Employing structural equation modeling (SEM) conducted by using AMOS version 22 for testing the measurement and structural model requires large samples, (Ding et al. 1995) suggest that a minimum of 100 to 150 observations should be satisfactory. Based on these definitions, The sample of this study satisfy the requirement of using CFA to test the full measurement model simultaneously.

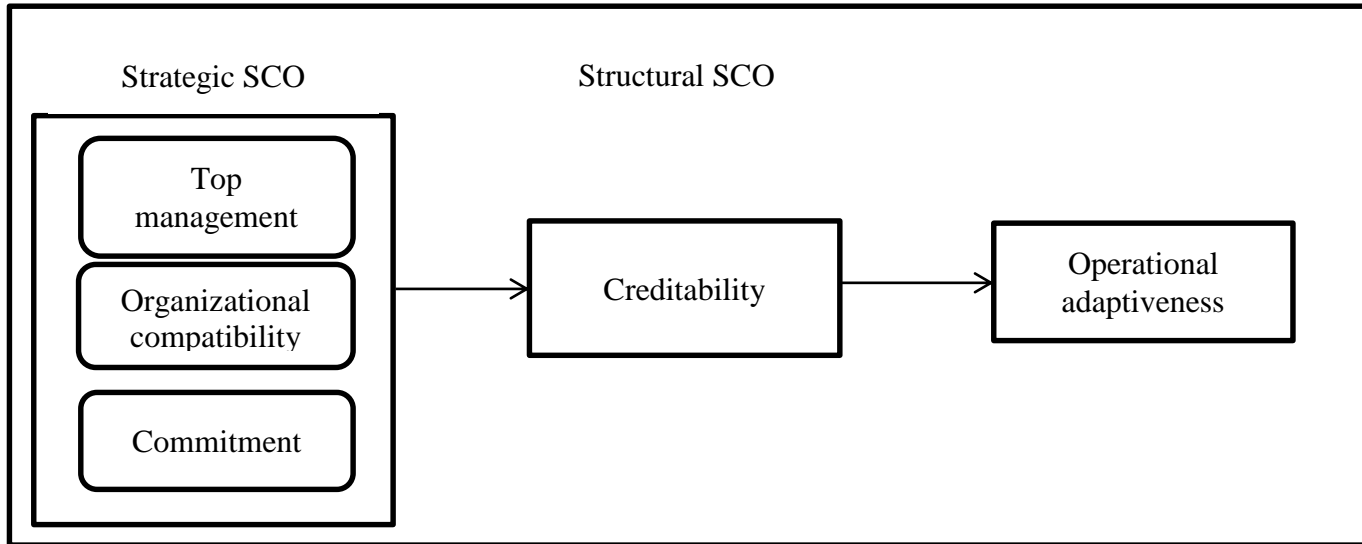
An exploratory factor analysis (EFA) and a subsequent confirmatory factor analysis (CFA) were used to validate the convergence of all of the constructs in the study (Table). For the EFA, each item loaded significantly on the predicted variables above the acceptable 0.500 levels accordingly poorly performing items were identified and eliminated which is resulted in delete two of Structural SCO dimension (benevolence, and cooperative norms) therefore the proposed framework will modified. (see figure) ;also a varimax rotation was used to finalize the constructs (Hair et al. 1998) (Table). Table contains the results of the CFA (CMIN [chi-square goodness of fit] = 206.57, CFI [comparative fit index] = 0.938, RMSEA [root mean square error of approximation] = 0.077 which indicate that the model is a good fit. preliminary assessment of the constructs' relationships was conducted with a correlation analysis (Table).

Table (1) Measurement Information and Correlation Matrix

	CR	AVE	MSV	Max R(H)	Top Mgt	Compatibility	commitment	Credita bility	Operational adaptiveness	Mean	St.deviation
Top Mgt Support	N.A *	0.560	0.493	0.360	0.748					4.537	1.135
Compati bility	N.A *	0.692	0.221	0.182	0.470	0.832				4.264	1.269
Commitm ent	0.920	0.577	0.318	0.249	0.564	0.426	0.760			5.534	1.197
Creditabi lity	0.835	0.582	0.493	0.309	0.702	0.383	0.442	0.763		5.480	1.1354
Operation al adaptivene ss	N.A *	0.742	0.407	0.322	0.638	0.422	0.549	0.633	0.861	4.301	.889

Notes: Recommended thresholds: composite reliability (CR) > 0.7; convergent validity (CR) > average variance extracted (AVE) > 0.5. Discriminant validity: maximum shared squared variance (MSV) < AVE; average shared squared variance (ASV) < AVE

Fig. (2): Modified *conceptual framework*



To fulfill the data prerequisites for applying SEM, values composite has been calculated for every construct to simultaneously estimate all the proposed linkages and test the overall final model fit. The results reveal that the model's overall fit was adequate (CMIN/DF = 1.965, RMSEA = .077, CFI = .938, GFI = .955). Moreover, all but the hypothesized links were significant (at $p < .05$ or less) and consistent with expectations, lending support to the model's conceptual soundness.

The specific hypothesized results can be found in Table A regression analysis was used to evaluate the hypothesized relationships. To test whether firm size, ownership, and gender, ag, job title had an impact on the variable relationships, the regression analysis was also conducted controlling for firm size, ownership, and gender, ag, job title. This analysis yielded similar results to the overall regression analysis but only firm ownership; therefore, the discussion herein will focus on the overall path regression analysis. In general, most of the relationships were supported with significance levels of $p < 0.05$ or better. Tolerance and variance inflation factor (VIF) tests show that multicollinearity was not a problem for the model VIFs greater than 2, which is far less than the threshold of 10 (Table). Additional the relationship between independent variables SCO (Top management, organizational compatibility and commitment) on operational adaptiveness show significance as follow the relationship between top management support and operational adaptiveness was not significance ($p < 0.113$, $\beta = -0.090$), organizational compitability and operational adaptiveness significance ($p < 0.855$, $\beta = 0.009$) while the relationship between commitment and operational adaptiveness ($p < 0.000$, $\beta = 0.367$)

H2a, H2b and H2c stated that top management support, organizational compatibility and commitment will positively affect creditability. These hypotheses were supported as follow top management support and creditability ($p < 0.000$, $\beta = 0.304$), organizational compatibility and creditability ($p < 0.01$, $\beta = 0.150$) and commitment and creditability ($p < 0.000$, $\beta = 0.448$)

H3 stated that creditability will positively affect operational adaptiveness ($p < 0.000$, $\beta = 0.566$)

Table (2)Hypotheses Test Results

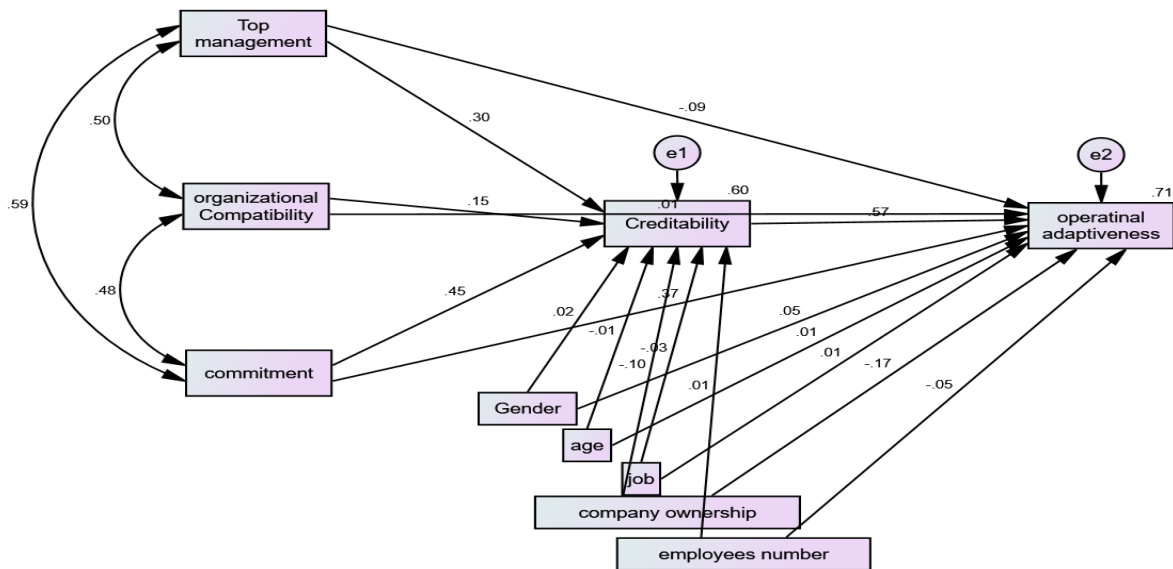
Hypothesis	Investigation	Path Coefficients	Statistical Significance	Hypothesis Supported
H1a	Top Mgt → op. adaptiveness	-.092	.113	Not Supported
H1b	Compatibility → op. adaptiveness	.009	.855	Not Supported
H1c	Commitment → op adaptiveness	.367	***	Supported
R^2 of the path : 0.60				
H2a	Top Mgt → creditability	.304	***	Supported
H2b	Compatibility → creditability	.150	.011	Supported
H2c	Commitment → creditability	.448	***	Supported
H3	Creditability → op. adaptiveness	.566	***	Supported
R^2 of the path : 0.71				

Testing mediation impact aims to detect the intervening variable in the model through the differences in coefficients using an examination method. The test result of path coefficient and hypotheses for the impact of mediation variable in Table 2 shows that the impact of strategic SCO on operational adaptiveness through Structural SCO (Creditability) is partial mediation. This means that the relation between strategic SCO can directly impact operational adaptiveness and can also do so through the mediation of Structural SCO (Creditability)

Table (3) Test for the impact of mediating variable:

	Path Coefficients	Lower	Upper	Sig	Nature of Mediation	Empirical Evidence
Top Mgt --> Creditability --> op. adaptiveness	.149	.065	.268	.001	full Mediation	Supported
Compatibility --> Creditability --> op. adaptiveness	.064	.010	.137	.024	full Mediation	Supported
Commitment --> Creditability -> op. adaptiveness	.185	.103	.279	.001	Partial Mediation	Supported

Figure (3) path diagram



7. Discussion

This study, has focused on the investigation of the influence of Structural SCO ON the relationship between Strategic SCO and operational adaptiveness in Sudanese industrial companies . The overall model results support the conceptualized model

The results of the model reveal out that Strategic Sco partially effect on operational adaptiveness, particularly Commitment positively effect on operational adaptiveness . As this study adopted cultural and relationship perspective for SCO Based on that (Golicic and Mentzer, 2006; Murphy &Poist, 2000) confirm that firms need to develop closer relationships with their partners (suppliers, customer..) which well recognized in the logistics and supply-chain management theory, and a variety of benefits have been associated with firms cultivating close relationships, such as higher levels of partner trust and commitment (Autry and Golicic, 2010), and improved operational and market performance (Panayides &So, 2005).moreover commitment is a managerial willingness to allocate resources and take behaviors that lead to the development of capabilities consistent with the desired outcomes (Nobel, Sinha and Kumar, 2002)such as adaptability agility and innovation of performance also (Spekman &Carraway 2006) stated that commitment shapes the rules of engagement and interactive behaviors between the exchange partners which allow firms to use their resource and information interchangeably to align with each others objectives or with in the external change in level of operations further commitment in the interac-tions of cooperatives can impact financial results, showing a logic of exchange that saves time, facilitates agreements

onintegration, and leads to improvement actions and these represent the features of operational adaptability (Arruda, 2014; Stecca, 2014). . In this way H1a which indicate that top management support not effect positively on operational adaptiveness this result, it might justify with refer to the role of top management which is recognized by a number of scholars as a critical factor in changing an organization's orientation, direction, value , and also top management has to assure the consistency between the new strategy and the consequent operating policies.

From integration literature top management is Antecedents of investments, cross-organizational teams and problem solving, information sharing , information sharing, incorporating customer input, manager support, managing relationships, measuring/reporting performance (Zhao et al. 2008; Eltantawy et al. 2009) The SCO philosophy initially requires cultural change, Corporate culture is a critical factor when transitioning to an SCO without a strong corporate culture supporting this transition, most of the interorganizational initiatives directed toward integration and collaboration with suppliers or customers did not come to fruition and eventually failed(Oma, at ell,2012.p.13) therefor top management support without strong corporate culture will not resulting in operational adaptiveness. In addition the results of H1b found that there is no positive effect for organizational compatibility on operational adaptiveness

compatible firm , must operate with similar operating principles, and utilize comparable management techniques with their partners therefor the probability is high that SCM processes will assist in the improvement of the entire supply chain's effectiveness and efficiency (Ellram &Cooper, 1990; Cooper et al., 1997; Lambert et al., 1998). contributing to the success in interorganizational relationships and the learning and financial performance of exchange partners (Beugelsdijk, Koen, & Noorderhaven, 2009). On other side incompatible firms, those with incompatible goals or varying strategic horizons carry a lower level of trust towards one another which lead to less sharing and less collaborating the miss cooperation and collaboration lead firm to be inflexible and unadaptable particularly Sudanese industrial companies It have a lower compatibility level based on results of means in table (1) thus organizational compatibility not lead to operational adaptiveness in Sudanese industrial companies.

Going in the same direction the results pointed out the Strategic SCO positively associate with Structural SCO(Credibility). Firms recognize the importance of managing their supply chains can develop relationships with their supply chain members that allow them to improve their practices related build and maintain a strong relationship Thus it become more dependent on their supply chain partners, more credence is given to opportunities and threats that emerge within the supply chain (Defee & Stank, 2005; Slone,; Mentzer, & Dittmann, 2007). Along with this line the results show a positive relationship between Top management support and credibility this result probably came because supply chain orientation requires a managerial change towards it As in any organizational change, the commitment for an effective collaboration behavior needs to be promoted and sponsored by the top management, be widespread, and be made visible to people throughout the organization, (Zamboni, 2011). Consequently top management effectively lead to collaboration behaviors such as creditability and trust. Also the results revealed that organizational Compatibility positively effect on Credibility Compatibility is an important antecedent for success and failure of organizational partnerships (Shamdasani & Sheth, 1994) as it increases the likelihood of developing mutually satisfying win-win relationships , compatibility can encouraging the partners feeling of "we-ness" among organizations, thereby contributing to the success in interorganizational relationships (Patel, Azadega &Ellram,2013)

Furthermore the study found that commitment positively effect on credibility. Commitment is always represent the belief of a firm in a dyadic exchange that the existing relationship with another firm is very important and hence it deserves maximum efforts to maintain

it for long-term period (Moorman et al., 1992; Morgan and Hunt, 1994). In the behavior of commitment encourage the buyer belief that the seller does not have any negative intentions and its present and/or past experiences are believed to be a strong predictor of future intentions. Moreover the firm should believe that the partner firm will act with credibility and benevolence in future exchanges as well (Sindhav &Lusch, 2008). Thus the behavior of commitment can improve the level of credible action. also commitment is associated with credibility. However, inter-firm relationships cannot develop without resource commitments based on some degree of trust between the parties (Morgan &Hunt, 1994).Commitment is defined as the belief of a firm in a dyadic exchange that the existing relationship with another firm is very important and hence it deserves maximum efforts to maintain it for long-term period (e.g. Moorman et al., 1992; Morgan and Hunt, 1994). In order to develop commitment, the buyer should have belief that the seller does not have any negative intentions and its present and/or past experiences are believed to be a strong predictor of future intentions. Moreover the firm should believe that the partner firm will act with credibility and benevolence in future exchanges as well (Sindhav &Lusch, 2008).

The study results also indicate that Structural SCO(Credibility) contributes directly on operational adaptiveness structural (*Patel, Azadegan, &Ellram* , 2013)SCO leads to better execution of day-to-day activities that use the organization's resources more efficiently (Rao, 1994) said that ,Highly credible firms have reputational goodwill with their partners, which has been shown to positively influence their survival. moreover (Daugherty et al. 2006; Paulraj &Chen 2007) supported that higher levels of integration between supply chain partners, collaborative behaviors and managing product and information flow the result is a stronger structural integration are which is crucial for improving responsiveness and higher flexibility

Testing the mediator role of structural SCO (Credibility) show that credibility mediate the relationship between Strategic SCO and operational Adaptiveness . (Acar, et al2017) discovered that SCO has an positive impact on the relationship between ERP practices and operational performance within the context of the manufacturing sector. In addition to (*Patel, Azadegan, &Ellram* , 2013) also they pointed out that structural SCO is only positively related to operational performance. Strategic SCO indirectly affects both operational and customer-focused performance through structural SCO and this mediation effect is strengthened at high levels of dynamism.

Structural SCO has become the most pivotal factor for manufacturers to become successful in operations, structural SCO at top management was critical to effective implementation of the company executives' strategic decisions manifested by SCO. Without implementation strategic decisions made by top management the people in the executive level would not have been properly executed or it will not make an impact on business interm of business alignment and reducing disruption (*Patel, Azadegan, &Ellram* , 2013). credibility it can be antecedents of cooperative behavior among the partners organizations and crucial elements to assure efficiency, productivity, effectiveness, and long-term relationships (Morgan &Hunt, 1994; Yurt, 2007). many author indicate for his positive effect as mediator (Min et al. 2007; Su and Yang ,2010); *Patel, Azadegan, &Ellram* , 2013; Acar, et al,2017)

7.1 Theoretical implications

Based on calls of address gaps in theory about Strategic and structural SCO, the aims of this study was to test a theory of SCO and it is essential to improve our understanding of these constructs of SCO and their influences on an operational adaptability , the study contribute to the body of knowledge , First, this study contributes to the literature by developing and empirically testing a model related to Strategic SCO, structural SCO and operational adaptiveness based on a sample of Sudanese manufacturing firms. Second The model includes mediating effect of structural SCO with three dimensions namely; Benevolence, cooperative norms. But after CFA

conducted two dimension were eliminated by the procedures of goodness and reliability, therefore only one dimension(Credibility), has been tested as mediator , Credibility is an organizational culture factor which is effected by the country and business culture as (Feng &Zhao, 2013) mentioned management cultures may influence organizational behaviors therefore the sudanese culture is different from another culture which the measurement was developed . this imply that the construct of structural SCO in Sudan is different from which has been in theory . Third. The study findings demonstrated that relationship between Top management support and operational adaptiveness is fully mediates by credibility, and the relationship between compatibility with operational adaptiveness also fully mediated by credibility, moreover, the effect of company ownership is negative in relationship from SCO to operational adaptiveness .

7.2 Managerial implications

From the perspective of industry practitioners The study supports the contention that SCO Strategic and Structural effect on operational adaptiveness , companies can improve its operational adaptiveness by strategic SCO through structural SCO, particularly credibility which is positively influence on operational adaptiveness Therefore companies managers need to build Trust with partners and collaborative organization culture so as to facilitate the partnership and join using of resources between partners (Child, 1981). culture is one of the factors that is essential in organizational initiatives and effectiveness Organizational culture was found to have an impact on organization efficiency and reliability (Wilkins &Ouchi, 1983) Further, this study provide to managers the specific behavior (credibility) needed in the relationship with partners , in order to facilitate the superior and adaptability of operation Second, the strategic SCO an antecedent factor for building internal culture (Structural SCO) to Achieving superior operational performance requires a close and collaborative relationship between a buyer and supplier. Thus firms with high structural SCO will gain high degree of operation adaptiveness . third, commitment show high significance contribution to operational adaptiveness in Sudanese manufacturing companies, which confirms that companies can achieve operational adaptiveness by display more commitment to the partners

7.3 Limitation and Future research

several limitations inherent in the present study. First, the study measured only one factor as dependent variable (operational adaptiveness). Other dependent factors could be used to better measure the business adaptiveness from holistic view, future research can develop another dimensions to measure business adaptiveness.

The second limitation the study was cross-sectional and the data collected by a survey designed to be responded by single respondent represent the organization based on organization unit of analysis this may represent the views of individuals within the organization single point of view sometimes effect on measurement errors and reliability (Phillips, 1981).future research should consider the issues of unit of analysis in addition Longitudinal data can be gathered to test the whether the relationship and impact change over time.

The third limitation This study discovered mediators effect of credibility on the relationship between Strategic SCO and operational adaptiveness, future research can identify potential mediator from the construct of cooperative culture therefor Qualitative study could be conducted to identify another factors.

References

- Abylaev, M., Pal, R., Torstensson, H. (2014), “Resilience challenges for textile enterprises in a transitional economy and regional trade perspective - a study of Kyrgyz conditions” ,*International Journal of Supply Chain and Operations Resilience*, Vol. 1, No. 1, pp.54-75.
- Acar, M. F., Zaim, S., Isik, M., & Calisir, F. (2017). Relationships Among ERP Practices, Supply Chain Orientation And Operational Performance: An Analysis Of Structural Equation Modeling. *Benchmarking: An International Journal*, 24(5). Doi:10.1108/BIJ-11-2015-0116.
- Ali E. Akgün, Halit Keskin, John C. Byrne And Özgün Ö. Ilhan (2013)Complex Adaptive System Mechanisms, Adaptive Management Practices, And Firm Product Innovativeness . *R&D Management* 44, 1, 2014
- Al-Shboul, M. A. D., Barber, K., Garza-Reyes, J. A., Kumar, V. and Abdi, R. (2017) The effect of supply chain management practices on supply chain and manufacturing firms’ performance. *Journal of Manufacturing Technology Management*. ISSN 1741-038X [In Press] Available from: <http://eprints.uwe.ac.uk/31913>
- Aranda, D.A. (2003), “Service operation strategy, flexibility and performance in engineering consulting firms”, *International Journal of Operation and Production Management*, Vol. 23 No. 11, pp. 1401-21.
- Arruda, A. G. S. (2014). *Estruturas De Governan, Ca Em Redes De Cooperativas Decrédito Sob A O Tica Da Teoria Dos Custos De Transa, Caõ: Um Estudo Comparativoentre Cooperativas Brasileiras E Canadenses* (Doctoral Thesis). São Caetanodo Sul: Universidade Municipal De São Caetano Do Sul.
- Ashenbaum, B., Maltz, A., Ellram, L., & Barratt, M. A. (2009). Organizational Alignment And Supply Chain Governance Structure: Introduction And Construct Validation. *The International Journal Of Logistics Management*, 20(2), 169-186. Doi: 10.1108/09574090910981279
- Autry, C.W. And Golicic, S.L. (2010), “Evaluating Buyer-Supplier Relationship Spiral: A Longitudinal Study”, *Journal Of Operations Management*, Vol. 28 No. 2, Pp. 87-100.
- Barney, J.(1991) Firm Resources And Sustained Competitive Advantage. *J. Manag.* 17, 99–120.
- Beugelsdijk, S., Koen, C., & Noorderhaven, N. (2009). A Dyadic Approach To The Impact Of Differences In rganizational Culture On Relationship Performance. *Industrial Marketing Management*, 38(3), 312-323.
- Biazzo, S. (2009). Flexibility, Structuration, And Simultaneity In New Product Development. *Journal Of Product Innovation Management*, 26(3), 336-353.
- Black, J. A., & Boal, K. B. (1994). Strategic Resources: Traits, Configurations And Paths To Sustainable Competitive Advantage. *Strategic Management Journal*, 15(S2), 131-148.
- Blos, M.F., Quaddus, M., Wee, H.W., Watanabe, K. (2009), “Supply chain risk management (SCRM): a case study on the automotive and electronic industries in Brazil”, *SupplyChain Management: An International Journal*, Vol. 14, No. 4, pp. 247-252.
- Braganza, A. And Nada, K.K. (2000), “Towards A Function And Process Orientation: Challenges For Business Leaders In The New Millennium”, *Strategic Change*, Vol. 9 No. 1, Pp. 45-53.
- Brock Smith, J.,&Barclay, D.W. (1997). The Effects Of Organizational Differences And Trust On The Effectiveness Of Selling Partner Relationships. *Journal Of Marketing*, 61(1), 3–21.

- Chang, S. (2007). The Impact Of Flexibility-Enhancing Human Resource Management Practices On Firm Adaptability: The Mediating Role Of Absorptive Capacity. *Hong Kong University Of Science And Technology*.
- Child J. (1997) Strategic Choice In The Analysis Of Action, Structure, Organizations And Environment: Retrospect And Prospect. *Organ Stud*;18(1):43–76.
- Child, J. (1972), “Organizational Structure, Environment, And Performance: The Role Of Strategic Choice”, *Sociology*, Vol. 6 No. 1, Pp. 1-22
- Child, J. (1981). Culture, Contingency And Capitalism In The Cross-National Study Of Organizations. *Research In Organizational Behavior*, 3, 303-356.
- Choi, T. Y., Dooley, K. J., & Rungtusanatham, M. (2001). Supply Networks And Complex Adaptive Systems: Control Versus Emergence. *Journal Of Operations Management*, 19, 351-366.
- Chow, W.S., Madu, C.N., Kuei, C.H., Lu, M.H., Lin, C., Tseng, H. (2008), “Supply chain management in the US and Taiwan: An empirical study”, *Omega*, Vol. 36, No. 5, pp.665-679.
- Clifford Defee, C., Esper, T., & Mollenkopf, D. (2009). Leveraging Closed-Loop Orientation And Leadership For Environmental Sustainability. *Supply Chain Management: An International Journal*, 14(2), 87-98.
- Cooper, M. C., Lambert, D. M., & Pagh, J. D. (1997). Supply Chain Management: More Than A New Name For Logistics. *The International Journal Of Logistics Management*, 8(1), 1-14.
- Day, G.S. (1994) The Capabilities Of Market-Driven Organizations. *J. Market*. 58, 37–52.
- Defee, P., & Stank, T. (2005). Applying The Strategy-Structure-Performance Paradigm To The Supply Chain Environment. *The International Journal Of Logistics Management*, 16(1), 28-50. <https://doi.org/10.1108/09574090510617349>.
- Demetrios, V., Nyuur, R. B., Brec'ic, R., & Simintiras, A. (2016). The Moderating Effect of Perceived Effectiveness Of SMEs' Marketing Function On The Network Ties—Strategic Adaptiveness Relationship. *Journal Of Small Business Management*, 00(00), 1-19. Doi:10.1111/Jsbm.12236
- Ellram, L. M., & Cooper, M. C. (1990). Supply Chain Management, Partnership, And The Shipper-Third Party Relationship. *The International Journal Of Logistics Management*, 1(2), 1-10.
- Elmuti, D., 2002. The Perceived Impact Of Supply Chain Management On Organizational Effectiveness. *Journal Of Supply Chain Management* 38 (3), 49–57.
- Eltantawy, R.A., L. Giunipero And G.L. Fox. 2009. “A Strategic Skill Based Model Of Supplier Integration And Its Effect On Supply Management Performance.” *Industrial Marketing Management* 38 (8): 925-936.
- Esper, T., Defee, C., & Mentzer, J. (2010). A Framework Of Supply Chain Orientation. *The International Journal Of Logistics Management*, 12(2), 161-179. Doi:DOI 10.1108/09574091011071906
- Fandel, G., & Stammen, M. (2004). A General Model For Extended Strategic Supply Chain Management With Emphasis On Product Life Cycles Including Development And Recycling. *Int. J. Production Economics*, 89, 293-308. Doi:10.1016/S0925-5273(03)00198-1
- Feng, T., & Zhao, G. (2014). Top Management Support, Inter-Organizational Relationships And External Involvement. *Industrial Management & Data Systems*, 114(4), 526-549.

- Floyd, S. W., P. J. Lane. 2000. Strategizing Throughout The Organization: Managing Role Conflict In Strategic Renewal. *Acad. Management Rev.* 25 154–177.
- Forman, H. (2014). Buying Centers And The Role Of Supply Chain Orientation On New Information Technology Satisfaction In The Automotive Industry. *Journal Of Marketing Theory And Practice*, 22(1), 41-52.
- Frazier, G. L., Spekman, R. E., and O’Neil, C. R. (1988). ‘Just-in-time exchange relationships in industrial markets’. *Journal of Marketing*, 52 (4), 52-67
- Ganesan, S. (1994). Determinants of Long-Term Orientation In Buyer-Seller Relationships. *The Journal of Marketing*, 1-19.
- Geoffrion, A.M. And Graves, G.W. (1974) Multi-Commodity Distribution System Design By Bender's Decomposition. *Management Science*, 20, 822-844.
- Gibbons, Patrick, Rosemary Kennealy And Geraldine Lavin (2003), Adaptability And Performance Effect Of Business Level Strategies: An Empirical Test, *Irish Marketing Review*, Vol. 16, P. 57.
- Gibson GB, Birkinshaw J(2004). The Antecedents, Consequences, And Mediating Role Of Organizational Ambidexterity. *Acad Manage J*;47(2):209–26.
- Gligor, D. M., & Holcomb, M. C. (2012). Understanding The Role Of Logistics Capabilities In Achieving Supply Chain Agility: A Systematic Literature Review. *Supply Chain Management: An International Journal*, 17(4), 438-453.
- Godfrey PC, Hill CWL. 1995. The Problem Of Unobservables In Strategic Management Research. *Strategic Management Journal* 16(7): 519–533
- Golicic, S.L. And Mentzer, J.T. (2006), “An Empirical Examination Of Relationship Magnitude”, *Journal Of Business Logistics*, Vol. 27 No. 1, Pp. 81-108.
- Grawe, S.J.; Chen, H.; Daugherty, P.J.(2009) The Relationship Between Strategic Orientation, Service Innovation, and performance. *Int. J. Phys. Distrib. Logist. Manag.* 39, 282–300.
- Griffin, A., Hauser, J.R., 1996. Integrating R&D And Marketing: A Review And Analysis Of The Literature. *Journal of Product Innovation Management* 13 (3), 191-215.
- Grunsven.V, L.M.J. & Hutchinson, F. (2016). Revisiting Industrial Dynamics In The SIJORI Cross-Border Region – The Electronics Industry Twenty Years On. In F. Hutchinson & T. Chong (Eds.), *The SIJORI Cross-Border Region - Transnational Politics, Economics, And Culture* (Pp. 370-392) (23 P.)
- Gummesson, E. (1994), “Broadening And Specifying Relationship Marketing”, *Asia – Australia Marketing Journal*, Vol. 2(1), Pp. 31-43.
- Hagedoorn, J., & Cloudt, M. (2003). Measuring Innovative Performance: Is There An Advantage In Using Multiple Indicators? *Research Policy*, 32(8), 1365-1379 .
[Http://Www.Sciencedirect.Com/Science/Article /Pii /S0048-7333\(02\)00137-3](http://www.sciencedirect.com/science/article/pii/S0048-7333(02)00137-3)
- Herbig, P., & Milewicz, J. (1995). The Relationship Of Reputation And Credibility To Brand Success. *Journal of Consumer Marketing*, 12(4), 5-10.
- [Holweg.M](https://doi.org/10.1108/01443570510605063), (2005) "The Three Dimensions Of Responsiveness", *International Journal Of Operations & Production Management*, Vol. 25 Issue: 7, Pp.603-622,
[Https://Doi.Org/10.1108/01443570510605063](https://doi.org/10.1108/01443570510605063)
- Hong, P., Kwon, H. B., & Jungbae Roh, J. (2009). Implementation Of Strategic Green Orientation In Supply Chain: An Empirical Study Of Manufacturing Firms. *European Journal Of Innovation Management*, 12(4), 512-532.
- Hsu, C. C., Tan, K. C., & Mohamad, S. H. (2016). Strategic Orientations, Sustainable Supply Chain Initiatives, And Reverse Logistics Empirical Evidence From An Emerging Market.

- International Journal Of Operations & Production Management*, 36(1), 86-110. Doi:DOI 10.1108/IJOPM-06-2014-0252
- Hult, G. T. M., Ketchen Jr, D. J., Adams, G. L., & Mena, J. A. (2008). Supply Chain Orientation And Balanced Scorecard Performance. *Journal Of Managerial Issues*, 20(4): 526-544.
- Hult, G. T. M., Ketchen, D. J., & Arrfelt, M. (2007). Strategic Supply Chain Management: Improving Performance Through A Culture Of Competitiveness And Knowledge Development. *Strategic Management Journal*, 28(10), 1035-1052.
- Hult, G.T.M., Ketchen, D., Nichols, E., 2002. An Examination Of Cultural Competitiveness And Order Fulfillment Cycle Time Within Supply Chains. *Academy Of Management Journal* 45 (3), 577–586.
- Janowicz-Panjaitan, M., & Noorderhaven, N. G. (2009). Trust, Calculation, and Interorganizational Learning Of Tacit Knowledge: An Organizational Roles Perspective. *Organization Studies*, 30(10), 1021-1044.
- Jüttner, U., & Christopher, M. (2013). The Role Of Marketing In Creating A Supply Chain Orientation Within The Firm. *International Journal Of Logistics Research And Applications*, 16(2), 99-113.
- Lambert, D. M., & Cooper, M. C. (2000). Issues In Supply Chain Management. *Industrial Marketing Management*, 29(1), 65-83.
- Lengnick-Hall, M.L., C.A. Lengnick-Hall, And Ringsbee, C.M. (2013), “Strategic Human Resource Management And Supply Chain Orientation”, *Human Resource Management Review*, Vol. 23 No. 4, Pp. 366-377.
- Li, Y., Su, Z., Liuiu, Y., & Li, M. (2011). Fast Adaptation, Strategic Flexibility And Entrepreneurial Roles. *Chinese Management Studies* , 5(3), 256-271. Doi:DOI 10.1108/17506141111163354
- Lintukangas, K., Kähkönen, A. K., & Matti Virolainen, V. (2013). The Antecedents Of Supply Strategy. *European Business Review*, 25(5), 396-410.
- Liu, S., & Chang, Y. (2017). Manufacturers’ Closed-Loop Orientation For Green Supply Chain Management. *Sustainability* , 9(222), 1-29. Doi: Doi:10.3390/Su9020222
- Lynch, J. (2015). Configuring The Strategic Orientation Of Manufacturing Firms For Economic Sustainability A Study Of The UK Touring Caravan Industry (Unpublished Doctoral Dissertation). CARDIFF UNIVERSITY.
- M. Gligor, D. (2014). The Role Of Demand Management In Achieving Supply Chain Agility. *Supply Chain Management: An International Journal*, 19(5/6), 577-591.
- Malhotra, M. K., & Mackelprang, A. W. (2012). Are Internal Manufacturing And External Supply Chain Flexibilities Complementary Capabilities?. *Journal Of Operations Management*, 30(3), 180-200
- Mayer, R. C., Davis, J. H., & Schoorman, F. D. (1995). An Integrative Model Of Organizational Trust. *Academy Of Management Review*, 20,709–734
- Meeus, M. T. H., & Oerlemans, L. A. G. (2000). Firm Behaviour And Innovative Performance: An Empirical Exploration Of The Selection-Adaptation Debate. *Research Policy: A Journal Devoted To Research Policy, Research Management And Planning*, 29(1), 41-58.
- Mentzer, J. T., Dewitt, W., Keebler, J. S., Min, S., Nix, N. W., Smith, C. D., & Zacharia, Z. G. (2001). Defining Supply Chain Management. *Journal Of Business Logistics*, 22(2), 1-25.

- Min, S., & Mentzer, J. T. (2004). Developing And Measuring Supply Chain Management Concepts. *Journal Of Business Logistics*, 25(1), 63-99.
- Min, S., Mentzer, J. T., & Ladd, R. T. (2007). Market Orientation In Supply Chain Management. *Journal Of The Academy Of Marketing Science*, 35(4), 507–522.
- Miocevic, D., & Crnjak-Karanovic, B. (2012). The Export Market Orientation-Export Performance Relationship In Emerging Markets: The Case Of Croatian SME Exporters. *International Journal Of Business And Emerging Markets*, 4(2), 107-122.
- Mohsen, K., & Eng, T. (2016). The Antecedents Of Cross-Functional Coordination And Their Implications For Marketing Adaptiveness. *Journal Of Business Research*, Xxx, 1-10. [Ttp://Dx.Doi.Org/10.1016/J.Jbusres.2016.05.007](http://dx.doi.org/10.1016/j.jbusres.2016.05.007)
- Morgan, R. M., & Hunt, S. D. (1994). The Commitment-Trust Theory Of Relationship Marketing. *Journal Of Marketing*, 58(7), 20–38.
- Morita, M., Machuca, J. A., Flynn, E., & Ríos, J. (2014). Aligning Product Characteristics And The Supply Chainprocess – A Normative Perspective. *International Journal Of Production Economics*, ■ (■■■■) ■■■ – ■■. Retrieved From [Http://Dx.Doi.Org/10.1016/J.Ijpe.2014.09.024](http://dx.doi.org/10.1016/j.ijpe.2014.09.024)
- Christopher, M. (2000) “The agile supply chain: Competing in volatile markets,” *Industrial Marketing Management*, vol. 29, no. 1, pp. 37- 44,.
- Newbert, S. L. (2008). Value, Rareness, Competitive Advantage, And Performance: A Conceptual-Level Empirical Investigation Of The Resource-Based View Of The Firm. *Strategic Management Journal* , 29 (7),745-768.
- Noble, C.H.; Sinha, R.K.; Kumar, A. (2002)Market Orientation And Alternative Strategic Orientations: A Longitudinal Assessment Of Performance Implications. *J. Market.*, 66, 25–39. [[Crossref](#)]
- Oliva, R., & Watson, N. (2011). Cross-functional alignment in supply chain planning: A case study of sales and operations planning. *Journal of Operations Management*, 29(5), 434-448.
- Omar, A., Davis-Sramek, B., Fugate, B. S., & Mentzer, J. T. (2012). Exploring The Complex Social Processes Of Organizational Change: Supply Chain Orientation From A Manager’s Perspective. *Journal Of Business Logistics*, 33(1), 4-19.
- Osterwalder, A., & Pigneur, Y. (2010). *Business Model Generation: A Handbook For Visionaries, Game Changers, And Challengers*.
- Papalex, M., Bamford, D., Dehe, B. (2016), “A case study of kanban implementation within the pharmaceutical supply chain”, *International Journal of Logistics Research and Applications: A Leading Journal of Supply Chain Management*, Vol. 19, No. 4, pp.239-255
- Patel, P. C., Terjesen, S., & Li, D. (2012). Enhancing effects of manufacturing flexibility through operational absorptive capacity and operational ambidexterity. *Journal of Operations Management*, 30(3), 201-220.
- Patel, P., Azadegan, A., & Ellram, L. M. (2013). The Effects Of Strategic And Structural Supply Chain Orientation On Operational And Customer-Focused Performance. *Decision Sciences Journal*, 44(4), 713-753.
- Phillips, L. 1981. “Assessing Measurement Error In Key Informant Reports: A Methodological Note On Organizational Analysis In Marketing.” *Journal Of Marketing Research* 18 (4): 395-415
- Pramatari, K. (2007). Collaborative Supply Chain Practices And Evolving Technological Approaches. *Supply Chain Management: An International Journal*, 12(3), 210-220.

- Rahimić, Z., & Kožo, A. (2009). Adaptability Of B&H Companies To Market Environment Changes With Aim Of Building Competitive Advantages. Fifth International Conference of the School of Economics and Business in Sarajevo (ICES2010) 14-15.
- Reisel, W. D., Chia, S. L., And Maloles, C. M. 2005. "Job Insecurity Spillover To Key Account Management: Negative Effects Of Performance, Effectiveness, Adaptiveness, And Esprit De Corps". *Journal Of Business And Psychology*, 19, 483- 503.
- Robinson, J. L. (2014). *Organizational Identification And Supply Chain Orientation: Examining A Supply Chain Integration Paradox* (Unpublished Doctoral Dissertation). Georgia Southern University. Doi:Http://Digital commons .Georgiasouthern.Edu/Etd/1074
- Routroy, S. (2009). Evaluation Of Supply Chain Strategies: A Case Study. *International Journal Of Business Performance And Supply Chain Modelling*, 1(4), 290-306.
- Shamdasani, P. N., & Sheth, J. N. (1994). An Experimental Approach To Investigating Satisfaction And Continuity In Marketing. *European Journal Of Marketing*,29(4), 6-23.
- Sheth, J. N., Sharma, A., & Iyer, G. R. (2009). Why Integrating Purchasing With Marketing Is Both Inevitable And Beneficial. *Industrial Marketing Management*, 38(8), 865-871.
- Siguaw, J. A., Simpson, P. M., And Baker, T. L. (1998). Effects Of Supplier Market Orientation In Distributor Market Orientation And The Channel Relationship: The Distributor Perspective. *Journal Of Marketing*, 62, (3), 99-111.
- Simons, T. (2002). *Behavioral Integrity: The Perceived Alignment Between Managers' Words And Deeds As A Research Focus* Cornell University, School Of Hospitality Administration Site: Http://Scholarship.Sha.Cornell.Edu/Articles/720
- Sin L.Y.M., Tse A.C.B., Yim F.H.K. (2005), CRM: Conceptualization And Scale Development. *European Journal Of Marketing*, 39(11/12), 1264-1290.
- Sin, L. Y. M, Tse, A. C. B., Yau, O. H. M., Chow, R. P. M., Lee, J. S. Y., And Lau, L. B. Y (2005) "Relationship Marketing Orientation: Scale Development And Cross-Cultural Validation", *Journal Of Business Research*, Vol. 58(2), Pp.185-194.
- Sindhav, B. G., & Lusch, R. F. (2008). An Identification-Based Model Of Supplier-Retailer Communication. *Journal Of Marketing Channels*, 15(4), 281-314.
- Sirmon, D., Hitt, M., & Ireland, R. (2009). Managing Firm Resources In Dynamic Environments To Create Value: Looking Inside The Black Box. *Academy Of Management Review*, 32(1), 273- 292oi:10.5465/AMR.2007.23466005
- Slone, R., Mentzer, J.T. And Dittmann, J.P. (2007), "Are You The Weakest Link In Your Supply Chain? *Harvard Business Review* , September, Pp. 116-27.
- Somech, A., Desivilya, H. S., & Lidogoster, H. (2009). Team Conflict Management And Team Effectiveness: The Effects Of Task Interdependence And Team Identification. *Journal Of Organizational Behavior*, 30(3), 359-378.
- Spekman, R.E. And R. Carraway. 2006. "Making The Transition To Collaborative Buyer-Seller Relationships: An Emerging Framework." *Industrial Marketing Management* 35 (1): 10-19.
- Stank, T.P., Davis, B.R. And Fugate, B.S. (2005), "A Strategic Framework For Supply Chain Oriented Logistics", *Journal Of Business Logistics*, Vol. 26 No. 2, Pp. 27-45.
- Stecca, J. P. (2014). *Estratégias Genéricas Na Gestão De Pessoas E Comprometo-Timento Organizacional: Um Estudo Em Sociedades Cooperativas De Crédito*(Doctoral Thesis). São Paulo: FEA/USP.

- Storey, J, Emberson, C., Godsell, J And Harrison, A. (2006), ‘Supply Chain Management: Theory, Practice And Future Challenges’, *International Journal Of Operations & Production Management*, 26(7), 754-74
- Su, Y.F., And Yang, C. (2010), “A Structural Equation Model For Analyzing The Impact Of ERP On SCM”, *Expert Systems With Applications*, Vol. 37 No.1, Pp. 456-469.
- Tallon, Paul P(2007) Inside The Adaptive Enterprise: An Information Technology Capabilities Perspective On Business Process Agility. Center For Research On Information Technology And Organizations University Of California, Irvine. Pp 1-35
- Terawatanavong, C., Whitwell, G. J., & Widing, R. E. (2007). Buyer Satisfaction With Relational Exchange Across The Relationship Lifecycle. *European Journal Of Marketing*, 7/8(41): 915-938
- Tillquist , J. (2002). Strategic Connectivity In Extended Enterprise NETWORKS . *Journal Of Electronic Commerce Research*, 3(2), 77-85.
- Tu, Q., Vonderembse, M.A., Ragu-Nathan, T.S., Sharkey, T.W., 2006. Absorptive capacity:enhancing the assimilation of time-based manufacturing practices. *Journal of Operations Management* 24 (5), 692–710
- Tuomine, M., Rajal, A., & Ller, K. (2004). How Does Adaptability Drive Firm Innovativeness? *Journal Of Business Research*, 57, 495-506. Doi:10.1016/S0148-2963(02)00316-8
- Vakratsas, D., & Ma, Z. (2009). Firm Adaptiveness And Performance Heterogeneity: The Case Of Sales–Advertising Dynamics In An Evolving Product Market. *Journal Of Evolutionary Economics*, 19(1), 21.
- Verdu-Jover, A.J., Llorens-Montes, F.J. and Garcia-Morales, V.J. (2004), “The concept of fit in services flexibility research: an empirical approach”, *International Journal of Service Industry Management*, Vol. 15 No. 5, pp. 499- 514.
- Vicari S., 2006, *L’innovazione E L’Innovation Management*”, In Grando, A., Vicari, S., Verona, G., *Tecnologia, Innovazione, Operations*, Egea, Milano.
- Vonderembse MA, Uppal M, Huang SH, Dismukes JP (2006) Designing Supply Chains: Towards theory Deveopment. *Int J Prod Econ* 100:2, 223–238
- Walker, H.; Phillips, W. (2006) Sustainable Procurement: Emerging Issues. *Int. J. Procure. Manag.* 2, 41–61.
- Wang, C. L., & Ahmed, P. K. (2004). The development and validation of the organisational innovativeness construct using confirmatory factor analysis. *European journal of innovation management*, 7(4), 303-313.
- Wilkins, A. L., & Ouchi, W. G. (1983). Efficient Cultures: Exploring The Relationship Between Culture And Organizational Performance. *Administrative Science Quarterly*, 28, 468-481.
- Wilson, D. T., (1995) “An Integrated Model Of Buyer-Seller Relationships”, *Journal Of The Academy Of Marketing Science*, Vol. 23(4), Pp.335-345
- Wonglorsaichon , P. (2002). *The Study Of Relationship Between Trust, Relationship Commitment, Relationship Satisfaction And Long-Term Orientation In The Thai Automobile Tire Industry* (Unpublished Doctoral Dissertation). Nova Southeastern Unibersity.
- Woo, S. A. (2010). *Seaport Supply Chain Integration And Orientation, And Their Impact On Performance* (Unpublished Doctoral Dissertation). Cardiff University.
- Yurt,O., (2007). The Impact Of Services Supply Chain Orientation On Perceived Industrial Service Quality: An Empirical Analysis. Unpublished Phd Thesis, Izmir Economics University.

- Zahra, S. A., & Pearce, J. A. (1990). Research Evidence On The Miles-Snow Typology. *Journal Of Management*, 16(4), 751-768. DOI: [10.1177/014920639001600407](https://doi.org/10.1177/014920639001600407)
- Zamboni.S(2011) Supply Chain Collaboration And Open Innovation: Toward A New Framework For Network Dynamic Innovation Capabilities (Unpublished Doctoral Dissertation). Università Degli Studi Di Bergamo
- Zhao, X., B. Huo, B.B. Flynn And J.H.Y. Yeung. 2008. “The Impact Of Power And Relationship Commitment On The Integration Between Manufacturers And Customers In A Supply Chain.” *Journal Of Operations Management* 26 (3): 368-388.
- Zhou KZ And Li CB(2007). How Does Strategic Orientation Matter In Chinese Firms. *Asia Pac J Manag*;24(4):447–66.