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I. Introduction

Competition intensified in the 1990s, and markets became global, To remain competitive, organizations need to search for new market opportunities, and exploit existing efficiencies within their operations(Wu et al., 2017). This has resulted in challenges associated with getting the product at the right time, right place, and at the lowest cost. Organizations are beginning to realize that this is not enough to improve efficiency within the organization, but the entire supply chain can bring some competitiveness to the organization. Globalization and varied cultural and human behavior in supply chain networks make it almost impossible to evaluate information and manage risk in this intricate network (Al-Hawary et al., 2017).

Supply chain management has become one of the man perquisites of the competitive advantage in companies (Samadi and Kassou, 2016). It is the building blocks to enhance organizational performance and overall success (Morash, 2001). Interest in the supply chain concept is increasing by academics, consultants and corporate managers at the local and international levels (Tan et al., 2002; Feldmann, 2003). Organizations are beginning to recognize that supply chain management is a key element in building sustainable TQM practices for their products and services in a highly competitive market (Jones, 1998). Supply chain management has become an increasingly important factor in economics and business circles globally (Namusonge, 2017). Effective supply chain management can provide a major source of competitive advantage (Narasalagi & Shivashankar, 2015).

Strong competitive pressures have forced organizations to provide quality products and services as a way to attract and retain customers. Thus, organizations have implemented TQM to improve their market position. The role of TQM is widely recognized as the determinant of the success and survival of both industrial and service organizations in the contemporary competitive environment. Organizations implement TQM to gain a competitive advantage in terms of quality, productivity, customer satisfaction, and profitability (Shafiq et al., 2019).

Total Quality Management (TQM) is a source of competitive advantage (Douglas and Judge, 2001). Most studies support a positive relationship between TQM and performance (O'Neill et al., 2016). There have been many rationales behind the application of the philosophy of total quality capabilities, to improve the quality level, whether through the delivery of goods and services to the customer or in the quality of operations within the organization. It should be noted that the quality of service delivery is the result of the quality of the internal processes, so the focus is not only on the delivery of goods and services to the customer on the basis of quality specifications but must be subject to processes and activities within the organization on the basis of quality standards.

Total quality management (TQM) and supply chain management (SCM) have been identified as the two most important strategies for manufacturing, services and have become a prerequisite for success in the global market(Talib et al., 2011). The concept of supply chain capabilities is one of the modern management concepts in the Arab environment, so this calls for drawing the attention of Arab managers in general and Qatar in particular to the need to know the relationship between the total quality management capabilities and supply chain capabilities, so this study came to determine the impact of total quality capabilities on Supply chain capabilities in Industrial companies listed in Qatar Stock Exchange.

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II. Theoretical Framework and Hypotheses Development

a) Supply chain capabilities

Supply chain management is a contemporary issue of great importance in business and academic areas; it still lacks some systematization in its terminology (Sabry, 2015). supply chain management is a key and strategic factor in the achievement of organizational goals and ultimately improving performance (Bagher, 2018). The supply chain depends on smart supply chain managers and how they deal with people, relationships and contemporary issues (Angappa et al., 2017). Kumar and Nambirajan (2013) note that supply chain management is a complex subject, which is an important factor in the success or failure of any manufacturing company. Lee (2004) argued that successful companies require supply chains that can rapidly respond to short-term changes in demand (agility) and adjust to long-term market changes by restructuring the supply chain (adaptability) (as cited by Aslam et al., 2018).

The concept of a supply chain is a relatively new concept. Interest in this concept began in the early eighties of the last century, because of the benefits that contributed to improving the production efficiency of the goods or services, delivery of products promptly and satisfying the customer needs. Fantazy et al., (2010) defined the concept of a supply chain as "an integrated process, starting with planning and control of materials, logistics, services, and the flow of information from suppliers to manufacturers or service providers and then to the end consumer, supply chain representing the most significant changes in the chain capabilities of the companies".

Supply chain management may be considered as a way to enhance competitive performance by integrating the internal activities of the organization and connecting them with the external operations of suppliers, customers, and other channel members (Tutuncu & Kucukusta, 2008). SCM focuses on the integration and coordination of business processes and strategy alignment throughout the supply chain for the aim of satisfying end consumers in the supply chain (Namusonge, 2017). Supply chain management refers to the information management and material flow in the course of multiple chain activities: transportation, purchasing, etc. (Al-Hawary & Abu-Laimon, 2013). AL-Rifai (2006) Defined SCM as " a set of facilities, functions and activities that are included in the production and delivery of the product and service, where the sequence begins with the main suppliers of raw materials and extends in all ways to the end consumer".

Supply chain capabilities are the abilities to perform or achieve certain actions or outcomes through a set of controllable and measurable features, functions, processes, or services (Namusonge, 2017). Supply Chain Management Practice is a necessary model for organizational change to achieve TQM practices. Supply chains are examples of complex multi-stage systems with time and causal interrelations, operating through multiple inputs, production and services in the framework of utilizing fixed and variable resources, with the aim of achieving a competitive advantage in quality, process control, and consumer orientation, The capabilities may entail aspects such as procurement capability, inventory management capabilities, administrative capabilities, logistics capabilities, integrated logistics management services capabilities, distribution and warehousing capabilities and transport capabilities(Morash, 2001). The supply chains capabilities in this study represented by the supplier partnership ability, adaptive ability, and information sharing ability.

Supplier partnership ability: Vanichchinchai et al. (2014) define partnership as a function of knowledge sharing, working for improvised benefits, developing long term relationship, product development and shared goals among trade partners. The supplier partnership ability is defined as the long-term relationship between the organization and its suppliers, to upgrade the strategic and operational capabilities of the parties, and achieve continued benefits, through enhanced joint coordination in many areas such as operations, research, development and production (Hutt and Spen, 2001). The supplier partnership is beneficial to partners in planning and problem solving, as well as achieving co-benefits in other strategic areas such as technology, products and markets (Chen and Paulraj, 2004).

Supplier partnership ability also helps organizations to increase their efficiency with a limited number of suppliers selected solely on a consumer-oriented basis, and helps to deal with the supplier starting from the product design process, and enables the organization to provide less costly design alternatives and select the best components and technologies to help them to evaluate designs (Tan et al., 2002). Based on the above, organizations should build excellent relationships with their suppliers based on cooperation, mutual commitment, trust and information sharing (Mentzer et al., 2001). A strategic partnership with the supplier from the viewpoint of resource theory is the ability of the company to coordinate and integrate resources, which improve operational effectiveness and performance among partners (Bordonaba and Cambra, 2009; Wu et al., 2006).

Adaptive ability: Adaptive Capability is to have the maturity and capacity to adjust the Capabilities of management, Operation, and Strategy by sensing, preparing and responding to environmental change. Adaptation capability is strongly linked to strategic actions which aim towards the reconfiguration of the

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organizational resources, competences and routines to meet the demands and opportunities within a changing business environment (Teece, 2012). Adaptive capability represents the firm's ability to share and transfer knowledge: "it is not resident in any single individual but depends on the links across a mosaic of individual capabilities." (DiMaggio et al., 1983). adaptive capabilities are the primary contributors to performance outcomes (Biedenbach & Müller, 2012). According to Oktemgil & Greenley (1997), a high adaptive capability is associated with high costs and internal inefficiency, despite the potential benefits to be gained from being adaptive.

Information sharing ability: Supply chain entities require significant trust for relying on one single organisation or broker for storing their sensitive and valuable information (Abeyratne and Monfared2016). Information sharing serves as a key to supply chain integration (Li & Lin, 2006). Information sharing is the degree of which information and data are collected, gathered and analysed will serve the purpose of improving the TQM performance and implementation (Sadikoglu et al., 2014). Information sharing refers to the extent of communication and dissemination of information between supply chain partners regarding market, product and customer information. And access to private data between partners to help them track products and orders across different supply chain processes. The information must be accurate, timely and appropriate (Lalonde, 1998). Information sharing with customers is an important component of supply chain abilities. Wu et al. (2006) considered information exchange as one of the supply chain capacity variables. Simatupang and Sridharan (2005) believe that information sharing enables organizations to make the best decisions and do business in an atmosphere of clarity and ensures that information is available in the right place and time.

b) Quality Management practices

Total Quality Management is a management strategy (Valmohammadi and Roshanzamir, 2015; Georgiev and Ohtaki, 2016). Total quality management (TQM) is a widely used management philosophy across many sectors (Shafiq et al., 2019). TQM may be considered as a change effort that aims at continuous improvements, which is one of the most important evolutions of management practices (Haffar et al., 2019). According to Shweta et al., (2018) TQM is both a philosophy and a series of guiding justifications that are the basis of a ceaselessly improving organization (Shweta, Ruchi & Monika, 2018). The success of Total Quality Management (TQM) improves employee participation, communication, quality, customer satisfaction, increase productivity, reduce costs, and improved competitive advantage.

Evans and Lindsay (2008) believe that 'TQM is the integration of all functions and processes within an organisation to achieve continuous improvement of the quality of goods and services'. Total Quality Management (TQM) can be defined as the commitment of all employees to continuously improve business processes to meet customer needs and requirements (Al-Hawary & Al-Smeran, 2017). Sadikoglu and Zehir (2010) defined TQM as 'a systematic quality improvement approach for firm-wide management to improve performance in terms of quality, productivity, customer satisfaction, and profitability'. Soares et al., (2017) assert that TQM is a set of practices that accentuates continuous improvement, continual measuring of outcomes, fulfilling customer demands, collective problem-solving approach, competitive benchmarking, reducing work schedule, long term planning and strong relationship with suppliers.

Based on the above, TQM can be defined as a management philosophy that aims to continuously improve all functions of the organization to produce and deliver goods or services in a way that is better suited to customer needs or requirements, less costly, faster, safer, and easier to compare with competitors with the participation of all employees under the leadership of senior management. Although organizations use different terms to refer to TQM capabilities, they agree on the most common TQM capabilities. The researcher believes that it is necessary to focus on these capabilities of customer focus, employee engagement, and process management because it brings together most of the literature and previous research.

Customer focus: Customers are more and more demanding in terms of product customisation, price and level of service (Christopher2016). Organizational performance depends on customers satisfaction (Evans, 2017). Customer satisfaction is at the heart of every supply chain strategy (Anand & Grover, 2015). Customer focus and satisfaction are the top priorities of the TQM approach, and some of them treat the customer as the most important asset for any organization. Dean & Bowen (1994) considered that customer focus represents all activities related to direct contact with customers and to gather information about their expectations. Customer relationships are defined as the extent to which an organization focuses on understanding customer needs. Customer orientation is a significant element of organization success because it is a starting point of any quality initiative (Pambreni et al., 2019). Organizations success depends on the achievement of the customers' desires and expectations (Ahmad et al., 2019).

Customer satisfaction is linked to the success and excellence of the organization, and this satisfaction can continue for a long period as long as the organization meets the customer requirements and

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expectations. The most successful TQM programs are those that start with quality from the customer's perspective. Deming has defined quality as not only meeting the customer's needs but expecting their future expectations (Besterfield et al., 2005). Customer focus practice is the basis for every quality activity in the organization's attempt to improve quality. The customer is considered as the starting point and end of many organizations because of his relationship with the organization. Chiles and Choi (2000) emphasized the use of customer data in quality control processes. Customer data shows current trends in the market, and therefore the final image of the product fits the requirements of the customer.

Employee Participation: Employees are the most important pillars of success (Evans and Lindsay, 2008). Activating the role of employees and informing them of their importance through their participation, and delegation of authority is one of the most important activities that should be focused on. Employee participation enhances employee performance and success by providing him with opportunities to learn and acquire new skills (Pambreni et al., 2019). The organization's success in improving performance depends on the motivation and skills of its workforce. This practise focuses on individuals who contribute to quality improvement within the organization. Mele & Colurcio (2006) noted that internal customers (employees) should be satisfied because they are key sources that directly affect the organizational strategy. Employees need to know how their job and position fit performance improvement (Al-Hawary, 2015). The increasing of employees knowledge, skills and capabilities, the reason for the organization success (Evans, 2017). So employee success increasingly depends on acquiring new learning opportunities, and applying new skills; hence the practice of managing people focuses on the organization's efforts to build and sustain a learning-based work environment through training, development, communication and safety.

Process management: The management process is interwoven between three methods: quality improvement, quality assurance, and quality control (Crosby, 1979). Process management is concerned with a systematic and structured approach to control, manage and optimize the business processes design so that productivity, quality and innovativeness can be attained (Kafetzopoulos et al., 2015). Quality improvement requires an understanding of the organization as a system consisting of elements that interact with each other. Anderson et al. (1994) see that Process management as a socio-technical practice, in which the organization is considered as an integrated socially and technologically work system linked and consistent with quality objectives such as productivity and costs. Processes in the the philosophy of total quality capabilities as a set of sub-tasks interconnected and integrated and interacting with each other in harmony, in accordance with the method of accuracy and quality so as to achieve the common goal of achieving the highest quality to reach customer satisfaction with the highest level of satisfaction and happiness, this means that the focus on activities and processes should be of great importance as they are considered an effective indicator in measuring the quality level. Consequently, it is necessary to focus more on the smooth operation than on the results of goods and services, considering that operations are the main entry to establish the outputs, if the foundation is solid and excellent, resulting in excellent ends without errors.

c) *Total quality management capabilities and Supply chain capabilities*

Supply Chain Management (SCM) and Quality Management (QM) have been embedded in the operations of most organizations for decades (Vanichchinchai, 2019). TQM and SCM represent alternate approaches to improving the effectiveness and efficiency of an organization's operations function (Kannan & Tan, 2005). Researchers from across the world with different models explored TQM and SCM as the most important determinants of firm performance (Basheer et al., 2019). More researchers are interested in the relationship between SCM and QM such as Zhang et al. (2011), Talib et al. (2011), Foster (2008). TQM and SCM act as important tools to achieve competitive advantage together with strengthening organizational competitiveness (Vanichchinchai and Igel, 2009) Supply Chain management practices (SCMP) and total quality management practices (TQMP) have become the most important strategies in achieving sustainable competitive advantage (Basheer et al., 2019). Fernandes et al., (2017) assert that the synergies of QM and SCM can promote the integration of the approaches which will promote a set of significant organizational benefits. According to Siddiqui et al., (2012) SCM practices are positively correlated with TQM Practices. SCM relies on TQM to effectively integrate suppliers, manufacturers, distributors and customers, TQM is significantly positively related to supply chain learning (Loke et al., 2012). Supply chain management and Total quality management both are management philosophies to achieve customer satisfaction and organizational performance (Vanichchinchai, 2014; Vanichchinchai & Igel, 2011). TQM has a significant direct positive impact on SCM (Vanichchinchai & Igel, 2011). Based on the above literature, the study hypotheses can be formulated as:

H1: Total quality management capabilities have a significantly positive effect on building Supply chain capabilities.

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III. Conceptual Model

The conceptual research model is summarized in Figure 1. This conceptual model explores the total quality management constructs and supply chain capability dimensions. The model depicts *Supply chain capabilities* that consist of three dimensions (*Supplier partnership ability*, *Adaptive ability, and Information sharing ability*) and the constructs of *Total quality capabilities* consists of three dimensions (*Customer focus, Employee Participation and Process management*).

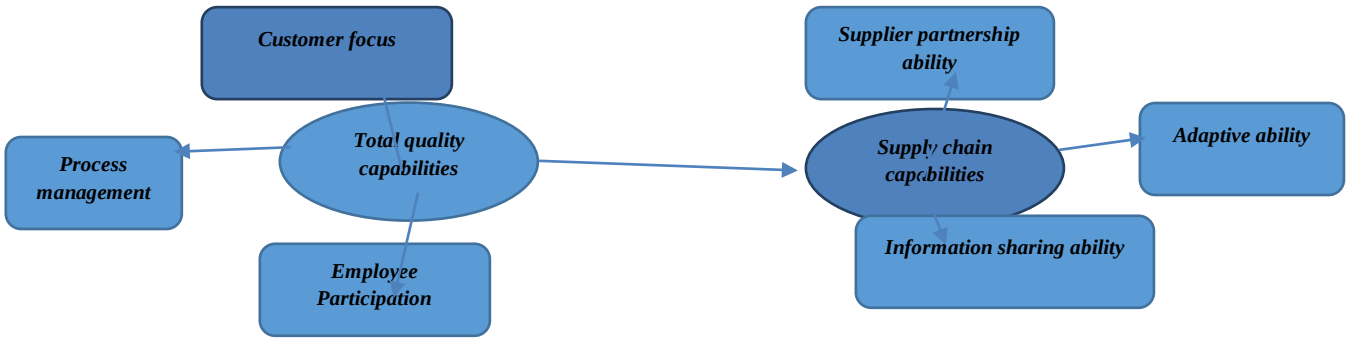


Figure 1: Conceptual frame work

IV. Methodology

a) Population

The population of the study consisted managers from six industrial companies listed in Qatar stock exchange (QAMC, Qatar Industrial Manufacturing Company, Qatar National Cement Company, Salam International Investment Limited Company, Medicare Group, Qatar Fuel Company). The level of analysis was the General managers, Planning managers, Purchasing manager, and Supply chain managers, and the head of departments who had adequate knowledge about their firms' practices related to quality management and supply chain management. Mail surveys were sent to the whole population of 235 managers.

Females make (140 respondents) 59.57 % of the employee on the other hand; male respondents represented (95 respondents) 40.42 % of the survey population. The largest group of respondents (90 respondents) 38.29 %were aged 30 – less than 40. The next largest group (80 respondents) 34.04% were aged 40 – less than 50. The next largest group of respondents (40 respondent) 17.02% above 50 years and smaller groups of respondents were aged less than 30 (25 respondents) 10.63 %.

Concerning educational level, people with the only diploma make (30 respondent) 12.76 % of the employee. The bachelor degrees Holders were the largest group of respondents make (150 respondents) (63.68%). Finally, holders of post-graduate degrees make (55 respondents) 23.54% of the employee.

Table 1: (Population Characteristics)

1- Gender	Frequency	Percent (%)
Male	95	40.43 %
Female	140	59.57 %
2- Age		
below 30 yrs.	25	10.63 %.
From 30 yrs. – to 40 yrs.	90	38.29 %
From 40 yrs. – to 50 yrs.	80	34.04%
Above 50	40	17.02%
3- Education Level		
Diploma Degree	30	12.76 %
Bachelor Degree	150	63.68%
Post Graduate studies	55	23.54%

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b) Measurements of variables

The study variables were developed by using measurement scales adopted from prior studies. Modifications were made to suit the population of the study. The three constructs of TQM included consist of (Customer focus, Employee Participation and Process management) were adapted from (Vanichchinchai, 2019; Kannan & Tan, 2005; Basheer et al., 2019; Zhang et al., 2011). Supply chain capabilities that consist of three dimensions (Supplier partnership ability, Adaptive ability, and Information sharing ability) was adopted from (Vanichchinchai and Igel, 2009; Fernandes et al., 2017; Basheer et al., 2019; Loke et al., 2012). Measurements were anchored using Five-point Likert scale, where "5" refers to "strongly agree", "4" represents "agree", "3" symbolises "neutral", "2" stands for "disagree" and "1" describes "strongly disagree".

V. Statistical Analysis

a) Reliability test

According to Joppe (2000), reliability is the extent to which results are consistent over time and functions as the best representation of the total population under study. A research instrument can be considered to be reliable if the result of a study can be reproduced under a similar methodology; that is the ability of an instrument to be replicable and repeatable, and the stability of measurement over time (Kirk and Miller, 1986; Golafshani, 2003). Therefore, the reliability scores of the constructs of the research instrument are as shown in Table 2.

Table 2: Cronbach Alpha results

Dimension	Number of Items	Cronbach Alpha (Items number)
Supply chain capabilities	20	.84
Supplier partnership ability	6	.90
Adaptive ability	7	.84
Information sharing ability	7	.77
Total quality capabilities	15	.81
Customer focus	5	.73
Employee Participation	5	.81
Process management	5	.88

b) Exploratory Factor analysis

Exploratory factor analysis for factor structure dimensionality. We started with exploratory factor analysis (EFA) to validate the items and the proposed three-dimensionality of Total quality capabilities scale *(Supplier partnership ability, Adaptive ability, and Information sharing ability).* Factor analysis using varimax rotation and principal axis factoring was conducted on 35 scale items. As a rule of thumb, items that do not have significant factor loadings (<0.5), those with significant loadings on two or more factors, and those with low communalities (<0.5) were examined for dropping. The EFA run resulted in the grouping of 15 items under three factors that had an eigenvalue greater than one, confirming Total quality capabilities as a three-dimensional construct. All items had recorded significant loading and communality values (>.5) in the respective dimensions same thing the Supply chain capabilities confirming with three dimensions with 20 items. Hence, no item was deleted. All the study dimensions possess construct validity and also conform to a reliability criterion of above 0.50-factor loading value. Regarding the Supply chain capabilities after we run EFA we reach to the following result, the Supply chain capabilities contract have 3 factors (*Supplier partnership ability*, 6 items, *Adaptive ability*, 7 items and *Information sharing ability*, 7 items).

c) Second order Confirmatory Factor Analysis

In this study, the validation procedures for the instrument had followed the method of confirmatory factor analysis (CFA) adopted by Byrne, 2010 and Kline, 2011. The testing of the measurement model, constructs are tested using the second-order confirmatory factor model to assess the construct validity using the method of maximum likelihood. The results consistently supported the factor structure for two constructs. The confirmatory factor analysis technique is based on the comparison of the variance-covariance matrix obtained from the sample to the one obtained from the model. The technique is fairly sensitive to sample size, and it is suggested to have several cases per free parameter (Bollen, 1989).

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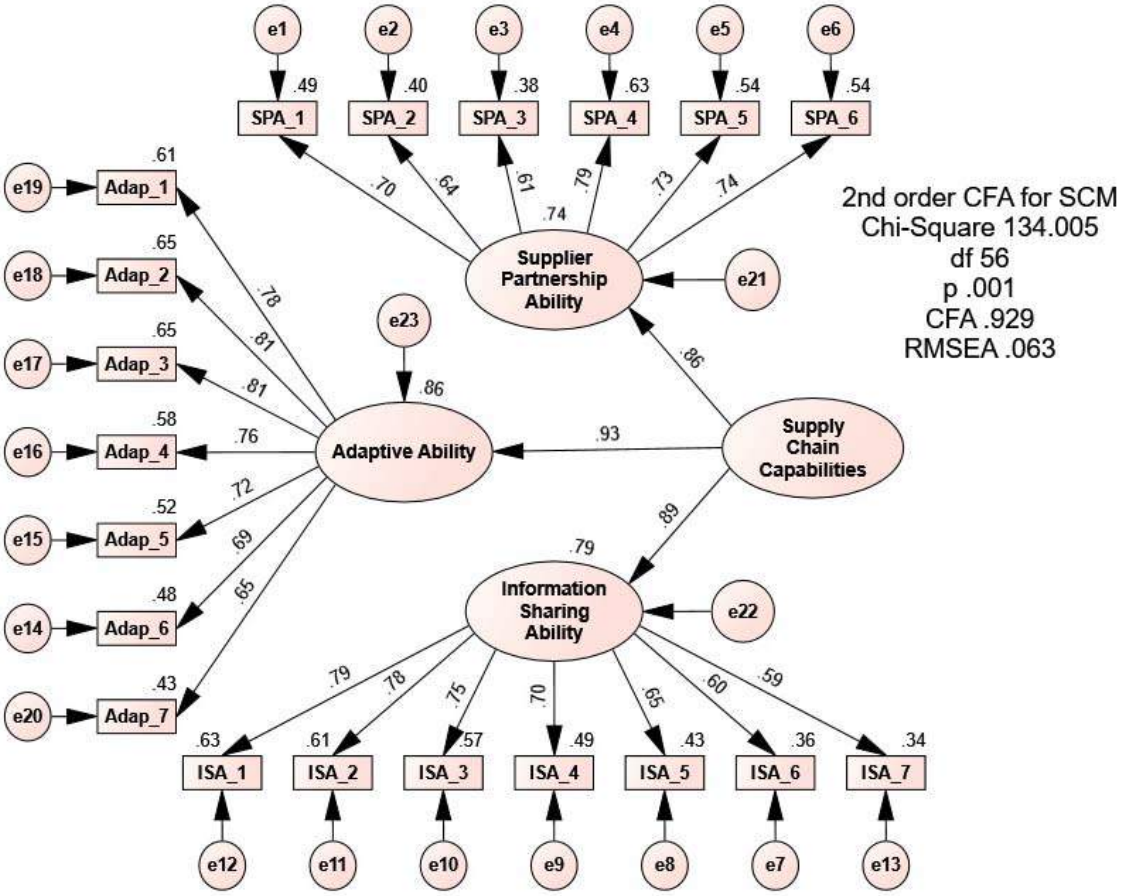


Figure 1: The second-order CFA Supply chain capability (SCC)

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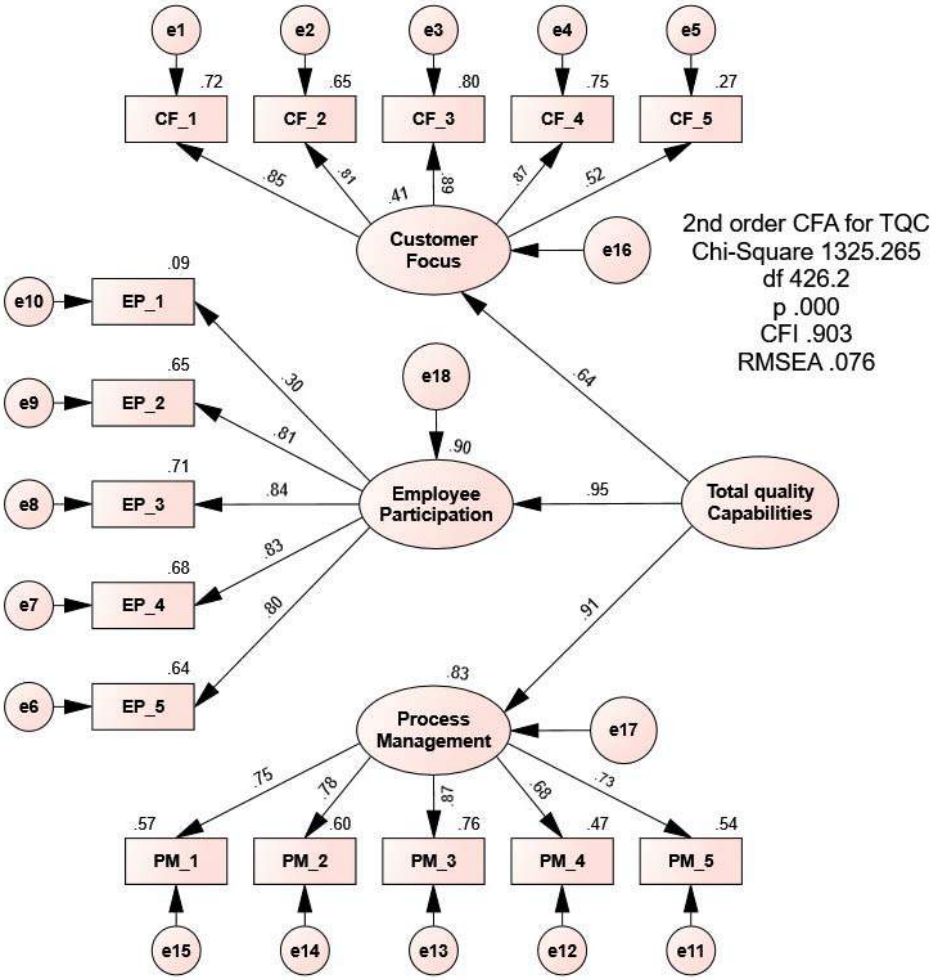


Figure 2: The second-order CFA TQC

Table 2: Summary of Fit Statistic Indexes for the CFA Models

Models	X2	df	P	Cmindf	RMSEA	CFI	P/Estimates
SCC	134.005	56	.001	2.3929	0.063	0.937	(.59-.93
TQM	1325.265	426.2	.000	3.109	0.078	0.919	(.52-.95)

N.B: All loadings were statistically significant at an alpha level of p = .05

d) Final TQM – SCC Model

The final step in the analysis was to test the path model, as shown in Figure 3. The hypothesized structural equation model was tested using the AMOS software version 20. For each of the Total Quality Management (TQM) and supply chain capability (SCC) constructs, the indicator variables were the respective dimensions (factors) as determined by the confirmatory factor analyses. Model fit determines the degree to which the structural equation model fits the sample data. The commonly used model-fit criteria are the chi-square (x2), goodness of fit index (GFI), adjusted goodness of fit index (AGFI), comparative fit index (CFI), and also the Root Mean Square Error of Approximation (RMSEA) (Schumacker and Lomax, 1996).

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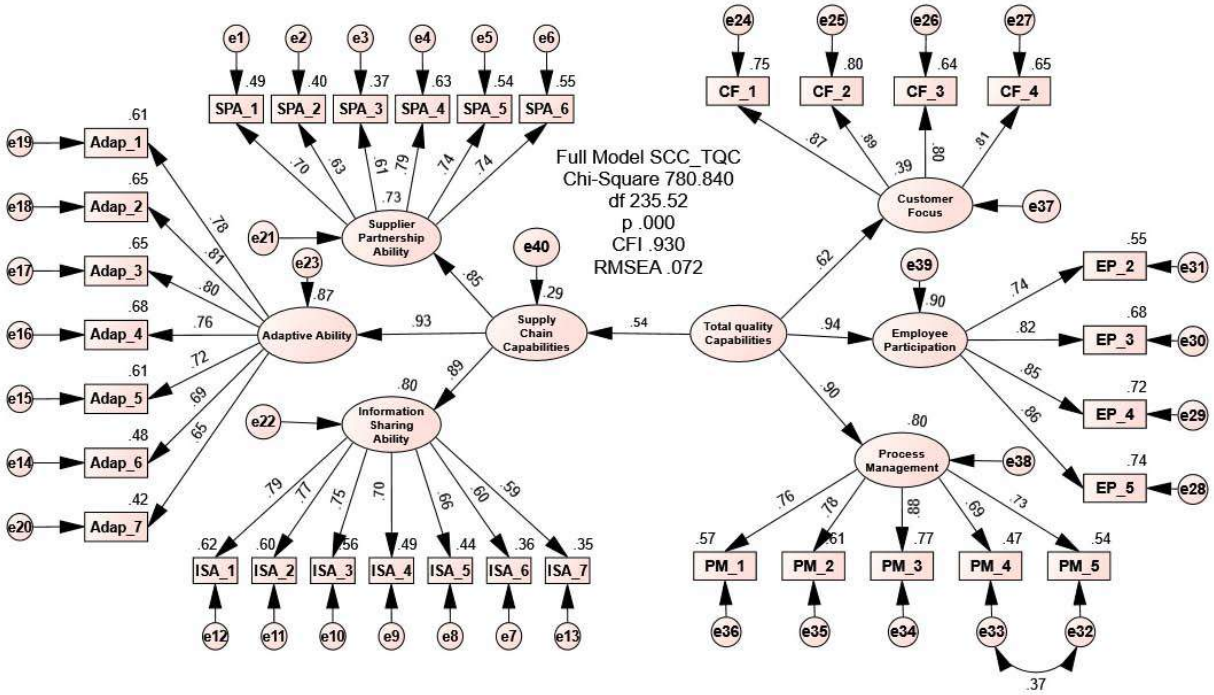


Figure 3: Full Structure Equation Modeling (TQM – SCC)

Table 3: Summary of Fit Statistic Indexes for the Full Structure Equation Modeling

Models	X2	df	P	Cmindf	RMSEA	CFI	P/Estimates
TQM --- SCC	780. 840	235.52	.000	3.3153	0.072	0.930	(.59-.94)

The goodness of fit information contained in Table 3 supports the adequacy of the model, as they obtained statistics conform to the recommended values for a satisfactory fit of a model to data. The norm-chi-square (Cmin/df) is within the acceptable below of 3 (Bollen, 1989; Browne and Cudeck, 1993), the RMSEA < .08, and the CFI & TLI > .9 (Browne and Cudeck, 1993; Byrne, 2010).

The researcher drop EM 1 and CO5 from the final model because the parameter loading below 50 and affecting the model fitting, but all the other parameter loadings of the model are practically reasonable and statistically important, implying loading coefficients that range between .59 to .94 – far greater than the recommended threshold of 0.5 (Byrne, 2010), and without any offending estimates. Inspection of estimate outputs further reveals that the hypothesized relationships among the constructs are all statistically significant. Specifically, the relationships among the main two constructs (total quality management and supply chain capability) are considered significant, as indicated by the critical ratio (CR) values of each of the inter-variable relationships (Byrne, 2010) greater than 1.96 (the absolute value), at an alpha level of .05. Also revealed in the model is the evidence of direct relationships among the constructs of the model. The analysis shows that: total quality management direct effect on supply chain capability = 0.54. All effect estimates are statistically significant and logically reasonable, and their values are of an acceptable standard for evidence of direct and indirect effects (.2) (Byrne, 2010).

VI. Discussion

TQM and SCM represent alternate approaches to improving the effectiveness and efficiency of an organization's operations function. Researchers from across the world with different models explored TQM and SCM as the most important determinants of firm performance. The main goal of this research is to examine the effect of total quality capabilities on supply chain capabilities. This study has been applied on industrial companies listed in Qatar Stock Exchange (QAMC, Qatar Industrial Manufacturing Company, Qatar National Cement Company, Salam International Investment Limited Company, Medicare Group, Qatar Fuel Company), to evaluate the level of total quality capabilities and, to measure the level of supply chain capabilities.

The effect estimates result was (%54), which means that the dimensions of total quality capabilities have explained of (%54) from the variation of supply chain capabilities, which is also, illustrated the extent to

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which the total quality capabilities have the potential to make a change in the level of supply chain capabilities in industrial companies listed in Qatar Stock Exchange. Another result could be concluded here; that there are other factors with a rate of (%46) were affecting supply chain capabilities did not mention in this study. After using multiple regression analysis and through results, it was found that there was a statistically significant effect of total quality capabilities on supply chain capabilities, this result is consistent with other studies' findings such as the study of Vanichchinchai & Igel (2011), the reached that TQM has a significant direct positive impact on SCM. Fernandes et al., (2017) assert that the synergies of QM and SCM can promote the integration of the approaches which will promote a set of significant organizational benefits. A study of Siddiqui et al., (2012), they referred that SCM practices are positively correlated with TQM Practices, and Loke et al., (2012), they pointed that SCM relies on TQM to effectively integrate suppliers, manufacturers, distributors and customers, and concluded that TQM is significantly positively related to supply chain learning

VII. Managerial Implications and Direction for Future Research

Supply Chain Management (SCM) and Quality Management (QM) have been embedded in the operations of most organizations for decades (Vanichchinchai, 2019). TQM and SCM represent alternate approaches to improving the effectiveness and efficiency of an organisation's operations function (Kannan & Tan, 2005). This research has the potential to help Managers and decision-makers of industrial companies in Qatar, to solve arising problems relating to manufacturing activities in Qatar, especially new establishing companies. The results of the study found a statistically significant effect of total quality capabilities on supply chain capabilities; therefore, researchers pointed out the number of recommendations for top management and decision-makers of industrial companies in Qatar. This study has some key managerial implications. Companies should Pay attention to operations systems because of their role in arranging production equipment to deal with changes in customer orders, in addition to giving more investment in electronic and digital transport and supply systems because these systems are important in quickly meeting customers' special orders. Emphasize the need for the ability of suppliers to deal with the change in the production volume and product mix. Finally, the involvement of major suppliers in the development of new products because of their great importance.

There are some limitations of this research that lead to ways for future research. First, This study only focused on quality management and Supply chain capabilities. Future studies should consider multiple factors to have a comprehensive study. Second, the study is limited to the industrial companies; the results of the study may differ in the case of other sectors. Third, we only focused on the Qatari listed companies, so the findings may not apply to other countries. Forth, this study used three dimensions for total quality management; the future study may include more dimensions like continuous improvement. Fifth, the current study focused on Qatar. Future research should establish a comparison with the findings of relevant studies in developing and developed countries. Finally, the study examined the effect of total quality management on supply chain capabilities, a future study may examine the effect of other factors on supply chain capabilities.

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