

Supplychain Innovation Effect on Perceived Organizational Performance in Industrial Manufacturing

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Abstract: Current study is focus on the effect of supply chain innovation and competitive advantage on perceived organizational performance in Iran. In the current study the conceptual model is developed. The main objective of current study is to propose a conceptual framework for testing the link between supply chain innovation and perceived organizational performance that recognizes the mediating effect of competitive advantage. A total of 5 dimensions of supply chain innovation were determined to have significant and positive direct relationship with perceived organizational performance. Additionally, competitive advantage was found to have the mediation effect on the direct relationship.

Key words: Supply chain innovation • Perceived organizational performance • competitive advantage • Industrial manufacturing.

INTRODUCTION

Today, the largest share of Gross Domestic Product (GDP) in developed countries is accounted by the industrial manufacturing. Above and beyond, the major employment opportunities in developed and developing countries are also largely contributed by industrial manufacturing [1]. In Iran, the industrial has been the main source of GDP, which contributed to 58% of GDP in 2010 and expanding by 6.8% per annum [2]. It is very apparent that industrial is beginning to gain more importance than other sectors towards Iran economy. Under the Tenth Iran Plan, a recurring theme across National Key Economic Areas (NKEAs) in the context of specialization is the focus on quality and strengthening the value chain. The emphasis on quality as a strategy is reflected in terms of international accreditation of industrial manufacturing providers [3].

Industrial manufacturing have a potential to contribute further towards Iran economy. Therefore, it is important to look into the determinants that will improve industrial manufacturing performance. Of the various

determinants, supply chain innovation has been viewed as the vital determinant to improve industrial manufacturing performance. The supply chain innovation are viewed to be related to supply chain responsiveness which will increase supply chain competitive advantage and then lead to perceived organizational performance [4]. The effective supply chain innovation will reduce costs, boost revenues, increase customer satisfaction and also improve service delivery [5].

Although there was a study revealed that Iran manufacturing and service organizations do not have a significant difference in supply chain innovation [6, 7], the unique characteristics of service which is different from goods warrant for emphasis to distinguish supply chain from the generic supply chain [8].

To achieve corporate strategic objectives, mission and values, organization needs to improve on its perceived organizational performance [9]. Perceived organizational performance usually involves tasks that establish organizational goals, track progress to achieve goals and make adjustments to hit those goals. It is an integral part of managing an organization. The possibility

of proactively surfacing the performance gaps will mitigate risk that may impact achievement of the defined goals. Past literatures tend to focus on perceived organizational performance extensively in manufacturing industry. The measures of perceived organizational performance usually include financial performance, product sales performance and shareholder return. Business firms may use profits, sales, market share, productivity, debt ratios and stock prices as the measurements [10]. There are other measures focus on product quality, competitive position and customer service [11]. The measures used in industrial manufacturing must truly capture the relevance and essence of the industrial manufacturing perceived organizational performance [12]. According to [13], the studies on industrial manufacturing organization between 1990 and 2007 focus generally on the aspects of financing, staffing and service delivery. Some specific measures in terms of cost recovery, mortality and morbidity rates, board-certified physicians and occupancy rates can be taken into account in the industrial manufacturing performance [14].

Literature Review: In recent years, the issue of competitive advantage in companies has specially been considered. The consideration of research literature shows: [15] when were considering the effect of supply chain innovation on competitive advantage and organizational functions, they found that supply chain innovation consisted of strategic supplier partnership, customer relationship, information sharing level, information sharing quality and internal lean has direct relationship to competitive advantage.

[16] found that there is a positive relationship among strategic supplier partnership customer relationship, information system and competitive in their emphasis on supply chain dynamic nature. [17] chain classified the evaluation of supply chain innovation function into quality and quantity groups and found that there is a positive relation ship among in formation sharing, strategic supplier and customer relationship and competitive advantage.

[18] considered competitive advantage in productive companies and emphasized that there is a positive relationship among customer relationship, strategic supplier and producer partnership and competitive advantage. [19] used BSC- AHP109 integration For the evaluation of supply chain innovation and emphasized that customer relationship and internal lean have positive

effect on competitive advantage. Model and hypotheses of research according to studies have been done, research conceptual model is:

Supply Chain Innovation (SCI): It is the coordination of local activities of companies and organizations to server as an opportunity and profit for customers. Supply chain innovation has been defined as a set of activities undertaken in an organization to promote effective innovation of its supply chain. In this research, [12] assert that the variables are strategic supplier partnership, customer relationship, information sharing level, information sharing quality and internal lean. Each one is defined as follow:

Strategic Supplier Partnership (SSP) This term is defined as a long- term relationship between organization and supplier, it means that in supply chain innovation, producers allow supplier to take place in planning, purposing and developing product and help them improving their product quality as well as solve their problems [20]. [21] highlighted that strategic supplier partnership, continuous structure partnership, selection of supplier on the basis of partnership criteria, co-operation for product improvement, continuous improvement planning partnership, related purposeful partnership, related planning partnership, product development partnership and problem- solving partnership are measured.

Customer Relationship: This term consists of a set of ways in which are used on the purpose of customer complaint innovation, long- term customer relationship and customer satisfaction. [21] indicate that chain members have interaction with the customer in order to validate, take responsibility and make customers' expectations as well as measure satisfaction level of customers. Comprises the entire array of are employed for the purpose of managing customer complaints, building long-term relationships with customers and improving customer satisfaction. Customer relationship management is an important component of supply chain innovation [22]. Consider customer relationship management as an important component of supply chain innovation. Committed relationships are the most sustainable advantage because of their inherent barriers to competition. The growth of mass customization and personalized service is leading to an era in which relationship management with customers is becoming

crucial for corporate survival [23] . Close customer relationship allows an organization to differentiate its product from competitors, sustain customer loyalty and dramatically extend the value it provides to its customers. [21] highlighted that this diminution is measured in accordance with structural Support, consultation, responsibility, satisfaction and expectations as well as facilitation related to customers.

Level of Information Sharing: It refers to company ability in sharing knowledge and information with supply chain members efficiently. [24] indicate that this level has a close relationship with efficiency and responsibility. Information sharing has two aspects: quantity and quality. Both aspects are important for the of supply chain innovation and have been treated as independent constructs in the past supply chain innovation studies. Level of information sharing refers to the extent to which critical and proprietary information is communicated to one's supply chain partner. Shared information can vary from strategic to tactical in nature and from information about logistics activities to general market and customer information [25] . Many researchers have suggested that the key to the seamless supply chain is making available undistorted and up-to-date marketing data at every node within the supply chain. By taking the data available and sharing it with other parties within the supply chain, information can be used as a source of competitive advantage sharing of information as one of five building blocks that characterize a solid supply chain relationship. [26] assert that this dimension is measured in accordance with information structures of changing requirements, information effective business issues, information of changes and events, the amount of knowledge sharing and information exchange among chain members.

Quality of Information Sharing: Includes such aspects as the accuracy, timeliness, adequacy and credibility of information exchanged. While information sharing is important, the significance of its impact on supply chain innovation depends on what information is shared, when and how it is shared and with whom. [27] assert that information shared among chain members must be valid and update. They must be exchanged carefully and on time. This dimension is measured in accordance with the structures including valid, on time, careful, enough and reliable.

Internal Lean Practices: [28] assert that it refers to the reduction of waste materials, cost, additional time, ... in accordance with structures including the reduction of operating time, continuation of quality improvement planning and the reduction of delayed- action.

Competitive Advantage: Competitive advantage is the extent to which an organization is able to create a defensible position over its competitors. It comprises capabilities that allow an organization to differentiate itself from its competitors and is an outcome of critical management decisions. The empirical literature has been quite consistent in identifying price/cost, quality, delivery and flexibility as important competitive capabilities. It is factor that an organization can make a competitive position against its rivals. [29] assert that it allows an organization to distinguish itself from its rivals In addition; recent studies have included time-based competition as an important competitive priority. This variable is measured in accordance with structures including quality, cost, product modernization, time, flexibility [30] and delivery assurance [12] .

Perceived Organizational Performance: Perceived organizational performance refers to how well an organization meets its financial goals and market criteria [31, 32] . In general, perceived organizational performance can be measured from both financial and non-financial criteria [33] . The measures of financial goals include profit, return on investment, sales growth, business performance and organization effectiveness [31] . On the other hand, the measures of non-financial criteria are innovation performance and market share [34] , quality improvement, innovativeness and resource planning [35] . Perceived organizational performance is also being studied from the perspective of supply chain innovation and perceived organizational performance which includes increased sales, organization-wide coordination and supply chain integration [36, 37] . Perceived organizational performance dimensions may also include innovation and R&D performance [38] .

Many empirical studies have examined the relationship between supply chain innovation (SCI) and perceived organizational performance [39, 40] . The relevant items adapted to measure perceived organizational performance includes higher sales, higher accuracy in costing and improved coordination between departments, improved coordination with suppliers and

improved coordination with customers [24]. Some other measures that are related to organizational financial performance may include return on investment, market share and profit margin on sales, growth of return on investment, growth of sales and growth of market share to measure perceived organizational performance [41]. [28] use measures such as lead time, inventory turnover, product return, sales level, cost reduction and meeting customers' requirements to measure the operational performance.

Our interest for this study is an aggregate assessment of perceived organizational performance that is relevant to industrial manufacturing sector. The primary service measures of industrial manufacturing are based on quality of industrial manufacturing delivery, cost, promptness, safety, effective and efficient diagnosis and treatment, reduced process/procedure times, internal customer satisfaction, Total Quality Management methodology implementation, technology and innovation, patient relationship management, supplier relationship management, patient satisfaction, speed of recovery, ability to provide efficient service [14]. The measures are finally streamlined to key performance outcome measures such as reliability, responsiveness, assets, cost, revenue, customer satisfaction, sustainability and safety [42]. This study will adopt the measures from [43] which are reliability, responsiveness, assets, cost, revenue, customer satisfaction, sustainability and safety. It is important to look into the supply chain innovation aspects and identify areas in which they can improve industrial manufacturing organizations.

Supply Chain Innovation and Perceived Organizational Performance: Supply chain innovation and efficiency has been found to be positively related to perceived organizational performance. Besides, customer value creation such as efficient data management, reduction in medical error and speedy processing of patient care were also found to have positive impact on perceived organizational performance [44]. Kim, [45] stated that supply chain innovation should shift to integrative in order to value its performance effectiveness. Empirical evidence was provided to show how supply chain innovation could potentially enhance organization's competitive capabilities such as cost leadership, customer service and product differentiation. [24] identified that supply chain innovation have significant direct positive impact on small and medium enterprises' performance.

[23,35] found supply chain innovation such as leadership, IT adoption; customer orientation and training have significant impact on perceived organizational performance. [45] supported the view with results and indicated that supply chain innovation such as quality management and supplier relationship management improve perceived organizational performance. Effective SCI improve organization's market performance and financial performance [24].

Model and Research Hypotheses: According to studies, conceptual model is the following:



According to Presented Model, Research Hypotheses Are as Follow:

Hypothesis:

- H 1:** There is a relationship between strategic supplier partnership and competitive advantage.
- H 2:** There is a relationship between customer relationship and competitive advantage.
- H 3:** There is a relationship between information sharing level and competitive advantage.
- H 4:** There is a relationship between information sharing quality and competitive advantage.
- H 5:** There is a relationship between internal lean and competitive advantage.
- H 6:** There is a relationship between competitive advantage and perceived organizational performance.

MATERIALS AND METHODS

This study plans to collect the data by means of self-administered questionnaires which will be distributed to the industrial manufacturing owners from various industries operating in Peninsular Iran. This study is a cross-sectional type of enquiry in which data will be collected at one point of time in an uncontrolled setting.

The measuring instrument is a structured questionnaire. Questionnaires will be designed in two languages which are English and Malay. The participants will be invited to respond to the questionnaire in the language that they are most comfortable with and that they commonly use in their daily work life. Prior to conducting a pilot study and a quantitative data collection, preliminary interviews will be carried out among ten respondents to obtain a fresh view of their experiences in practicing perceived organizational performance.

CONCLUSIONS

In the current study, the main objective is examining the relationship between supply chain innovation and perceived organizational performance mediating by competitive advantage. In Iran, the industrial manufacturing represents a key component of the fast-growing industry due to the rising demand of products. Therefore, it is important for industrial manufacturing to find way to improve its perceived organizational performance in order to deliver a quality service to the customers. A review of literature has demonstrated the critical role of supply chain innovation in influencing the industrial manufacturing performance. Hence, a conceptual model has been postulated linking a comprehensive SCI as possible determinants for industrial manufacturing performance. Additionally, since the competitive advantage may intervene the relationship between supply chain innovation and perceived organizational performance, this variable has been posited as a mediator.

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