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THE EFFECT OF THE AGILE SUPPLY CHAIN ON THE ACHIVEMENT OF COMPETITIVE ADVANTAGE AN ANALYTICAL STUDY AT NOOR ALKAFEEL COMPANY FOR PUPLIC INVESTMENTS

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ABSTRACT

The purpose of this research was to identify the impact of the agile supply chain on the competitive advantage; the study adopted the agile supply chain with its dimensions (sharing information, information technology capabilities and organizational cooperation). The study was conducted at Noor Alkafeel Company for Public Investments and the questionnaire was accepted for the purpose of obtaining the required data, as the opinions of (30) individuals from the company were analyzed. The simple correlation coefficient was used to calculate the differences between the variables and the T-test to determine the importance of the simple regression equation. The study drew a variety of findings, the most important of which is that the organization faces a problem of trust when dealing with its partners in the supply chain. The organization does not have information technology expertise based on the industry requirements under which it works. The company must also be mindful that the design and implementation of its IT technologies and methods must be compatible with those of its supply chain partners.

INTRODUCTION

Building on the traditional form of supply chain management activities (SCM), that means the depletion of resources, customer loss and market share. The tremendous changes in the world of business as a result of the advancement of manufacturing and communications technologies, intense competition, rapid market shifts and growing consumer perception in terms of the environment has had an influence on SCM and its activities. The logistics involves many companies searching for new approaches and strategies that

meet the demands of the times. Therefore businesses need to build resilience to survive and continue to succeed in the supply chain. Agility is one of the leading supply chain management concerns (Gligor and Holcomb, 2012) and the capacity of the company to change supply chain strategies and operations quickly.

In 2013, 75 percent of companies had problems in meeting customer needs as a result of events which had an impact on delivery chain performance, 21 percent of which had lost over one million euros, from equipment disruptions and unexpected IT disruptions in addition to risk and natural disasters (Business Continuity Installation). The resilience of the supply chain thus reduces the impact of a defect by identifying successful methods that help the supply chain to recover and return to its original state or better (Jüttner and Maklan, 2011). A relatively recent topic in business management and supply chain literature is the agile supply chain (Braunscheidel and Suresh, 2009; Gligor et al., 2013). Several researchers note that versatility is radically different in the supply chain. Agility is the ability to cope with consumer demand changes in size and complexity, quick responses to market disruptions and fast retrofitting and waste disposal where possible, while versatility is both internal and operational (Swafond et al. 2008). Then exclude all behaviors with non-value added. Previous studies have shown that SCAG promotes creativity, versatility and speed, thereby reducing production costs (Lin and Tseng, 2016; Tseng et al., 2008). The graceful function of the supply chain is not just a mechanism to react rapidly on the market; it also allows companies to work together to integrate activities, co-ordinate and collaborate to achieve full value for customers (Tseng, 2010, 2011; Tseng et al., 2015). The paper tried to answer a number of questions that embodied its problem, namely (What is the extent of the company's understanding of the agile supply chain? Is there a relationship between the agile supply chain and the competitive advantage? Is there an effect of the agile supply chain in achieving a competitive advantage?). The aim of this paper is to build and test an experimental system to discover how to achieve competitive advantage in an agile supply chain through information sharing, IT capabilities, and operational cooperation in the supply chain, and how these variables or factors help to improve the competitive advantages of companies. This study reached a number of conclusions, most notably, the company faces a trust problem, which in turn affects the nature of the information shared between the company and supply chain partners, The company does not have IT capabilities based on industry standards in which it operates. As for the most prominent recommendations, they are the benefits of exchanging information between the company and its supply chain partners and addressing the issue of mistrust should be demonstrated by knowing the essence of the information currently circulating, and by recognizing the key factors that hinder information sharing and working to solve. This problem at various levels of the supply chain. Information technology leads to strengthening the consumer response and provides new market possibilities and competitive advantages. To take advantage of the implementation of the information technology in the agile supply chain, the organization must also understand that its IT systems

and processes must be planned and applied in conjunction with those of its supply chain partners.

EXAMINATION OF LITERATURE

The concept of supply chain and agile supply chain

The supply chain principle and agile supply chain Due to the increasingly unpredictable market conditions and the competition, a lean and agile supply chain has become a key factor for staying in competitive markets. In order to convert the supply chain into finished goods, the supply chain is a network of suppliers, manufacturers, warehouse companies, retailers and distributors who coordinate their plans and operations. The materials and goods available to consumers must be supplied at the right location at the right time and at the lowest possible costs in sufficient amounts and in the highest condition. Product development, procurement, production, physical distribution, customer relationship management and measurements of performance are among the most important supply chain operations (Olson, 2012).

Therefore, the achievement of agility in the supply chain is a tool to increase a competitive advantage by decreasing costs, integrates operational processes, keeps customer-based metrics, accelerates customer needs, improves access to information and transparency, promotes environmental design compatibility with supply chain partners and enhances production flexibility.

The definition of agility in the supply chain is seen by researchers as a large and multi-dimensional structure. Agility of the supply chain is the capacity to have a strategic advantage by turning the unpredictable market challenges and potential and real chaos into competitive opportunities by incorporating the requisite assets, expertise and relationships with speed and surprise. (Bottani, 2009, Khan and Pillania, 2008) explore and exploit business prospects on the one side. This includes the opportunity, in a timely and cost efficient manner, to deliver new goods and services (Sarker et al . , 2009), which means that the agile supply chain enables businesses to minimize their inventory, react efficiently to changes in the market, address consumer demands quickly and collaborate effectively with suppliers and partners. (Gligor and coll 2013).

Sharing of information

Data sharing in the supply chain can be seen as a 'comprehensive data, information and knowledge exchange in supply chain' (Kembro and Naslund 2014, p. 181). It is important that confidential business information be exchanged with business partners when end users are fully happy and Total supply chain costs reduced (Ellinger et al . 2012; Yu et al. 2013) and the stock costs reduced by Hosoda et al . 2008. Data sharing covers a variety of risks, including real time, two-way data exchange, as well as preferences and plannings with supply chain partners on various aspects of operational management (material transfer, order entry, shopping and billing). And

participant receives information that is unreformed, reliable and up-to - date and is helpful in timely production , inventory and logistics decisions (Bargshady et al . 2016);

The Information Sharing implementation hurdles in ASC are numerous, including the possibility of the leakage of information (Huang et al . , 2016; Kong et al., 2013), lack of trust (Shnaiderman and Ouardighi, 2014), IT resources (Gunasekaran et al., 2017; Kembro et al., 2014), a wide range of technology (Ramanathan, 2014), different kinds of information (Rached et al., 2016; Yu et al., 2010) and a variety of methods (ramanathan, 2014). Such obstacles, along with the decentralization and globalisation, make it difficult to meet full IS / SC members

Capabilities of information technology

Companies need IT technologies and methods to allow their internal business functions to be integrated. This will assist businesses to become effective, increase their profitability and quickly respond to customer requirements. SCM systems are logistics management, shipping, strategic planning, stockpiling, procurement, development, manufacturer and customer management information systems (Turek, 2013). To order to use the IT framework on SCM, companies must also understand that the design and implementation of their IT systems and approaches must be consistent with the design and implementation of their supply chain partners and the level of integration between partners must be synchronised. If not, it is isolated or faces 'gaps' in the vision of the supply chain (Jeyaraj and Seth 2010). The global rivalry has driven companies to the limits of enhancing internal processes (e.g. process control and inventory management) and thus the incorporation of suppliers and clients into the overall supply chain operations is needed (Prajogo and Olhager 2012). Therefore IT can improve real-time integration of the supply chain by allowing knowledge sharing with supply chain partners (Li et al., 2009). Some organizations made large investments in IT with few advantages, while others spent similar sums with great success. The problem facing the company may not be IT itself, but how companies can use and integrate their IT with their strategic partners (Kim & Lee 2010),

Operational cooperation

Manufacturing companies are under pressure to supply quality products in the shortest possible time, even in unforeseen economic circumstances. Regardless of rivalry, such as customer service enhancement and cost savings, businesses search for creative ways of having a competitive edge, one of which is supply chain cooperation (Salam, 2017). Supply Chain Collaboration is a common way of exchanging information, forming policy partnerships to boost efficiency , and reducing overall cost and stocks for companies in the supply chain. Planning and implementation of operations of the supply chain towards common objectives (Cao et al., 2010). The main aim of collaboration in the supply chain is to improve the competitive advantage of the business

(Soylu et al . 2006; Cao and Zhang 2011). The level of commitment that the organization puts into a cooperative operation is collective involvement. Collaborative participation involves collaboration, consensus, cooperation and the shared exchange of information leading to progress within an organization (Cheng et al., 2008; Nix and Zacharia, 2014). Secure information sharing in cooperation can have a positive impact on building trust among partners (Panahifar, et al 2015). Implementing cooperation aimed at exchanging information includes stable information sharing IT infrastructures. This allows companies to share precise and timely information. When collaboration and exchange of knowledge increase, greater emphasis must be put on security of information (Smith et al., 2007). Many partners are concerned that strategic data such as financial reports, production plans, schedules, stock rates and values should be exchanged. Therefore, "knowledge exchange" and "security" must be balanced in order to produce the best results for collaborating companies.

Competitive advantage

The essence of competitive advantages comes from the simple question, „ why will customers purchase from this company and not from their rivals?. "However, not everyone can create a loyal customer; most small companies sell their rivals similar goods and services. Companies must build close links to consumers and suppliers to maintain a sustainable competitive edge in order to survive in a dynamic business environment today, which can improve the company's efficiency (Tehseen and Ramayah, 2015). The competitive advantage is when a business has a product or service that the consumers in the target market see as better than their rivals. The competitive advantage is that the outcomes of companies and management decisions contribute to superior performance relative to the average performance of the sector (De Guimaraes et al. 2016). Competitive advantages contribute to the company's ability to show higher profitability in comparison to its rivals within a specific market, such as cost savings, premium product or service production and greater customer satisfaction (Porter, 2011). (Porter,2011). There is no business company with a competitive edge or future rivals to imitate or the cost of imitations is high. Competitive advantages include interconnected sets of solutions from different operations, ranging from marketing, distribution and development to finance. Empirical tests have confirmed the positive impact on the efficiency of the company of competitive benefits (Lee, 2015; Jamhour, Alrubaiee and Agha, 2012; Ismail et al., 2010). Through a strategic long-term profit, businesses are gaining a sustainable competitive advantage by building a portfolio of core competences so that they can better represent their target consumers than their rivals. Key skills are a collection of specific skills that a organization has built in its core areas of quality, customer service, creativity, versatility and reactivity so that it can exceed its competitors (Srivastava et al . , 2013). A competitive advantage can be described as conditions that permit a company to obtain improved resources and implementation capabilities to reduce costs, increase customer loyalty and boost business performance in long-term competition with competitors.

RESEARCH METHODOLOGY

Study hypotheses and hypothesis scheme

- There is an effect of the agile supply chain on a competitive advantage
-There is an effect of information sharing on a competitive advantage
-There is an effect of IT capabilities on a competitive advantage
-There is an effect of operational collaboration on a competitive advantage

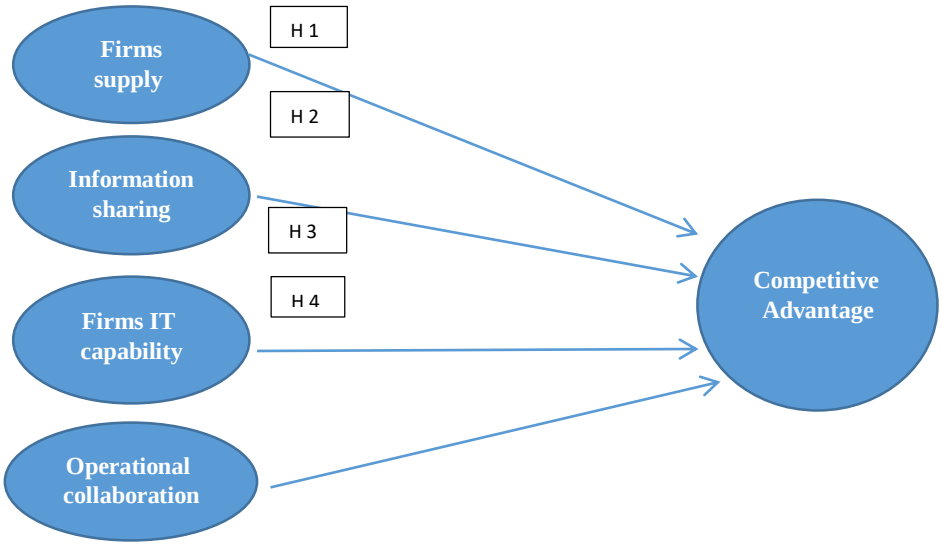

Figure 1: hypothesis scheme

Sample and community of research

The study community is represented by the public investment company Noor Alkafeel. As regards the sample of the study, it included workers in the company's marketing and distribution departments with (30) questionnaires.

Instrument for study

The questionnaire is the main source of data on the practical side adopted by the researcher. The YANG 2014 scale was implemented on the basis of variables (agile supply chain, information sharing, IT capacity), the competitive advantage based on the scale (Jou Chen, 2018) The analysis was based on a scale of seven grades.

REVIEW OF DATA

Analysis of the factor, mean, Cronbach's alpha, SD

Table No (1) we notes that the outcome of internal consistency between the study variables' component measurements is acceptable since the value of

Cronbach's alpha coefficient in administrative and psychological testing is statistically acceptable when the value is equal to or greater than (0.70). The α coefficients (coefficients of honesty and consistency), which range between (0.71-0.76), indicate that the honesty-consistency ratios differ between (71-76%) indicating the study-scale accuracy.

From the table it is noted that the results of the average for the study variables are higher than the hypothetical mean with the exception of (IF1) for sharing in knowledge where the mean value (3.66) is the need for the organization to trust supply chain partners (FIC4) in its IT capabilities, which mean value (3.73) and m.
The findings of the factor analysis indicate that all variables from the sample obtained values above 0.50, which indicates that all these factors are significant in the study of the present variables.

Table (1) Analysis of the factor, mean, Cronbach's alpha, SD

constructs	Mean	SD	Cronbach's α	Factor loading
Information sharing (IF)	4.72	.95	0.75	.929
1- How much does your company's lack of trust among members of the supply chain prevent it from achieving full supply chain management potential?	3.66	1.37		.858
2- How relevant is the Supply Chain Management activities to use formal knowledge exchange arrangements with suppliers and customers?	4.96	1.27		.946
3- How relevant is the use of your supply chain management initiative of informal knowledge sharing with suppliers and customers?	5.53	.92		.974
Firms IT capability	4.76	.94	0.739	.937

(FIC)				
4- IT ability relative to standard industry	3.73	1.37		.858
5- IT power for main competitors	4.96	1.27		.946
6- IT power for main customers.	5.53	1.39		.729
7- Use of key provider information networks	4.83	.94		.984
Operational collaboration (OC)	4.65	.94	0.713	.456
8- Sharing information on operations planning.	3.93	1.32		.893
9- Designing and sharing forecast requirements and sales	4.96	1.11		.889
10- Order management systems connect	4.83	1.26		.789
11- Step towards rising systems of capacity management	4.86	.73		.906
Firms supply chain agility (FSC)	5.07	1.16	0.746	.797
12- Product customization potential	3.53	1.39		.805
13- ability to adjust the volume of production	5.83	1.27		.946
14- Ability to adapt to changes in the demands for delivery	5.53	1.65		.795
15- The ability to create product arrangements.	5.40	1.04		.948
Competitive advantage (CA)	5.01	1.83	0.766	.838
16- Relative to our rivals, we offer our clients unique advantages and innovative	4.93	1.26		.712

technologies.				
17- Relative to our rivals, we sell our customers high quality goods	5.30	1.33		.355
18- We offer secure distribution relative to our rivals	3.30	1.25		.639
19-We sell custom goods in competition with our rivals	5.46	1.36		.766
20-We offer goods to the market rapidly compared to our competitors	5.26	1.32		.893
21-We deliver good pricing relative to our rivals	5.40	1.24		.784
22-We will compete based on consistency relative to our rivals.	5.26	.80		.970

Table (1) Analysis of the factor, mean, Cronbach's alpha, SD

Correlation coefficients

Table (2) indicates a positive correlation between the independent variable dimension (information-sharing, corporate development ability, organizational cooperation), and the variable itself (0.48 – 0.74) and thus the effect on dependent variable (competitive) of these sub dimensions and thus the potential of the variable.

Based on examination of the effects of correlations with the dependent variable (competitive advantage) with the independent variable (agile supply chain) and its sub variants (sharing Information , it capabilities , organizational cooperation), we find that the effects are between (0.26-0.73) and this implies a positive correlation relationship. Between the dimensions and the variables of the analysis.

constructs	**1**	**2**	**3**	**4**	**5**
Informational sharing (IF) (1)	1				
Firms IT capability (FIC) (2)	0.962	1			
Operational collaboration (OC) (3)	0.348	0.350	1		
Firms supply chain agility (FSC) (4)	0.745	0.710	0.488	1	
Competitive advantage (CA) (5)	0.269	0.269	0.733	0.446	1

Table 2 correlation coefficients between study variables

Simple linear regression

Table 3 shows that the calculated value (T) (information sharing) is equal to (1,47) that is less than (2,42) at a meaning level (0,01) and indicates that the regression equation (B = 0,23) has not been proven, i.e. that there is no effect for dimension sharing in the attainment of a competitive advantage of the company.

The value of (T) measured (IT capabilities) (1.47) is less than the table value (2.42) at the meaning level (0.01), which means that the regression equation (B = 0.22) is not shown to have an impact on the technology factor Knowledge (to achieve the company's competitive advantage).

For operational cooperation the measured value of (T) is approximately (5.70) and is higher than its tabular value (2.42) at the significance point (0.01). This means that the regression coefficient (B=0,749) is set at the above-named level of value, which is, a shift of unit in the co-operative partnership The operational impact is about (74.9) to achieve the Company's competitive advantage. The organizational cooperation dimension therefore has a big effect on the competitive advantage.

The value of the perception factor (R2) is approximately (0.53) and this indicates that it describes approximately (53%) the improvements to gain the competitive advantage after the organizational cooperation. The other proportion is attributed to the inclusion of other variables not included in the current analysis (other factors).

With respect to the value (T) for the agile supply chain measured at (5.70), it is higher than its table value (2.42) on the point of importance (0.01). This means that the coefficient of regression (B = 0.342) is set at the previously referred point. The agile supply chain roughly (34.2) impacts the company's competitive advantage, which implies the sense of the basic linear regression model. The agile supply chain therefore has a significant effect on competitive advantage

The value of the perception coefficient (R2) is approximately (0.19), which tells us that the agile supply chain describes about 19 percent of improvements to a competitive advantage. The remaining percentage is due to the contribution of other variables not covered by the present study (other factors).

constructs	**constant**	**Competitive advantage (CA) B**	**T Value**		**R2**
			tabular	**computed**	

Informational sharing (IF)	3.96	0.233	2.42	1.47	0.72
Firms IT capability (FIC)	3.97	0.228	2.42	1.47	0.72
Operational collaboration (OC)	1.43	0.794	2.42	5.70	0.53
Firms supply chain agility (FSC)	3.32	0.342	2.42	2.63	0.19

Table (3) Simple Linear Regression

3-4 summary of finding

	Hypotheses	**Result**
H1	-There is an effect of the agile supply chain on a competitive advantage	**Accepted**
H2	-There is an effect of information sharing on a competitive advantage	**Rejected**
H3	-There is an effect of IT capabilities on a competitive advantage	**Rejected**
H4	-There is an effect of operational collaboration on a competitive advantage	**Accepted**

Table (4) finding summary

CONCLUSIONS AND RECOMMENDATIONS

CONCLUSIONS

1- When working with their supply chain partners, the company faces a trust problem, which in turn affects the nature of the information shared between the company and supply chain partners.

2- The company does not have IT capabilities based on industry standards in which it operates.

3- The organization does not exchange details on process preparation with its supply chain partners

4- The company does not connect its order processing systems to suppliers and supply chain partners.

5- The company can not adjust its goods to the needs of its customers

6- There is a issue with the appropriate time and place to deliver the goods of the business.

7-The analysis indicates that the independent variable (the agile supply chain) occurs in addition to its sub-variables (information exchange, business development capacities, organizational cooperation) with the dependent variable (competitive advantage).

8- There is no effect on the company's competitive advantage of information sharing and information technology capabilities

9- The purpose of organizational cooperation is to achieve the competitive advantage of the organization
10- The aspect of the agile supply chain is influenced by achieving this company's competitive advantage

RECOMMENDATIONS

1- The benefits of exchanging information between the company and its supply chain partners and addressing the issue of mistrust should be demonstrated by knowing the essence of the information currently circulating, and by recognizing the key factors that hinder information sharing and working to solve this problem at various levels of the supply chain.
2- Information technology leads to strengthening the consumer response and provides new market possibilities and competitive advantages. To take advantage of the implementation of the information technology in the agile supply chain, the organization must also understand that its IT systems and processes must be planned and applied in conjunction with those of its supply chain partners.
3- The exchange, collection and transfer of information and knowledge planning process is one of the activities which enable companies to deliver the necessary expertise, expertise and know-how for cooperation. There is absolutely no collaboration without understanding
4- Connecting order processing systems to suppliers enables them to have a prior knowledge of the raw material quantity and quality to be provided and thus minimize delivery times and proceedings to contact the supplier and ask for raw materials
5- Advise the company to increase the versatility of its production lines, train staff to manufacture tailored and atypical goods that meet the continuously changing needs of the customers
6- The need to solve problems of product delivery at the right time or place by providing or increasing the number of warehouses in distribution areas or by increasing the numbers and quantities of shipments using appropriate means to achieve this objective.
7- The importance of the company's attention and work to enhance knowledge exchange and information sharing aspects between the company and its supply chain partners and its customers formally and informally to gain a competitive advantage
8- Incorporating technology and new means of communication that allow the organization, taking into account competitive technologies and industry standards, to share information with all suppliers in the supply chain and that enforce a certain level of technology available with companies;

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