

KALİTE VE TEDARİK ZİNCİRİ YÖNETİMİ ENTEGRASYONU: ETİHAD HAVA YOLLARINDA KAVRAMSAL BİR MODEL

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ÖZ

Kalite ve Tedarik zinciri yönetimi, modern yönetim paradigmasındaki en önemli değişikliklerden biridir ve şirketlerin artık özerk olarak değil, tedarik zincirleri olarak rekabet ettiklerini kabul etmektedir. Bu çalışma ile hem araştırmacıları hem de uygulayıcıları, bireysel organizasyonların sınırlarının ötesine geçmeye ve tedarik zinciri sürecinde tedarikçiler ve müşterilerle etkili ve verimli bağlantılar kurmaya olanak tanıyan çalışma yöntemlerini geliştirme yollarını belirlemelerine yol açmayı amaçlamaktadır. Çok sayıda şirket kendi değer zincirlerini optimize etmeye çalışmış ve bu kararların tedarikçi veya müşterileri üzerinde ne gibi etkileri olduğunu düşünmemişlerdir. Kavramsal modelleme, bir problem oluşturmanın ve bir bilgisayar modeli geliştirmenin aşamaları arasında yer alan bir modelleme projesinin adımlarından biridir. Bu nedenle, makalenin ana amaçlarından biri, Etihad Airways'i (BAE merkezli şirket) yansıtmak ve gelişmiş müşteri hizmetlerine ve daha iyi bir şirketin performansına etki eden faktörlerin bir kombinasyonu olarak kalite ve tedarik zinciri yönetiminden yararlanmaktır.

Anahtar Kelimeler: Kalite, Tedarik Zinciri Yönetimi, Etihad Havayolları

QUALITY AND SUPPLY CHAIN MANAGEMENT INTEGRATION: A CONCEPTUAL MODEL OF ETIHAD AIRWAYS

ABSTRACT

Quality and Supply chain management are one of the most significant changes in the paradigm of modern management, recognizing that companies now compete not as exclusively autonomous entities but rather as supply chains. This approach leads both researchers and practitioners to identify the ways to improve work methods that allow to go beyond the boundaries of individual organizations and build effective and efficient links with suppliers and customers in the supply chain process. Numerous companies tried to optimize their own value chains

and have not consider what effect these decisions have on their suppliers or customers. Conceptual modelling is one of the steps of a modelling project that lies between the stages of posing a problem and developing a computer model. Therefore, one of the main purposes of the article is to reflect Etihad Airways (UAE based company) and to take advantage of quality and supply chain management as a combination of factors impacting on enhanced customer service and better company's performance.

Keywords: *Quality, Supply Chain Management, Etihad Airways*

INTRODUCTION AND PURPOSE

Each organization needs a reliable material flow. SCM is an important function, as managers need to ensure that these materials are moved as efficiently and efficiently as possible. SCM is not limited to the scale of the organization but takes a unique position linking this organization with external suppliers on the one hand and customers and consumers of its products on the other. Therefore, organizations faced with the problems and tasks generated by the current competitive environment, inevitably come to the conclusion that it is important to manage not only own business but also a supply chain, the purpose of which is to satisfy the needs of the end consumers.

SCM is a set of approaches that helps effective integration of suppliers, manufacturers, distributors and sellers. SCM is considering the service requirements of customers, allowing to ensure the availability of the right product at the right time in the right place with minimal costs.

The relevance of the chosen topic is that supply chain management becomes an effective tool for increasing the efficiency of companies. Rapid development of the market, tougher competition, demand for better customer service, pose new challenges for the companies. To maintain competitiveness and strengthen its advantages, the enterprises need to optimize all the processes of creating value - from the supply of raw materials to the service of the end user. To solve these problems, the management of companies turns to SCM solutions. To practically study the issue, a conceptual model of Etihad Airways Company based in the UAE has been taken into consideration. Etihad Airways is a national airline of the United Arab Emirates and is of the youngest airlines in the globe. The company operates in a very competitive environment. However, their objective is to become the most advanced global airline that challenges and changes the established convention of airline hospitality. Thus, the purpose for this study is to examine the framework of Etihad Company through three-fold approach: SCM and competitive strategy, customer fulfillment and environmental scanning and finally supply chain processes thinking and order fulfillment.

LITERATURE REVIEW

As discussed, supply chain management (SCM) plans and controls business processes from raw material suppliers and end-customer and links together partners in a supply chain (Harrison and Van Hoek 2008) , which provides an excellent starting point for improving sustainability (Linton et al. 2007). SCM is the process of planning, executing and monitoring the flow of raw materials, work in progress, finished products, as well as providing efficient and fast service by obtaining operational information about product movements. The whole life cycle of a product is taken into account, from product design to end-of-life management (Srivastava 2007). SCM solves the problems of coordination, planning and management of supply, production, storage and delivery of goods and services. Managing supply chains is not just a new embodiment of old ideas of cooperation and specialization. The possibility of significant enrichment of these ideas appeared with the development of information technologies and modelling for effective coordination of joint activities of enterprises and synchronization of inter-organizational cooperative business processes. It is cooperation and coordination that are the foundation of supply chain management.

The assessment of supply chain management problems is important and widely explored in multiple supplier operations and supplier selection. Maloni and Benton (1997) review opportunities for operations research models in supply chain partnerships. Models for the coordination of supply and manufacturing as well as manufacturing and distribution are reviewed by Thomas and Griffin (1996). Christy and Grout (1994) investigate supply chain relations from a contracting perspective. These sources describe in detail the approaches to the implementation of the modeling process; specific stages, approaches and methods are proposed. At the same time, there is one specific stage that is fundamental in all modeling projects but which has been little studied, especially for the field of modeling supply chain management processes - this is a conceptual modeling. Conceptual modeling is one of the steps of a modeling project that lies between the stages of posing a problem and developing a computer model. Modeling and simulation of systems have been identified as the two great discoveries that will accelerate the resolution of great challenges to be found by manufacture industries in 2020 (Bansal, 2002) . According to Retzlaff-Roberts and Nichols (1997), simulation offers an effective analytical tool for organizations that need to measure the performance of a cycle time in the environment of supply chains.

The correct development of the conceptual model is important in relation to the success of the modeling project as a whole. Since a clear formulation of the problem, a detailed description of the relations and assumptions in the conceptual model, guarantees its qualitative development. In addition, a

documented description of the conceptual model will make it possible at an early stage to verify the correctness of the intended objective of the study. The conceptual model is independent of any modeling notations or modeling software supporting the modeling process, while the modeling project includes both conceptual modeling and detailed model visualization using selected notations and software. Once a conceptual model is formulated, it can be implemented in a more specific detailed executive model using any necessary modeling tools.

CONCEPTUAL REVIEW

The concept of SCM causes UAE companies of increasing practical interest. The leaders of the domestic business realize that in order to consolidate their competitive advantages in the rapidly developing market and achieve success in the region it is necessary to pay more attention to supply management. Partly due to the fact that the SCM concept was actively promoted in the UAE primarily by suppliers of corporate IT, SCM terminology is associated with specific information solutions. However, in order to clearly identify the place of SCM in the operating and information strategy of the company, it should be remembered that all these MRP, ERP, SCM, SCE and other cryptic abbreviations are not primarily information systems of one type or another but management concepts and strategies based on certain business imperatives. The concept of business management as a supply chain has existed for about 20 years has many interpretations. As a result of the emergence of SCM-products of the new generation, all business applications focused on developing a strategy, coordinating planning and organizing management in the sphere of supply, production, warehousing and delivery of goods to the end user belong to supply chain management systems.

Supply Chain Management and Competitive Strategy

Etihad Airways is a national airline of the United Arab Emirates that being formed by the Royal Decree in July 2003 and has grown into the world's leading airlines in the aviation industry around the world. Most notably, the company has a fleet of 66 aircrafts that operates approximately more than 1300 flights a week serving the international market. It should be noted that it has an international network from the Middle East to various destinations throughout the world. As such, the company's vision is to reflect on the best of Arabian hospitality which is used as a main competitive advantage. That is, maintaining regional culture, generosity as well as to enhance the prestige of the Abu Dhabi as the center of hospitality between the east and the west (Lawson, Harcup and Dryburgh, 2015). To ensure success, the company's procurement and supply management has always been responsible for procurement of various categories; they include fuel, in-flight, Information Technology, airline contracts, ground services, project equipment, transportation, hotels, accommodation, and other services.

Etihad Airways has average of approximately 10,000 staff members that come from different nationalities and culture (Lawson, Harcup and Dryburgh, 2015). Despite the large staff, the company recruits its employees based on their skills, knowledge, experience, and technological knowhow. Therefore, it focuses on quality services to its customers, innovation, and teamwork for excellent performance. In addition, it offers attractive salaries, pension plans, and benefit plans to its employees. The company is segmented in various departments that work collaboratively to ensure the company's success. The section includes; marketing, human resource, software engineering, hardware engineering, and finance departments. It should be noted that all the sections are managed differently but all focus on a common goal.

The company operates in a very competitive environment. However, their objective is to become the most advanced global airline that challenges and changes the established convention of airline hospitality (Lawson, Harcup & Dryburgh, 2015). It is also committed to supporting the supply change by offering its suppliers the option to receive early payment and making finances available for them at a low cost. Moreover, it plans to use the implementation of Supply Change Finance program to achieve process benefits such as automation of invoices to improve cash flow and working capital. Therefore, for this to be ensured, the company collaborates with various companies in order to meet customer's needs. It should be noted that the company values and respects the views of their customers (Lawson, Harcup & Dryburgh, 2015). As such, it addresses all customers' feedback with a lot of concern to improve on their services. They focus on ensuring comfort of every guest in the highest standard possible.

Customer fulfillment and environmental scanning

Supply chain management is critical to the company as it aims to attain customer fulfillment. The airline industry has few suppliers which means that such parties hold significant influence over airlines. For example, there are about three major aircraft manufacturers, Boeing, Airbus and Douglas. Etihad has established commercial relationships with both Boeing and Airbus to ensure delivery of the most technically advanced aircrafts, which enables Etihad to offer its passengers an unrivalled flight experience. Specifically, this has been achieved through the advanced ordering of aircrafts and engines ensuring the airline consistently operate a young fleet. This is in line with the company's strategy of providing predictable and reliable service. This enables Etihad to reduce maintenance costs and optimize personnel to enhance customer satisfaction.

Using information technology, the company has been able to reduce the touch points and increase its own productivity. Furthermore, this has enabled quick exchange of information between Etihad and their suppliers allowing the latter to create supply chain competencies around speed and accuracy of transmission of information. Coupled with the provision of

accurate and transparent information to supply partners, manufacturers and other supply partners respond quickly to demand changes enabling Etihad to better prepare for delivery, installation and services to their passengers.

Supply chain processes thinking and order fulfillment

Etihad has marketed itself as a prestigious legacy carrier offering its customers high quality services. The airline is using product differentiation to increase the perceived value of their brand. Etihad is one of the largest and leading international airlines with a vision of becoming the global leader in luxurious airline transport. The airline provides value added differentiated services informed by the demand of their target customers. Offering said customers high quality service enables them to charge a premium for their product offerings. Part of the product offering involves making flying an effortless experience and the product is segmented to meet the needs of various market fragments.

SCOR model elements are commonly derived from five principles of the first level. Conversely, order fulfillment processes include product inquiry, order booking, order confirmation, invoicing and order sourcing. The other order fulfillment processes are order changes; order processing, shipment, delivery, settlement and returns. Application of SCOR model elements namely plan, make, deliver, and return to order fulfillment processes will require aggregation under the model elements. Therefore, under plan there will be all processes associated with operating a supply chain like product inquiry and order booking. Under source, invoicing and shipment validation will be combined. Then, make describes the processes needed to convert materials into contents of service like manufacturing. Delivery entails processes related to the creation, fulfillment and maintenance of orders and includes receipt and creation of customer orders, the scheduling of order deliveries and invoicing of customers. The return element describes procedures relating to the reverse flow of goods from the customer and includes identifying the need for the return and the scheduling of the return.

Etihad airlines initiate its sourcing processes through an interrogation process to establish the availability of a particular product or service. This preliminary phase commonly involves assessing the capabilities of various companies in the search for the most suitable supplier. The contractor that meets the company's basic requirements is selected. The transaction relationship is commonly managed through the issuance of orders, receipts and invoices between the airline and its suppliers also through the honoring of transactional obligations like observing payment agreements (Li-yin, 2006). The relationship between the airline and their suppliers is managed through administrative efforts and provision of feedback. Communication between these parties is managed through the integration of various organizational systems to provide minimal touch points and enhanced information flows.

Supply chain network is one of the key areas of the company's focus to create value for their customers' needs. Therefore, it is of importance to not that the introduction of innovations strategies as well as organizational merger, attainment or processing, in some cases transformations of the former factories into independent companies enlarged the complication of the chain production. Despite the positive effects, this new approach has generated more problems in the production process. As an example for approbation, a practical situation related to a transnational company Etihad was taken and is related to the consideration of where and how to produce products in a global and complex supply chain cost-effectively. It is concluded that from the point of view of the criterion of "relevance" of the modeling methodology, the results of modeling are applicable for the purposes of further research and the construction of a computer model.

CONCLUSION

Etihad Airways began its operations in the year 2003. As earlier noted, the company had grown serve more than carried 14.8 million passengers after a decade of operation. From its Abu Dhabi base, the company flies to or has announced plans to serve 113 passenger and cargo destinations globally. The company's vision is to become one of the main legacy carriers in the globe. As such, through innovation, the company has struggled to add largest possible number of destinations as a sure way of meeting its loyal customers' wishes. Most notably, the company has rapidly grown to have a global presence. As such, the company has ensured proper supply chain management system that is based upon combined efforts between the company and its respective stakeholders. To fully address the challenges that arise during the production process of the new generation aircraft, the company should collaborate with manufacturing companies that will implement a set of strategic and organizational models. These strategies should influence a higher level of outsourcing the activities entrusted to different tier suppliers, which in turn will have to deal with challenges in terms of performance, reliability, as well as financial risks. Despite the noted challenges, the company is committed to a strategy of collaborative growth in order to gain the scale we require to be competitive in the aviation industry. Outside their organic growth, the company has ensured success through the development of a strong base of codeshare partnerships as well as minority investments in strategically important airlines that work jointly to provide access to hundreds of destinations that the company do not serve with its own aircraft. Most notably, since its establishment, the company has been known to receive a range of awards that reflect their position as one of the world's leading premium airline brands.

The main goal of the approach within this review is to "preserve the model as simple as possible", in particular, by determining the most appropriate complexity and level of details. It is determined that one of the aspects of formulating the content of the model is the definition of its boundaries which

will concern the consideration of the interrelations between the "basic" components and those that are considered "critical" in the supply chain operation.

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