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## Supply Chain Management in Tourism

*Abstract: There is a limited number of research on supply chain management in tourism. A systematic literature review using main database found that there is no empirical study that investigates the drivers of supply chain in tourism. Bearing in mind aforementioned facts, the author of this paper select results from other authors. Main task of research presented in this paper is to generate data and experiance, and decided to systematically analyze and quote the results aiming to those that suggest general, i.e. conceptual conclusions. The author has selected several results regarding supply chain in general, Turism Supply Chain (TSCM), Turism Supply Chain Management (TASCM), research framework of TSCM and opportunities for future investigation. The paper presented the relations between characteristic of tourism and TSCM participants.*

*Keywords: tourism, Supply Chain Management, models*

### 1. INTRODUCTION

A supply chain is a system of organizations, people, technology, activities, information and resources involved in moving a product or service from supplier to customer. Supply chain activities transform natural resources, raw materials and components into a finished product that is delivered to the end customer. In sophisticated supply chain systems, used products may re-enter the supply chain at any point where residual value is recyclable. Supply chains link value chains [1].

The primary objective of supply chain management is to fulfill customer demands through the most efficient use of resources, including distribution capacity, inventory and labor. In theory, a supply chain seeks to match demand with supply and do so with the minimal inventory. Various aspects of optimizing the supply chain include liaising with suppliers to eliminate bottlenecks; sourcing strategically to strike a balance between lowest material cost and

transportation, implementing JIT (Just In Time) techniques to optimize manufacturing flow; maintaining the right mix and location of factories and warehouses to serve customer markets, and using location/allocation, vehicle routing analysis, dynamic programming and, of course, traditional logistics optimization to maximize the efficiency of the distribution side.

In Figure 1 is presented an illustration of a company's Supply Chain Management (SCM), the arrows stand for supplier-relationship management, internal and customer-relationship management [2].

There is often confusion over the terms supply chain and logistics. It is now generally accepted that the term Logistics applies to activities within one company/organization involving distribution of product whereas the term supply chain also encompasses manufacturing and procurement and therefore has a much broader focus as it involves multiple enterprises, including suppliers, manufacturers and retailers,

working together to meet a customer need for a product or service.

The supply chain comprises the suppliers of all the goods and services that go into the delivery of tourism products to consumers. It includes all suppliers of goods and services whether or not they are directly contracted by tour operators or by their agents (including ground handlers) or suppliers (including accommodation providers). Tourism supply chains involve many components - not just accommodation, transport and excursions, but also bars and restaurants, handicrafts, food production, waste disposal, and the infrastructure that supports tourism in destinations [3].

Supply chains operate through business-to-business relationships, and supply chain management delivers sustainability performance improvements alongside financial performance, by working to improve the business operations of each supplier in the supply chain. Tour operators have enormous influence over activities throughout the tourism supply chain, since they direct and influence the volume of tourism, the tourist destinations and facilities that are used. Tour operators can use this to help in promoting general improvements in sustainability performance as part of good commercial practice [3].

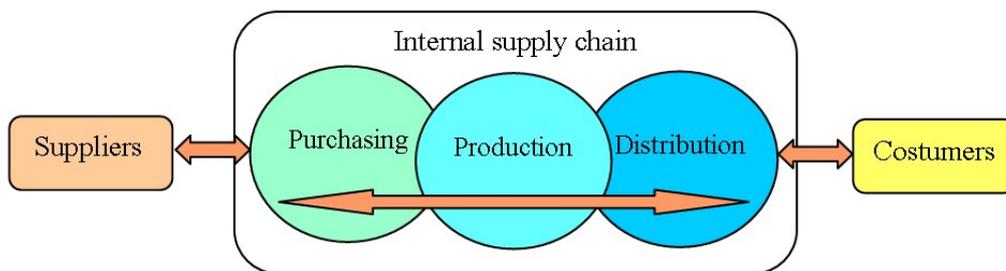


Figure 1 – Illustration of a company's supply chain [2]

## 2. TOURISM SUPPLY CHAIN

Tourism is widely recognised as a significant economic sector. In 2007, there were approximately 903 million international tourists around the world. They also spent approximately USD 856 billions. The growth rate of tourism income and number of tourists are 5.6% and 6.6% respectively (UNWTO 2008). While tourism is playing a significant role in the global economy, supply chain management is also becoming an essential part of business management as a competition is not between companies but supply chains. However, there is a limited number of research on supply chain management in tourism. A systematic literature review using main database

found that there is no empirical study that investigates the drivers of supply chain collaboration in tourism. Therefore, this research aims to empirically study the factors affecting supply chain collaboration in tourism [4].

Although tourism has been studied for ages, a term of 'tourism' seems to be ambiguous even among academics. For instance, tourism, travel, and hospitality are overlapped terms. This research will have a scope that focuses on tourism defined in Figure 2 (figure presented the relationship between the tourism, hospitality and travel industries). Therefore, Tourism Supply Chains (TSC) partly include players from hospitality as well as travel. Nevertheless some players are included in tourism only [4].

Although literature of tourism supply chains is scarce, some authors have alluded to or touched on the concept or its equivalents, such as the tourism value chains or tourism industry chains.

Every industry has an underlying structure, or a set of fundamental economic and technical characteristics, that gives rise to its operational and competitive characteristics. That is, every supply chain varies according to the type of products supplied. Thus, identifying the features of the tourism industry and its products is of great importance when describing a TSC. For instance, tourism products are normally rooted in a specific territory and provided to tourists from a specific source market, so they often A tourism supply chain (TSC) can be defined as a network of tourism organizations supplying different components of tourism products/services such as flights and accommodation for the distribution and marketing of the final tourism products at a specific tourism destination, and involves a wide range of participants in both the private and public sectors [4].

### **2.1 Tourism and Supply Chain Management**

Richard Tapper and Xavier Font in their Final Report of Research project for The travel Foundation [3] presented that the impacts of a tour operator come from the impacts of all components of the products they sell, including use of raw materials and their processing and production, as well as impacts from transport and distribution. right back to the raw materials from which they are

Understanding the sustainability of each tourism product means going produced, through suppliers, suppliers' suppliers, and so on, right back to source, as well as ensuring that a company meets sustainability criteria in its own internal operations.

Tourism, like all other supply chains,

operates through business-to-business relationships, and tourism supply chain management (TSCM) can be applied to deliver sustainability performance improvements alongside financial performance, by working to improve the business operations of each supplier in the supply chain. The main differences between tourism supply chains and those of other sectors, are that tourists travel to the product, and the product that they buy has a particularly high service component - in other words, it involves a higher proportion of people in the immediate production of the holiday experience [3].

Supply chain management in any sector, including tourism, covers all parts of a product's 'life cycle': raw materials, processing, manufacture, distribution, retailing, customer use and final disposal. Overall, the sustainability of a tourism product, depends on issues including the environment and working conditions in destination countries; safety, including safety of customers and staff in delivering all aspects of a tourism product; and resource use and disposal, including proper handling, reuse and recycling of waste materials, and measures to increase the efficiency of resource use [3].

Tourism supply chains (SCM) involve many components - not just accommodation, transport and excursions, but also bars and restaurants, handicrafts, food production, waste disposal, and the infrastructure that supports tourism in destinations (see Figure 3). These all form a part of the holiday product that is expected by tourists when they purchase holidays - whether or not the suppliers of those components are directly contracted by a tour operator [3].

A variety of management tools and standards are available and being applied for improving sustainability performance in the accommodation sector. These include standards and certification (including ecolabelling), auditing and environmental management systems, as

well as development of action plans and designation of clear management responsibilities.

Many of these tools were originally developed to manage environmental aspects of business,

but can be (and in some cases have been) extended to incorporate social aspects too. Working conditions and employment aspects can be integrated into human resource management [3].

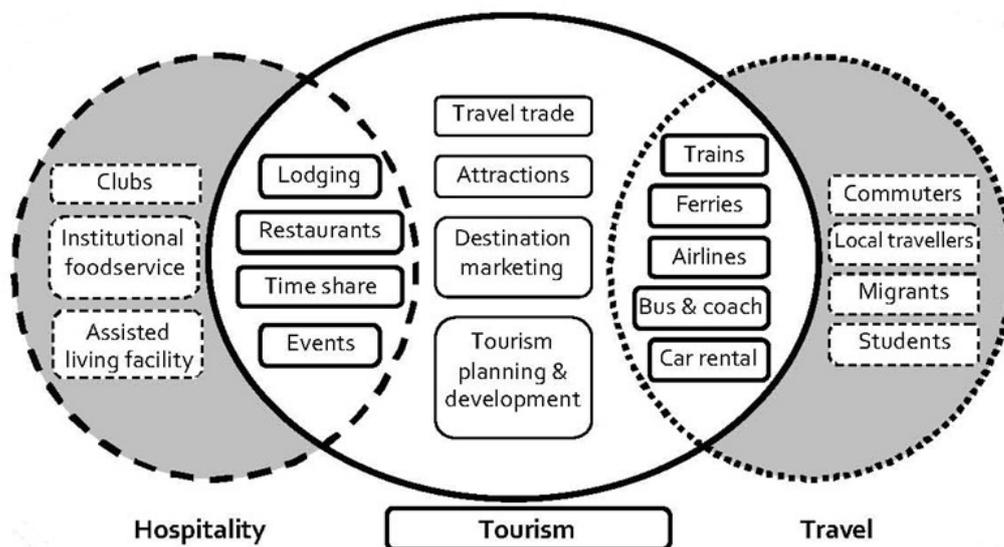


Figure 2 - The relationship between the tourism, hospitality and travel industries [4]

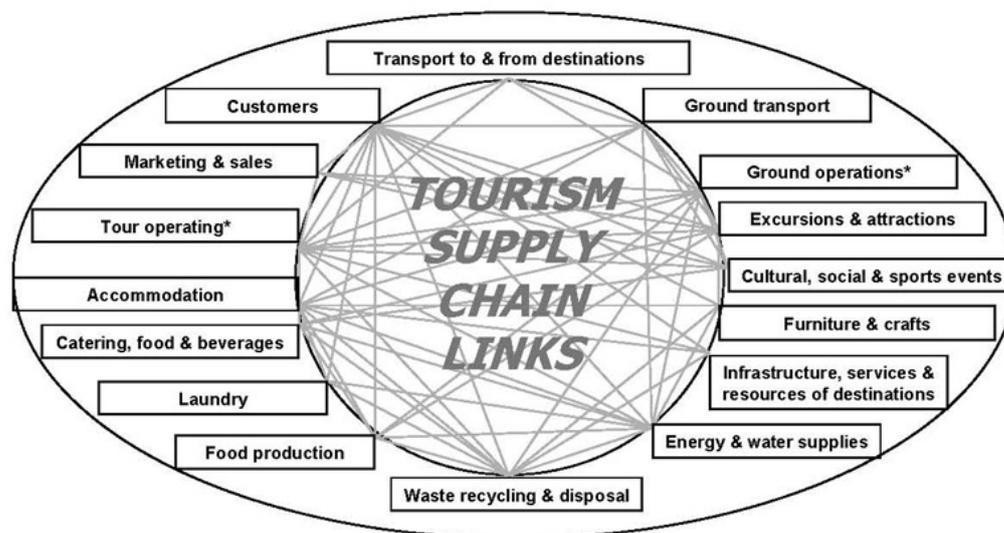


Figure 3 - Components involved in Tourism supply chains [3]

Some large tour operators have developed environmental standards backed by training materials to assist and encourage improvements in performance by their accommodation suppliers;

In relation to the tourism supply chain and direct inputs to tourism, destinations provide infrastructure and services. Destination initiatives for sustainable tourism seek to improve the quality of infrastructure - for example, through improvements to waste management infrastructure for solid wastes and waste and awareness raising programmes on waste management practices, to transport systems and to reduce vehicle impacts and to increase the ability of the destination to gain from tourism. Other initiatives include the promotion of linkages between tourism sites, and promotion of a wider range of tourism activities to encourage tourists to sample different aspects of the country and thereby diversify and spread the economic benefits of tourism. [3].

Some destinations have set up local quality of life and sustainability programmes using sustainability indicators to monitor environmental quality, and in some cases, biodiversity, as well as monitoring visitor satisfaction and changes in tourism markets. Marketing, products and operations can then be adapted according to the monitoring information obtained. Associated environmental initiatives often include general environmental education programmes, as well as various approaches to protect biodiversity, which may include the protection of a single species or site, such as turtle protection, establishment of environmental monitoring and restoration programmes, and environmental impact studies and indicators. Measures for protection of cultural heritage are also in place in a number of destinations, ranging from requirements for new developments to be of appropriate architectural designs and built of local materials to the development of visitor management

infrastructure and encouragement for visitation to historic monuments and archaeological sites [3].

## **2.2 Research framework of TSCM**

The contribution of study "Tourism Supply Chain Management: A New Research Agenda" (Zhang X., Song H., 2008) is the development of a research framework of Tourism Supply Chain Management (TSCM) as shown in Figure 4. The literature and practice indicate that there is no consistent view of what TSCM is or should be. There is a pressing need of a conducive and instrumental tool for further research on TSCM.

The framework illustrated in Figure 4 can help to understand better the scope of both challenges and opportunities associated with TSCM. It shall also be of great value not only to researchers who desire to extend their research into this new and promising area, but also to tourism and hospitality decision makers who are interested in TSCM strategies. In addition to highlighting an emerging and important area of research, the third contribution of this work is to cater for the need of theory building in tourism management. Critical issues identified herein help contribute to the development of TSCM theory. The research framework developed in [5] can be further refined or extended into various theoretical models, thereby allowing researchers to test the validity of and relationships among the critical issues along with their impacts on TSC performance, and ultimately to create a coherent theory of TSCM [5].

## **2.3 Opportunities for future investigation**

The emerging literature on TSCM has largely concentrated on tourism distribution channels, with a particular focus on the roles of intermediaries, rather

than on the whole TSC, which consists of not only intermediaries but also various service providers including governments,

tourists, and the natural environment. Articles on TSC from an integrated perspective are currently very limited.

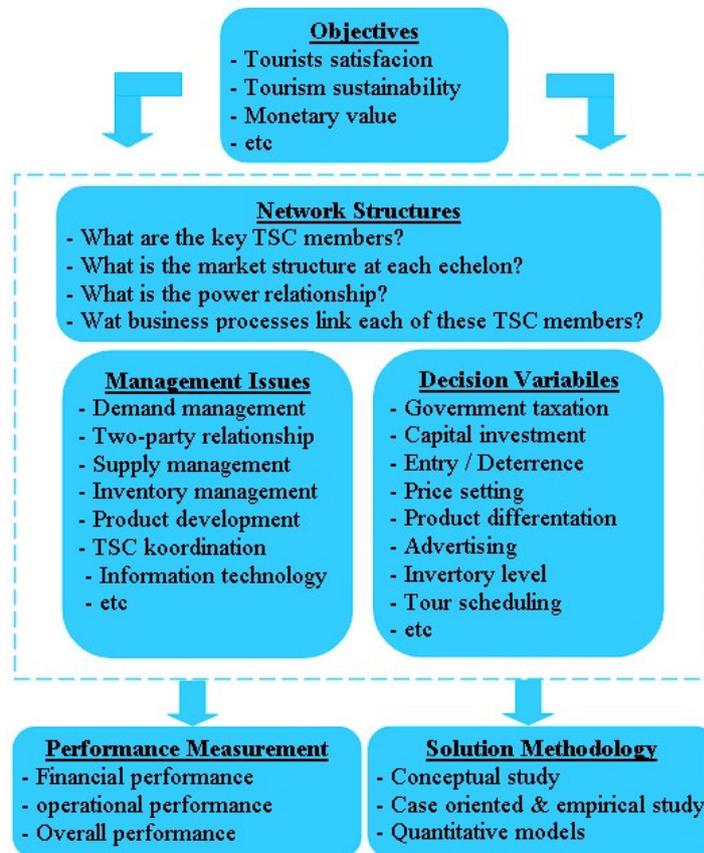


Figure 4 - Theoretical framework for TSCM research [5]

Although rigorous development of TSCM research is underway, it is evident that more in-depth analysis is required, and further examination of the issues that are critical to TSCs is necessary. In this section, we propose some possible future research directions for TSCM, which include collaborative TSC planning and forecasting, TSC coordination, TSC dynamics, and integrated product and TSC design. These directions are all in agreement with the TSCM philosophy toward coordination across organizations through a TSC [5].

### 3. CONCLUSIONS

- Tourism supply chains involve many components - not just accommodation, transport and excursions, but also bars and restaurants, handicrafts, food production, waste disposal, and the infrastructure that supports tourism in destinations.
- The main differences between tourism supply chains and those of other sectors, are that tourists travel to the product, and the product that

they buy has a particularly high service component - in other words, it involves a higher proportion of people in the immediate production of the holiday experience.

- The proposed research framework could enable researchers in both tourism and TSCM areas to comprehensively explore and

examine the phenomenon in the TSCs. Undertaking this model, the research employed in other industries could be applied in TSCM research. Finally, considering the immaturity of the TSCM concept, the generic tourism supply chain in this present study may be a robust model for future research on TSCM.

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