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Operations Best Practices model for Tourism Industry

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Abstract: *The value chain of any business is vital in identifying, creating and delivering the desired value to the customer. The service providers in tourism industry must be vigilant about changing tourist expectations and volatile competitive environment. Currently less structured business processes in this industry which makes most of traditional controls and measurements weak. However, good supply chain model can lead the industry towards improved competitiveness and thus boost the economic contribution. Such model should enhance communication links between stakeholders, promote good coordination, lead in the competition and facilitate collective growth.*

Even though business process modeling and usage of supply chain reference models are well established management practices, currently Sri Lankan tourism industry is lagging behind in applying them. In this research, applicability of alternative reference models in the tourism domain have been critically compared in a comprehensive literature survey for the purpose of developing a fitting reference model for the industry as current best of breed management practices. The theoretical framework of supply chain management has been enriched with validated strategic best practices model and strategies are proposed for addressing problematic areas in the industry .The study prioritizes best practices model and proposes complementary strategic framework for field of operations .

Keywords: *Best practises model, Tourism management, Supply chain reference model, Score card*

I. Introduction

Tourism being one of the major foreign exchange earner and source of economic contribution the economy, is operated by the industry players that work in isolation. This will lose the synergy against the global competition and will result in moderate or low customer satisfaction. Sri Lankan tourism is still operating in a traditional method where it has to couple with best of breed modern management principle. Firms cannot exist in isolation and must rely on other firms to perform a complex chain of interdependent activities from source-of-supply to the end-user. One company rarely controls an entire value chain, and success depends on how well the combined capabilities of these firms can be integrated to achieve a competitive market-place advantage

As a solution , an operation best practices model is introduced and validated for compatibility. The major outcome of the research is a reference model that can be applied by any service provider in the domain disregarding his capacity geographical location market segment or any other constraint. The reference model is specifically built for Sri Lankan Tourism Industry where some best practices can be generalized for some other industries or countries. Since the problem domain is larger to be handled by mere reference model strategic solutions that complement the framework will be provided at the end of the study. The resulting business process model is suppose to be addressing the inherent problems of the industry through both specific strategies and well proven best practices which will support the typical objectives of a supply chain such as

Creating an enterprise that can swiftly respond to market changes. Implement inter-organization strategies by configuring process categories that exist between organizations and extending the definitions for process elements to an implementation level across the organizations. Leveraging value-chain standards for more effective planning forecasts and capacity management while retaining critical strengths. Implementing best-in-class improvements by benchmarking supply-chain processes from other organizations. Deliver proven, competitive process improvements through a direct comparison of supply-chain processes using a standardized set of metrics and process element definitions. Rethinking Plan, Source, Make, Deliver, and Return strategies in light of e-commerce capabilities. Adapt to new technologies and improve the flow of information among the network partners to reduce cost and create collaborative systems that improve planning and demand forecasting.

II. Past Review of Literature

Global Supply Chain Framework (GSCF) and Supply Chain Operations Reference Model (SCOR)). have been constantly challenged and reviewed for different domains and manufacturing strategies and have been proven for its effectiveness either in strategic focus or support for best practices.

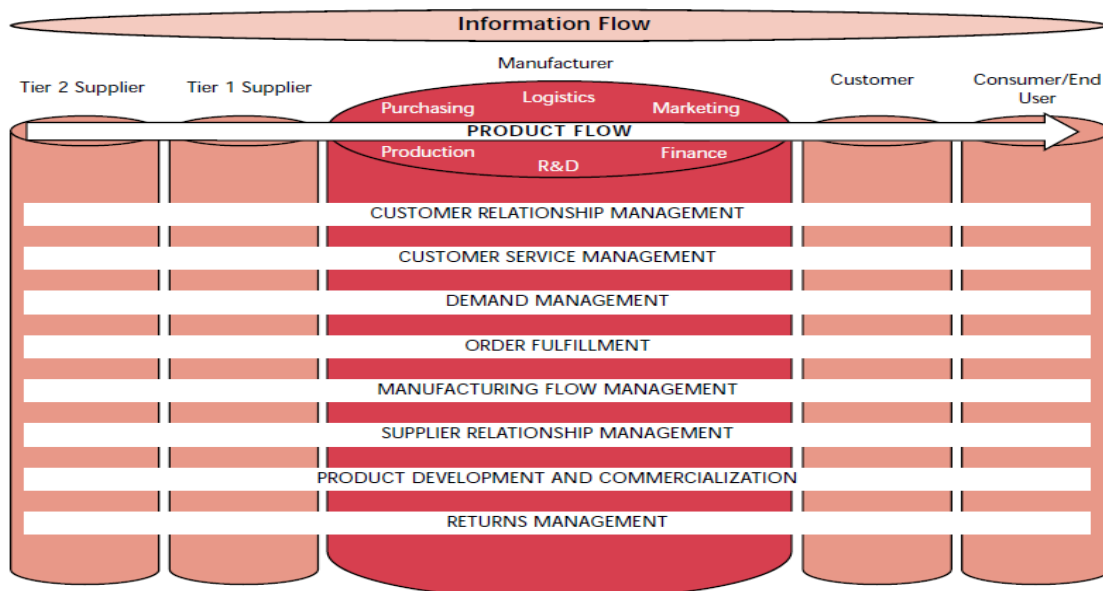
Businesses combine products and services in order to provide greater value to the customer and to facilitate longer more profitable business relationships. Organizations that pursue this route are following a strategy of servitization which requires the effective management of supply chains which are different from their production counterparts and need to be responsive facilitated by real time information.(Mark Johnson* and Carlos Mena et al. 2008);

The need for a business process model for a service industry has been stressed upon often but due to the unique nature of different service industries and the decentralized service rendering in servitized industries has made it more difficult to form a platform for a common framework. Ex :-Different functional departments render considerable amount of services in a decentralized manner which makes it appear to less important as individual components .But in accumulation it attributes to a major cost component . Services have not been well managed and understood from a supply chain perspective, the purchase of external services also has not been well managed and understood.(Billington Cooray:2004)

When the supply chain is increasingly recognized as integration of key business processes across the supply chain. Streamlining of cross business processes been identified as the next great frontier to cross to reduce the costs. GSCF model evolved to complement the need of comprehensive definition of processes integrating across intercompany boundaries and between functional silos of a organization. Each processes consists of strategic and operations levels where strategic portion consists of establishment and strategic management of each process and provides a blueprint for implementation and operations portion actualizes the processes once it has been established.(Keely L. Croxton, Doubles M. Lambert 1994)

Ellram et al. (2004) who defined SCM for services as the process of transferring managing information, ,service processes, capacity, performance and funds from the supplier to customer”. Ellram et al. (2004) concluded that the H-P and SCOR models are not compatible in the context of serviceand GSCF model could be adapted to describe the key supply chain processes in a service context. The GSCF model originally presented by Cooper et al. (1997) revised by Croxton (2001).

Figure1:Global Supply Chain Framework



In 1999, Bowersox, Closs, and Stank (1999) published a supply chain management framework based on main three areas : operational, planning and control, and behavioral. This framework was further refined by (Melnik, Stank, and Closs 2000) to include eight business processes: plan, acquire, make, deliver, product design/redesign, capacity management, process design/redesign, and measurement.

Mentzerpresented a supply chain management framework that creates cross-functional interaction within a firm and on the relationships built with other supply chain members (Mentzer 2004; Mentzer 2001; Mentzer et al. 2001). Four of the authors of five supply chain management frameworks suggest the implementation of standard cross-functional business processes. However, only the GSCF and SCOR frameworks include business processes that could be used by management to achieve cross-functional integration and are described in the literature with

enough detail to draw meaningful comparisons. The GSCF and SCOR frameworks connect customers and suppliers, and integrate activities across corporate functions. (Croxtan K.L 2004)

Croxtan has compared these two models based on four dimensions which are scope, intra-company connectedness, inter-company connectedness, and drivers of value generation

Under the Scope, to which extent these process models have achieved strategic objectives and breadth of activities is studied and was found that the GSCF framework is more strategic oriented where all the processes are linked with the corporate strategy and all the vital activities for the business success are well directed

In the SCOR model most of processes are linked with the operations strategy which derives from corporate strategy but does not explicitly consider the other functional or corporate strategies.

In the field of Intra company relationships, each process management team includes representation from all incumbent functions including, but not limited to, marketing, production, finance, purchasing, and logistics in GSCF. In SCOR, the intra-company connectedness is limited and defined to three functions: purchasing, manufacturing, and logistics. In the case of GSCF, the inter-company connectedness of all processes is coordinated through the customer relationship management and supplier relationship management processes and they enhance the identification of improvement opportunities in efficiency, or service and product introduction.

SCORs' interactions with other members of the supply chain is through transactional activities related to the source, deliver, and returns processes. In contrast, the GSCF framework links firms in terms of customer-supplier relationships where all the processes are coordinated through the customer relationship management and supplier relationship management processes. SCOR is focusing on operational efficiency, where drivers of value generation are centered on cost reductions and improvements in asset utilization.

GSCF is not being limited to measuring of cost reduction and increased asset utilization, identifies the revenue implications from more closely managing relationships with key suppliers and customers.

SCOR's unavailability of explicit connections between functional strategies and corporate strategies might hinder the organization-wide alignment of resources (Barney and Griffin 1992). Management pursuing the implementation of SCOR and interested in having the framework provide the broad impact should position SCOR within the corporate strategy. This will help to align resources and goals, and prioritize implementation initiatives that result from the use of the framework. It is suitable for an individual firm who is optimizing its internal process efficiencies or mass producing firm which requires minimum involvement of customer intermediation

SCOR easier to implement since in many firms these activities are more likely to be somewhat integrated within the corporate structure. The tradeoff is that one is attempting to manage the supply chain without critical input from marketing, finance, and research and development. But here considering the total tourism industry overall view of the total industry is needed rather than being blindfolded by a one functionality. This mistake of random developments of each processes or functionalities that does not adhere to a common strategy has resulted in many redundant projects.

SCOR, provides list of best practices / tools mainly aimed at improving transactional efficiency in the supply chain. These best practices can be implemented even within the GSCF framework in the context of the Process to improve the process efficiency Activity-based costing, advanced-shipping notification, Kanban, and supplier ranking programs are some of the best practices that are widely used in different industries. From the above analysis what we can conclude is that GSCF and SCOR frameworks represent two approaches in implementing business processes. Where GSCF focuses on managing relationships in the supply chain, SCOR focuses on the achievement of transactional efficiency.

Since the modified GSCF framework has been identified as a better option for the service industries this research uses it as the foundation for building the specified framework for tourism industry. It also uses some of the features that were available in the model that was initially developed for products to supplement some of the features such as identification of product development needs, and continuous management of the available products.

Below are the some of the processes and flows that were modified from the GSCF derivative frameworks.

Information Flow Management

Is considered as a flow rather than a process data to be captured, transmitted and processed to generate information and knowledge for the different players of the supply chain that is useful for managing the other processes. Timely accurate valid information must be available for all the members of the supply chain to improve the efficiency of the supply chain. Centralized information system with different user and authority

levels has to be established based on the purposes and the usage of data where changes are instantly updated and communicated.

Customer Relationship Management (CRM)

Refers to the series of activities that provide the structure for maintaining and developing relationships with customers. It includes activities such as understanding customer needs, tailoring product-service agreements (PSAs) to meet their needs, segmenting customers, monitoring relationships and ensuring customer satisfaction. Linking CRM to supply chain management and other key processes such as product/service development and supplier relationship management has been shown to improve firm performance and increase shareholder value.

Supplier Relationship Management (SRM)

Refers to the creation of a structure for managing and developing relationships with suppliers. As with CRM, it involves establishing PSAs Service Level Agreement are developed [SLAs] with suppliers to support the relationships.

Demand Management.

In product supply chains, demand management refers to the balancing of customers requirements with supply chain capabilities to reduce variability and uncertainty and increase flexibility. It includes activities such as demand creation, forecasting, planning. Proper management of the demand is vital in Tourism industry since there is high seasonality factor is included in the demand patterns.

Service Delivery Management

Is the result of combining three processes: the Order Fulfillment process, the Customer Service Management process from the GSCF model (Croxton et al. 2001) and the Service Delivery Management process from Ellram et al's (2004) service supply chain model.

Capacity and Skills Management.

Like a manufacturing supply chain for goods, the service provider must make investments in its organization, processes, assets and staff. Service providers can differentiate themselves based on the availability and quality of staff or the lack thereof (Bitner 1995)

Product Development Management

Refers to the activities "involved in providing a structure for developing and bringing to market products jointly with customers and suppliers" (Rogers et al. 2004). Ellram et al's (2004) service supply chain model does not consider a service development process, however, services also have to be designed and developed. This process is very important in Sri Lankan tourism industry since there are lots of potential value adding services and products are available where interrelation of these products can be developed in order to maximize the value delivery

Risk Management

The Risk Management process has been defined as: "the collaborative activities which seek to ensure 'profitability and continuity' through supply chain wide risk reduction via identification and management" (Christopher, 2003; Jüttner et al. 2003; Tang,2006). Tourism is an industry where high uncertainty is involved. Big fluctuations of the revenue and stock prices during the economic or security crisis is evident.

A servitization strategy requires the coordination of complex networks of product and service providers. To understand the challenges involved in using this strategy it is important to have a framework that identifies the key processes involved. characteristics of supply chains for servitized products is different to that of 'traditional' supply chains for physical products, whether the demand is from production or from the aftermarket. The strategy of production supply chains is typically to deliver products efficiently while that of aftermarket supply chains is to be responsive as products can only fulfill operational goals when functioning. Thus: spares need to be available for maintenance or repair. The research indicates that supply chains for servitized products needs to focus on the delivery of value to the user of the product.

It became evident that some of the processes were particularly important in the use of a servitization strategy. Information Flow Management stood out as a key process, by linking other processes using real-time data from the product. This data can be used to remotely place orders in the supply chain, It is a key input for processes such as Demand Management, Production Management and Order Delivery Management, allowing greater responsiveness in all these processes. Additionally, information flow will also affect Customer Relationship Management and Supplier Relationship Management, by allowing the most efficient and effective flow of information between supply chain partners.

When organizations are establishing a strategy of servitization, long-term agreements should also be established with strategic suppliers to establish shorter lead time last moment customization and ensure overall agility of the supply chain. This has a direct impact on both Customer Relationship Management and Supplier Relationship Management processes.

Based on the above past researches and other requirements identified Global Supply Chain Forum Model is more compatible for the service environment with a higher focus on organizational strategy. Therefore GSCF framework is selected for the validation process in the tourism industry.

III. Research Design

Main research question, sub questions and the meathod for addressing each question is decribed here

Main Research Question Whether a common business process model can be developed to suit different service providers in the tourism industry?

1. What are, from the extant literature, the key processes within supply chains for servitized products?(Literature review)
2. What are the spoken, unspoken and implied needs of tourists who visit Sri Lanka? (Survey)

Preliminary survey is carried out to identify the major needs and suggestion of the tourists about the current process .These needs are proved with the data that has been obtained from Air Port Survey report that has been conducted by Sri Lanka Tourism Development Authority. Validated needs from the both two processes are considered as needs of the tourists that visit Sri Lanka.

3. Supply Chain strategies that will be addressing the inherent problems in the supply chain

Studying of other countries with successful tourism industries or recent booming in the industry are selected. Domains of similar problems are identified and the strategies used are selected. Compatibility of the strategies is examined based on economic, cultural, infrastructural and social environment is discussed and the selected strategies were filtered .

4. What are the possible supply chain practices that can achieve them in the most effective way?

The above identified needs will be listed against the selected best practices and rankings from operating people in the industry will be retrieved against each of them . This is a standard ranking system in QFD model where rankings are allocated for each priority .Based on that most relevant best practices in terms of identified needs are selected.

IV. Data Collection Sampling and Analysis

A preliminary survey was conducted to identify the requirements of different tourist that has been to different countries and their suggestions comparing Sri Lankan tourism to the other countries. Out of them, only the problems that can be handled by modification of the supply chain was selected for the improvement. Since the resulted sample was not representation the total population a survey conducted by Sri Lanka Tourist Development Authority(SLTDA) was used as a secondary data source to weight the customer needed identified

Table I: Details of the data Analysis

Market	2006	2007	Target Sample Size	Number of tourist interviewed	Target by the SLTDA
UK	88531	94089	1076	1015	1000
Germany	47296	35016	485	469	450
France	22703	9540	190	166	180
Italy	12353	11451	140	71	130
Beneluxe	25833	22185	283	86	265
Russia	8000	13530	127	122	120
India	128520	105906	1381	747	1280
Middle East	10191	13587	140	145	130
Japan	16217	14274	180	70	170

When considering the importance contribution to the Sri Lankan Economy from tourism, total value addition generated was considered for hoteliers .Sample was selected based on the value adding portion out of the total value addition and at least 50% representation was considered in total value addition from hoteliers (Importance was considers based on both factors “Number of customers” and the “value generated per head”) .

TableIII: Value Generated from Hoteliers

Category	Tourist Nights	Average Rate	Value	Proportion
5 Star	740940	171	126700740	0.590109
4 Star	288314	116.5714286	33609174.86	0.1565348
3 Star	124922	118.5	14803257	0.0689462
2 Star	416923	80.30555556	33481233.14	0.1559389
1 Star	103903	58.83333333	6112959.833	0.0284711
Unclassified	1143485	66.16054	N/A	N/A

And major travel agencies that are handling up to 70 % of the total tourists are considered as service providers. Ranking of both of the categories was considered when prioritization of the best practices of the model.

TableIVVVI: Handling of Tourists by Travel Agents

Agent	Total Percentage of tourists	Percentage of Tourists Handled
Walkers	19.2	31.5270936
Jetwing	9.9	16.25615764
Aitken	8.9	14.61412151
United holidays	5.8	9.523809524
Connaisance	5.4	8.866995074
Hem tours	4.5	7.389162562
Ace travels	4.5	7.389162562
whitalboastead `	2.7	4.433497537

After collecting the data from different service providers data ranking was done and overall ranking allocated after categorizing to service provider groups. Each customer requirement was considered individually for rearranging data where Kruskalwallis test was carried out in common for all the service provider groups for a one requirement . For this each service provider will be considered as an individual sample .This identifies whether the rankings of different groups are equal. All the four major requirements were subjected to this test .

Then the groups were considered separately and Kruskal Wallis test was carried out inside the groups to see whether the rankings given by the members of the group are equal. For this each member inside a service provider was treated as a instance sample. Ranks for the data gathered were readjusted for smaller scope of the data.

V. Conclusions and Findings

Therefore it can be considered that members within the same group share a common ranking system for the given model. Therefore a common framework can be built among similar service providers.

Since the type of the service provided is unique to each type, a common framework cannot cater all the needs. Since the similar service providers operate in the same environment their priorities are similar for the given best practice.

Based on the priorities given by the different types of service provider types best practice models can be built. This model depends on the service provider type. A unique model can be built based on individual requirements of service providers and the service type. But the model and best practices will remain the same .below is an example of a prioritized model for Hotelier Class1.

The model has been versatile in the process of catering the customer needs effectively and gives a guideline to the different stakeholders to adopt the best practices for achieving the target/customer need that is vital to them. In addition following strategies are to be implemented for the long term growth and sustainability of the industry

Theme 1: Agile and flexible work force that can fit in to any role within the hospitality industry and as well as other industries that are closely related or with significantly similarity. And developing their skills to ensure maximum customer satisfaction.Enhancing the job security and the perception of employability in the tourism industry in order to sustain more skilled labor in the domain.

Theme2: Increasing the information availability inside the tourism domain about the country and individual service providers and their services. Making Sri Lankan destinations more accessible and competitive by increasing the availability through electronic media and web.Feasibility of online tour planning through customer care centers or web portals to reduce the bargaining power of intermediaries (Tour operators/Travel agents) .Reducing the dependent market share by usage of the information technology as a pillar. Increasing the

rate of more profitable tourist segments such as Eco –Tourism, Free and individual Travelers (FIT) through the information availability and accessibility

Theme 3: Usage of effective destination management solutions that enhance the tourist satisfaction and have the ability to build cluster of different businesses around it along the time. Attracting more diversified interest groups through building different destinations and the same time ensuring sustainability of the traditional markets by uplifting and maintaining the quality of the products and services provided.

.References

- [1]. Cooper, Martha C., Douglas M. Lambert, and Janus D. Pagh (1997), "Supply Chain Management: More than a New Name for Logistics," *The International Journal of Logistics Management*, Vol. 8, No. 1, pp. 1-14.
- [2]. Council of Logistics Management (2003), URL: <http://www.clm1.org>.
- [3]. Cox, Andrew and Ian Thompson (1998), "On the Appropriateness of Benchmarking," *Journal of General Management*, Vol. 23, No. 3, pp. 1-19.
- [4]. Croxton, Keely L. (2003), "The Order Fulfillment Process," *The International Journal of Logistics Management*, Vol. 14, No. 1, pp. 19-33.
- [5]. Croxton, Keely L., Sebastin J. Garca-Dastugue, Douglas M. Lambert, and Dale S. Rogers (2001), "The Supply Chain Management Processes," *The International Journal of Logistics Management*, Vol. 12, No. 2, pp. 13-36.
- [6]. Lambert, Douglas M. and Renan Burdugoglu (2000), "Measuring and Selling the Value of Logistics," *The International Journal of Logistics Management*, Vol. 11, No. 1, pp. 1-17.
- [7]. Lambert, Douglas M. and Terrance L. Pohlen (2001), "Supply Chain Metrics," *The International Journal of Logistics Management*, Vol. 12, No. 1, pp. 1-19.
- [8]. Lenz, R.T. (1981), "Determinants of Organizational Performance: An Interdisciplinary Review," *Strategic Management Journal*, Vol. 2, No. 2, pp. 131-154.
- [9]. ANNUAL STATISTICAL REPORT OF SRI LANKA TOURISM – 2009 ,SRI LANKAN TOURISM STRATEGY-2011
- [10]. In Collaborative networked organizations – A research agenda for emerging business models, (L.M. Camarinha-Matos, H. Afsarmanesh, Editors), Kluwer Academic Publishers
- [11]. Proceedings of the Ninth Annual Postgraduate Research Symposium, School of Engineering, The University of Birmingham, (D.J. Delgado & E.M. Aspinwall)
- [12]. Croxton, Keely L., Douglas M. Lambert, Sebastin J. Garca-Dastugue, and Dale S. Rogers (2002), "The Demand Management Process," *The International Journal of Logistics Management*, Vol. 13, No. 2, pp. 51-66.
- [13]. Lambert, Douglas M., Martha C. Cooper, and Janus D. Pagh (1998), "Supply Chain Management: Implementation Issues and Research Opportunities," *The International Journal of Logistics Management*, Vol. 9, No. 2, pp. 1-19