Effects of service supply chain practices on the profitability of tourism firms

Suhaiza Zailani\textsuperscript{a}, Mohammad Iranmanesh\textsuperscript{a}, Nor’Aini Yusof\textsuperscript{b} & Reza Ansari\textsuperscript{c}

\textsuperscript{a} Faculty of Business and Accountancy, University of Malaya, Kuala Lumpur 50603 UM, Malaysia
\textsuperscript{b} School of House, Building, and Planning, University Sains Malaysia, Penang 11800 USM, Malaysia
\textsuperscript{c} Faculty of Civil Engineering, University of Malaya, Kuala Lumpur 50603 UM, Malaysia

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Effects of service supply chain practices on the profitability of tourism firms

Suhaiza Zailani a1, Mohammad Iranmanesh a*, Nor’Aini Yusof b2 and Reza Ansari c3

aFaculty of Business and Accountancy, University of Malaya, Kuala Lumpur 50603 UM, Malaysia; bSchool of House, Building, and Planning, University Sains Malaysia, Penang 11800 USM, Malaysia; cFaculty of Civil Engineering, University of Malaya, Kuala Lumpur 50603 UM, Malaysia

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The tourism industry consists of various players and tourism demands that need to be addressed by a joint effort from all these players. The aim of this study is to investigate the effects of supply chain practices on the profitability of tourism firms. Data were gathered via a survey from tour operators. Results indicate that demand management, capacity and resource management, customer relationship management, supplier relationship management, order process management, service performance management, and information and technology management have an effect on the profitability of tourism firms. The findings of this study provide a useful tool for tourism firm managers to evaluate their current service supply chain (SSC) practices. Furthermore, the results confirm the IUE-SSC model in the tourism context.

Keywords: service supply chain; financial performance; firm; Malaysia

Introduction

In the current highly competitive market, service industries are facing the challenge of improving business profitability and financial performance without negatively affecting customer service (Boon-itt & Pongpanarat, 2011). To create a balance between customer requirements and supply chain capabilities, service providers are meeting these challenges by attempting to build efficient service supply chain management (SSCM) tools (Zhang, Song, & Huang, 2009). SSC refers to a network of suppliers, service providers, consumers, and other supporting units that perform the function of the transaction of resources required to produce a service, followed by the transformation of these resources into supporting and core services, and finally, the delivery of these services to customers (Baltacioglu, Ada, Kaplan, Yurt, & Kaplan, 2007; Lin, Shi, & Zhou, 2009).

Tourism is a crucial aspect of the service industry and in terms of national economic development, has become one of the fastest growing sectors of the world economy (Ji & Guo, 2009). After manufacturing, tourism is currently the second highest direct contributor to Malaysia’s gross domestic product (GDP) contributing 7.0% to GDP in 2012 (World Travel & Tourism Council, 2013). The Malaysian tourism industry faces a highly competitive environment with other leading tourist destinations located within the same region, such as Singapore, Thailand, and Indonesia. Therefore, Malaysian tourism firms are forced to look for ways to enhance their competitive advantage. Tourism supply chain management (TSCM) is recognized by tourism firms and research scholars as a way to enhance the competitive advantage of the firms.

*Corresponding author. Email: iranmanesh.mohammad@gmail.com

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The current tourism industry is characterized by tremendous growth accompanied by escalating costs because of improvement in service quality and technological advancement. In this context, TSCM is undoubtedly vital for the tourism industry to minimize costs while keeping service quality (Zhang et al., 2009). TSC comprises the source market, tourism intermediary organizations, long-distance transport providers, destination service providers, other related service providers, and the suppliers of all the goods and services that go into the delivery of tourism products to consumers. Therefore, the tourism industry is well suited to the concept of supply chain because the tourism industry consists of various parties that are highly connected (Zhang et al., 2009).

In practical and academic terms, the manufacturing sector has been the primary point of emphasis in terms of supply chain and operations. A service industry, such as tourism, could benefit from applying a few of the practices used in manufacturing (Boon-itt & Pongpanarat, 2011). The differences between the nature of service and the nature of manufacturing generate the need to investigate empirically the importance of supply chain practices in service sectors, which is lacking in the current literature. Previous studies in this field focus on conceptualization of SSCM practices without testing their effects on the performance of service firms (Baltacioglu et al., 2007; Ellram, Tate, & Billington, 2004; Zhang et al., 2009). Therefore, the relationships between SSCM practices and SSC profitability in the tourism industry are investigated in this study. The findings of this study generate significant suggestions for the service industry, as well as an overall idea, particularly for tourism, in terms of supply chain practices and their effects on the profitability of tourism firms. These suggestions can assist in the ability of the tourism firms to control the overall tourism value chain efficiently. In addition, the proposed practices in the Izmir University of Economics—SSC model of Baltacioglu et al. (2007) will be tested empirically in the tourism industry.

Literature review

In order to ensure the long-term survival of firms and the competitiveness of their supply chain, all channel members should examine the profitability of conducting business with particular customers or suppliers (Norek & Pohlen, 2001). Profitability analysis will facilitate the decision of whether the transaction expenses and investments required for conducting business with a particular supplier or customer are too costly to accredit further business with that company (Norek & Pohlen, 2001).

The highly competitive environment of the tourism industry has forced tourism firms to determine ways to enhance their respective competitive advantage (Yusof, Abd Rahman, Che Jamil, & Iranmanesh, 2014). Among the strategies that tourism firms could adopt to increase their competitiveness is effective SSCM, which receives less attention in the literature. The profitability of the tourism firms arguably depends strongly on the development of better linkages between supply and demand (Font, Tapper, Schwartz, & Kornilaki, 2008). The success of firms in the tourism industry depends largely on the state of tourism demand, and market failure is often caused by the failure of the firms to meet the market demand. Estimates of expected future demand constitute a highly important element in all SSC planning activities because of the key role of demand as a determinant of business profitability (Zhang et al., 2009). An important phenomenon in the tourism industry regarding the supply side is its dynamic structure, which allows the players to change business partners occasionally to maximize their profitability and competitiveness (Zhang et al., 2009). Tour operators are intermediaries in the supply chain. Thus, they are in a position to influence the destination management on the supply side and the consumers on the demand side.
**Conceptualization**

The unique characteristics of services, namely, intangibility, simultaneity, heterogeneity, and perishability, change the structure of the supply chain making it more service-oriented and less manufacturing-oriented. In this context, the key is to determine the supply chain practices that are beneficial to the service industry, considering the specific nature and characteristics of the service industry. The potential benefits of adopting the best practices of TSCM are immense because of the complex interaction among numerous stakeholders in the tourism industry, who have divergent objectives and scopes. This study attempts to identify the TSCM practices that have effects on the profitability of tourism firms as a common measure of the financial performance of the business, which reflects the fulfillment of the economic goals of the firms.

Baltacioglu et al. (2007) developed a framework for the service industry supply chain (IUE-SSC model), which is based on the general model of Ellram et al. (2004). Baltacioglu et al. (2007) proposed seven supply chain practices, which include demand management (DM), capacity and resource management (CaRM), customer relationship management (CRM), supplier relationship management (SRM), order process management (OPM), service performance management (SPM), and information and technology management (ITM). In this study, the effects of these seven practices on the profitability of tourism firms in Malaysia were investigated (Figure 1). The IUE-SSC model was selected because it is highly suitable for the service industry.

**Demand management**

DM, as a preliminary function of supply chain management, can be defined as the focused efforts to estimate and manage the demand of customers with the intention of using this information to shape operating decisions (Blackwell & Blackwell, 1999). It includes forecasting, generating forecast, managing them, reconciling new information with the

![Figure 1. Proposed theoretical model.](image-url)
forecasts, and keeping them up-to-date (Handfield & Nichols, 1999). Uncertainty regarding future demand is one of the most significant characteristics of the tourism industry (Gomez & Sinclair, 1991) and by growing the global economy and increasing the options of tourists, the uncertainty and complexity of the tourism marketplace will vastly increase. If not managed properly, then this demand uncertainty can bring significant monetary loss for the business entities that are involved in a TSC (Zhang et al., 2009). Therefore, the successful management of demand is crucial in the tourism industry. The activities of supply chain members, such as airlines, tour operators, hotels, and recreation facility providers, are directly driven by tourism demand. The profitability of tourism firms depends largely on the state of the tourism demand, and the failure of the firms to meet the market demand has a negative effect on their profitability (Zhang et al., 2009). Therefore, this study hypothesizes that

H1: DM has a positive effect on the profitability of firms in the tourism industry.

**Capacity and resource management**

Capacity management is the ability to balance demand from customers and the capability of the service delivery system to satisfy the demand (Armistead & Clark, 1993). Service businesses continuously face the problem of matching their capacity and demand because of the routine changes in the demand for services and the fact that services are produced and consumed simultaneously (Baltacioglu et al., 2007). Furthermore, the severity of the problem increases because of the perishable nature of services. Services cannot be inventoried. Thus, unused capacity is lost forever in times of low demand. During periods of excess demand, the excess business is often lost as well. This expiratory condition of services creates more difficulty for the tourism industry because tourism resources require relatively high fixed costs that are invested in advance to build up a fixed level of capacity. This situation introduces difficulties for tourism managers to balance supply and demand in the short run by carrying production capacity. Therefore, effective CaRM strategies are crucial for achieving efficient TSCM (Zhang et al., 2009). In addition, the capacity of a tourism firm depends on other resources that are accessible to the firms. These resources include all tangible objects, facilities, funds, and services outsourced from other firms. Successful CaRM requires that all these resources are organized efficiently to operate at an optimum capacity that meets fluctuating demand (Baltacioglu et al. 2007). Thus, we set the hypothesis as follows:

H2: CaRM has a positive effect on the profitability of firms in the tourism industry.

**Customer relationship management**

CRM is the set of methodologies and tools that help an enterprise manage customer relationships in an organized manner (Lawson-Body & Limayem, 2004). Undoubtedly, CRM has recently become one of the most controversial issues and a focal point in the business field (Balaram & Adhikari, 2010); a successful implementation of CRM strategies can secure the benefits of increasing sales through better market segmentation, customizing products and services, obtaining high-quality products, gaining access to information and employee satisfaction, and above all, ensuring long-lasting customer retention and loyalty (Verma & Chaundhuri, 2009).

In the service industries, CRM is a critical function because of extensive human involvement in the delivery phase. In this context, it includes not only external customers but also internal customers (i.e. the employees) as well. Effective management of
customer relations requires acquiring adequate information from these customers, appropriately classifying and monitoring them, and accordingly establishing a sustainable relationship with customers to obtain loyal customers who are significantly more profitable than non-loyal customers (Baltacioglu et al., 2007).

In the competitive business environment of the tourism industry, successful CRM implementation within tourism firms requires these firms to acquire extensive data on customers, which can be transformed into useful knowledge about them (Lin & Su, 2003). This situation may lead to retaining customers longer. Therefore, CRM is widely considered to be one of the most effective ways to facilitate the development and expansion of the customer base, which will assist in enhancing profitability and guest loyalty (Wu & Li, 2011). Thus, we set the hypothesis as follows:

**H3:** CRM has a positive effect on the profitability of firms in the tourism industry.

**Supplier relationship management**

Recent business forces have led to inter-firm relations because the business environment is making it more complex and expensive for one firm to go it alone (Lambert, Cooper, & Pagh, 1998). Therefore, the buyer–supplier relationship is becoming more critical for all companies in the supply chain. In this context, SRM, which can be defined as an integrated solution that bridges product development, sourcing, supply planning, and procurement across the value chain (Lang, Paravicini, Revaz, & Pigneur, 2002), provides the interaction between the focal company and the potential suppliers (Chopra & Meindl, 2004).

In a service context, a successful SRM system enables service firms and their suppliers to collaborate and create and deliver services faster and at the lowest total cost. SRM is unquestionably critical to the success of SSCM, which is primarily caused by the nature of the service delivery process, in which suppliers indicate significant dominance in the chain. In SSC, suppliers contribute directly to service delivery and often in direct contact with customers. Hence, a failure in the supply side may simultaneously turn into a failure in performance (Baltacioglu et al., 2007). In the context of the tourism industry, selecting suppliers for specific services is critical for most tourism firms because tourists often view a tourism product as a seamless service. Hence, supply performance can have direct financial effects on the business (Zhang et al., 2009). Therefore, this study hypothesizes that:

**H4:** SRM has a positive effect on the profitability of firms in the tourism industry.

**Order process management**

Lambert et al. (1998) defined order processing as the function that involves the system an organization has for acquiring orders from customers, checking on the status of orders, communicating to customers regarding their orders, and finally, filling the order and making it available to the customers. The OPM function covers numerous sub-processes, such as order preparation, order transmittal, order entry, order filling, and order status reporting (Ballou, 2004), and has many intersections with other functions of supply chain management. Thus, it has a significant impact on customer perception of service and customer satisfaction, which are decisive and shared aims of the firms in a supply chain (Baltacioglu et al., 2007). In the service industry, order processing has enormous...
importance and improvements in this function are often reflected in cost decreases. Therefore, the following hypothesis is developed:

H5: OPM has a positive effect on the profitability of firms in the tourism industry.

Service performance management

SPM is regarded as the key function in SSC. The service production process requires both the customer and the producer to be present because of the nature of service businesses. In addition, performance (i.e. service production) and consumption occurs simultaneously. SPM in SSC is similar to the production function in manufacturing-oriented supply chains, although the former has a unique nature because suppliers and buyers are required in the process apart from the producer (Baltacioglu et al., 2007).

Tour operators are between suppliers and buyers in the tourism distribution system. Services provided by tour operators reduce operation costs, risk, and required working capital (Sheldon, 1986). However, service delivery in the tourism industry is more complex than those in the other service industries (Wang, Hsieh, Chou, & Lin, 2007). Providing quality consumer service is crucial. Therefore, the tourism industry should increase its focus on the SPM of tour operators because such management is necessary to deliver the service to the customers in an efficient way. The following hypothesis is developed:

H6: SPM has a positive effect on the profitability of firms in the tourism industry.

Information and technology management

Supply chain management is concerned with the management of information flow. Therefore, successful management of this flow is rapidly becoming a powerful tool for logistics and supply chain operations. The key drivers for ITM can be summarized as the efforts to improve customer satisfaction through product availability, delivery accuracy, responsiveness and flexibility, improvement via feedback, and to increase sales revenue and improve efficiency of operations (Korhonen, Huttunen, & Eloranta, 1998). ITM is critical to SSC because the success of the key functions in the chain, such as DM, CaRM, CRM, SRM, and OPM, is dependent on an effective information flow (Baltacioglu et al., 2007).

Information is the life-blood of the tourism industry (Sheldon, 1994), which binds activities within the TSC in terms of both inter-firm links and tourism product distributions. The availability of powerful information technology empowers suppliers and the core companies to enhance their efficiency (Buhalis & O’connor, 2005). Therefore, the following hypothesis is developed:

H7: ITM has a positive effect on the profitability of firms in the tourism industry.

Methodology

This study employed quantitative survey with a structured questionnaire. The survey questionnaire consisted four sections: (1) demographic information, (2) information connecting the organization, (3) SSCM practices, and (4) profitability of firms. Apart from the organization information and demographic information, the other items were measured.
using 5-point Likert scales anchored by “strongly disagree” and “strongly agree”. To ensure the content validity, SSCM practice items are adapted from Boon-itt and Pongpanarat (2011) and profitability items are adapted from Schneider, Hanges, Smith, and Salvaggio (2003) and Staw and Epstein (2000).

The unit of analysis in the study is “business unit”. The term “business unit” in this study refers to tour operators in Malaysia, which include travel agencies, outbound tour operators, ground operators, local service providers, and travel resellers and portals. Considering that tour operators deal directly with tourists and tourism service providers, they have information on the seven proposed practices. Data are collected via simple random sampling from the 3715 tour operators that are registered in Tourism Malaysia. The questionnaires were distributed to the managers of tour operators through different channels, namely by mail and hand delivery. The managers were chosen as the respondents for this study because they are directly involved in the process. Thus, they have knowledge and experience on all the practices in their companies. A total of 500 questionnaires were distributed among potential respondents. A total of 222 usable responses were received; the usable response rate was 44.4%. The sample was estimated to be effective at the 95% confidence level with an error rate of ± 5.36%.

The structural equation modelling technique of partial least squares (PLS) was applied to test the research model using SmartPLS Version 3.0. PLS is the preferred method when the research objective is prediction (Hair, Ringle, & Sarstedt, 2011), which matches the objective of this study. The two-step approach was utilized in data analysis, as Hair, Hult, Ringle, and Sarstedt (2013) suggested. The first step involved the analysis of the measurement model, whereas the second step tested the structural relationships among the latent constructs.

Results

The final sample consisted of 55.0% male and 45.0% female. In terms of position of the respondents in the business units, the sequence was executive (43.2%), manager (35.2%), and director (21.6%). Approximately 172 (77.5%) business units with < 10 employees dominated the survey. A total of 106 (47.7%) business units have < 10 supply chain members, followed by 52 (23.4%) business units with 10–20 supply chain members, and 64 (28.8%) business units with approximately 20 supply chain members. The monthly revenue of the business units ranges between three categories, namely < US$20,000 per month (46.8%), US$20,000 up to US$40,000 (32.4%), and > US$40,000 (20.7%). Finally, most of the business units were fully owned by families (77.5%).

Measurement model results

The PLSSs test of the measurement model has three primary aspects: (1) individual item reliability, (2) internal consistency of the entire scale, and (3) discriminant validity. Individual item reliability was assessed by examining the factor loadings of each measure on its corresponding construct. Igbaria, Gumaraes, and Gordon (1995) suggested accepting items with loadings of at least 0.5. Individual item reliability is acceptable because the loadings associated with each of the scales were all > 0.5 (Table 1). Composite reliability (CR) of each of the reflective constructs exceeded the recommended threshold of 0.7 (Straub, Boudreau, & Gefen, 2004). Convergent validity is demonstrated as the average variance extracted (AVE) of all of the reflective constructs that exceeded the threshold of 0.5 (Fornell & Larcker, 1981).
Two approaches were used to assess the discriminant validity of the constructs. First, the cross loadings of the indicators were examined, which indicated that no indicator loads higher on an opposing construct (Hair, Sarstedt, Ringle, & Mena, 2012). Second, following the Fornell and Larcker (1981) criterion, the square root of AVE of each construct exceeded the intercorrelations of the construct with the other constructs in the model (Table 2). Both analyses confirmed the discriminant validity of all constructs.

As seen in Table 2, the implementation of SSC practices among Malaysian tour operators is in a satisfactory level, which may lead to higher profits. Moreover, the profitability is rated high among tour operators.

**Structural model assessment**

The explanatory power of the research model was examined in terms of the portion of the variance explained. The results suggest that the model is capable of explaining 31.9% of the variance in the profitability of firms. Apart from estimating the magnitude of $R^2$, researchers have recently included predictive relevance developed by Geisser (1975) and Stone (1974) as additional model fit assessment. Stone–Geisser $Q^2$ (cross-validated redundancy) was computed to examine the predictive relevance using a blindfolding procedure in PLS. In this study, a value of 0.244 was obtained, which is significantly $> 0$ (Chin, 2010). In summary, the model exhibits acceptable fit and high predictive relevance.

We applied non-parametric bootstrapping (Efron & Tibshirani, 1993) with 5000 replications to test the structural model. The significance and relative strength of direct effects specified by the research model were evaluated (Table 3) and all paths are significant. As such, all hypotheses are supported. The strength of the effect of SSC

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### Table 1. Measurement model evaluation proposed theoretical model.

<table>
<thead>
<tr>
<th>Constructs</th>
<th>Items</th>
<th>Factor loadings</th>
<th>CR</th>
<th>AVE</th>
</tr>
</thead>
<tbody>
<tr>
<td>DM</td>
<td>2</td>
<td>0.888–0.904</td>
<td>0.891</td>
<td>0.803</td>
</tr>
<tr>
<td>CaRM</td>
<td>3</td>
<td>0.725–0.831</td>
<td>0.806</td>
<td>0.581</td>
</tr>
<tr>
<td>CRM</td>
<td>6</td>
<td>0.670–0.845</td>
<td>0.891</td>
<td>0.578</td>
</tr>
<tr>
<td>SRM</td>
<td>4</td>
<td>0.772–0.841</td>
<td>0.880</td>
<td>0.648</td>
</tr>
<tr>
<td>OPM</td>
<td>3</td>
<td>0.540–0.913</td>
<td>0.831</td>
<td>0.632</td>
</tr>
<tr>
<td>SPM</td>
<td>3</td>
<td>0.829–0.848</td>
<td>0.879</td>
<td>0.707</td>
</tr>
<tr>
<td>ITM</td>
<td>4</td>
<td>0.751–0.891</td>
<td>0.905</td>
<td>0.705</td>
</tr>
<tr>
<td>Profitability</td>
<td>3</td>
<td>0.868–0.905</td>
<td>0.914</td>
<td>0.781</td>
</tr>
</tbody>
</table>

Notes: CR, composite reliability; AVE, average variance extracted.

### Table 2. Discriminant validity coefficients.

<table>
<thead>
<tr>
<th></th>
<th>Mean</th>
<th>SD</th>
<th>DM</th>
<th>CaRM</th>
<th>CRM</th>
<th>SRM</th>
<th>OPM</th>
<th>SPM</th>
<th>ITM</th>
<th>Profitability</th>
</tr>
</thead>
<tbody>
<tr>
<td>DM</td>
<td>3.922</td>
<td>0.526</td>
<td>0.896</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CaRM</td>
<td>3.917</td>
<td>0.657</td>
<td>0.361</td>
<td>0.792</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CRM</td>
<td>3.848</td>
<td>0.520</td>
<td>0.364</td>
<td>0.372</td>
<td>0.760</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SRM</td>
<td>3.863</td>
<td>0.547</td>
<td>0.328</td>
<td>0.414</td>
<td>0.449</td>
<td>0.805</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>OPM</td>
<td>3.898</td>
<td>0.462</td>
<td>0.271</td>
<td>0.128</td>
<td>0.123</td>
<td>0.120</td>
<td>0.795</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SPM</td>
<td>3.883</td>
<td>0.649</td>
<td>0.450</td>
<td>0.450</td>
<td>0.477</td>
<td>0.583</td>
<td>0.234</td>
<td>0.841</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ITM</td>
<td>3.883</td>
<td>0.448</td>
<td>0.425</td>
<td>0.452</td>
<td>0.334</td>
<td>0.348</td>
<td>0.244</td>
<td>0.465</td>
<td>0.840</td>
<td></td>
</tr>
<tr>
<td>Profitability</td>
<td>3.913</td>
<td>0.544</td>
<td>0.387</td>
<td>0.414</td>
<td>0.348</td>
<td>0.375</td>
<td>0.312</td>
<td>0.324</td>
<td>0.435</td>
<td>0.884</td>
</tr>
</tbody>
</table>

Note: Diagonal terms in bold values are square roots of the AVE.
practices on financial performance was investigated by the effect size \( f^2 \); Hair et al., 2013). Worth highlighting is that ITM has the highest effect on financial performance of tour operators \( f^2 = 0.063 \).

### Conclusion and implications

In the current highly competitive environment of the tourism industry, tourism firms began to realize that improving the efficiencies within an organization is insufficient but the entire SSC has to be made efficient. In doing so, the understanding and practicing of appropriate supply chain management practices is essential for enhancing profitability. In this study, the effects of SSCM practices on tourism firms were investigated. The results on the relationship between SSCM practices and the profitability of firms are consistent with Baltacioglu et al. (2007), Ellram et al. (2004), and Zhang et al. (2009), which highlighted that successful management of SSCM practices is vital in the service industry.

DM and CaRM were significantly related to the financial performance of tourism firms. A high uncertainty of demand patterns exist in the tourism industry. Accompanying this uncertainty is the inability to conduct an inventory of services and the perishable characteristics of services, which are challenging to the managers of tourism firms. If customer demand is lower or higher than planned, then capacity is expensive for the firms (Ellram et al., 2004). Therefore, increasing profitability through DM and resource management is a key problem of TSCM. However, the tourism firms should cope with these situations.

Moreover, the results indicated that CRM and SRM have a significant influence on the financial performance of tourism firms. Tourists are different, and treating them in the same manner results in poor service and dissatisfied guests. In addition, in the current aggressive environment, tourists are becoming more price sensitive, less brand loyal, and more sophisticated. CRM needs to address these issues and the findings of this study, as well as confirm the importance of CRM practice in the tourism industry. A tourism firm can gain a better understanding of its customer markets by using CRM. As the suppliers directly contribute to service delivery in the tourism industry, the tourism firms need to manage their relationship with suppliers in an effective way. By effective management of customer and supplier relationships, the tourism firms can deliver the service that the customer wants in an efficient way, which may maximize the profit of the firm.

The results of this study indicated the importance of OPM in the financial performance of the tourism firms. As Lovelock and Wirtz (2004) implied, the process of order taking should be polite, fast, and accurate, so that customers do not waste time and expend unnecessary mental and physical effort. Therefore, tourism firms should ensure that their

### Table 3. Path coefficients and hypothesis testing.

<table>
<thead>
<tr>
<th>Hypothesis</th>
<th>Relationship</th>
<th>Path coefficient</th>
<th>( t )-Value</th>
<th>Effect size</th>
<th>Decision</th>
</tr>
</thead>
<tbody>
<tr>
<td>H1</td>
<td>DM ( \rightarrow ) profitability</td>
<td>0.153</td>
<td>2.291*</td>
<td>0.041</td>
<td>Supported</td>
</tr>
<tr>
<td>H2</td>
<td>CaRM ( \rightarrow ) profitability</td>
<td>0.182</td>
<td>2.858**</td>
<td>0.029</td>
<td>Supported</td>
</tr>
<tr>
<td>H3</td>
<td>CRM ( \rightarrow ) profitability</td>
<td>0.113</td>
<td>1.773*</td>
<td>0.028</td>
<td>Supported</td>
</tr>
<tr>
<td>H4</td>
<td>SRM ( \rightarrow ) profitability</td>
<td>0.174</td>
<td>2.326**</td>
<td>0.049</td>
<td>Supported</td>
</tr>
<tr>
<td>H5</td>
<td>OPM ( \rightarrow ) profitability</td>
<td>0.096</td>
<td>1.689*</td>
<td>0.023</td>
<td>Supported</td>
</tr>
<tr>
<td>H6</td>
<td>SPM ( \rightarrow ) profitability</td>
<td>0.104</td>
<td>1.652*</td>
<td>0.024</td>
<td>Supported</td>
</tr>
<tr>
<td>H7</td>
<td>ITM ( \rightarrow ) profitability</td>
<td>0.216</td>
<td>3.002***</td>
<td>0.063</td>
<td>Supported</td>
</tr>
</tbody>
</table>

Notes: \( t \)-Values are computed through bootstrapping procedure with 222 cases and 5000 samples. *\( p < 0.05; **p < 0.01; ***p < 0.001 \) (one tailed).
order processing system is well designed and managed, and operates in cooperation with all the other SSCM practices.

In addition, this study highlighted the role of SPM concerning the financial performance of the tourism firms. Production and consumption of tourism services are inseparable. Production and consumption of tourism services cannot be produced in one place, transported for sale in another, and sold and consumed again in another place. Tourism services are sold first and then produced and consumed simultaneously at the same place and time. The inseparability of the production and consumption of tourism services implies that the mass production of tourism services would be extremely difficult because it would require a large number of tourists and service personnel at the same time and place. Therefore, the managers of tour operators need to provide high importance to SPM.

Finally, the findings of this study indicate that the financial success of the tourism industry highly depends on the management of information and technology. In the tourism industry, different products and services (transportation, accommodation, and so on) are bundled to form a final tourism product, and managing information among tourism sectors is vital (Sheldon, 1994). The tourism operators need to manage information and technology in the way that properly links the suppliers, core firm, and tourists. If the service attributes of a particular tourism supplier, such as a hotel service, fails to satisfy the tourists, then the overall tourist satisfaction level is negatively affected. In addition, the success of other practices in SSCM is highly dependent on an effective information flow (Baltacioglu et al., 2007; Zhang et al., 2009).

In terms of theoretical contribution, this study expanded previous research conducted in the manufacturing industries and is the first to investigate the effects of SSCM practices on the financial performance of Malaysian tour operators. This sector is particularly important because the Malaysian tourism industry is a rapidly growing industry. Moreover, this empirical study validates the IUE-SSC model proposed by Baltacioglu et al. (2007) for its applicability in predicting the financial performance of firms in the tourism industry. The empirical results indicate that the IUE-SSC model supports all the hypotheses and has good explanatory power for financial performance.

This study illustrates numerous implications for the managers of tour operators, as well as indicates the significant effects of SSCM practices on the financial performance of firms. Thus, it can advance the knowledge of managers of tour operators to understand the benefit of implementing SSCM practices. Although tourism firms have realized the importance of implementing SSCM, they often do not know exactly what to implement because of a lack of understanding of what constitutes a comprehensive set of SSCM practices. By developing the operational measure of the construct of SSC practices in the tourism context and testing the effects of SSC practices on the profitability of the firms, this study provides the managers of tourism firms with a useful tool to evaluate the comprehensiveness of their current SSCM practices. In addition, this study determined the ITM influences, more than other SSC practices on the financial performance, which suggests the essential role of ITM in financial performance of tour operators.

Disclosure statement
No potential conflict of interest was reported by the authors.

Notes
1. Email: shmz@um.edu.my
2. Email: ynoraini@usm.my
3. Email: reza.ansari@outlook.com
References


