



The effects of tourism supply chain management practices on tourism operations in Pretoria, South Africa

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Abstract

Managing tourism supply and demand is imperative for the successful management of a tourism enterprise. Tourism product offerings, which provide the supply that is consumed by tourists, representing demand, must implement initiatives that would increase sustained demand. The aim of the article is to evaluate tourism supply chain management practices of tourism operations within the City of Tshwane. The article examined the characteristics of tourism supply chain management practices implemented by tourism operations within the City of Tshwane. A quantitative research approach was used to explore the prevalent supply chain management practices within the study area. Data was collected from tourism operators using self-administered questionnaires where 178 questionnaires were useable. The non-probability sampling technique using convenience sampling was implemented. The data collected were analysed with STATA version 15 software. Within this research, exploratory factor analysis was used in determining the status quo of the Tourism Supply Chain (TSC) practices in the study area. The results revealed five factors relating to Supply Chain Management (SCM) practices, namely: relationships and collaboration, communication, sustainability, customer relations and value added processes. The findings show the level of awareness in-terms of implementing TSCM practices among the participants.

Keywords: Tourism Supply Chain, South Africa, Tshwane, tourism demand, supply chain management

Introduction

Managing supply chains isA regarded as the bond that is crucial among all tourism stakeholders. According to Roy and Mamun (2016) supply chain comprises the suppliers of all the goods and services that go into the delivery of tourism products to consumers; and the harmony among different parties largely affects the satisfaction of tourists regarding the tourism industry. Hence, the ultimate objective of every business is to ensure customers satisfaction while maximising profit. Intojunyomg et al. (2016) noted that tourism supply chain management (TSCM) is a set of approaches utilised to efficiently manage the operations of the tourism supply chain within a specific destination to meet the needs of visitors from targeted source markets. Organisations are increasingly exploring ways to leverage their supply chains and in particular, to systematically evaluate the role of suppliers in their activities according to Roberts-Lombard (2009). "Tourism is essentially a service that is intangible, and



experienced when produced at the destination area” Henama (2018: 5). The nature of tourism increases the inherent risk associated with providing tourism services.

Simba et al. (2017) noted that supply chain risk management is important in protecting firms from disruptions that cause major losses in productivity and profitability. Supply resilience for the tourism industry determines either business success or failure. This demands managing complex relationship between supply and demand, whilst supply fluctuates from year to year, and season to season. “Tourism, like other supply chains, operates through business-to-business relationships, and supply chain management 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 difference 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 proportions of people in the immediate production of the holiday experience” (Tapper & Font, 2004:3). There are competitive forces that are putting organizations under pressure to improve quality, delivery performance and responsiveness while simultaneously reducing costs (Roberts-Lombard, 2009).

This point is also alluded by Thoo et al. (2017), that fierce competition drives businesses by speed to different market, good quality and low costs. They also advocate for supply chain integration (SCI) strategy to achieve “sustainable competitive advantage that must be non-substitutable, inimitable, path-dependent and developed over time”. However, when dealing with supply chains, there are challenges that have been observed in different studies. Some of the challenges often faced by the tourism operations in general include the attainment of the desired profit, customer satisfaction and sustainability of the operation (Fawcett, Ellram & Ogden, 2007). For instance, one often has to strike a balance between supply and demand without necessarily compromising the quality. Another critical aspect in the business is accountability. In order to be successful, any company or business is expected to also have a sense of balance of the triple bottom line. This balance involves being socially, environmentally and economically accountable to all its stakeholders. Each and every business has a purpose. This article unpacks the characteristics of tourism operation in the City of Tshwane in Pretoria with an intention to identify the tourism supply chain management practices.

Why focus on supply chain management in South Africa?

Szpilko (2017) noted that tourism is one of the fastest growing economic sectors in the world, which has grown to contribute 9.8% of global GDP. Tourism is one of the top three exports for the majority of developing countries (World Tourism Organization, 2015), including South Africa; moreover, tourism has linkages to many parts of the economy. The fragmented nature of tourism, leads to several sectors being impacted by tourism, a sector which has direct, indirect and induced economic impacts. South Africa is a country that is rich in picturesque destinations and the country is declared a “World in Once Country” because of varied landscapes, and weather condition. The growth of tourism has been associated with the growth in tourism entrepreneurship led by small, medium and micro-sized enterprises (SMMEs). These SMMEs in tourism contributes significantly to the economy as well as providing employment opportunities for thousands of people, because of the labour-intensive nature of tourism jobs. The South African National Planning Commission (2013:103) sets an ambitious aim for the National Development Plan, which is to treble the size of South Africa’s economy by 2030. The plan sees the tourism sector as a comparative advantage for South Africa (NDP, 2012: 39). This point is also emphasised in the National Tourism Sector Strategy (NTSS) 2016-2026 that recognises tourism for its immense potential and its significant contribution to the economy.

The study focuses on the City of Tshwane, Pretoria which is an administrative capital city of the Republic of South Africa. The Union Buildings are the seat of government (Cabinet), and

located on one of the hills around Pretoria. In addition, it is the headquarters of national government departments, quasi-government organisations and state owned enterprises (SOEs). The city hosts the largest number of embassies in the world after Washington DC. There are many tourist attractions in Pretoria including the Pretoria Zoo, Freedom Park, Voortrekker Monument, Union Buildings, Tshwaing Crater, Fort Klapperkop, and Groenkloof Nature Reserve. Pretoria is located at the border of Dinokeng, located north of the city of Pretoria, which offers a wildlife experience including the Big Five. The status quo of tourism products in Tshwane, comprises of a variety of components including; tourism products, marketing, infrastructure, human resource, SMME and entrepreneurial development and investment development plans. The few, above mentioned components contributes to the TSC as enablers and drivers for tourism in the Tshwane area.

For the tourism sector in the City of Tshwane to succeed, it is crucial to consider all the component of TSC because, the supply chain components revolve to generate cash, facts and reliability among stakeholders (Roy and Mamun, 2016). This point is also alluded by Song et al. (2012) that the tourism studies are multi- and inter-disciplinary, integrating economics with other social science disciplines. Hence the goal of the study is to highlight the practices of the TSCM concept among tourism operation in the City of Tshwane. A web designed by Roy and Mamun (2016) is a holistic view of all the components of a Sustainable Tourism Supply Chain (STSC) as indicated in figure 1. These components are available in the City of Tshwane. Tourism must be analysed as a whole, because of the interrelated relationship and fragmented nature of this industry.

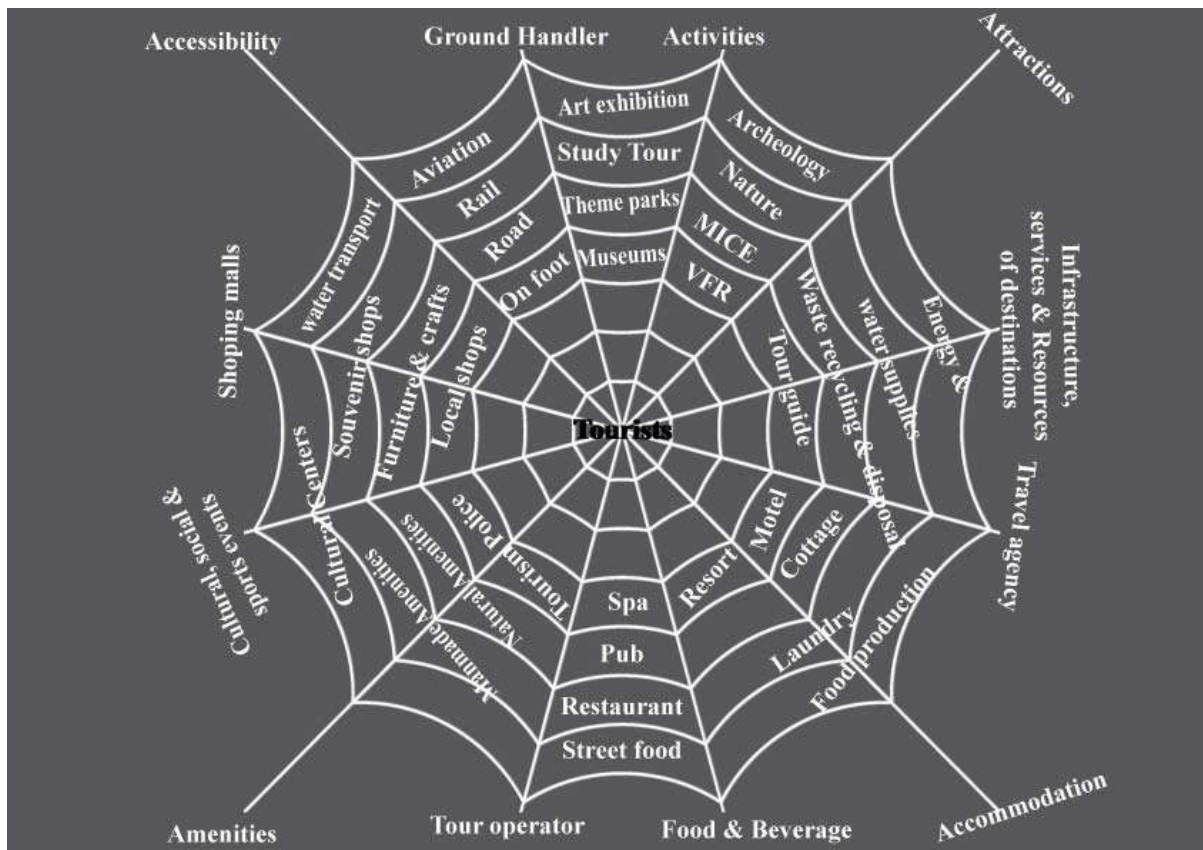


Figure 1: Components of supply chain management
 Source: Roy and Mamun (2016)

The objective of the study was to examine the characteristics of the TSCM practices that are implemented among tourism operators in the City of Tshwane, Pretoria in order to determine their level of involvement within the SC. Moreover, the evaluation of the benefits and costs associated with managing the tourism supply chain will also be identified.



Why Tourism Supply Chain Management?

Tourism supply chain involves 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 (Tapper & Font, 2004). The notion of tourism supply chain management emphasizes the inter-firm strategic interactions in the context of tourism supply chains (Song, 2011; Zhang, Song & Huang, 2009). The tourism supply chain model by Song, 2011; Zhang, Song and Huang, (2009) puts emphasis on the need to manage the tourism supply chain and encourage coordination and coherence. What makes tourism supply chain different from supply chain in general is that tourists travel to the product, and the product that they buy has a particularly high service component (Tapper & Font, 2004). Whilst Supply Chain Management is the design and management of seamless, value added processes across organizational boundaries to meet the real needs of the of the end customer according to Fawcett et al. (2007).

Piboonrunroj and Disney (2009) noted that the TSCM research is rather immature and very limited. Moreover, Zhang et al. (2009) stated that although the first stage of TSCM research appears to have started before 2007, such work is often limited to conceptual framework papers and not empirical studies. Zhang et al. (2009) are often credited as torch-bearers in the study of tourism supply chain management. Their work published under the title “tourism supply chain management: a new research agenda” is seen as ground breaking in the tourism supply chain management research according to Piboonrunroj and Disney (2009). Within the South African context, there are few studies that have focused on TSCM. These include articles conducted by Naude et al. (2013) which focused on the ‘supplier relationship management – anathema for the South African public procurement sector.

Sifolo (2015) focused on a theoretical contextualization of the effect of the tourism industry in South Africa, particularly in the Northern Cape, while Roberts-Lombard (2009) focused on the supplier relationship practices of travel agencies in Gauteng. However, few papers that discuss supply chain management pertinent to Africa or African businesses have been published. A study by Naude and Derera (2015) explored the SCM challenges of trekking to the summit of Kilimanjaro in Tanzania, via the Machame route, with particular focus on the logistics. These are not limited to all articles covered in the African context. Based on the above points of discussion, one could argue that what seems to be an emerging consensus is that the study of tourism should include supply chain management considering the growing view of the need to analyse the tourism industry in terms of ‘chains’ according to Buhalis, (2001), (2003a), (2003b), Van der Duim and Caalders, (2013), Song et al. (2012).

The role and nature of supply chain management research is evolving because companies are increasingly embedded in complex, dynamic, globally dispersed supply chains with new challenges. Given the multi-disciplinary and multi-level nature, performance measure of TSC are essential. Perhaps discussing the role of SC may be crucial. It is tourism supply chains that provide access and also deny access for new providers of tourism services. This is especially important when trying to achieve the objectives of pro-poor tourism, which aims to include locals in the tourism supply at the destination. Pro-poor tourism aims to include local businesses and local labour in the tourism industry, by accessing supply chains that would normally exclude them. The tourism industry does not contribute towards development at the destination area, unless pro-poor principles are incorporated into the tourism industry.

How can the tourism operations practices capture TSCM economic value?

The organization of tourism industry supply chains is a significant division as it advocates the most efficiency on cost, time and customer satisfaction according to Sanyanunthana et al. (2012). They further stated that the tourism sector is supposed to emphasize on value add

and improve tourism products and services. This can be done through acquiring and ensuring a higher logistic network for transportation plan, decreasing operation cost, increasing value added and creating the competition advantage for the destination. Sanyanunthana et al. (2012) indicated that to reach the standard of completeness efficiency evaluation as well as cover the efficiency evaluation directed to supply chain, strategy and goal of increase the value added, creating competitive among tourism networking collaboration for every sectors; government, private, community, domestic and regional. Is inevitable. This point is also alluded to by Naude et al.(2013), that supplier relationship management (SRM) is a necessary tool on which businesses in the public and private sectors rely in South Africa. Following are some of the important factors in SCM.

- **Relationship**

The creation and establishment of value-adding, long-term relationships with suppliers is necessary for the future existence of an organisation. Such a relationship must be based on the principles of co-operation, trust and commitment (Roberts-Lombard, 2009). There are important factors to be considered when creating and establishing a long-term relationship with suppliers (Parvatiyar & Sheth, 2000: 9-12), these include;

- the reliability of the agreement with suppliers
- the willingness of the supplier to deliver products and services on time
- the ability of the supplier to be flexible with deliveries.

Not all relationships between other business and tourism industry players are crucial in terms of satisfying the customers; only the positive and beneficial relations. Stevenson (2009:525) concur that only positive relationships with suppliers are recognised as a critical factor in sustaining a competitive advantage. According to Naude, Ambe and Kling (2013), supplier relationship management (SRM) is a necessary tool on which businesses in the public and private sectors rely. Therefore, one can argue that the SMME's in Tshwane should consider the Sustainable Supply Chain Management (SSCM) when dealing with customers/ tourists.

- **Customers**

According to Sigala (2014) a customer involvement in SSCM is of importance because the challenge for service firms is to meet the customer demands and to manage the customer involvement in service operations without compromising service quality and by simultaneously meeting the firms' financial and strategic objectives. Sigala (2014) further indicates that this may be an opportunity for the company to be sustainable in their SSCM practices. Some authors advocate for the tourism supply chain, particularly in the relationship between the suppliers, the demand and the production side of tourism; others mainly focus on cooperation and competition (Song, Yang & Huang, 2009, see also Huang, Chen, Song & Zhang, 2010). Therefore, managing supply and demand of the customer is essential; whether by involving the customers, service operations or even using the smartphone applications.

- **Performance**

An article on 'supplier relationship management – anathema for the South African public procurement sector' by Naude et al. (2013) summarised the involvement of government in SCM. The objective of a SCM system is to ensure that goods and services are procured fairly, equitably, transparently, competitively and cost-effectively so that the goals of the national and/or provincial department are achieved (Naude et al, 2013). South Africa's Minister of Small Business Development, Lindiwe Zulu at National Smart Procurement Summit concur with the above authors that to ensure maximum performance on businesses in South Africa, SCM processes are a cornerstone to benefit SMMEs and cooperatives (Department of Small



Business Development, 2016). Due to the fact that this article focuses on the tourism industry which is mainly based on the service sector, Sakhuja and Jain (2012) suggest the service supply chain management (SSCM) which discusses the core elements of service supply chain (information management, service demand and delivery, customer, service integrator, service provider selection and service outsourcing and integration which must happen through collaboration, service capacity management and customer) as well as the various key operations carried out in the service flow through a well-managed SSC. This will improve a link of different service operations in a SSC with an aim to deliver the required service to the customer (Sakhuja and Jain, 2012). According to Sakhuja and Jain (2012), the generic model can fit to different service industries, and also provides the vision to the service operation managers to carry out their service activities in a systematic and planned manner to achieve organizational objectives.

- **Integration and collaboration**

Tourism supply chain management advocates effective integration and management of the network of tourism organisations that supply different components of tourism products and services for the distribution and marketing tourism services at a specific tourism destination. In a South African context, tourism sector is public-sector led, private sector driven and follows a community-based approach, one would argue that a narrow focus on the TSC without considering of public, private and community stakeholders is futile. In this context, it could be argued that proposing the tourism supply chain management and leaving out the stakeholders is tantamount to putting the cart before the horse. Hence, a more pragmatic approach would be to first ensure that stakeholders are on an equal footing and then give consideration to improvement of systems including tourism supply chain management. Therefore, without integration and collaboration, competitive advantage is not guaranteed.

Challenges facing Tourism Supply Chain Management

Fragmentation in the tourism sector is generally noted by academics as posing a challenge and thereby serving as a stumbling block towards the growth of the sector. In this context, others have even likened (though indirectly) fragmentation to adversarial relationships (Zhang, Song & Huang, 2009). The government is by no means unaware of this challenge, hence NTSS notes that fragmentation and weak relationships between various institutions and players are a critical challenge to the tourism sectors' contribution to the economic development (National Tourism Sector Strategy; 2011). On the other hand, the fragmentation of the tourism industry, allows for the participation of a plethora of players, which creates an opportunity for pro-poor tourism benefits for the destination. Despite this it can be observed that academics differ on the main focus points for tourism supply chain. Tapper and Font (2004:3) highlight six main points of consideration in the tourism supply chain, and these are: accommodation, transport, ground handlers, excursions and activities, food and craft. Font, Tapper and Cochrane (2006:53) further advise that three steps should be taken if one wants to achieve a successful supply chain relationship between companies and their suppliers, namely:

- Establishing a sustainable supply chain policy and management systems,
- Supporting suppliers in reaching sustainability goals, including raising awareness of sustainability issues among suppliers and demonstrating why sustainability performance is important;
- Integrating sustainability criteria into suppliers' contracts and preferentially contract suppliers that meet those criteria.

Although not opposed to the main focus areas of Tapper and Font (2004), Zhang et al., (2009:347) placed great emphasis on seven key tourism supply chain issues, namely; demand



management, two-party relationships, supply management, inventory management, product development, tourism supply chain coordination and information technology. It is believed that these principles may contribute positively towards alleviation of fragmentation and challenges facing coordination in the industry. Zhang et al. (2009) further add that tourism products are heterogeneous, consisting of many different service components including accommodation, transportation, dining, shopping and sightseeing. Some of the challenges of supply chain in the tourism sector are indicated below.

- Barriers to growth and the building of a transformed and inclusive tourism economy (NTSS, 2017)
- Non-compliance with SCM legislation: There has been little improvement in the past four years in addressing uncompetitive or unfair procurement processes which are required by legislation in different municipalities where the tourism operations exist (Auditor General, 2016:6).
- Variability, inefficiency, and uncertainty introduced by the customer's participation can negatively affect sustainable production in services (Sigala, 2014).
- Lack of proper knowledge, skills and capacity: Matolong (2015:33) asserts that officials who possess the knowledge, who are well vested with skills and empowered can play a central part in the application of an SCM strategic plan. The misalignment of skills supply and skills demand due to lack of engagements between training and education stakeholders in tourism and industry stakeholders as well as the lack of progression and career pathing in the education and training system for the tourism workforce (Tourism Sector Human Resource Development Strategy, Abridged Summary).
- Inadequate planning and linking demand to budget: Fraud and corruption and other administrative malpractices within government hamper with SCM (Ambe and Badenhorst-Weiss, 2012b:11010).
- Inadequate monitoring and evaluation: poor control mechanisms and inadequate application of appropriate consequences for breach of legislation lead to other problems such as irregular expenditure (Auditor General 2014:19).
- Lack of enforcement: Perhaps the case of the Pretoria in Tshwane requires a closer look at the TSC. The idea behind this suggestion would be to probe whether it is the issue of tourism supply chain that is leaving the tourism sector of the province embattled.

Research Methodology

The research objective of this study was to investigate the TSCM practices among tourism operations in the City of Tshwane. Hence this article examined the characteristics of TSCM practices implemented by tourism operations and quantify the characteristics which required that a positivistic or quantitative approach be used.

Research Population

The population of this study included the tourism operation in Pretoria in the City of Tshwane, South Africa. According to the Tshwane Tourism Directory (2018), the guide to business tourism and leisure around Pretoria, the categories of businesses consist of those registered with the City of Tshwane which includes accommodation (343), adventure, sports and teambuilding (41), art galleries (29), conference events services and function venues (15), health and beauty (21), tourists' attractions (88), tours and safaris (25) travel and transport services (43) and restaurants (11). Therefore, the population included 616 tourism related registered businesses under the City of Tshwane (which comprise of place in and around Pretoria). The data was gathered from 270 randomly selected businesses in Pretoria. From 210 (78%) questionnaires received, only 179 (66%) were usable. The participants from this population that were selected to take part in this study were those who voluntarily accepted.



Data collection

Secondary data consisted of an in-depth literature review on tourism, supply chain in South Africa, strategy implementation, analysis of the tourism business environment. Journal articles, books, tourism website, government documents were used for collecting secondary data. Primary data was collected from the tourism operation in Pretoria located in the City of Tshwane. Since no standardised questionnaires were available which could be used within the context of this study, the research instruments were designed from literature. The research instruments were constructed to meet the objectives of the study. All the instruments used were analysed to ensure adherence with the code of ethics applicable to this study.

Measuring instrument

The instrument in this study was self-administered. The questionnaire was constructed using a five-point Likert-type scale. The following are the sections of the measuring instrument.

- Sections A covered the demographics looking at the industry operations, years of operation in the tourism sector as a business, number of employees and annual sales.
- Section B-C measured responses based on an ordinal scale (1 = strongly disagree, 2 = Disagree, 3 = Not sure, 4 = Agree and 5 = strongly agree).
- Section B focused on the perceptions regarding influence of supply chain management practices, operational policies and integration which affect implementation;
- Section C: Perceptions regarding the extent or level of the performance of the tourism operation on supply chain in Tshwane.

Data analysis

Data was analysed by means of the STATA version 15 software computer programme. Data was analysed by means of descriptive statistics (mean and standard deviation) and frequency distributions. Advanced statistics was used to assess the validity and reliability of the measuring instrument and to test for the relationships between the variables in the hypothetical model. Exploratory factor analysis was adopted.

Results and Discussion

This section discusses the key findings according to the data interpretation. The first section to be discussed include the demographics followed by the results emanated from the factor analysis.

Demographics

Table 1 below provides composition of the respondents of this study according to eight categorical variables. There were more travel and bookings organisations (28.09%) that participated than the accommodation sector (25.28%). There was a narrow difference between the transportation (13.48%) and food and beverage facilities (14.04%). The least participants were from the tourism assets in the destination (attractions) and Handicraft with 2.25% and 2.81% respectively.



Table 1: Participants in the study

Industry	Freq.	Percent ▼
Travel organisation and bookings	50	28.09
Transportation	24	13.48
Accomodation	45	25.28
Food and Beverage serving activities	25	14.04
Handicraft	5	2.81
Tourism Assets in the destination	4	2.25
Leisure excursion and tours	7	3.93
Support services	18	10.11
Total	178	100.00

Table 2 below indicates the total number of years that a business has been in operation. The results indicate that there were 39 business operations from those that participated in the study. They have been in existence for 6-10 years (22.16%). They were followed by those that have been in operations for 11-15 years. The least participating were those that have been operating for less than a year, at 4.55%.

Table 2: Total number of years of operations in the business

Years	Freq.	Percent
Less than year	8	4.55
2-3 year	23	13.07
4-5 year	17	9.66
6-10 year	39	22.16
11-15 years	35	19.89
16-20 years	16	9.09
21-30 years	28	15.91
More than 31 years	10	5.68
Total	176	100.00

According to Takupiwa, Sibanda and Kruger (2017), The small medium enterprises (SMEs) throughout the developing world are regarded as the seed-bed and engine for economic development, poverty alleviation, employment creation and socio-political development. This is evident from the results because the SME's (companies that have 49 employees and less) are employing 50% of all employees. Table 3 indicates that total number of employees from the organisations that participated in the study.

Table 3: Total number of employees



Number Employees	Freq.	Percent
Less than 49	88	50.00
50-100	40	22.73
101-250	22	12.50
More than 251	21	11.93
Other	4	2.27
7	1	0.57
Total	176	100.00

Some scholars define SMEs in terms of employment, turnover and asset base (Takupiwa, Sibanda and Kruger, 2017). Given the contribution of the tourism sector towards the economy of the country, the results indicate that although there are companies whose annual sales are less than a million (27.43%); about 17.14% get annual sales of more than 10.1 million to 50 million. This is a confirmation that tourism is indeed a crucial sector in the economy.

Table 4: Participants annual sales

Annualsales	Freq.	Percent
Less than 1 million	48	27.43
1.1-5 million	48	27.43
5.1 -10 million	26	14.86
10.1-50 million	30	17.14
More than 50 million	23	13.14
Total	175	100.00

The Exploratory Factor Analysis

Guided by the assertion of Guadagnoli and Velicer in Field (2005:640), factors with four or more loadings greater than .6 regardless of sample size are acceptable for a factor analysis. The final sample size was N=149. According to Field (2009:731), factor analysis is a technique used to identify whether the correlation between a set of observed variables stems from their relationship to one or more latent variables in the data.

Field (2009:731) further suggests that factor analysis is useful for investigating construct validity, and it is known as a model for measuring latent variables which cannot be directly measured with a single variable. In this case, TSC practices' variables were measured. Furthermore, Babbie and Mouton (2007:472) advise that the exploratory factor analysis (EFA) is generally used to discover the factor structure of a measure and to examine its internal reliability.

By performing EFA, the number of constructs and the underlying factor structure are identified. In this study, the EFA was performed to gather information about the interrelationship among the observed variables to identify latent constructs. The investigation of the constructs aimed to produce results that were more meaningful by grouping variables that might reflect latent variables or constructs, which are easier to understand and quantify in relation to tourism supply chain management. The Five step exploratory factor analysis protocol recommended by Williams, Onsman and Brown (2010:4) was followed as indicated on Figure 2.

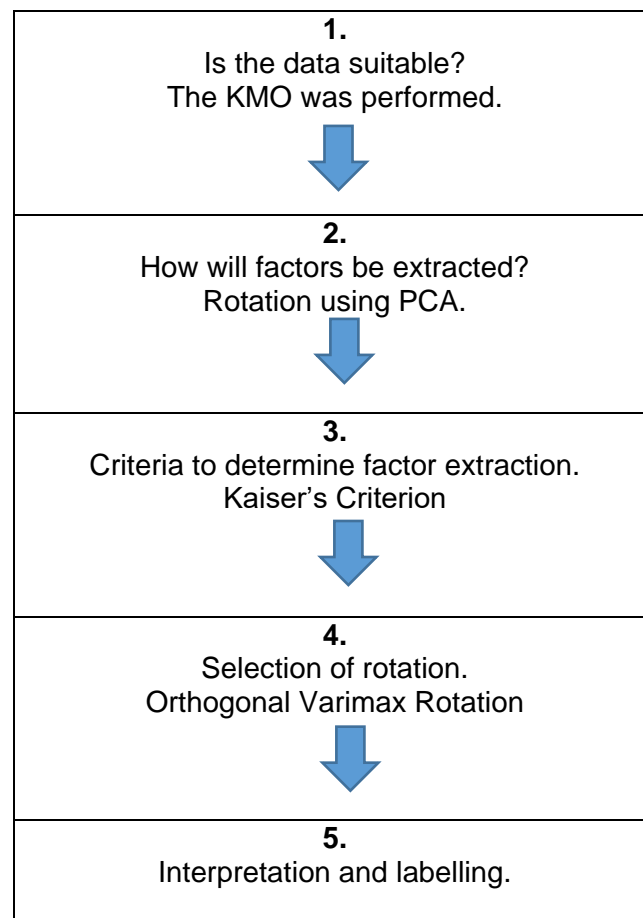


Figure 2: Five Step Exploratory Factor Analysis Protocol
Adapted from: Williams, Onsmann and Brown (2010:4)

Figure 2 indicates the five questions to be followed when performing a factor analysis as advised by Williams, Onsmann and Brown (2010:4) for this paper. To decide on factorability of the data, the Kaiser Meyer-Olkin (KMO) measure of sampling adequacy was used to justify that there is enough intercorrelation between the variables to justify the factor analysis. The KMO measure of sampling adequacy was .80, above the recommended value of .6. This measure quantifies the degree of intercorrelation among the observed variables entered into the analysis (Field, 2009:647). Furthermore, the communalities or cumulative values were all above .3, further confirming each item shared some common variance with other items given these indicators (see Table 5).

A Principal Component Analysis (PCA) of the remaining items using Orthogonal Varimax rotation was conducted, accounting for about 0.6061~ 61% of the total variation by retaining five factors. Additionally, the Kaiser's criterion which recommends retaining factors with eigenvalues greater than 1 as significant (Field: 2009:640) was performed. All factors with eigenvalues of less than 1 were considered insignificant and disregarded. During several steps, items that failed to meet a minimum criteria of having a primary loading of .4 or above as suggested by Field (2005:640) were eliminated. The exploratory factor loadings are outlined in Table 5.



Table 5: Factor loadings based on a Principal Components Analysis with Orthogonal Varimax Rotation (N = 149)

	Factor 1:	Factor 2	Factor 3	Factor 4	Factor 5
	Relationship and Collaboration	Communication	Sustainability	Customer Relations	Value Added Process
Business has sufficient tourism suppliers	0.7881				
Works with an intermediary	0.6395				
Long term relationship with suppliers	0.6191				
Coordination of product or service with suppliers	0.7382				
Business include key suppliers in its planning	0.4704		0.4118		
Business works with registered/ affiliated to tourism bodies suppliers	0.5820				
Business solve problems jointly with its suppliers	0.5474		0.4659		
Frequently interacts with other tourism stakeholders	0.4399	0.4336			
Share technical expertise with suppliers	0.4711				
Share business knowledge and tips	0.5734				
Information exchange with relevant suppliers	0.5349				
Respond to the set tourism standards		0.5600			
Information exchange with competitors		0.7540			
Keep each other informed about policies		0.4150			
Accommodate customer demands and variations such as seasonality		0.7124			
Respond to low peak seasons		0.7556			
Accommodate the periods of poor supplier performance		0.7204			
Policy on sustainability, co-ordination			0.6792		
Applies responsible tourism policy			0.6115		
Applies sustainable supply chain policy			0.6824		
Business awareness on sustainability			0.7716		
Share technical expertise relating to policies			0.4829		
Offer incentives to sustainable suppliers			0.6888		
Respond to new competitors effectively			0.4309		
Feedback system in place				0.8128	
Evaluates customer expectation				0.7378	



	Factor 1:	Factor 2	Factor 3	Factor 4	Factor 5
	Relationship and Collaboration	Communication	Sustainability	Customer Relations	Value Added Process
Share current information with all customers				0.5315	
Inform our customers about any suppliers changes				0.7246	
Information is shared across all communication channels				0.7307	
Accommodate new products					0.6874
Return on investment					0.6607

Blanks represent loadings <.4

Reliability and validity

Internal consistency of each of the measurement scales used in this study were assessed by means of calculating Cronbach's alpha coefficients. Table 6 indicates the reliability of the factors. The coefficients test the data's ability to produce consistent results when measured under different conditions (Field, 2009). Four out of the five factors had Cronbach's alphas above .7 with Relationships .89, Communication .85, Customer Relationships .79 and Value added Process .83. Only one factor had a low coefficient at 0.4322 as indicated on Table 6.

Table 6: Reliability: Cronbach's' Alpha (N = 149)

	Factor 1: Relationship and Collaboration	Factor 2 Communication	Factor 3 Sustainability	Factor 4 Customer Relations	Factor 5 Value Added Process
Cronbach's' Alpha	0.8906	0.8534	0.4322	0.7906	0.8362

Findings

What is evident from the results of this study, is that developing sound supplier relationships is a challenge. In their study, Naude, Ambe and Kling (2013) found that supplier relationships in the public sector are of a transactional nature. This study reveals that, although there is an understanding of supply chain management among tourism operations in Tshwane, Pretoria, the levels of awareness of SCM differs. According to Hoppe (2001) "different forms of coordination like information integration and collaboration with business partners are a well-accepted concept by companies in various industries at a strategic level, such efforts at present do not achieve coordinating operations of companies across multiple tiers of a supply chain".

Conclusions

Tourism businesses need to continuously engage the supply chain in order to unlock a sustainable future. The businesses need to commit in the first tier of their supply chain, where there is typically a far greater potentiality for sustainability improvements rather than within their own operations (CDP Supply Chain Report, 2016 - 2017). Supply chains flow in multiple directions, therefore, managing supply chain is very important as a core competence of tourism organisations to deliver profit and return on investment (ROI). Commercial opportunities are available to provide products or services to help the existing tourism



businesses to become more sustainable. Tourism enterprises must invest in understanding the do's and don'ts of tourism supply chain management to ensure that they continue to maintain supply and demand.

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