SERVICE QUALITY, IMAGE, SATISFACTION AND TOURIST LOYALTY: A SERIAL MEDIATION MODEL

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In

MANAGEMENT

By

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DECLARATION

I, J.Chittiseshu, hereby declare that the thesis entitled, Service Quality, Image, Satisfaction and Tourist Loyalty: A Serial Mediation Model, submitted by me under the guidance and research supervision of Prof. B. Raja Shekhar is a bonafide research work which is also free from plagiarism. I also declare that it has not been submitted previously in part or in full to this University or any other University or Institution for the award of any degree or diploma. I hereby agree that my thesis can be deposited in Shodganga /INFLIBNET.

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This is to certify that the thesis entitled**,** "Service Quality, Image, Satisfaction and Tourist Loyalty: A Serial Mediation Model", submitted by J.Chittiseshu, bearing Regd. No. 11MBPH08 in partial fulfilment of the requirement for the award of Doctor of Philosophy in Management is a bonafide work carried out by her under my supervision and guidance. This thesis is free from plagiarism and has not been submitted previously in part or in full to this or any other University or Institution for the award of any degree or diploma.

Parts of this thesis have been:

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ABSTRACT

Travel and tourism is one of the largest service industries in India and one of the key contributors to growth of the nation. Encouraged by its sustainable economic growth, rising middle class and income levels, as well as availability of low-cost air fares and diverse travel packages, India is rapidly becoming one of the most preferred tourism destinations globally. The extensive literature identified the following research gaps that researcher aimed to address in the study further: (1) Context specific adaptations of SERVQUAL scale, (2) A need to comprehensively identify dimensions of service quality in tourism sector in Asian countries and suggested to include value for money dimension in the overall service quality and (3) Research on empirical studies testing the strength of the mediating variables i.e., perceived value, corporate image, customer satisfaction, and customer trust and effects between Service quality and tourist loyalty are few in number. The research gap is addressed by answering the following objectives: (1) to assess the psychometric properties of Service Quality multi- dimensional scale in the context of tourism, (2) to test the proposed integrated theoretical model on tourist loyalty and (3) to test the serial mediating role of corporate image and satisfaction in the relationship between service quality and tourist loyalty. The data was collected from 462 tourist at three major tourist destinations in Telangana state namely Hyderabad, Nagarjuna sagar, Anantagiri and four in Andhra Pradesh namely Visakhapatnam, Araku, Dhindi and Papikondalu. The data was analysed using Statistical Package for Social Sciences (IBM SPSS 24) and Smart PLS (Partial Least Squares version 3). Principal Component analysis and PLS-SEM were used to test the relationship among the constructs and the structural model. Mediation analysis was performed by PROCESS Macro.

Data analysis was done in three stages. In first stage, factor analysis was conducted to explore the dimensionality of the service quality construct. In the second stage proposed research model on Tourist loyalty was tested using PLS-SEM. Second stage included the validation of measurement model (service quality scale) as well as structural model. The third stage of analysis studied the effect of serial mediation in the relationship between dependent variable (service quality) and independent variable (Tourist Loyalty). The study has employed Partial Least Square SEM as it is a better method to test a reflective-formative model. Service quality construct is a reflective-formative construct higher order construct and hence the researcher has applied PLS-SEM technique with repeated indicator approach with mode B. The PLS-SEM is a superior technique as it gives more accurate parameter estimates, it is less biased, and a more reliable tool. The results have shown that the seven dimensions of tourism service quality namely, Reliability, Responsiveness, Assurance, Tangibility, Core tourism experience, Security and Value for money are good predictors for the overall services quality. Finally, the direct and indirect relationship in the research model and serial mediational was tested. The results evidenced that the image and satisfaction serially mediate the relationship between service quality and tourist loyalty. Theoretical and practical implications of the study and its limitation and suggestions for future research are discussed .

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ABBREVIATIONS

AS	Assurance
APTDC	Andhra Pradesh State Tourism Development Corporation
TSTDC	Telangana State Tourism Development Corporation
AVE	Average Variance Extracted
BIC	Bayesian Information Criterion
CB-SEM	Co-variance Based Structural Equation Modelling
CFA	Confirmatory Factor Analysis
CFI	Comparative Fit Index
CHAID	Chi-squared Automatic Interaction Detector
CR	Construct Reliability
CS	Customer Satisfaction
CT	Core Tourism
EN	Normed Entropy Values
FIMIX-PLS	Finite mixture- Partial Least Square
GOF	Goodness of Fit Index
MANOVA	Multivariate Analysis of Variance
NFI	Normed Fit Index
PCA	Principle Component Analysis
PLS-SEM	Partial Least Square- Structural Equation Modelling
PV	Perceived value
RL	Reliability
RMSEA	Route Mean Square Error of Approximation
SERVPERF	Service Quality Measurement
SERVQUAL	Service Quality Measurement
SPSS	Statistical Package for Social Sciences
SQ	Service Quality
TLI	Trucker Lewis Index
VIF	Variance Inflation Factor
WEBQUAL	Website Quality Measurement

NOTATIONS

%	Percentage
H	Hypothesis
A	Cronbach's Alpha
P	Probability value of significance level
f^2	Effect Size
Q^2	Predictive Relevance
Df	Degrees of freedom
χ^2	Chi-Square
SE	Standard Error
N	Number of observations
M	Mean
B	Unstandardized Beta Coefficient
SD	Standard Deviation
SEB	Standardized Error of Beta
B	Standardized Beta Coefficient
C	Constant
T	t-statistic
R^2	Coefficient of determination

CHAPTER 1

INTRODUCTION

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INTRODUCTION

The complexity in measuring service quality (SQ) has been debated extensively in the marketing academia. It continues to be a debated subject due to the varying characteristics of the services. Empirical evidence shows that consistent delivery of customer focused service along with service quality increases a firm's financial performance and positive behavioral outcomes of customers (Cronin Jr, Brady, & Hult, 2000; Zeithaml, 2000). To measure SQ in different service sectors and thereby identify dimensions specific to each sector many scales have been developed. The most popular among the scales is SERVQUAL scale developed by A. Parasuraman, Valarie A. Zeithaml, and Leonard L. Berry (1985) a widely adopted scale to measure service quality by academic and industrial practitioners. The extant literature review identifies that the SERVQUAL specific dimensions fall short of measuring service quality in all the sectors. Niranjan and Metri (2008b) argued that A. Parasuraman, Valarie A. Zeithaml, and Leonard L. Berry (1988), gap model cannot be generalized and contended that a new standard is needed to accurately characterize service quality in each of the sectors. The authors have suggested developing a separate scale for measuring service quality concept in different service industries. Evaluating service quality in tourism is more complex than in any other sector as it is a distinct field which includes wide variety of products and services with highly decentralized structure involving multiple players such as government, private, local and regional bodies. Furthermore, Quality issues have never been alien to tourism (Ţîţu, Răulea, & Ţîţu, 2016) Exhaustive measurement of quality, therefore, is the key to successful quality management (Fassnacht & Koese, 2006). In spite of many efforts to obtain

the right measure for service quality, nevertheless there seems to be no agreement in either the leisure or the marketing literature on how assessment of quality should be measured (Hudson, Hudson, & Miller, 2004). Based on the above argument this study proposes that there is a need to develop a new scale or modify the existing scale in the context of tourism services. Further the study emphasizes the need to identify the dimensions that are important for tourism service providers as tourism, unlike other products, is complex in nature because there are multiple services involved in delivering the final product. Based on the above argument the study seeks to examine the dimensions that underlie quality of services in tourism sector. The Purpose of the study is to measure the service quality in tourism by measuring service quality of select state owned tourism development corporations in India.

Over view of the Service Sector

One of the most significant transformations of world economies in the last few decades is the goods driven economies to services driven economies. Globalization, emergence of information technology, deregulation policies of the government have enormously contributed to the paradigm shift towards the service sector. It is the largest sector that contributes to the world's global economy. Service sector is the key driver of economic growth in India. Service sector contributes to 58.3 percent of Gross value added and 28.6 percent of the national employment in India (Economic Survey 2018). There are national as well as international organizations that classify services. The services are classified under National Accounts classification of the services in India. The list includes financial services, health care, consultancy, trade, legal services, insurance, transport, real estate, storage, hospitality communication, education, business services etc and community, social services like NGOs charities

and personal services. The list is exhaustive. Under the national accounts classifications tourism is classified under hospitality services.

Overview of the Tourism Sector

As the major contributing element to the development of the services sector in India, tourism and travel industry has immense potential for growth. It has substantial role in India's economy, directly contributing 3.6% to the GDP and 26mn jobs, or 5% of total employment in 2017 (World Travel and Tourism Council, 2017). The Indian government is actively developing infrastructure and skilled workforce in this sector. Through various campaigns and initiatives, the government aims to promote India as a high-end tourism destination.

Entry Modes

India has allowed 100% FDI in the tourism sector in order to boost its development, encouraging domestic and international players to invest in the country. Several global hotel brands compete with domestic ones, attracted by promising growth opportunities. The recent liberalization of the FDI regime in civil aviation, with the aim of increasing the competitiveness of air services, will have a positive impact on tourism. This is because the existing modes of transportations have their own limitations. Rail passenger transportation, for example, though cheaper tends to be inflexible in Schedule and does not connect to all desirable remote tourist locations. On the other hand, though Road transportation has the greatest opportunity in providing last mile connectivity, it is the least-regulated and least-organized transportation segment, with numerous mid and small-scale transport operators, affecting its reliability.

Segment Opportunities

There is great potential for the country's many new tourism areas such as eco-tourism, medical and wellness tourism, adventure tourism and cruise tourism, which provide plenty of underexplored opportunities. While Medical tourism in India is purely driven by its cost-effectiveness and quality care, eco-tourism is propelled by its tropical climate and long sea coast. According to the Ministry of Commerce (MoC), in FY2016 Medical tourism contributed 70% to India's total healthcare services exports of USD 890mn. Another segment with a promising future is the Meetings, Incentives, Conferences and Events (MICE) tourism segment. The lack of world-class convention facilities in India, however, is the major constraint at present. This may change over the coming years, as the government is considering developing an international convention Centre in Goa to host high-profile and large-scale events.

Government Policy

The Indian government has realized the significance of the tourism sector to the country's economy and is planning to make India a global tourism hub. In recent years, the MoT (ministry of tourism), in collaboration with other ministries, has launched a number of initiatives promoting India as a tourist destination.

Overview of India Tourism & Leisure Sector

According to statistical data provided by the MoT, there were 8.8mn foreign tourist arrivals (FTAs) into India in 2016, representing an increase of 9.7% y/y. The latest data show that in 2017, FTAs recorded double-digit growth of 15.6% y/y, reaching 8.8mn. These positive results can be attributed to both the continuing liberalization of the e-visa regime and extensive marketing campaigns initiated by the government to promote tourism. According to data from the World Bank, foreign tourist spending in India totaled USD 23.1bn in 2016, an increase of 7.6% over 2015. Since India is

considered a long-haul destination, most foreign tourists enter the country by air (in 2016 they totaled 7.3mn), while those arriving by land or sea totaled 1.2mn. Domestic tourists continue to dominate the sector, with total spending reaching INR 11.2tn at the end of 2016, far greater than foreign tourists. In 2016, the number of domestic tourist visits (DTVs) rose by 12.7% y/y to 1.6bn, attributed to greater connectivity and lower air fares. In 2016, additional capacity was added by the airlines with the aim of increasing regional connectivity between tier-I and tier-II/III cities. Domestic tourists are the key driver of rural tourism in parts of the country unknown to foreigners.

In 2016, Indian nationals made 21.9mn overseas trips, up by 7.3% y/y, spending an estimated USD 19.2bn, an increase of 8.5% y/y. The trend of spending on vacations around the world is gaining in popularity in India, fueled by the increased affluence of the population, changes in lifestyle habits, and improving connectivity. The presence of Indian diaspora in the US and the UK is the reason for these two destinations to be among the most popular for outbound travel. In 2016, a total of 19.3mn residents left India by air, while 2.6mn residents opted for other types of transport. The travel accommodation subsector in India is dominated by hotels. As of end-2016, there were a total of 1,459 hotels in the country, with a total of 79,879 rooms. During FY2016, the average hotel occupancy rate was 62.1% as of March 31, the fiscal year end. Nearly 40% of the total room supply was in the five-star luxury category, followed by three stars with 22%, and four stars with 20%. In FY2017 the overall performance of listed key players in the sector was positive. India's largest tour operator, Thomas Cook India Ltd, reported stable growth both in revenue and profits. The performance of India's second-largest travel company, Cox & Kings Ltd, was adversely impacted by a number of challenges, such as Brexit and the terrorist attacks in Europe, including the explosions in Brussels in March 2016, the Istanbul Ataturk airport

attack in June 2016, and the nice truck attack in July 2016. The company is historically connected with the UK, where it has operations, which were also affected by the weak GBP against the INR. In 2016, most companies moved from the old accounting standards (Indian GAAP) to the new accounting standards (Ind-AS), which is the reason for significant discrepancies in their revenues of FY2017 as compared to FY2016.

Driving Forces

Tourism in India has great potential considering India's rich historical and cultural heritage, ecological diversity and numerous places of natural beauty. The sector is an engine for the India's economic growth and a major contributor to employment too. India's fast economic development, along with a rising and disposable incomes and arising middle class, continues to contribute to the growth of domestic and outbound tourism. The Indian government actively supports the sector through the implementation of various policies, programs and initiatives, aimed at increasing the competitiveness of India's tourist services. The main economic indicators are presented in table 2.

External

India's exceptional cultural and historical heritage attracts a large number of foreign tourists from all over the world. India continues to enrich and protect its cultural resources through UNESCO World Heritage lists. The MoT has sponsored various training and professional education programs to meet the requirements of the sector. As of end-2017, there were 41 Institutes of Hotel Management (IHMs), comprising 21 Central IHMs, eight State IHMs, 12 private IHMs and five Food Craft Institutes (FCIs). Other key government policies that have had a great positive impact on the sector's development include the opening of the hotel and tourism sector for 100%

FDI, the liberalization of civil air transportation, as well as the implementation of the e-visa regime. India's price competitiveness is another driver for the growth of its travel and tourism sector. Affordable prices, combined with high-quality healthcare services and good healthcare infrastructure, are the major reasons for India's medical tourism boom in recent years. In 2017, India was ranked as the tenth most price-competitive travel and tourism market

Worldwide, according to the WEF. The country's domestic and outbound tourism is driven by its growing population, relatively low inflation, and rising incomes. Middle-class Indians are predicted to be the largest consumers of tourism products in India in the years to come. The main indicators of tourism sector are presented in table 3.

Internal

India's tourism sector is experiencing rapid growth and transformation. The increasing level of digitalization in the sector is a key factor boosting its growth. Internet penetration, the development of various mobile applications and web-based information portals all build up awareness of India as a tourist destination and contribute to a higher number of online bookings. In India the number of online bookings has experienced serious growth. The rising number of online travel agents, as well as an influx of taxi aggregators such as Ola and Uber, alongside shared accommodation platforms like Airbnb and OYO, have brought more opportunities for budget travel in India, where premium hotels dominate the accommodation market.

Restraining Forces

Despite the increasing competitiveness of India's tourism sector, still a number of factors that bounds the potential of the country as a major tourist destination. Among these are high taxes, low levels of cleanliness, infrastructural bottlenecks, as well as safety and security issues. The hospitality industry in India still lags behind other

Asian countries such as Singapore, Malaysia and Thailand. Another challenge is the large number of small and medium travel agencies without credentials, which create uncertainty in the marketplace.

External Factors

India's uncompetitive taxation system has always been an inhibitor for the development of the country's tourism sector. The new Goods and Services Tax (GST) introduced on July 1, 2017, adversely impacted the tourism sector by applying the highest rate of 28% to luxury hotels, which represent a significant part of India's hospitality sector. This made India less competitive as a tourist destination compared to neighboring countries such as Myanmar, Thailand, Singapore and Malaysia, where tax rates applicable to tourism vary between 5% and 10%.

Table 1

Main indicators forecast of tourism industry

	FY2018f	FY2019f	FY2020f	FY2021f	FY2022f
Number of Hotels	1570	1630	1690	1750	1810
Number of Hotel Rooms	80793	81190	81541	81854	82138
Foreign Tourist Arrivals, mn	10.8	11.4	12.1	12.8	13.6
Foreign Exchange Earnings, INR bı	1934	2138	2354	2581	2819
Resident Departures, mn	16.1	17.1	18.2	19.4	20.5
Domestic Tourist Visits, mn	2000	2195	2400	2615	2840
Non-Resident Visits, mn	26.7	27.7	28.7	29.7	30.7
Number of Adventure Tour Operators	37	38	38	38	38
Number of Domestic Tour Operators	111	114	116	119	121
Number of Inbound Tour Operators	403	395	388	382	376

Source: EMIS Company Database, EMIS Insights

Other challenges for the sector include poor infrastructure, connectivity, security issues, and the poor maintenance of heritage sites compared to other countries. The main indicators of the tourism industry are presented in table1. In recent years India

has been investing heavily in transport infrastructure; however, there is still much to be done to improve infrastructure facilities for air, rail and road. The shortage of airports in tier-II and tier-III cities is an important problem the government needs to resolve. Another significant challenge is the safety and security of tourists, especially women travelling alone. Although tourist police are established at all major tourist centers to handle incidents of tourist assaults, poor levels of service quality and efficiency have discouraged tourists. A general lack of hygiene at major tourist attractions and on the public transport system is another constraint the sector faces.

Internal

Increasing competition from other countries, a shortage of hotels in less popular tourist destinations, as well as unethical business practices among taxi drivers, shopkeepers and tour guides are some of the reasons as to why the number of foreign tourists in India is far below its potential. According to the MoT, foreign visitors in India accounted for just 1.5% of total visitors in the country as of end-2016. The tourism sector's dependence on the domestic market as the main source of tourists and income creates risk for the country's foreign exchange earnings from tourism.

Table 2

Main economic indicators (India)

	2013	**2014**	**2015**	**2016**	**2017**
Total Population, mn*	1235	1251	1267	1283	1299
GDP, Current Prices, INR bn	108981	122142	133854	148574	164163
GDP, Constant Prices, y/y change, %	0.0613	0.0696	0.0759	0.0793	0.0635
GDP Per Capita, Current Prices, INR*	80518	89796	98405	107280	117427
Direct Contribution of Travel and Tourism to GDP, INR bn	3904	4386	4859	5467	5943
Total Contribution of Travel and Tourism to GDP, INR bn	10036	11288	12459	13998	15240
Foreign Exchange Rate, INR/USD, year average	58.6	61	64.2	67.2	65.1
CPI, year-end, y/y Change, %	0.095	0.043	0.052	0.054	0.053
CPI, Clothing and Footwear, year-end, y/y change, %	0.088	0.063	0.062	0.064	0.063
CPI, Food and Beverages, year-end, y/y change, %	0.128	0.044	0.063	0.068	0.063
CPI, Transport and Communication, year-end, y/y change, %	0.067	0.003	-0.012	-0.022	-0.013
CPI, Health, year-end, y/y change, %	0.059	0.049	0.047	0.051	0.049
CPI, Recreation and Amusement, year-end, y/y change, %	0.059	0.045	0.042	0.044	0.043
FDI in Hotel and Tourism, USD mn	418.4	796.2	1152.6	1094.6	961.5
FDI in Tourism, USD mn	56.9	101.9	139.7	262.4	274.4
Hotel and Tourism FDI Share of Total FDI, USD mn	0.019	0.028	0.029	0.024	0.022
Tourism FDI Share of Total FDI, USD mn	0.003	0.004	0.004	0.006	0.006

Source: CSO, RBI, DIPP, WTTC; CPI-Consumer Price Index, FDI-Foreign Direct Investment

Table 3

Main tourism sector indicators

	2013	2014	2015	2016	2017
Foreign Exchange Earnings from Tourism, INR bn	1077	1233	1352	1541	1804
Number of Foreign Tourist Arrivals, mn	7	7.7	8	8.8	10.2
Number of Non-Resident Visits, mn	20	22.3	23.3	24.7	n/a
Number of Resident Departures, mn	16.6	18.3	20.4	21.9	n/a
Number of Domestic Tourist Visits, mn	1143	1283	1432	1614	n/a
International Tourism Expenditures, USD bn	13.9	17.5	17.7	19.2	n/a
International Tourism Expenditures Share of Total Imports, %	0.025	0.032	0.036	0.041	n/a
International Tourism Receipts, USD bn	19	20.8	21.5	23.1	n/a
International Tourism Receipts Share of Total Exports, %	0.041	0.043	0.05	0.054	n/a
Number of Hotels	1257	1233	1394	1459	n/a
Number of Hotel Rooms	75353	79567	81011	79879	n/a
Average Hotel Occupancy Rate, %*	0.604	0.604	0.613	0.621	n/a

Source: MoT, FHRAI, *Annual Data for Fiscal Year, Ending March of Each Year

Domestic Tourism

Domestic tourism continues to be an important contributor to India's tourism sector. According to the WTTC, India's domestic travel spending increased from INR 11.2tn in 2016 to INR 12.1tn in 2017, generating 87.2% of its direct travel and tourism GDP. The share of domestic tourist visits is continuously increasing, reaching 98.5% of India's total tourist visits in 2016, according to MoT data. In 2016, the number of domestic tourist visits reached 1.6bn, representing an increase of 12.7% over 2015.

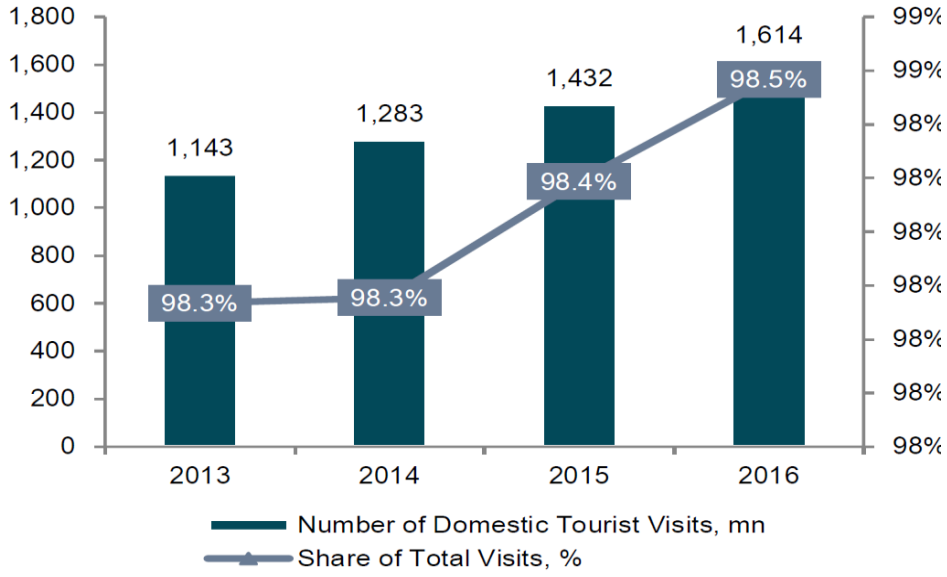

Figure 1 Number of Domestic Tourist Visits, mn

The state of Tamil Nadu was the most popular destination for domestic travelers, with 343.8mn visits in 2016, followed by Uttar Pradesh with 211.7mn, Andhra Pradesh with 153.2mn, Madhya Pradesh with 150.5mn, and Karnataka with 129.8mn. In 2016, India's major historical monuments were visited 40.2mn times by domestic tourists. Among them, the Taj Mahal was the most popular with 4.1mn visits, followed by Qutab Minar and Red Fort each with 2.2mn visits, and Agra Fort with 1.8mn visits.

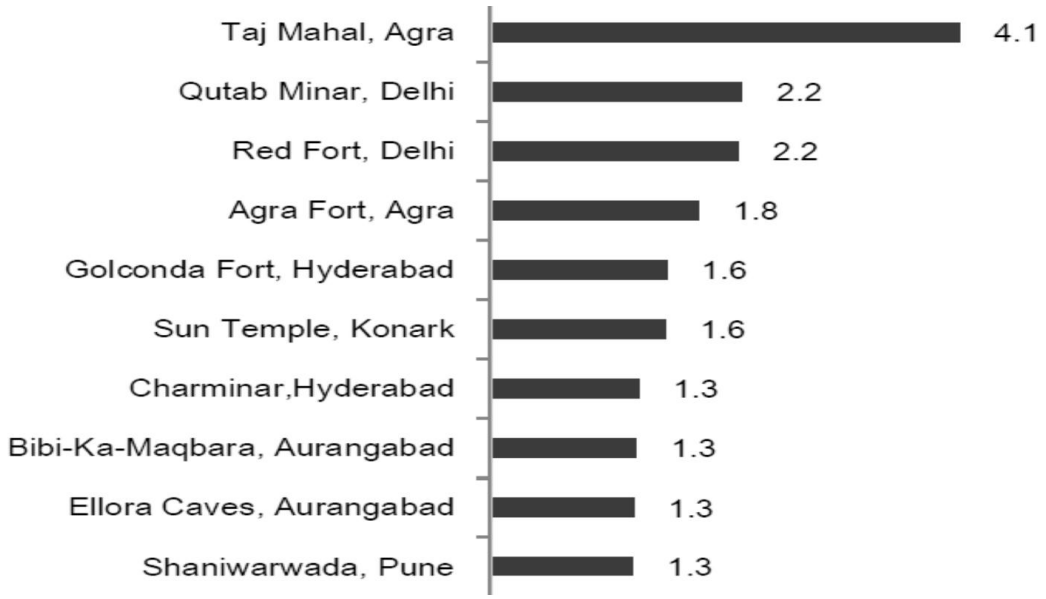

Figure 2 Most Popular Historical Monuments by Number of Domestic Visits, mn, 2016

Given India's economic development and its middle-class growth, domestic tourism will continue to expand in the coming years. It is a source of employment to numerous small-scale entrepreneurs and workers, which makes it very important for the government.

Inbound Tourism

Given the growth of India's economy and its popularity as a tourist destination, the number of foreign travelers in the country has observed continuous growth in recent years. The share of non-resident visits, however, has shrunk, due to the rapid expansion of domestic tourism. According to data released by the MoT, in 2016 a total of 24.7mn non-resident visits in India were registered, representing an increase of 5.9% y/y. These include cruise passengers, same-day visitors, and crew members. Tamil Nadu and Maharashtra are the leading states by number of foreign travelers, with 4.7mn non-resident visits each in 2016, followed by Uttar Pradesh with 3.2mn, Delhi with 2.5mn, and West Bengal with 1.5mn. In 2016, a total of 2.4mn non-resident visits were recorded at India's major historical monuments. Among them, the Taj Mahal was most popular

with 395,760 visits, followed by Agra Fort with 339,667 visits, Qutab Minar with 334,435 visits and Humayun's Tomb with 147,667 visits.

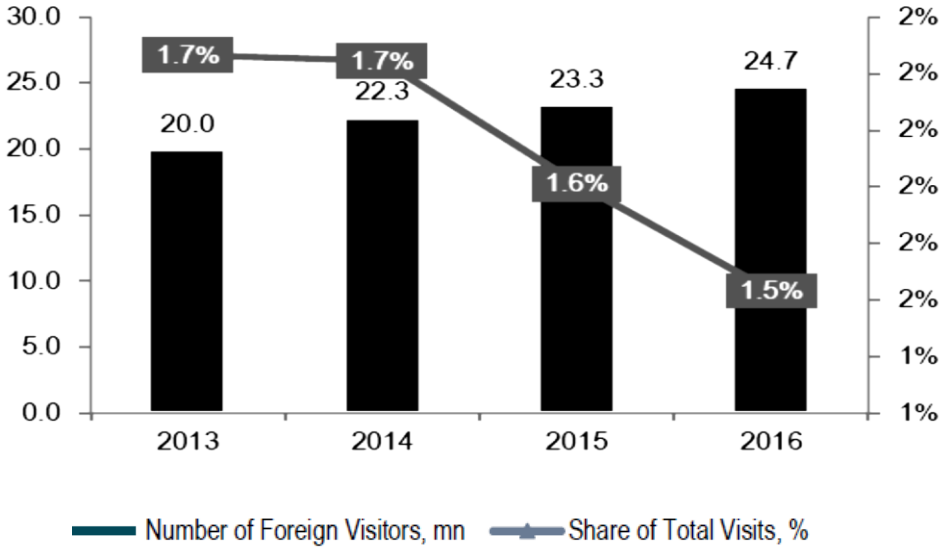

Figure 3 Number of Non-Resident Visits

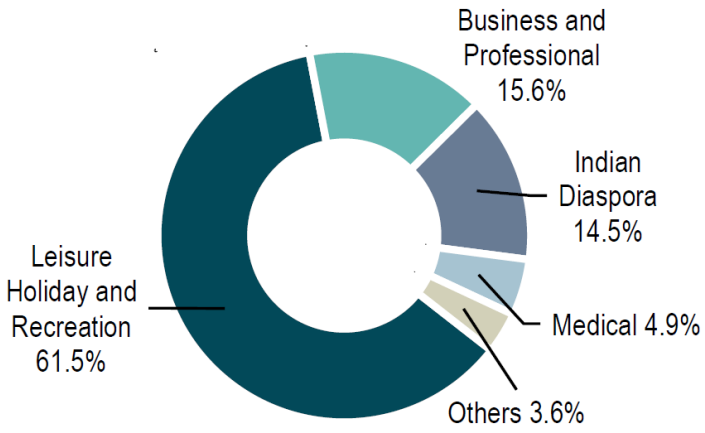

Figure 4 Foreign travelers by Purpose of Travel, 2016, %

Most foreign Tourists visit India for leisure and recreation – in 2016, 61.5% of all foreign tourists stated this as their purpose of travel to India. Business tourists claimed 15.6% of total FTAs in India in 2016, followed by the Indian diaspora (14.5%), medical tourists

(4.9%) and other tourists (3.6%). Effective April 1, 2017, the Indian government extended the scope of e-visa by adding two categories, namely e-Business visa and e-Medical visa, which is expected to boost the country's business and medical tourism in the coming years.

Need for the study

Tourism in India is still in an infant stage. Understanding the tourist's requirements helps the policy makers and the tourism service providers to design their services to satisfy the customers and thereby build a long-term relationship. Not much research has been done on service quality of state-owned Tourism development corporations in India, these corporations have an advantage over private players in terms of having their hotels and resorts in strategic locations at tourist destinations. The tourism development corporations have huge potential in appealing large and diverse domestic and foreign tourists. There is a need to study the service quality of these tourism corporations at this point as the tourism is one of the fastest growing sectors in India.

India attracts tourists with *atidhi devo bhava* campaign which means a guest is equivalent to God, a rich belief imbibed in the Hindu culture. The same spirit is to be adopted by tourism service providers, public and other stake holders. The campaign along with the theme "incredible India" provides tourism service providers a sense of responsibility to satisfy tourists, which also includes delivering superior service quality. To uphold the image as projected by the campaign, tourism service providers are expected to have strategies in place for the delivery of superior quality. Furthermore, to improve the service quality in the long run, a continuous assessment of service quality helps organizations to identify gaps.

Operational definitions of the constructs:

A thorough review of literature led to identification of the research gap which led to the identification of the research model. The outcome variable is Tourist loyalty a dependent variable, and an independent variable is consumers' perception of service quality. Corporate image and customer satisfaction is the mediating variables. The operational definition of the constructs of the research model are given below.

Service quality definition: "global judgment, or attitude, relating to the superiority of the service" (A. Parasuraman et al., 1988)

Tourism service quality definition: According to the WTO (2003), quality in tourism can be defined as: "the satisfaction of all the legitimate product and service needs, requirements and expectations of the consumer, at an acceptable price, in conformity with the underlying quality determinants such as safety and security, hygiene, accessibility, transparency, authenticity and harmony of the tourism activity concerned with its human and natural environment."

Customer satisfaction: Customer satisfaction can be defined as" the degree to which one believes that an experience evokes positive feelings" (Holbrook, Rust, & Oliver, 1994).

Corporate Image: "Perceptions of an organization reflected in the associations held in consumer memory" (Keller, 1993).

Loyalty: "Customer loyalty is defined as a consumer's deep and consistent commitment to a product, service, or brand" (R. L. Oliver, 1999).

Research Process and organization of the study

This study is structured as follows: the study presents review of literature and elaborates the concepts and definitions to measure service quality in tourism sector. Insights are

drawn from thorough literature review to identify the research gap and research model. Next research methods adopted for the study are discussed, followed by a description of analytical tools used in the study with an interpretation of results. Finally, the study concludes with findings, discussion and scope for future research. The entire study is presented in five chapters.

Chapter 1: An introduction to the topic is briefed along with overview of the service sector and tourism industry. The need for the study and its relevance in the present scenario is mentioned. Finally, the chapter presents the conceptual definitions of the constructs used in the study along with a mention of research gap.

Chapter 2: An extensive literature review is discussed on service quality concepts and tourism service quality. Research gap was identified in the process which led to the farming of objectives. The objectives are achieved by formulating hypotheses and developing a conceptual model, thus leading to a theoretical framework.

Chapter 3: The chapter presents the research methods that are used in the study. Also, a justification for target population, sample size and sampling units are given. The statistical tools and techniques used in the study were discussed.

Chapter 4: Results of data analysis are presented in this chapter. Descriptive statistics, demographic profile of the respondents, assessment results of measurement and structural models are presented. Results of hypothesis testing are also reported.

Chapter 5: The interpretation of results followed by a discussion and conclusion of the study are presented in this chapter. It also presents theoretical and practical implications of the study, limitations and directions for future research are specified.

CHAPTER 2

REVIEW OF LITERATURE

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Literature Review on Service Quality

A large and growing body of literature has been published on Service quality; it is a comprehensively researched area. There are multiple studies which have contributed to the field of service quality and one of the earliest studies to be mentioned is by Sasser, Olsen, and Wyckoff (1978), in their study they have identified three dimensions measuring service performance and stated that it is not only the outcome but the way the service is delivered also matters. Lehtinen and Lehtinen (1982) have discussed the difficulty of measuring service quality in labour intensive industries. They have identified three dimensions namely corporate, interactive and physical quality, measuring these dimensions helps in evaluating service quality of a labour intensive firm. The following are few prominent studies on which the service quality theory is grounded on. To begin with, in an effort to conceptualize service quality (Grönroos, 1984) has developed an explicit service quality model with the help of two quality dimensions called technical and functional quality. The technical quality explains the outcome of a service whereas functional quality explains the process of delivery of a service rather than quality, here consumer compares the service he received with his expectations, and the outcome of this evaluation by a consumer is termed as perceived service quality by Gronroos.

One of the remarkable works of Anantharanthan Parasuraman, Valarie A Zeithaml, and Leonard L Berry (1985) is developing a conceptual model known as Gaps model of service quality The model identified four discrete gaps that can originate from provider's side and one from consumer's side, the most important being the perception

and expectation (P-E) gap. Based on this model a conceptual framework is developed which stressed the need to build a standard scale to evaluate consumer's perception towards SQ and this navigated to the identification of ten SQ dimensions.

In their further study Anantharanthan Parasuraman et al. (1985), has identified ten dimensions initially to measure SQ, later these dimensions have been reduced to five dimensions, namely tangibility, reliability, responsiveness, assurance and empathy, to form a multidimensional scale called SERVQUAL. The scale addresses the consumer's side of gap. SERVQUAL scale is most extensively used scale in the area of service quality research. Zeithaml, Berry, and Parasuraman (1988) has proposed a comprehensive model of SQ which focused provider's side of four gaps and identified different organizational factors that influence the magnitude and direction of the organizational side of service quality gaps. Anantharanthan Parasuraman, Berry, and Zeithaml (1991) empirically tested the above model to find the organizational barriers to provide superior quality service. For each gap, propositions were made which molded as the antecedents of the four service quality gaps from provider's side. For analyzing each gap multiple item scales with different anchor points were used. This model helps to assess the limitations of service providers for delivering service quality.

In contrary with the studies (Anantharanthan Parasuraman et al., 1985; Ananthanarayanan Parasuraman, Valarie A Zeithaml, & Leonard L Berry, 1988), (Cronin Jr & Taylor, 1992) criticized the conceptualization of SERVQUAL and proposed a performance based measure of service quality SERPERF. The authors argued that SERPERF is a better model than SERVQUAL as it captures perceptions of service quality, the items measure performance only aspect. These authors have also argued that

SQ is an antecedent to CS, a conflicting opinion with regard to Bitner, Booms, and Tetreault (1990) who mentioned in his study that CS is an antecedent to SQ. Another study by Bitner (1992) have identified typology of different organizations and stressed the importance of physical surroundings on customer behavior.

These authors have studied the relationships of satisfaction and purchase intention with service quality. Boulding, Kalra, Staelin, and Zeithaml (1993) have conducted a similar study and observed how customers develop opinions about service quality of a firm and in turn how these opinions influence consumer's behavior. The authors say that expectations are pretrial beliefs that change over time and are not constant. To explain this assumption a service quality model was developed by these researchers. The model analyzes how customers update their expectations and perceptions. Consumers form cumulative perceptions of a service based on recent transactions and previous experience, these perceptions guide them to exhibit a favorable or unfavorable behavior.

A similar study by Zeithaml, Berry, and Parasuraman (1993) on consumer expectations identified factors which form as antecedents to customer expectations and identified three types of expectations i-e adequate, desired and predicted service. There exists a gap among these expectations, most important among them is a gap between desired and adequate service. This gap is defined as "zone of tolerance". According to them marketers can make successful decisions by understanding the zone of tolerance. Ananthanarayanan Parasuraman, Zeithaml, and Berry (1994) elaborate the above study, have proposed a diagnostic approach for measuring both perceptions and expectations of a service by adopting a single scale i-e including both items that measure service quality perceptions and expectations in SERVQUAL scale. According to these authors it is a

robust scale and is most preferred than the psychometric scale SERVQUAL which measures perceptions only. Many issues were raised by Cronin Jr and Taylor (1992) in their study on SERVQUAL scale. They argued that SERVPERF is a better approach than SERVQUAL as it explains more variance. They also argued that SERVQUAL only identifies the shortfalls in a service rather than explaining variance. In response to the above argument Ananthanarayanan Parasuraman et al. (1994) have explained the issues raised and defended that SERVQUAL was a proper tool to measure service quality as it identifies areas of weakness in delivering a service and criticized that SERVPERF lacks theoretical support and was poorly conceptualized unlike SERVQUAL which is conceptualized on expectation-disconfirmation paradigm . In contrary to the above criticism Cronin Jr and Taylor (1994) made justification that SERVPERF captures longitudinal index of service quality that way making it a superior instrument than SERVQUAL. Conceptualization of service quality continues to be a debated subject. Rust and Verhoef have developed a service quality model with a three-factor structure. The studies so far discussed on the conceptualization of service quality. The most significant studies on assessing service quality dimensions are presented in table 4. There are other studies which explored the aftermaths of service quality, and most prominent among them is Zeithaml, Berry, and Parasuraman (1996) who studied the behavioral consequences of service quality. The authors have developed an instrument to measure behavioral intensions of customers in terms of remaining or detaching with the company.

Table 4

Summary of Important studies on Service Quality

Author (Year)	**Objective of evaluation**	**Outcome of the studies**
Sasser et al. (1978)	Three service performance dimensions.	Materials, facilities and personnel.
Grönroos (1984)	Conceptual model of service quality.	Technical and functional quality
Lehtinen and Lehtinen (1982)	Process and outcome of Service delivery	Physical quality, corporate and interactive quality
Anantharanthan Parasuraman et al. (1985)	Gap model of service quality	Ten dimensions were identified to measure service quality. Five gaps in perceiving service quality identified.
Ananthanarayanan Parasuraman et al. (1988)	Multi–dimensional scale	SERVQUAL scale with five dimensions
Zimmer and Golden (1988)	Comprehensive model of service quality	Addressing four gaps from provider's side
Cronin Jr and Taylor (1992)	Service quality model	SERVPERF a more accurate measure than SERVQUAL
Bitner (1992)	Service environment	Service scape
Boulding et al. (1993)	Service quality model	Consumer behavior (favorable or un favorable)
Zeithaml et al. (1993)	Three types of service desired, adequate and predictive.	Zone of tolerance (addressing the gap between desired and adequate service)
Ananthanarayanan Parasuraman et al. (1994)	Modified version of SERVQUAL	Scale includes items of both perceptions and expectations.
Rust and Verhoef	Three component model	Three dimensions service encounter, service environment, outcome quality.
Zeithaml et al. (1996)	Behavioral intentions battery	Favorable or unfavorable behaviors
Dabholkar, Thorpe, and Rentz (1996)	Multi-level service quality model	Dimensions and sub dimensions measuring dimensions.
Cronin Jr et al. (2000)	Service quality & Behavioral intentions	Service quality influences behavioral intentions
Brady, Cronin Jr, and Brand (2002)	Hierarchical approach	Multi-level conceptualization of service quality
Ananthanarayanan Parasuraman, Valarie A Zeithaml, and Arvind Malhotra (2005)	E-S QUAL	Web site service quality

In line with the same argument Brady et al. (2002) have also adopted a multi -level conceptualization of service quality with a three factor structure, according to them it is a more comprehensive model than the SERVQUAL model. Arguments and debates on service quality conceptualization continue as long as the market dynamics keep changing, it is a continuous process. The table below shows the summary of timeline studies in marketing literature. Literature on service quality is quite exhaustive. The entire research on service quality is built on the above studies. Numerous studies have tested the service quality in different industries by adopting one or more of the studies mentioned above. The most popular among them is SERVQUAL tool which has been widely tested and validated across all types of service industries.

Literature review of Service Quality in Tourism

Regarding the literature in tourism domain many studies were conducted related to policy making, competition, tourism practices, strategic use, marketing culture, corporate social responsibility etc., nevertheless service quality received considerable critical attention by researchers and tourism organizations due to its increasing role of tourism in global economy. The measurement of SQ in hospitality and tourism industry is difficult due to the complex nature of its products and services. There are many parties involved in delivering tourism services like government and private organizations, travel agencies, local bodies etc. which also makes it more complex. There are numerous scales to evaluate service quality in tourism sector, these scales are based either on SERVQUAL model (Anantharanthan Parasuraman et al., 1985) or other than the SERVQUAL model. SERVQUAL instrument is widely used for assessing customer perceptions of service

quality in tourism sector. Several researchers in tourism domain used SERVQUAL scale as a skeleton to develop different scales.

Studies based on SERVQUAL Model

The earliest studies to measure service quality in tourism sector was by Pizam, Neumann, and Reichel (1978) who empirically measured satisfaction of a tourist of a destination area in USA and identified eight factors. Saleh and Ryan (1991) were the earliest researchers who measured SQ in hospitality industry by using SERVQUAL model with a multi attribute approach. The study identified five dimensions with 33 items that are different from the SERVQUAL items. Fick and Brent Ritchie (1991) have applied SERVQUAL scale in travel and tourism industry and have suggested the modification of the scale. Due to the limitation of its dimensions and some inadequacies the tool was unable to capture the quality of service that was intended to. The authors felt the need to define the dimensions that are specific to travel and tourism industry has to be defined. Knutson, Stevens, Wullaert, Patton, and Yokoyama (1990) has developed a scale with 26 items that measures service quality of hotels called LODGSERV. LODGSERV is not generalizable as it is intended to measure only hotel service attributes. In line with the above studies Getty and Thompson (1994) used modified SERVQUAL scale and developed a new instrument to measure customer satisfaction of Hotel industry called LODGQUAL. A three dimensional model was suggested for evaluation of hotels. Vogt and Fesenmaier (1995) argued that SERVQUAL dimensions are not robust as they are intended to be. The authors also examined the gap model proposed by Anantharanthan Parasuraman et al. (1985) and suggested that an additional gap should be added to the five current gaps in the model, where it addresses how a customer evaluates experience

and how it can be interpreted by providers. (Akan, 1995) used a modified SERVQUAL scale with 30 items and felt the need to add additional dimensions to measure service quality, he also examined the level of significance of each dimension for customers of the hotel industry in Istanbul. Williams (1998) has questioned whether SERVQUAL scale is an appropriate tool to measure service quality in leisure industry and observed that the reliability of the scale in non-profit organizations like museums, amusement parks in UK where the service quality is excellent was questionable. He also mentioned that there is a need to administer different scales to measure service quality. Ekinci and Riley (1998) measured service quality of Turkish resorts and developed a scale with 38 items, the instrument has SERVQUAL items as well as LODGSERV items. The study concludes that SERVQUAL items have problem as they have a strong correlation between the items. Tribe and Snaith (1998) developed a tool named HOLSAT to measure holiday satisfaction in Cuba, this instrument is designed based on SERVQUAL and SERVPERF approaches. Qu and Tsang (1998) have developed a modified SERVQUAL scale with 35 items to evaluate service quality in china's Hotel industry. Wong Ooi Mei, Dean, and White (1999) have conducted an exploratory study in Australia in hospitality industry to analyze service quality by applying a modified SERVQUAL scale with 27 items called HOLSERV. Similarly Devi Juwaheer and Lee Ross (2003) have identified 39 attributes by applying a adapted form of the scale and studied two gaps proposed by Anantharanthan Parasuraman et al. (1985), Gap 1-the management perception gap and Gap 2- the perceived service quality gap. The researchers concluded that the SERVQUAL dimensions have helped to predict overall service quality well in hospitality industry. Getty and Getty (2003) have modified the original ten dimension scale of

Anantharanthan Parasuraman et al. (1985) developed a new scale with 26 items called Lodging quality Index (LQI scale). Nadiri and Hussain (2005) applied perceived service quality measurement instrument to study European tourist's perception towards Cyprus island hotels. The study found that only two dimensions tangibles and intangibles have emerged that have a significant effect on tourist satisfaction instead of the five dimensions. A qualitative analysis of the modified SERVQUAL dimensions was carried out by Chang (2009) to measure Taiwanese tourist's perceptions of service quality. Chang (2009) has measured service quality of Indian tourism destinations by applying SERVQUAL and evaluated foreign tourist's perceptions of service received. The study concluded that the instrument is a reliable tool to measure service quality in Indian tourist destinations. Bhat (2012) a modified SERVQUAL scale was empirically tested. The factor analysis produced 24 items with four dimensions. The summary of studies conducted in different countries based on SERVQUAL model is presented in table 5. Some researchers find SERVQUAL a reliable tool to measure SQ in leisure, tourism and hospitality sectors (Augustyn & Ho, 1998; Gabbie & O'Neill, 1997; Hamilton, Crompton, & More, 1991; Home, 2006; Ingram & Daskalakis, 1999; Ryan & Cliff, 1997). Similarly Heung (2000) believes that it is relatively simple and relatively low cost to use SERVQUAL scale compared to other tools.

Studies based on other than SERVQUAL model.

Many researchers have identified different attributes and dimensions that are significant in measuring tourist satisfaction and developed scales that are not based on SERVQUAL model. Chadee and Mattsson (1996) measured the factors effecting tourist experiences and found that distinct quality factors are important for different tourist encounters.

Tourism specific attribute based quality factors were included in four different settings. Weiermair and Fuchs (1999) assessed judgement of a tourist on SQ by using an attribute based method in Austria and Italy, seven dimensions emerged. Patton, Stevens, and Knutson (1994) found four attributes that affect tourist's satisfaction namely ambience accommodation, transportation and food services, as these form the core of tourism services, nevertheless there are many elements that determine service quality in tourism. Otto and Ritchie (1996) explored the dimensionality of service experience by developing a scale but could not reflect tourist's experience. Diaz-Martin, Iglesias, Vazquez, and Ruiz (2000) measured tourist satisfaction of rural tourism services with a 22-item scale. Five factors have emerged from the study. Chaudhary (2000) has measured pre and post trip perceptions and expectations of foreign tourists regarding India as a tourist destination with 20 attributes. It was found that India as a tourist destination is not perceived positively by foreign tourists due to its poor infrastructure and safety issues. Other studies that have measured tourist satisfaction of a destination (Kozak, 2001) with 55 items and tourist's perceptions of turkey as a destination relative to other destinations (Yüksel & Yüksel, 2001b) with 67 items. (Poon & Lock-Teng Low, 2005) have measured satisfaction levels of Asian and Western tourists visiting Malaysian hotels and developed a scale with 49 items. Narayan, Rajendran, Sai, and Gopalan (2009) have identified ten dimensions to evaluate service quality in tourism sector focusing on India and south Asian countries. An exploratory research was conducted, and the study identified different attributes which are not incorporated in the previous studies related to tourism sector like fairness of price, taste of food and courtesy of people. Additional items from the provider's perspective have also been included in the framework.

Table 5 *Summary of tourism service quality research in different countries based on SERVQUAL*

Author	Country	Dimensions
Otto and Ritchie (1996)	Newzealand	Peace of mind, Hedonics, involvement and recognition
Chadee and Mattsson (1996)	Newzealand	Accommodation, rent a car, Eating out and sightseeing.
Weiermair and Fuchs (1999)	Austria and Italy	Security, Freedom of choice, Honesty, Aesthetics, Punctuality and Reliability, accessibility of services and Variety.
Patton et al. (1994)	Canada	Ambience, attraction, Food services, transportation and accommodation
Diaz-Martin et al. (2000)	Spain	Tangibles, Professionalism of employees, Complimentary offers, Location and basic benefits.
Kozak and Rimmington (2000)	Spain	Destination attractiveness
Callan and Kyndt (2001)	Europe	Leisure facilities, security, Location, Competence, security, tangibles, access, service providers understanding, image, business facilities and Price/value.
Burns et al. (2003)	USA	Experience, facilities, information and experience
Akama and Kieti (2003)	Kenya	Perceived value, price and SERVQUAL Dimensions
Alampay (2003)	USA	Attractions, Lodging, Shopping and dinning
Ekinci, Prokopaki, and Cobanoglu (2003)	UK	Modified SERVQUAL + tangibles and intangibles
Millan and Esteban (2004)	Spain	Efficiency of advice, service environment, reliability, additional attributes and service encounters.
Anwar and Sohail (2004)	UAE	Events, Travel experience of tourists, factors determining choice of UAE, Attractiveness and satisfaction levels.
Costa, Glinia, Goudas, and Antoniou (2004)	Greece	Activities of service provider, discovery, action, adventure, social interaction, discovery, adventure and creativity.
Nash, Thyne, and Davies (2006)	Scotland	Demographics, Sub scales measuring-details of holiday, accommodation, spending, information sources, transportation and reasons for travel.
Y.-H. Lee and Chen (2006)	Taiwan	Kano's two-dimensional model
Bhat (2012)	India	Reliability, assurance, responsiveness, tangibility
Hanks, Line, and Kim (2017)	U.S. A	Responsiveness, empathy and assurance

Table 6 *Summary of scales based on models other than SERVQUAL*

Author	Country	Dimensions
Akan (1995)	Turkey	Speed of service, accuracy of hotel reservations and service, courtesy, competence and communications and transactions and solutions to problems, understanding the customer.
Tribe and Snaith (1998)	Cuba	Hotel meal provision, night life provision, HOLSTAT-Restaurant, Bar, price, shopping facilities, service quality, access to culture and heritage, industrial pollution.
Reichel, Lowengart, and Milman (2000)	Israel	Gronroos model
Chaudhary (2000)	India	Poor quality of goods, Inexpensive destination, availability of tourist's landmarks, inexpensive shopping, hospitality, quality hotels, cultural heritage, nuisance caused by beggars and Variety of good arts.
Kozak (2001)	Turkey	Hospitality, destination airport services, local transport services, Hygiene, services, customer care, Facilities and activities, language communication, accommodation, prices.
Yüksel and Yüksel (2001a)	Turkey	Accommodation, Price and Value, convenience, Food hospitality, service quality, water sports, service quality, quietness, Tourist facilities, Communication, security, transportation, airport services and weather, Hygiene and entertainment, beach and environment.
Devi Juwaheer and Lee Ross (2003)	Mauritius	RATER, hotel surroundings, food, environmental factors, outlook, accuracy factors, extra room amenities and services.
Poon and Lock-Teng Low (2005)	Malaysia	Transportation, accommodation, recreation and entertainment, Location, appearance, food & beverages, pricing, Hospitality and Supplementary services.
Edward and George (2008)	India (kerala)	Accommodation quality, restaurants, access, Staff language, opportunities for sightseeing, local transportation, safety, tour operator service, shopping, tour guide service, basic amenities near attractions, climate, beach cleanliness, natural, Hygiene, historical and cultural attractions, tourist information, local people friendliness, staff attitude night life, and Airport Services,
Narayan et al. (2009)	India	Ten dimensions: Value for money, hygiene, fairness of price, amenities, security, food, logistics, information and hospitality, core tourism experience,
Bernardo, Marimon, and del Mar Alonso-Almeida (2012)	Spain	Hedonic and functional quality
Ban and Ramsaran (2017)	Australia	Eco friendly practices, eco-learning and eco-activities

The factor structure that is framed from this study also emphasizes the value chain in tourism. The table 6 has the summary of dimensions of service quality identified by different studies that are not based on SERVQUAL. Similarly, there are many scales measuring SQ and CS in tourism sector which are not exhaustive in nature. The scales are different from each other as they measure different attributes of a specific type of tourism such as skiing (Fick & Brent Ritchie, 1991), water sports (Burns, Graefe, & Absher, 2003), quality of wine tourism experience, visiting a casino and night life experience (Carmichael, 2005), service quality at a destination (Chaudhary, 2000; Hudson & Shephard, 1998; Kozak, 2001; Tribe & Snaith, 1998), theme parks (O'Neill, Williams, MacCarthy, & Groves, 2000), shopping as an attraction for destination choice, rural tourism (Diaz-Martin et al., 2000), historic houses (Frochot & Hughes, 2000).

The studies on service quality are exhaustive in nature. Different scales with dimensions specific to context were developed to test service quality in different sectors. Most of the studies were either based on SERVQUAL model or SERVPERF model or Gronroos model (technical and functional quality). The application of these models resulted in varied results across sectors. Though the service quality is grounded on these models, the changing customer dynamics are opening a new avenue to test new models that seems to be robust. There are few studies that have been discussed below which measured service quality in different sectors and different models were developed based on the theoretical notion. A study that measures e-service quality was proposed by Bauer, Falk, and Hammerschmidt (2006), have combined both hedonics and utilitarian dimensions and developed an eTransQual service quality scale that covers even the process of delivery of an electronic service which the authors say a transaction-process based scale. The scale

covers all the aspects of customer's assessment of an e-service. Similar study that assess the service quality of website has used a different perspective. The study conducted by Collier and Bienstock (2006) stresses the importance of outcome and recovery quality rather than just assessing the web site quality. In their study they have conceptualized e-service quality with a three-dimensional structure i-e process, outcome and recovery quality. The study also conceptualized e-service quality as a formative indicator.

The studies are not restricted to one particular sector. The research on SQ is widely discussed. The inter relationships among various service quality outcomes have also been discussed. One study that Olorunniwo, Hsu, and Udo (2006) have studied is the importance of nature of typology of services in developing a service quality construct. They have measured service quality in mass services and also tested the inter relationships among SQ, CS and BI as typology specific relationship. Mass services caters to the needs of different customers, hence measuring service quality in such industries is difficult. The emergence of e- technology has also motivated various researchers to identify key gaps in delivering superior quality in e- based services, one such study was by Ho and Lee (2007) measured e-travel service quality. Validated the SQ dimensions as second order dimensions. The study helps managers to improve specific service areas which contribute more to a firm's performance.

Dagger, Sweeney, and Johnson (2007) developed a scale measuring service quality in healthcare industry. It helps healthcare professionals in understanding the service quality perceptions of patients and thereby improve services to satisfy patients. The study also tested the effect of SQ on CS and BI. Hospitality industry is one more major sector where

delivery of superior service is very crucial for a firm's performance. Many studies measuring service quality were conducted in this sector to improve their services. The studies mostly have concentrated on the outcome variable of SQ such as loyalty. Various models have been tested in this sector and studied the influence of the intervening variables like image, satisfaction, trust, perceived value etc. on customer loyalty.

A study by Ladhari (2008) insisted on industry specific measurement scale. The author has questioned the applicability of SERVQUAL scale across various industries and highlighted the short fall of the tool in capturing real measure in tourism industry. Similarly H.-H. Hu, Kandampully, and Juwaheer (2009) has evaluated service quality in hotel industry and studied the effect of SQ on customer behavior. According to these researchers the key challenge for any firm is satisfying and retaining a customer. They have also studied the impact of satisfaction and image on customer's behavioral intention. The studies are varied in nature and the nature of dimensions measuring service quality also varies one such study is conducted by Ha and Jang (2010), who have examined the moderating effect of atmospherics between SQ and satisfaction in an ethnic restaurant setting in Korea. Similar to other restaurants the service quality and satisfaction are influenced by primarily by food quality, atmospherics and superior employee service. (Ryu & Han, 2010) have also studied the association between SQ and satisfaction and studied the influence of price as moderator in satisfaction formation in a restaurant setting. The behavioral intensions of the customers were also studied. Price is also a major influencing variable on loyalty. Technology based services assessment is different from traditional services a study by Udo, Bagchi, and Kirs (2010) finds interesting facts by evaluating web service quality. Identified dimensions measuring SQ

in e-business environment. They also have examined the mediating influence of CS between SQ and behavioral intension and found that the mediating effect is stronger than the direct effect. Papadomichelaki and Mentzas (2012) have identified four factor scale to measure service quality of e- government services and developed a scale e-GovQual. The government websites offer different services to the citizens and in the process the authors have how customers evaluate online services provided by government.

Lai and Chen (2011) studied the significance of service quality in public transit services in Taiwan and found that PV and CS also have a significant impact on loyalty of passengers of public transit service. Similar study by Setó-Pamies (2012) tested the SERVQUAL scale in travel industry and found the scale is appropriate tool to measure service quality in that sector. The researchers also examined the influence of customer trust and CS on loyalty. Studies pertaining to uncommon services like casino have also measured service quality to improve their customer base. Prentice (2013) a study conducted by these authors for the time used customer pyramid segmentation approach to measure service quality and loyalty of casinos. It was observed that service quality perceptions differ with different segments and the management has to address the perceived service quality differences of each segment and design the service based on the segments in order to achieve an overall service quality.

Public services like banking, transport, health care etc. also was measured. A study by Abd-El-Salam, Shawky, and El-Nahas (2013) have tested the service quality, firm's reputation and image on loyalty. The model was tested in Egyptian's largest service organization. Dabholkar (2015) has observed the direct and indirect effect of customer

participation on perceived service quality. Services that are designed which needs more customer participation like banking. A model was developed where a causal association between SQ and customer participation are observed. H. S. Bansal and S. Taylor (2015) in their study observed the antecedent role of service quality in forming satisfaction and switching intentions. The study has identified that service quality was a key influencing variable in causing switching behaviors in customers.

The literature on service quality began with identifying dimensions of SQ and then identifying antecedents and consequences of SQ, further it has extended to testing the inter relationships among these antecedents and consequences. Various models have been tested across different service industries. A study by Su, Swanson, and Chen (2016) examined the mediating effect of relationship quality constructs between service quality perceptions and subjective wellbeing and repurchase intentions in lodging industry. The results found that the relationship quality constructs satisfaction and customer-company identification have significant mediating effect between SQ and subjective wellbeing and repurchase intentions. Another study by Quester, Romaniuk, and Wilkinson (2015) have used four alternative popular scales in service quality literature to identify a right tool to measure service quality in advertising services. SERVQUAL, SERVPERF and their weighted scales have been used. The results found that SERVPERF was an appropriate tool to measure service quality in Australian advertising industry. The antecedent role of satisfaction, perceived value trust on BI are frequently tested. Apart from these there are other variables identified by researchers who used in their study. (H. S. Bansal & S. F. Taylor, 2015) studied antecedent role of other constructs like propensity to seek variety and alternative attractiveness apart from satisfaction and service quality in switching

behaviors. The study found that satisfaction and SQ have more effect than the other constructs. The conceptualization of service quality in mobile services, education and healthcare led to development of SQ scales in these sectors. (Huang, Lin, & Fan, 2015) have developed a scale M-S-Qual to measure mobile services. The scale consisting of nine dimensions, was tested and validated. Teeroovengadum, Kamalanabhan, and Seebaluck (2016) have measured service quality in higher education and developed a scale HISQUAL which has both technical and functional aspects of measurement. The scale consisted of dimensions and sub dimensions. A hierarchical model was developed. D. Lee (2017) has developed a scale that measures service quality in health care sector HEALTHQUAL. The mostly measured the process of health care service and identified items related to patient care. The study was conducted in South Korea in a hospital. The scale has five dimensions. Similar study by Kasiri, Cheng, Sambasivan, and Sidin (2017) have tested the impact of customization and standardization concepts on SQ . A study was conducted in three service settings i-e healthcare, education and hospitality. Results found that standardization has more impact on SQ rather than customization of service. Liu and Lee (2016) researchers have evaluated the service quality of airline services and have studied the impact monetary and behavior price on positive word of mouth. Perceived price element was observed, the results found that there is a positive relationship between SQ and WOM mediated by perceived price. Halvorsrud, Kvale, and Følstad (2016) analyzed customer journey analysis in Norway. The gap between planned and actual delivery of service was analyzed by using a framework. The study will be helpful to managers various transit service providers to meet customer expectations.

Recent studies mostly were conducted on emerging services like e-learning, sporting events, urban transport, fitness centers etc. An interesting study by Kasiri et al. (2017) have assessed web based service quality of academic library services in Malaysia. The study also analyzed the antecedent role of service value satisfaction, service quality on loyalty. Results revealed that SQ and SV have a direct effect on loyalty. The academic library services are very important, the purpose of their mere existence does not satisfy a customer. These services should be evaluated regularly to maintain customer loyalty. Here is another interesting study that discuses about service quality of a sporting event. A study by Ahrholdt, Gudergan, and Ringle (2017) discusses about customer delight through service quality and loyalty through SQ and customer delight in a sporting event in tourism industry. The study emphases the importance of SQ dimensions for managing loyalty. The customers who are satisfied with the previous service encounter develops positive intention. Yuen and Thai (2017) were the first to stud the customer appraisal of service quality attributes. An interaction model was developed, and the results found that a synergetic satisfaction effect was found when there is an interaction between service quality attributes. E-learning has become a most common service and is widely used. The assessment of these services helps in improving the course content, methodology and teaching areas. A study conducted by Uppal, Ali, and Gulliver (2018) has analyzed e-learning quality based on SERVQUAL model. The study found that information quality and system quality factors are the crucial factors in determining e-learning service quality. another study by García-Fernández et al. (2018) measures perceived SQ and its effect on loyalty of a chain of low cost fitness center in Spain. The result found that perceived quality, service convenience has a major influence on loyalty. The study

conducted by Mugion, Toni, Raharjo, Di Pietro, and Sebathu (2018) analyzed urban public transport system and sustainable mobility, the study was conducted in Rome, Italy. The study is to know the usage of public transport rather than the citizens own car. The study also measured quality of the urban public transport and found that quality is a major influencing factor in forming intention to use public transport. Another sustainable mode discussed was car sharing to improve the sustainable mobility. A tourism related study conducted by Wu, Li, and Li (2018) has measured experiential quality of a theme park in Taiwan the results showed that physical environment factor has a major influence in forming experiential quality. A multi-dimensional model was used to test the model.

Literature review of other constructs

Customer satisfaction

Customer satisfaction can be defined as "the degree to which one believes that an experience evokes positive feelings" (Rust & Oliver 1994). Research on SQ and customer satisfaction argues that both constructs are closely related but distinct in nature (Dabholkar, 1995; Ananthanarayanan Parasuraman et al., 1994; Sureshchandar, Rajendran, & Anantharaman, 2002). Ananthanarayanan Parasuraman et al. (1988) have conceptualized "SQ as a form of attitude whereas customer satisfaction assessments are related to an individual's transactions" (Bitner, 1990; R. L. Oliver & Westbrook, 1982).

Research on customer satisfaction is mainly based on five models: expectations, disconfirmation of expectation, performance, affect and equity (Szymanski & Henard, 2001). Expectations: Consumer's expectations have a direct influence on customer satisfaction. Consumers anticipate a certain level of performance and they form expectations and these expectations form a basis for satisfaction assessment (R. L. Oliver,

Rust, & Varki, 1997). Disconfirmation of expectations: Here expectations are based on comparative referents i-e the customers are satisfied when outcomes exceed expectations referred as positive disconfirmation and customers are dissatisfied when expectations are more than outcomes referred as negative disconfirmation (R. L. Oliver, 1981a). Performance: performance directly affects satisfaction (Churchill Jr & Surprenant, 1982). Affect: Researchers believe that affect component is influential in drawing satisfaction judgements (Westbrook & Oliver, 1991). During consumption the consumer leaves affective traces in the memory regarding the product or service performance and these are retrieved by consumer for satisfaction assessments. Equity: equity is a fair and correct judgement that consumers make with reference to what others receive (R. L. Oliver et al., 1997). The consumer assess satisfaction by comparing equity ratio i-e the input (expected product or service), and outcome (how it has been delivered) received when compared to the referent person (R. L. Oliver, 1993; Swan & Oliver, 1991). Well the research on customer satisfaction is not limited to the above models, there are other theories as well.

Outcomes of customer satisfaction

Word of mouth, purchase intension, loyalty are the positive outcomes of customer satisfaction whereas negative word of mouth, complaining behavior, disloyalty are the outcomes of customer dissatisfaction. There are many studies which have tested causal relationship between CS and loyalty, behavioral intention, perceived value, corporate image, patronage behavior, willing to pay more etc.

In this study the causal relationship between customer satisfaction and loyalty, corporate image was studied.

Tourist Loyalty

A satisfied customer will form a positive opinion towards a product or a service and this results in a positive behavior that is reflected in terms of a repeat purchase. Consequences of customer satisfaction are loyalty, paying price premium to the company and positive word of mouth. There are other variables which have a significant influence on customer behavioral intentions are service quality, perceived value, image etc. There are several studies which have empirically tested the relationship between SQ, CS, PV, image and loyalty.

Similarly, the relationship between satisfaction and repurchase intention was studied (Bitner, 1990; R. L. Oliver, 1980; R. L. Oliver & Swan, 1989; Rust & Verhoef). Relationship between SQ and CS in forming purchase intentions was studied by (Woodside, Frey, & Daly, 1989), a model was proposed concluding that customer satisfaction mediates the relationship between service quality and purchase intentions. Contradictory to the above model (Bitner, 1990) proposed that service quality is a mediating variable that mediates between satisfaction and behavioral intention. Several studies (Cronin Jr & Taylor, 1992), (Anderson & Sullivan, 1993; Gotlieb, Grewal, & Brown, 1994; Taylor, 1997), supported Woodside et.al model. (Cronin Jr & Taylor, 1992) has tested both the models and concluded that CS mediates between SQ and behavioral intention.

The behavioral consequences of SQ was studied by Zeithaml et al. (1996) to understand how service quality influences customer to stay with the company or defect with the company. The study analyzed the factor structure of the dimensions measuring customer behavioral intension. An extensive model was developed to test four categories of

behavioral intentions with five dimensions having 13 items. Loyalty, switch, pay more, external response and internal response are the factors of behavioral intensions, the first, third, and fifth are considered as favorable whereas second and fourth are considered as unfavorable behavioral intensions items. The loyalty dimension was used in this study to know the behavioral intensions of tourists towards the organization.

Customer loyalty is defined as a consumer's deep and consistent commitment to a product, service, or brand (R. L. Oliver, 1999). The early research on loyalty considers loyalty as customer behavior that drives him or her to purchase a particular brand (Jacoby & Chestnut, 1978; Sheth, 1968), later it is conceptualized as an attitudinal (1968) and cognitive (B. A. Lee & Zeiss, 1980) based evaluation by a customer. The behavioral loyalty is perceived as a repeat purchase of a product or a brand by the customer, the attitudinal loyalty is perceived as the feeling of attachment towards a product or a service (Jones & Sasser, 1995) whereas the cognitive loyalty is perceived as, when a need for a product arises a particular brand strikes in mind of a customer.

According to R. L. Oliver et al. (1997) loyalty is based on four different stages based on the customer's commitment levels: a) Cognitive: cost and benefit evaluation by customer b) Affective: customer's feelings towards a product or a service c) Conative: favorable behavioral intension developed by customer based on the repeated episodes of positive effect. d) Action: repeat purchase and positive word of mouth. There are many studies who have tested the relationship between these variables in tourism sector (Fornell, 1992; Getty & Thompson, 1995; Kandampully & Suhartanto, 2000; Oh, 1999).

Antecedents to Loyalty

Some authors (Fornell, Johnson, Anderson, Cha, & Bryant, 1996; Yoon, Lee, & Lee, 2010) argue that CS is the main predictor of behavioral intensions and loyalty whereas others (Hutchinson, Lai, & Wang, 2009) argue that quality has a direct relationship on behavioral intensions. A full mediation of satisfaction mediating between perceived service quality of tourist's and their repurchase intentions (He & Song, 2009) was observed. In a study conducted by Al-Rousan and Abuamoud (2013) for Marriott hotels in Jordan it was observed that tourist's satisfaction mediated the relationship between SQ and service loyalty.

Corporate Image

Corporate image is defined as "perceptions of organization reflected in the associations held in consumer's memory" (Keller, 2000). The customers form expectations are influenced based on their view and opinion about the company i.e., by the image. The corporate image is the outcome of how the consumers understands the firm. Corporate image is an important factor that can be considered when evaluating services is difficult, it is believed that corporate image helps in evaluating satisfaction and customer loyalty of a firm (Wallin Andreassen & Lindestad, 1998). (Nguyen & LeBlanc, 1998). Studied the effect of corporate image on service quality in travel industry and observed that customers form favorable image towards a firm by repeated service encounters. H.-H. Hu et al. (2009) examined the mediating effect of different variables such as corporate image, PV, CS between SQ and behavioral intentions. A survey conducted in hotel industry revealed that when customers are given superior customer value and high-

quality services, it results in higher satisfaction and favorable corporate image and that in turn leads customer retention.

Literature on indirect relationship of image and customer satisfaction

Chew and Jahari (2014) conducted an empirical research to find the mediator impact on the relationship between perceived risk and repeat tourists revisit intention where destination image played a mediator role. This research derives new insights by investigating the influence of perceived risks on destination image, and mediation effect of destination image on the relationship between perceived risks and repeat tourists intention to revisit a risky destination. The authors found that cognitive and affective destination images will be influenced by financial and perceived socio-psychological risks as well. In this study the authors report that physical risk did not influence the destination image significantly, even though it has direct impact on the revisit intention. Furthermore, it has been found that destination image has significant mediation effect on the link between financial and perceived socio-psychological risks, and revisit intention. This also found that not only the destination image but also Veasna, Wu, and Huang (2013) developed and examined a comprehensive destination branding theoretical model where the destination branding adopts the concepts of brand image, brand attachment, brand credibility, and satisfaction. Based on these concepts, the hypothesized relationships have been developed for the construct's destination source credibility, destination attachment, and destination image as the predictors/ antecedents of destination satisfaction. The hypothesized associations have been examined by using the sample size of 398 foreign tourists who visits a world-famous heritage tourism place (Angkor Wat) and a renowned skyscraper (Taipei 101). The collected data has been

analyzed by using the Structural Equation Modeling. SEM report indicates that both the constructs i.e. destination image and destination source credibility have an effect on the tourist destination satisfaction perceptions regarding destination attachment. Moreover, this study confirmed the mediation effect of destination image and destination attachment. Nesset, Nervik, and Helgesen (2011) developed a holistic cause and effect model and analyze the mediation role of image and satisfaction with the four store loyalty drivers, namely, service quality, store location, price and assortment. This study has shown the comprehensive view of the store loyalty. Cross sectional research design has been employed for the validation of the model. Data collection has been done by using survey method. Data analysis has been performed by using the covariance based structural equation (LISREL) and partial least square (PLS) estimation. In this study store image is considered and measured as a reflective construct which performed a major mediator role between satisfaction and loyalty. In addition to that, another important finding from the study is store assortment only impacts customer perception of image and ultimately customer loyalty indirectly through satisfaction, whereas service quality and price evaluation impacts directly via satisfaction creation and image building. Creating satisfaction appears to be more significant for store loyalty when compare to image building. Assaker, Vinzi, and O'Connor (2011) proposes the latent growth curve used to model the return behavior developmental trajectory. Now-a-days revisit intention has become a significant research focus as many tourist destinations depending on repeat business. In order to examine the impacts of destination image, novelty seeking and satisfaction, the proposed model has been tested by using AMOS 16.0 and Structural Equation Modeling methodologies. Data collection has been done among English,

French, and German travelers. This study revealed that both low satisfaction among tourists and novelty seeking influence the immediate intention to return. On the contrary, a positive destination image improves both immediate and future revisit intentions. Prayag and Ryan (2011) develop a conceptual model by taking into consideration the proposed hypothesis among four constructs, namely, personal involvement, place attachment, destination image and visitors' satisfaction as predictors of loyalty. In order to explore the relationships among the constructs, data has been collected from 705 respondents. Sample includes the international visitors who are staying in the hotels on the Mauritius Island. The study employed CFA to determine the dimensions of different constructs and also to evaluate discriminant and convergent validity of the scale items. Structural model showed that Personal involvement, place attachment and destination image are the predictor variables of visitor's loyalty, however, satisfaction levels mediate this relationship. Cheng (2013) examined the influence of SQ on CS consequently how satisfaction impacts customer loyalty in Malaysian hotel industry. The study tested the mediation role of corporate image on the link between satisfaction and loyalty of customer. Self-administered questionnaires are employed to collect data from 500 hotel guests where systematic sampling technic has been adopted. This research identified that hotel SQ has a significant influence on CS which in turn leads to the customer loyalty. In addition, corporate image has identified to be a partial mediator on the link between satisfaction and loyalty of customer. Ladhari, Souiden, and Ladhari (2011) developed and examined the model for the antecedents of customer loyalty and recommendation. The model consists of three factors i.e. perceived service quality, image and emotional satisfaction which have a positive relationship between each other and also significantly

impacts the loyalty and recommendation. A sample of 222 Tunisian bank service customers were chosen and data was collected to test the hypothesized model. The authors emphasized the mediating effect of image and emotional satisfaction on the link between perceived SQ and loyalty or recommendation. The study showed that "affective dimensions" should be taken into consideration along with the "cognitive dimensions" for the better understanding of factors of behavioural intentions. Osman and Sentosa (2013) conducted a research study to examine the Malaysian rural tourism service quality, satisfaction of customer and loyalty. A conceptual model developed and later investigated by using the 295 sample responses. Partial Least Square (PLS) technique has been adopted for analyzing the data. The results validated that CS has partial mediation effect on SQ and loyalty relationship in Malaysian rural tourism context. Findings indicate that the consequence of SQ, satisfaction and loyalty in the rural tourism leads to operator's profitability. Hence, in the tourism service industry, service quality and satisfaction plays a vital role. Richard and Zhang (2012) studied the impact and interrelationship of commitment, CS, and CI on loyalty of customer in the travel industry. A model showing the relationships of corporate image–commitment–loyalty was developed and examined. The direct and indirect relationships among variables in the model have been tested by using Partial least squares (PLS). The tourism industry is competitive due to low customer loyalty and is greatly sensitive to the price as well. Customer loyalty is an important strength in highly competitive markets, and recognizing the factors influencing the customer loyalty is imperative to travel organizations that are looking for ways to keep up a strong customer base. A Mail survey has been conducted in New Zealand which shows that corporate image significantly affects the link between

customer commitment and satisfaction. In predicting the customer loyalty affective commitment is the crucial aspect that plays an important role. The impact of CS has caused a much lesser effect. Authors suggest that travel organizations should establish strong emotional relationships or bonds with customers and develop corporate image by means of superior service delivery and trust.

The extensive literature on service quality has led to gap identification.

Research Gap

A thorough review of literature has led to following gaps that researcher aimed to address in the study further.

1. Context specific adaptations of SERVQUAL scale (Niranjan & Metri, 2008a).
2. A need to comprehensively identify dimensions of service quality in tourism sector in Asian countries and suggested to include value for money dimension in the overall service quality (Narayan et al., 2009)
3. Research on empirical studies testing the effect and strength of the mediating variables i.e., corporate image, perceived value, customer satisfaction, and customer trust between Service quality and loyalty are few in number (Carrillat, Jaramillo, & Mulki, 2009; Cronin Jr et al., 2000; Ranjan & Read, 2016)

The research gap is addressed by answering the following research questions.

Research Questions

1. What is the underlying structure of service quality dimensions in Tourism?
2. What is the role of image and satisfaction between service quality and Tourist loyalty?

Research Objectives

The broad objective of the study is to evaluate service quality in tourism sector by considering select state owned tourism development corporations of Andhra Pradesh and Telangana states. The above objective is achieved by the following objectives:

1. To assess the psychometric properties of Service Quality multi- dimensional scale in the context of tourism.
2. To test the proposed integrated theoretical model on tourist loyalty.
3. To test the serial mediating role of corporate image and satisfaction in the relationship between service quality and tourist loyalty.

Hypotheses development

The following hypothesis have been proposed from few base theories derived from psychology and marketing.

Service Quality and Satisfaction

Numerous studies have been conducted to test the impact of service quality on customer satisfaction in tourism and hospitality industry (Amin, Yahya, Ismayatim, Nasharuddin, & Kassim, 2013; Ekinci, Dawes, & Massey, 2008; Kandampully, Juwaheer, & Hu, 2011; Poon & Lock-Teng Low, 2005; Ramanathan & Ramanathan, 2011). The studies report that service quality is a key variable influencing satisfaction. The true measure of company's success is satisfying their customers.

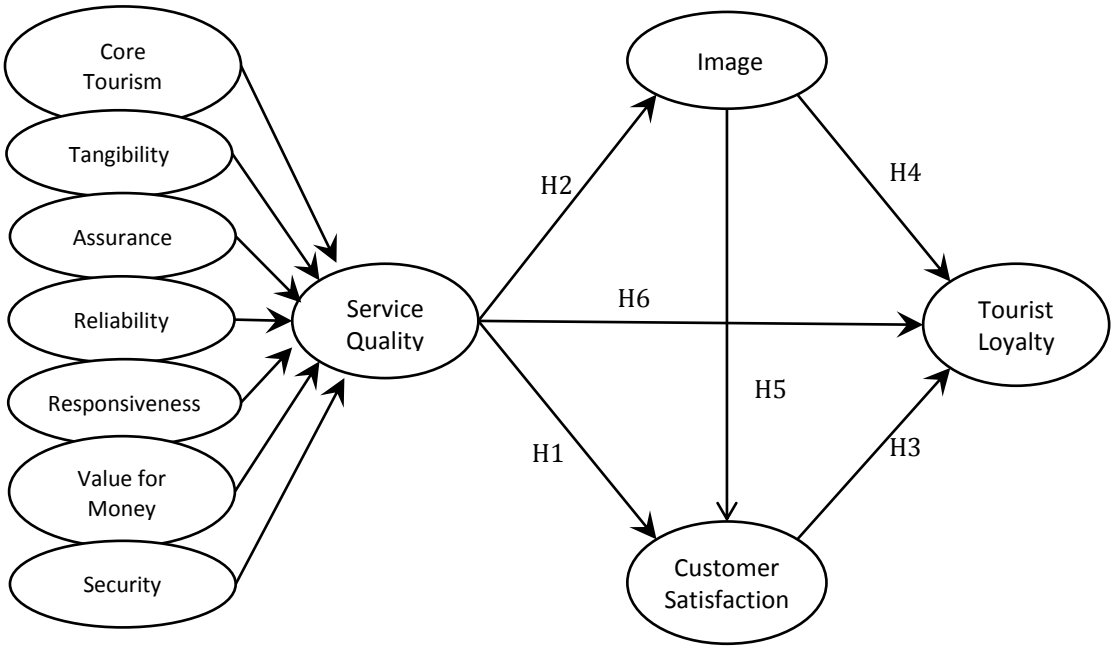

Figure 5 Theoretical model

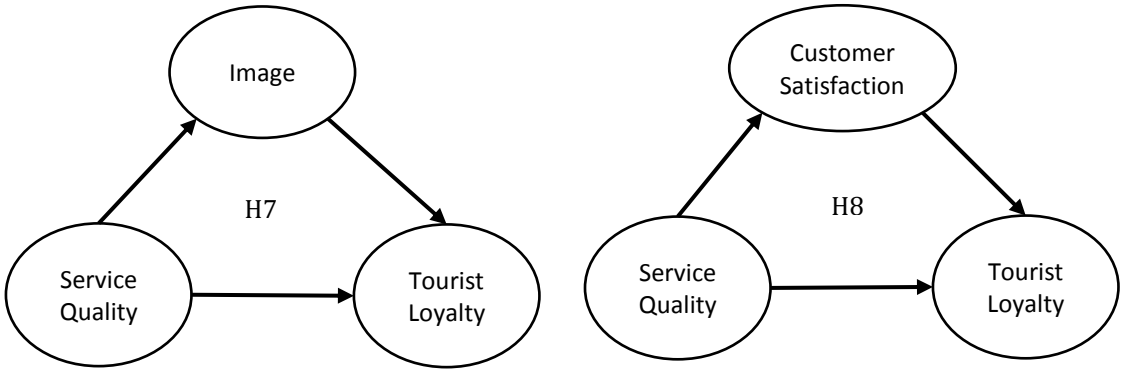

Figure 6 Simple mediation models

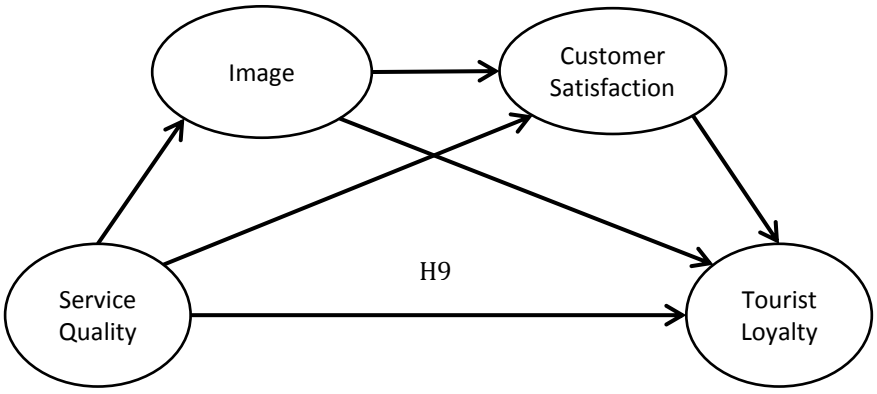

Figure 7 Serial mediation model

According to (Poon & Lock-Teng Low, 2005) customer satisfaction is based on a hotel's service attributes like accommodation, food, security, transportation etc. Hotel service quality attributes and physical appearance is key to customer satisfaction in hospitality industry(Ekinci et al., 2008). The above discussion led to proposing the following hypothesis.

Hypothesis 1: Service quality is positively related to customer satisfaction.

Zimmer and Golden (1988) describe "image as an overall impression of a firm that customers have in their mind" (Nguyen & LeBlanc, 1998) observed the relationship between service quality and corporate image in travel industry and the results shows that by repeated service encounters customer's image towards the firm will be favorable. Studies in tourism and hospitality industry (Kandampully et al., 2011; Wallin Andreassen & Lindestad, 1998) have tested the significant impact of CI between SQ and loyalty. From the above discussion the following hypothesis is framed.

Hypothesis 2: Service quality is positively related to image.

The relationship between satisfaction and repurchase intention was studied by R. L. Oliver (1980), (Bitner & Hubbert, 1994; Rust & Oliver, 1993). Customer satisfaction is a key determinant of customer's intention to revisit and recommend the firm to others exhibiting loyalty (Kandampully et al., 2011). CS is an antecedent to loyalty as it results in repeat sales and positive word of mouth (Bearden & Teel, 1983). The above studies form as reference points and that led to framing of the hypothesis below.

Hypothesis 3: Satisfaction is positively related to Tourist loyalty

The effect of image was explained by (Fredericks & Salter II, 1995). A firm's image has a major impact on customer loyalty (Darley & Lim, 1999). It is an extrinsic cue for

customers when a company's service attributes cannot be evaluated (Andreassen & Lindestad, 1998) (Juhl, Kristensen, & Østergaard, 2002; Murgulets, Eklöf, Dukeov, & Selivanova, 2001), their theoretical models reported the firm's image as an antecedent to CS, which, indeed , affects customer loyalty. Based on the above studies researcher has proposed to test the following hypothesis.

Hypothesis 4: Image is positively related to tourist loyalty.

The conceptual models developed by (Kristensen, Juhl, and Østergaard (2001) and Murgulets et al. (2001) have observed that the corporate image is an antecedent to CS, which in deed influences customer loyalty. Back (2005) performed a study in lodging industry and observed that there is a positive impact of image on customers' post purchasing behaviors. Ryu, Han, and Kim (2008) examined the effect of brand image on PV, CS, and behavioral intentions of customers visiting restaurants. The Pan-European Satisfaction Index (PESI) a rating agency emphasizes image as a determinant that influences PV, CS customer loyalty (Eskildsen, Kristensen, JØrn Juhl, & Østergaard, 2004). Based on the above discussion the study proposes the hypothesis.

Hypothesis 5: Image is positively related to satisfaction

Some base theories of psychology and marketing were used to propose the following hypotheses proposing the mediating relationships among the variables in the proposed research model.

Theory of reasoned action

Theory of reasoned action (Ajzen & Fishbein, 1980; Fishbein & Ajzen, 1975) explains the relationship between attitude and behavioral intention. This theory states that People's actions are related to their attitudes. A positive attitude results in a favorable behavior.

Consumers are loyal when both attitude and behavior are favorable. SQ is conceptualized as a form of attitude by (Ananthanarayanan Parasuraman et al., 1988)

Based on this assumption the researcher posits that quality of service leads to behavioural intention and then leads to long-term association with the firm. This long-term association is deliberated as repurchase intention or loyalty. Based on this theory the researcher posits the hypothesis below.

Hypothesis 6: Service quality is positively related to tourist loyalty

Social Exchange Theory

Social exchange theory is originated in the 1950s and is based on psychology (Homans, 1958). Based on reciprocity assumption SET theory states that the benefits (quality of the service) received by the customers will positively react towards the firm (building Image), which in turn it involves the long-term exchange of relationship with the firm (loyalty). Based on this assumption the researcher posits that quality of service leads to building corporate image which in turn leads to long-term association with the firm. This long-term association is described as repurchase intention or loyalty. Considering the above theory as a base the researcher proposes the hypothesis below.

Hypothesis 7: Corporate image mediates the relationship between service quality and tourist loyalty.

Stimulus-Organism-Theory S-O-R model proposes that, "S (the environmental stimuli) influences O (individual's emotional states and processing of environmental cues received), and these drive individuals to different R (responses or behaviours such as approach or avoidance behaviours)" (Mehrabian & Russell, 1974). Referring to this theory the researcher postulates service quality as a stimulus, CS as an organism and

tourist loyalty as a response. Based on S-O-R model researcher proposes that CS mediates the relationship between service quality and Tourist loyalty.

Hypothesis 8: Customer satisfaction mediates the relationship between service quality and tourist loyalty

The study integrates the above two theoretical frameworks using serial mediation approach by proposing that Image and customer satisfaction serially mediates the relationship between service quality and tourist loyalty (Bolin, 2014).

Hypothesis 9: Image and customer satisfaction serially mediates the relationship between service quality and tourist loyalty.

A mediator or a moderator variable is a variable that has a significant role in the relationship between the independent and dependent variables (Baron & Kenny, 1986) (Hayes, 2013a). Corporate image and satisfaction are two variables that have been identified as main antecedents of customer loyalty (Ostrowski, O'Brien, & Gordon, 1993; Selnes, 1993). A full mediation of satisfaction mediating between tourist's perceived SQ and their repurchase intentions was observed by (He & Song, 2009). In a study conducted by (Al-Rousan & Abuamoud, 2013) for Marriott hotels in Jordan it was observed that tourist's satisfaction mediated the relationship between SQ and service loyalty. The above hypotheses are in line with other studies of hospitality industry.

CHAPTER 3

RESEARCH METHODOLOGY

CHAPTER 3

RESEARCH METHODOLOGY

Method

The chapter explains the methods adopted to test the proposed hypothesis and thereby answer the research questions. It also describes the research design, justification for target population, profile of the respondents, survey instrument used, sampling design, data collection methods, analytical tools and techniques used in the study.

Research Design

Research design is a frame work developed to find answers to the research questions. The proposed study is descriptive and cross sectional in nature. The study has adopted a mixed method approach (i-e both qualitative and quantitative). A non- experimental survey was conducted to know the behavioral intention of domestic tourists towards state tourism development corporation services. The study also measures tourist's satisfaction level, corporate Image, and tourist loyalty to understand their behavioral intention (Loyalty). Further it also evaluates the interrelationship among these variables.

Measurement Development

Service Quality

Latent items were identified to measure service quality dimensions from previous research. The service quality framework proposed by Anantharanthan Parasuraman et al. (1985) serves as theoretical reference for the conceptualization, from this framework five dimensions have been considered: Reliability, Responsiveness, Assurance, Empathy and

Tangibility. The study also includes six more dimensions: core tourism experience, Hygiene, security, food, logistics and value for money from various studies that are pertinent to tourism industry. Core tourism experience dimension has been considered as service quality dimension by Narayan et al. (2009). Seven items have been chosen for the study. Very few studies have included price and value as the factors to measure SQ in Tourism literature. "Value is perceived as quality received for a given price or price paid for a given quality" (Fornell et al., 1996). Value for money as a dimension to measure service quality is proposed by Narayan et al. (2009). Four items of value for money and three items of security have been considered for the study, which are recurred from the study proposed by Yuksel (2001)and Narayan et al. (2009). Hygiene as a factor to measure service quality in tourism sector is considered by Kozak (2001), Yüksel and Yüksel (2001b), Tribe and Snaith (1998) and Narayan et al. (2009). Food three items and Hygiene dimension is measured by four items, these items were taken from Narayan et al. (2009), but are modified to suit the context and Logistics dimension (four items) was also adopted from Narayan et al. (2009), but are modified to suit the context. Respondents were asked to evaluate on a five-point scale measuring 1=strongly disagree to 5= strongly agree. In addition, potential items measuring customer satisfaction, tourist loyalty and corporate image were obtained from widely used standard scales in marketing literature.

Customer satisfaction

The customer satisfaction items have been derived from Brady and Cronin Jr (2001) and R. L. Oliver (1981b). Five items have been adopted for measuring customer satisfaction of APTDC and TSTDC customers.

Tourist Loyalty

The behavioral consequences of service quality was measured by Zeithaml et al. (1996) by including four sub dimensions namely, loyalty (four items), switch (two items), Pay more (two items), external response (three items), and internal response (1 item). In order to understand and study the behavioral intention of the tourists, loyalty dimension (four items) was considered in the study. The scale was anchored between 1=strongly disagree to 7=strongly agree.

Corporate Image

The items measuring corporate image were borrowed from Brady and Cronin Jr (2001), these items were measured using a 10-point semantic differential scale. Respondent's opinion of the state tourism development corporation services was collected. The scale was anchored between 1= poor to 10-excellent.

Target Population

Domestic tourist visits have shown a linear growth in India in the recent past. Every state has a state-owned Tourism development corporation governed by ministry of tourism. The state tourism development corporation provides travel and hospitality services to tourists at all tourist destinations in India. The target population for the study includes all domestic tourists of India. Andhra Pradesh and Telangana were chosen as unit for the study. Andhra Pradesh and Telangana rank 3rd and 7th in terms of no of domestic tourist visitors in India (Indian Tourism Statistics 2017 at a Glance). Ministry of tourism annually records the number of domestic tourists visiting various tourist destinations in India. Still there is no clarity on the accurate number, hence the exact population is unknown.

Sampling Technique

As the exact population is unknown, the study could not adopt random sampling technique and hence a non- probability sampling technique, purposive sampling or convenience sampling technique was used.

Profile of the respondents

Table 7

Demographic profile of the participants

Variable		Frequency	Percent
Gender	Male	306	66.2
	Female	156	33.8
Marital status	Single	106	22.9
	Married	356	77.1
State	AP	217	47.0
	Non-AP	245	53.0
Education	Tenth	6	1.3
	Inter	12	2.6
	Graduate	206	44.6
	Post Graduate	205	44.4
	Others	33	7.1
Employment	Unemployed	67	14.5
	Student	17	3.7
	Own Business	65	14.1
	Private Employee	242	52.4
	Govt. Employee	71	15.4
Frequency of Travel	Rarely	12	2.6
	Occasionally	168	36.4
	Frequently	271	58.7
	Always	11	2.4

Table 8

Summary of traveler information

		Frequency	Percent
Tourist Spot	Nagarjuna Sagar	63	13.6
	Papikondalu	81	17.5
	Dindi	46	10.0
	Araku	84	18.2
	Visakhapatnam	76	16.5
	Hyderabad	62	13.4
	Anantagiri	50	10.8
Awareness	APTDC website	205	44.4
	Media	46	10.0
	Friends & Relatives	211	45.7
Exclusively opted for this tour	Yes	452	97.8
	No	10	2.2
Current tour plan	LTC	15	3.2
	Own Expense	447	96.8
opted for a Tour Package in APTDC	Yes	393	85.1
	No	69	14.9
Booking	APTDC Web site	349	75.5
	APTDC information center	86	18.6
	After arriving at the spot	27	5.8
visited APTDC web site for information	Yes	385	83.3
	No	77	16.7
APTDC website has clear information	Yes	376	81.4
	No	86	18.6
APTDC web portal a user friendly	Yes	416	90.0
	No	46	10.0
Problem while booking the services online	Yes	159	34.4
	No	303	65.6

Sample Design and Sample size

The sample frame consists of three major tourist destinations in Telangana state namely Hyderabad, Nagarjuna sagar, Anantagiri and four in Andhra Pradesh namely Visakhapatnam, Araku, Dhindi and Papikondalu. The total sample size is 462.

Justification for sample size requirements

The proposed sample size is based on the recommendations of (Hair, 2010) the study recommends that the sample size should be determined by the number of attributes present in the study, for each attribute five subjects are required. In the present study 72 observed variables are used, thus there should be 360 subjects to meet the above specified criteria. Thus, the sample size is justified.

Data collection techniques

Both primary and secondary data was collected. An on-site survey was conducted at all tourist destinations using the purposive sampling technique. The survey was administered between January 2015 and September 2017. 700 questionnaires were distributed, 511 questionnaires were returned and after eliminating incomplete responses 462 usable samples were obtained.

The data was collected from the respondents who had spent at least one night in the APTDC (Andhra Pradesh State Tourism Development Corporation) hotels/TSTDC (Telangana State Tourism Development Corporation) hotels. Table 7 consists of the information related to the demographic profile of the respondents and the information related to their travel plan has been shown in table 8.

Tourist definition: "Temporary visitors staying at least twenty-four hours in the country visited and the purpose of whose journey can be classified under one of the following

headings: (a) leisure (recreation, holiday, health, study, religion, and sport), (b) business, family, mission, meeting". United Nations (1963).

Survey Instrument

Likert-type and semantic differential scales have high reliability and validity in empirical studies (Westbrook & Oliver, 1991). Hence the study has adopted both Likert-type and semantic differential scales. Literature suggests that both the scales are effective in measuring attitudes of consumers (Echtner & Ritchie, 1991). The application of "delighted –terrible" scale has ability to reduce skewness of satisfaction responses (Westbrook, 1980). The survey instrument consists of five parts. The first part consists of general information related to the respondent, the second part consists of 50 items which measures service quality construct on a scale of 1= strongly disagree to 5= strongly Agree, the third part consists of five items which measures customer satisfaction construct on a scale of 1= strongly disagree to 7= strongly agree. The fourth part consists of five items which measures loyalty construct on a scale of 1= strongly disagree to 7= strongly agree and the fifth part consists of Image construct measured on a scale of 1=poor to10=excellent.

Data Analysis

The data was analysed using Statistical Package for Social Sciences (IBM SPSS 24) and Smart PLS (Partial Least Squares version 3). Measures of central tendency and frequency distributions were presented by using Descriptive statistics. Principal Component analysis and PLS-SEM were used to test the relationship among the constructs and the structural model. Mediation analysis was performed by PROCESS Macro.

Data analysis was done in three stages. In first stage, factor analysis was conducted to explore the dimensionality of the service quality construct. In the second stage proposed research model on Tourist loyalty was tested using PLS-SEM. It also includes the validation of measurement model (service quality scale) as well as structural model. The third stage of analysis studied the effect of serial mediation in the relationship between dependent variable (service quality) and independent variable (Tourist Loyalty). The study has employed Partial Least Square SEM as it is a better method to test a reflective-formative model. Service quality construct is a reflective-formative construct higher order construct (Ananthanarayanan Parasuraman et al., 2005) and hence the researcher has applied PLS-SEM technique with repeated indicator approach with mode B. The PLS-SEM is a superior technique as it gives more accurate parameter estimates, it is less biased, and a more reliable tool (Becker, Klein, & Wetzels, 2012).

Factor Analysis

Factor analysis determines which variables are loaded in different factors. It decreases a large number of variables to a measurable number of variables that belong to same factor. This is a computational technique where the latent relationships are combined and replaced by a matrix of inter correlations among several variables in the dependence situation (Hair, Black, Babin, Anderson, & Tatham, 2006) The principal component analysis and orthogonal (Varimax) rotation methods were employed to extract the factors and its latent variables.

Principal Component Analysis

For a construct the key issue is to decide how many factors are essential to effectively represent its variables. This can be explained by Principal component analysis and the

value of latent root or Eigen value (it is the sum of squared factor loadings). A varimax rotation is used to analyses each group of variables with a factor loading (common variance explained by a set of variables) above .50 or above. A varimax rotation is done assuming that there is no correlation between variables. Initial number of factors were determined based on the criterion of Eigen value (above 1 for each factor). From the scree plot, it was observed that only four factors were extracted. A series of iterations were performed to remove the items with low factor loadings or high cross loadings. The remaining items were considered for factor analysis. The series of iterations resulted in final service quality scale. Further the scale's validity and reliability were tested by AVE (average variance extracted), composite reliability and Cronbach alpha. These computations were performed separately for each dimension to determine items explaining a particular dimension shared a common core.

Assessment of the Measurement and Structural Models

PLS path models have two linear equations one which assesses the measurement model and the other which assesses the structural model. The measurement model(Outer Model) specifies the relationship between a construct and its observed variables whereas the structural model (Inner Model) specifies the relationship between the constructs (Henseler, Hubona, & Ray, 2016) of a model.

Assessment of Measurement Model

To evaluate the Measurement model reliability and validity were measured to ensure whether indicators accurately measure the construct or not (Aibinu & Al-Lawati, 2010; Joseph F. Hair, Black, Babin, & Anderson, 2010). The internal consistency of the model is measured by composite reliability, average variance extracted (AVE) and individual

indicator reliability were used to evaluate convergent validity. In addition, the Fornell-Larcker criterion and cross loadings were used to measure discriminant validity (Chin, 1998). The purpose of these assessments is to determine whether the indicators can still be included in the model. Another method is assessing the outer model values the outer loadings i-e the factor loading of each indicator, outer loading below 0.50 should be deleted from the measurement models since it indicates that an indicator has less influence on the factors. The summary of test criteria for assessing measurement model is specified in table 9.

Table 9

Summary of the test criteria for measurement model assessment

Purpose of evaluation	Test criteria	Heuristics applied	Explanation
Item liability	Item Loadings (λ) Target Constructs	Item Loadings of 0 70 or higher are recommended widely, For exploratory models or new measurement scales, a threshold value of 0 60 can be used (Bagozzi & Yi, 1988; Nunnally, 1978)	The item loadings on their target constructs represent the strength of substantive association between items and their constructs
Convergent Validity	Communality Index or Average Variance Extracted (AVE) for a Construct	Value of Communality Index or AVE should be greater than .50 (Chin, 1998; Fornell & Larcker, 1981)	Communality Index or AVE represents a measure of the proportion of variance captured by a construct from its indicators AVE of .50 or higher implies that a latent construct can account for at least 50 percent of the variance in the items
	Composite Reliability (CR)	Value of composite reliability should be greater than .60 (Bagozzi & Yi, 1988), or according to some researchers, it should be greater than .70 (Fornell & Larcker, 1981)	Composite reliability is a measure of internal consistency reliability of a construct as compared with other constructs in the model
	Cronbach's Alpha (α)	Value of Cronbach's alpha should exceed 0 70 (Chin, 1998; Cronbach, 1951; David Gefen & Straub, 2005; Nunnally, 1978)	Cronbach's alpha also measures the internal consistency reliability of a construct but only on the basis of a single construct, i.e. it is not a relative index like composite reliability
Discriminant Validity	Inter correlation among constructs cross tabulated with square roots of AVE	The square root of AVE should exceed the inter-correlations of a construct with other constructs in the model (Chin, 1998; Fornell & Larcker, 1981; David Gefen & Straub, 2005)	A construct should have discernible as a valid individual component within the overall model
	Item Cross-Loadings	Item Correlations with Target Construct should De higher as compared to its correlations with other constructs in the model (Chin, 1998)	Indicators that are meant to measure their target construct should be more strongly associated with them as compared to other constructs in the model

Assessment of structural Model

The purpose of the assessment of structural model is to evaluate the ability of the model to predict the relationship between the constructs (Ringle, Sarstedt, Schlittgen, & Taylor, 2013). The structural model can be evaluated by following assessments: collinearity of the model, path coefficient (β) value, coefficient of determination (R^2), Predictive relevance value (Q^2), global fit indices and effect size. To measure the significance of path estimates a bootstrap analysis with 5000 samples was run. A 5000 Bootstrap samples are recommended by Hair Jr, Hult, Ringle, and Sarstedt (2016). A part from bootstrapping, to determine the predictive relevance of the model a blindfolding procedure was performed by generating cross validated construct redundancy (Chin, 1998). The summary of criteria for structural model assessment was presented in table 10.

Table 10

Summary of the test criteria for structural model assessment

Purpose of evaluation	Test criteria	Heuristics applied	Explanation
Nomological Validity	Model Fit/ Predictability Variance Explained (R^2) for all constructs in the model	No specific heuristics available Value needs to be interpreted in comparison with other similar studies or norms in the discipline (David Gefen & Straub, 2005)	R^2 value for an endogenous variable represents the proportion of its variance that can be explained by the predictors in the model
	Path Validity Coefficients Significance (p values) and Magnitude (β) of all inner model paths	Inner model paths should be significant at $p < .05$ level to provide support for propositions in the theoretical model.	A significant path represents that an association between two latent variables was not a chance happening.
		The paths can also be interpreted relative to one another using the magnitude of relationship as represented by low or high coefficient values (β)	Paths with higher coefficients represent stronger associations between variables
Effect Size	Predictability Effect Size Effect Size (f^2) for criterion variables based on the exclusion of a predictor variable from the model	Predictor variables should ideally have a large or medium effect	f^2 value between a predictor and a criterion variable represents the effect of the predictor on the criterion variable Higher values imply that greater importance
		The following scheme can be used to determine effect sizes Small Effect .02 , Medium Effect .15, Large Effect .35 (Chin, 1998)	
Predictive Relevance	Predictive Relevance Stone-Geisser (Q^2) for all constructs in the model	Value of Q^2 should be greater than zero (Chin, 1998; Tenenhaus et al., 2005)	Q^2 value represents how well the observed values of manifest variables can be reconstructed from the model parameters

CHAPTER 4
RESULTS

CHAPTER 4

RESULTS

Research methods and procedures were discussed in chapter three. Chapter four consists of the results of data analysis. Three stages of data analysis is presented in this chapter. First stage explains adaptation of the service quality scale through factor analysis with the extraction of a principal component and varimax rotation, second stage explains the method followed to test the proposed research model and presents the model fit results, the third stage explains the effect of serial mediation of variables in the relationship between independent and dependent variables.

In the first stage the adaptation of the modified SERVQUAL scale procedure is explained. A thorough review of literature led to the identification of the measurement variables and dimensions of SQ. It is possible to model dimensions of SQ in tourism either by using the SERVQUAL dimensions or independently Narayan et al. (2009). Many authors who would rather model service quality concept along the SERVQUAL dimensions, later found that the EFA of their study resulted in a factor structure which is different from the factor structure of SERVQUAL (Fick & Brent Ritchie, 1991; Nadiri & Hussain, 2005; Saleh & Ryan, 1991).

Initially, eleven dimensions of service quality were identified. five dimensions namely Tangibility, Responsiveness, Reliability, Empathy and Assurance were adopted from SERVQUAL scale (Anantharanthan Parasuraman et al., 1985) and four dimensions namely core tourism experience, Hygiene, food were adopted from the study conducted by Narayan et al. (2009), further, value for money and security dimensions were adopted

from the study conducted by Yüksel and Yüksel (2001a) but recurred from the study conducted by Narayan et.al (2009) in the context of Tourism. In the tourism context many authors preferred to model service quality along with Factor analysis to identify the dimensionality of service quality scale and reassessment of items and restructuring of dimensions. In the present study we performed Principal Component Analysis (PCA) was performed to identify the SQ dimensions in tourism context. In the process, seven dimensions were retained and three dimensions (empathy, hygiene, food dimensions) were dropped due to low factor loadings.

Stage 1

Adaptation of service quality scale

Item generation

Dimensions are developed based on two sources, the one through factor analysis and the other through conceptually through logical argument (Ekinci & Riley, 2001). Initially, eleven dimensions of SQ were identified namely Tangibility, Responsiveness, Reliability, Empathy and Assurance from SERVQUAL scale (Anantharanthan Parasuraman et al., 1985) and core tourism experience, Hygiene, food and logistics were adopted from the study conducted by Narayan et al. (2009), further, value for money and security dimensions were adopted from the study conducted by Yuksel (2001) but recurred from Narayan et.al (2009) study in the context of Tourism. . 80 items were derived from the literature and were included in the initial pool of items. The items were further screened to test the suitability of the items in terms of the study context. Finally, 52 items were retained forming a scale.

Determining the scale measurement format

The SQ scale used a Likert format with five response types anchored between "strongly disagree" to "strongly agree". In order to address the respondent evasiveness a neutral point ("neither agree nor disagree") was included in the scale (Sudman, Bradburn, & Schwarz, 1995).

Questionnaire development

The first part of questionnaire asks for respondent's travel plans. In the second part opinions related to the quality perceived by tourists regarding the APTDC and TSTDC

services were asked. For that purpose, the study established 52 items related to the dimensions which initially the study felt could best summarize the service quality concept. The third part contained the demographic information of the respondents (sex, age, education, family income, and travel purpose).

In order to avoid a potential common method bias, precautions were taken based on the recommendations from the methodological literature (Lindell & Whitney, 2001; N. Podsakoff, 2003). The study used different scale formats like Likert and semantic differential scales along with different anchor points i-e five and seven.

Item generation

Dimensions are developed based on two sources, the one through factor analysis and the other conceptually through logical argument (Ekinci & Riley, 2001). . The service quality and tourism service quality related studies were reviewed critically. 80 items were derived from the literature and were included in the initial pool of items. The items were further screened to test the suitability of the items in terms of the study context. Finally, 52 items were retained forming a scale.

Determining the scale measurement format

The SQ scale used a Likert format with five response types anchored between "strongly disagree" to "strongly agree". A neutral point ("neither agree nor disagree") was incorporated to allow respondent evasiveness (Sudman et al., 1995).

Table 11

Summary of Item total correlations, means, standard deviations of service quality items

Items		ITC	M	SD
Core Tourism Experience				
CT1	APTDC's chosen tourist spots are exciting (eg: waterfalls, forest visit etc.)	.92	3.09	1.63
CT2	There are good sightseeing places at the tourist spot	.95	2.93	1.63
CT3	The sightseeing place has rich cultural heritage	.92	2.87	1.50
CT4	The tourist spot has historical value	.82	2.46	1.41
Tangibility				
TN2	APTDC has spacious cottages and rooms	.49	4.08	0.57
TN3	APTDC has appealing exterior hotel décor	.56	3.88	0.72
TN4	APTDC has appealing interior hotel décor	.66	3.71	0.76
TN5	The furniture at APTDC hotel looks modern	.37	3.52	0.87
Assurance				
AS1	Attitude of the staff towards tourists is friendly	.46	3.79	0.85
AS2	APTDC employees are knowledgeable to answer guest's questions	.52	4.14	0.53
AS3	APTDC Staff communicate fluently in understandable language	.56	3.86	0.74
AS4	APTDC Staff helps undecided guests regarding tour plan	.60	3.95	0.70
AS6	The guide appointed by APTDC communicates fluently in understandable language	.48	4.13	0.44
Reliability				
RL1	APTDC provides prior information about my tour schedule	.43	4.30	0.67
RL2	APTDC provides correct information about hotel services	.66	4.23	0.52
RL3	Confirmation of my stay is informed in advance by APTDC	.64	4.24	0.48
RL5	APTDC provides accurate information about prices in advance	.45	4.16	0.54
Responsiveness				
RS2	APTDC Staff are ready to help the guests	.56	3.84	0.69
RS3	APTDC staff respond quickly in resolving the complaints	.58	3.55	0.81
RS4	APTDC has well trained and knowledgeable staff	.48	3.54	0.90
Value for Money				
VM1	There is price worthiness of tour package offered by APTDC	.68	3.96	0.65
VM2	There is price worthiness of accommodation in APTDC	.46	3.99	0.50
VM3	There is price worthiness of food at APTDC restaurants	.59	3.75	0.77
VM4	There is price worthiness of Transportation provided by APTDC	.46	3.42	0.99
Security				
ST1	There is safety at the place of stay	.57	3.17	1.16
ST2	There is safety and security at the tourist spot	.56	3.43	1.00
ST3	Safety instructions are displayed at the tourist spot	.66	2.91	1.11

Note: ITC=Item to total correlation

Item analysis

Mean, standard deviation, skewness and kurtosis for service quality items were calculated by performing individual item analysis. The values showed that the mean values ranged from 2.46 for Core Tourism Experience item (CT4) item to 4.30 for reliability item (RL5). Core Tourism Experience item (CT1) had highest standard deviation of 1.63. From the values of skewness, it shows data is not normally distributed hence the researcher has adopted PLS-SEM for testing the model, the non-normality data issues are addressed by PLS-SEM. The details of item total correlations, mean, standard deviation of SQ items were summarised in table number 11.

Factor Analysis

A Factor analysis explains the common variance explained by a set of variables that measure a particular factor. It helps in grouping the variables under one factor. It reduces large number of variables into a smaller set of variables and examines the relationship between the variables. After meeting the criteria of minimum sample size required for performing EFA, the researcher should measure correlations among variables i-e factorability of the correlation matrix. In this study it was observed from the correlation matrix that, the recommended correlation co-efficient values are above .30 (Hair, Anderson, Tatham, & Black, 1995). Thus, the study can proceed for factor analysis.

Measures of inter correlations

The inter item correlation is performed to check whether an item is not measuring the same construct measured by other items. Before determining the factors that represent a construct the items with low correlated value .30 and below are eliminated. The correlation matrix table 12 reveals that the results are significant.

Table 12

Results of mean, standard deviation and correlation values of SQ dimensions and other latent constructs

	Mean	SD	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
(1) Core Tourism	2.824	1.448										
(2) Tangibility	3.800	0.549	-0.036									
(3) Assurance	3.980	0.473	0.052	.201**								
(4) Reliability	4.238	0.425	0.088	.191**	.281**							
(5) Responsiveness	3.646	0.648	.347**	.130**	.467**	.184**						
(6) Value for Money	3.787	0.561	.175**	.174**	.427**	.145**	.401**					
(7) Security	3.172	0.907	-0.015	.162**	0.018	.173**	0.069	.217**				
(8) SQ	98.563	10.455	.674**	.366**	.524**	.426**	.646**	.605**	.375**			
(9) Image	7.602	0.955	.283**	.180**	.434**	.274**	.445**	.697**	.272**	.646**		
(10) CS	5.468	0.776	.292**	.146**	.416**	.290**	.487**	.710**	.260**	.651**	.802**	
(11) Loyalty	5.303	0.961	.312**	.151**	.450**	.291**	.487**	.733**	.232**	.667**	.860**	.861**

**. Correlation is significant at the 0.01 level (2-tailed).

Kaiser Mayer Olkin (KMO) measure of sample adequacy/ Bartlett's test of sphericity

Before performing the factor extraction, the data is tested for sample adequacy by analyzing KMO value, the value can range from 0 to 1 indicating that the sample size is adequate to run factor analysis (Joseph F. Hair et al., 2010), KMO value is .813 (see Table 13). Bartlett's test of sphericity is used to test whether data is suitable to address the problem i-e significance of the study. The value of the Bartlett's test must be less than 0.05, in this study the value is 0.00 (see Table 13) which indicates that the data is suitable for conducting factor analysis.

Table 13

KMO and Bartlett's Test

KMO Measure of Sampling Adequacy		.813
Bartlett's Test of Sphericity	Approx. Chi-Square	5460.620
	Df	351
	Sig.	.000

Communalities

Once the sampling adequacy is performed, the communalities are "the sum of squared factor loadings indicating how much of the variance in a particular variable accounted for by the factor solution". The larger value indicates large amount of variance (Hair et al., 2006). The communality values SQ items are presented in table 14.

Table 14

Communalities for service quality items

Items	Communalities	Items	Communalities
CT1	0.899	RL2	0.741
CT2	0.926	RL3	0.708
CT3	0.899	RL5	0.492
CT4	0.812	RS2	0.722
TN2	0.546	RS3	0.741
TN3	0.651	RS4	0.516
TN4	0.734	VM1	0.758
TN5	0.426	VM2	0.524
AS1	0.469	VM3	0.616
AS2	0.605	VM4	0.599
AS3	0.555	ST1	0.655
AS4	0.597	ST2	0.641
AS6	0.582	ST3	0.743
RL1	0.490		

Total variance Explained

A principal component analysis and Eigen value is used for factor extraction. Initial factors were established based on the value of Eigen value (above 1 for each factor). From the scree plot, it was observed that only seven factors were extracted. A series of iterations were performed to remove the items with low factor loadings or high cross loadings. The remaining items were considered for factor analysis. Table 15 shows variance explained by the seven SQ dimensions. The total variance explained is 65%.

Table 15

Total Variance Explained (TVE) by tourism service quality dimensions

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	5.497	20.359	20.359	5.497	20.359	20.359	3.758	13.919	13.92
2	3.576	13.245	33.604	3.576	13.245	33.604	2.647	9.802	23.72
3	2.321	8.598	42.202	2.321	8.598	42.202	2.483	9.198	32.92
4	2.037	7.545	49.747	2.037	7.545	49.747	2.392	8.859	41.78
5	1.866	6.912	56.659	1.866	6.912	56.659	2.336	8.65	50.43
6	1.27	4.704	61.363	1.27	4.704	61.363	2.173	8.047	58.48
7	1.08	3.998	65.361	1.08	3.998	65.361	1.859	6.886	65.36
8	0.91	3.372	68.733						
9	0.873	3.234	71.967						
10	0.787	2.914	74.882						
11	0.678	2.51	77.392						
12	0.6	2.224	79.616						
13	0.577	2.138	81.754						
14	0.557	2.064	83.818						
15	0.545	2.019	85.837						
16	0.502	1.858	87.695						
17	0.476	1.765	89.46						
18	0.44	1.631	91.091						
19	0.404	1.496	92.587						
20	0.373	1.381	93.968						
21	0.358	1.325	95.294						
22	0.331	1.225	96.519						
23	0.295	1.094	97.612						
24	0.281	1.041	98.653						
25	0.211	0.78	99.433						
26	0.105	0.388	99.821						
27	0.048	0.179	100						

Scree Plot

The Eigen values of all the factors are shown in a scree plot graph. This graph is helpful in retaining final set of factors. The curve becomes flat between 7 and 8 factors, it indicates that from 8th factor onwards Eigen value is less than 1. Thus 7 factors are retained for further study.

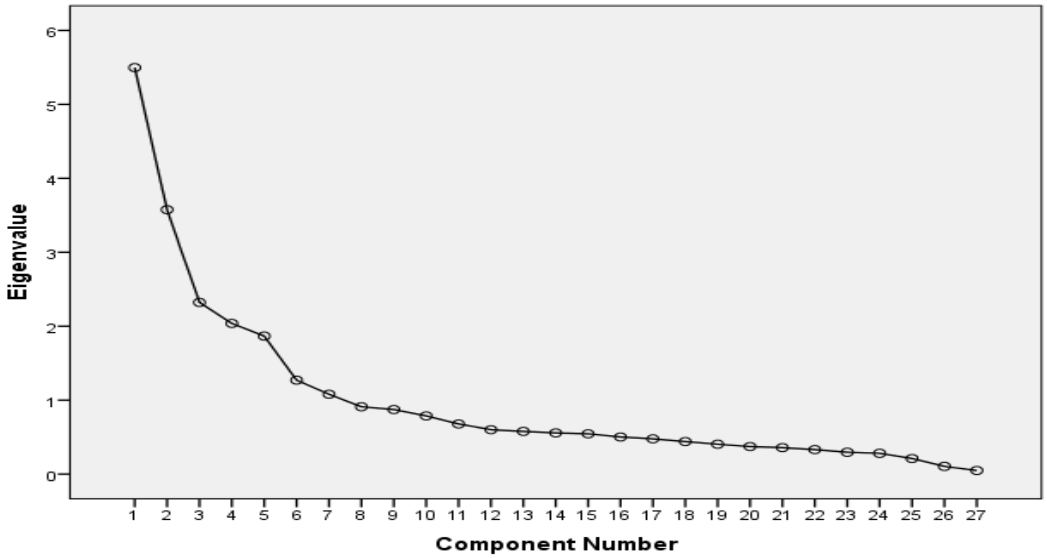

Figure 8 Scree plot

Rotated component matrix

Rotation maximizes high factor loadings and minimizes low factor loadings. Items which belong to a single factor are highly correlated with each other and are grouped under one factor. An orthogonal varimax rotation has been performed (factors are not allowed to be correlated). Values greater than or equal to .50 are assumed to be ideally significant. The items having the factor loadings greater than .50 are retained. The results related to factor loadings are presented in the table 16.

Table 16 *Summary of factor loadings, alpha, composite reliability and AVE*

Items		Loading	Alpha	CR	AVE
Core Tourism Experience			.95	.96	.88
CT1	APTDC's chosen tourist spots are exciting (eg: waterfalls, forest visit etc.)	.945			
CT2	There are good sightseeing places at the tourist spot	.935			
CT3	The sightseeing place has rich cultural heritage	.928			
CT4	The tourist spot has historical value	.890			
Tangibility			.73	.82	.55
TN2	APTDC has spacious cottages and rooms	.747			
TN3	APTDC has appealing exterior hotel décor	.714			
TN4	APTDC has appealing interior hotel décor	.705			
TN5	The furniture at APTDC hotel looks modern	.672			
Assurance			.76	.84	.51
AS1	Attitude of the staff towards tourists is friendly	.804			
AS2	APTDC employees are knowledgeable to answer guest's questions	.716			
AS3	APTDC Staff communicate fluently in understandable language	.679			
AS4	APTDC Staff are courteous with tourists	.627			
AS6	The guide appointed by APTDC communicates fluently in understandable language	.804			
Reliability			.76	.84	.58
RL1	APTDC provides prior information about my tour schedule	.845			
RL2	APTDC provides correct information about hotel services	.813			
RL3	Confirmation of my stay is informed in advance by APTDC	.661			
RL5	APTDC provides accurate information about prices in advance	.654			
Responsiveness			.72	.84	.64
RS2	APTDC Staff are ready to help the guests	.838			
RS3	APTDC staff respond quickly in resolving the complaints	.777			
RS4	APTDC has well trained and knowledgeable staff	.682			
Value for Money			.76	.84	.58
VM1	There is price worthiness of tour package offered by APTDC	.847			
VM2	There is price worthiness of accommodation in APTDC	.787			
VM3	There is price worthiness of food at APTDC restaurants	.777			
VM4	There is price worthiness of Transportation provided by APTDC	.847			
Security			.76	.86	.68
ST1	There is safety at the place of stay	.795			
ST2	There is safety and security at the tourist spot	.784			
ST3	Safety instructions are displayed at the tourist spot	.586			

CT-Core Tourism Experience, AS-Assurance, VM-Value for Money, RL-Reliability, TN-Tangibility, ST-Security, RS-Responsiveness.

Thus, the series of iterations resulted in identification of seven dimensions namely (1) Core Tourism Experience (2) Assurance (3) Value for Money, (4) reliability, (5) Tangibility (6) Security and (7) Responsiveness, leading to formation of service quality scale. A total of 27 items resulted in grouping of seven dimensions with factor loadings above .50 indicating a good correlation between the items and factors. The total variance explained by these variables is 65.5%. Further Reliability and validity of the scale are conducted to ensure that the scale has good internal consistency.

Reliability and Validity

Reliability of the scale is tested by Cronbach's alpha and composite reliability. The internal consistency is measured by Cronbach's alpha, the values of service quality dimensions ranged from .72 to .95 (see table 16) exceeding the common threshold of .70. The composite reliability values ranged from .82 to .97 (see table 16) exceeding the common threshold of .70 (Roldán & Sánchez-Franco, 2012). In order to determine construct validity convergence and discriminant validity are tested. The convergent validity tests whether items in the particular construct are measuring same construct or not. This is measured by inter item correlations. The inter correlations with same measures should be greater than inter correlations between two dissimilar measures. Thus, the study has convergent validity. The discriminant validity shows that whether the construct is distinct from other constructs or not. It is measured by AVE (average variance extracted). The average variance extracted values should be greater than the squared correlations of each construct. In this study (see table 16) the AVE is greater than the squared correlations of each construct, thus the study has discriminant validity.

Thus, in this study both reliability and validity of SQ scale are tested and the results found that the dimensions measuring SQ have good internal consistency i-e reliability and validity. All the communalities are greater than .60 specifying strong correlations between the indicators and the associated factors. These factors are labelled as (1) Core Tourism Experience (2) Assurance (3) Value for Money, (4) reliability, (5) Tangibility (6) Security and (7) Responsiveness, these seven dimensions accounted for 65.5% variance in the model. The study further proceeds to assessment of measurement and structural models.

Stage 2

Assessment of Measurement and Structural Model

This section provides the details regarding the assessment of measurement and structural models. Partial Least Squares technique is used to calculate the path model (Ringle et al., 2013), and parameter estimation was done based on analyzing path weights (Henseler, Ringle, & Sinkovics, 2009). Smart PLS 3.0 version is used to run the analysis. The recommendations of W. Chin (2010). and Hair Jr, Hult, Ringle, and Sarstedt (2013) were followed for evaluating the measurement and structural models. The study also tested the mediation effect of variables between independent (service quality) and dependent variables (Tourist Loyalty) using PROCESS macro in SPSS software.

Data Analysis

It is reported that in marketing loyalty and satisfaction measures are in fact skewed (Peterson & Wilson, 1992). When such condition of skewedness occurs, researchers Chin, Peterson, and Brown (2008) suggested the application of Partial Least Squares structural equation modeling (PLS-SEM) technique. The PLS-SEM being a component based least square alternative is an appropriate tool than the traditional Co-variance based SEM (CB-SEM). PLS-SEM addresses the issues of non-normality in the data and measures complex models. In this study latent constructs with multiple items have been used to predict the outcome variable tourist loyalty. The model is tested by using either CB-SEM or PLS-SEM. The study has used PLS-SEM technique as the data is not normality distributed, whereas CB-SEM assumes normality of the data (Joseph F. Hair, Christian M Ringle, & Marko Sarstedt, 2011). PLS path models have two linear equations one which assesses the measurement model and the other which assesses the

structural model. The measurement model(Outer Model) specifies the relationship between a construct and its observed variables whereas the structural model (Inner Model) specifies the relationship between the constructs (Henseler et al., 2016) of a model. This method gives better path coefficients and model fit results. PLS-SEM simultaneously measures factor loadings of the measurement model and path co-efficient of structural models.

Data cleaning and purification process

Data is checked for non-response bias and found that there is no such bias in the data set. Twenty six questionnaires which are not properly filled have been removed, and another twenty three questionnaires were removed as the answers were not correct. . The study also checked and addressed issues related to missing values and possible outliers in the dataset.

Common method bias

The presence of common method bias should be checked when data is collected through a survey method. However, the exploratory factor analysis revealed that a single factor did not emerge indicating that data does not have a common method bias. Another approach is to conduct post hoc test for checking common method bias, Harman's single factor test (P. M. Podsakoff, MacKenzie, Lee, & Podsakoff, 2003) revealed that common method bias is not found in the data set.

Descriptive statistics

Table 17

Summary of item correlations, Mean, Standard Deviation, Skewness and Kurtosis

	Range	Mean	SD	Variance	Skewness	Kurtosis
CT1	4	3.097	1.635	2.674	-0.256	-1.629
CT2	4	2.939	1.635	2.673	-0.130	-1.708
CT3	4	2.873	1.503	2.259	-0.197	-1.638
CT4	4	2.464	1.414	1.998	0.332	-1.439
TN2	3	4.080	0.578	0.334	-1.086	4.340
TN3	3	3.883	0.727	0.529	-1.212	1.872
TN4	3	3.712	0.769	0.592	-1.266	0.897
TN5	4	3.526	0.875	0.766	-0.947	-0.396
AS1	4	3.799	0.852	0.725	-1.021	0.800
AS2	4	4.147	0.535	0.286	-1.163	7.724
AS3	4	3.864	0.743	0.552	-1.402	2.397
AS4	4	3.957	0.705	0.497	-1.618	4.047
AS6	4	4.134	0.441	0.195	-0.439	8.889
RL1	4	4.302	0.677	0.459	-1.549	5.432
RL2	3	4.236	0.525	0.276	-0.348	2.830
RL3	3	4.245	0.483	0.233	0.300	1.181
RL5	4	4.167	0.549	0.301	-1.041	6.049
RS2	4	3.848	0.690	0.476	-1.345	2.499
RS3	4	3.550	0.818	0.669	-0.722	-0.223
RS4	4	3.541	0.909	0.826	-0.967	-0.233
VM1	4	3.963	0.650	0.423	-1.681	4.902
VM2	3	3.998	0.504	0.254	-1.742	7.902
VM3	4	3.755	0.774	0.598	-1.470	1.804
VM4	4	3.421	0.997	0.995	-0.732	-0.440
ST1	4	3.176	1.162	1.349	-0.539	-1.061
ST2	4	3.431	1.009	1.018	-1.057	-0.120
ST3	4	2.913	1.116	1.246	-0.082	-1.330

The mean scores of the service quality items ranged from 2.46 for Core Tourism Experience item (CT4) item to 4.30 for Reliability item (RL5). Core Tourism Experience item (CT1) had the largest standard deviation of 1.63. Skewness and kurtosis were also analysed (see table 17). The results showed that data is not distributed normally, for this reason PLS-SEM technique has been used. PLS-SEM technique is capable of treating the non-normal data. The degree of kurtosis also shows that the data is not distributed normally.

Table 18

Summary of means, standard deviations of latent variables

	Range	Mean	SD	Variance	Skewness	Kurtosis
IG1	5	6.86	1.070	1.146	-0.776	0.368
IG2	6	7.01	1.109	1.231	-0.917	0.832
IG3	5	7.14	1.120	1.254	-0.832	0.366
IG4	6	8.36	1.132	1.282	-0.739	1.186
IG5	6	8.64	1.091	1.190	-1.108	2.580
CS1	5	5.89	0.769	0.592	-1.273	3.811
CS2	6	4.87	1.396	1.949	-0.819	-0.577
CS3	5	5.30	1.099	1.207	-1.229	0.962
CS4	5	5.63	0.833	0.694	-1.585	3.214
CS5	5	5.63	0.809	0.655	-1.565	3.407
LY1	6	5.37	1.006	1.012	-1.562	2.640
LY2	5	5.14	1.148	1.319	-1.009	0.089
LY3	6	5.28	1.069	1.144	-1.317	1.271
LY4	5	5.39	0.951	0.904	-1.323	1.726
LY5	5	5.34	0.950	0.903	-1.195	1.284

IG-Image, CS-Customer Satisfaction, LY-Loyalty

Descriptive statistics of other constructs

The details of the descriptive statistics of other constructs are presented in the table 18. Image item (IG4) had highest mean score value of 8.64 and Tourist Loyalty item (LY2) had the lowest mean score value of 5.14. Largest standard deviation was found in customer satisfaction item (Sat2) i-e 1.39. Skewness and kurtosis were also analysed. The results showed that data is not distributed normally, for this reason PLS-SEM technique has been used. PLS-SEM technique is capable of treating the non-normal data. The degree of kurtosis also shows that the data is not distributed normally.

Partial Least Square Technique

The Structural equation modeling is a multivariate statistical technique that tests the causal relationship among the independent and dependent variables. SEM can be classified as co-variance based SEM (factor based) and variance based PLS SEM (composite based) SEM. (Wold, 1974) developed PLS method for analyzing high dimensional data in a low structure environment. PLS-SEM the iterative process increases the explained variance of an endogenous construct (Fornell & Bookstein, 1982). The endogenous construct is a dependent variable. PLS SEM is based on properties of ordinary least square regression. It has two linear equations measuring outer model (measurement model) and inner model (structural model), the weighted composites are measured by outer weights and inner weights respectively. Composites are predicted by indicators. In measuring formative measurement model (relationships from indicator to construct) like service quality the composites are measured by outer weights, whereas the inner weights measure linear relationship among the composites and are combined to predict other composites. The composites are proxies which empirically

measure the theoretical concept. PLS SEM has proven to be more effective in treating factor models and composite models. It is a full-fledged SEM method for construct measurement, estimate structural models, and conduct tests of model fit (Henseler et al., 2016). Most importantly unlike CB based SEM, PLS has the ability to measure latent model by taking into account the measurement error.

Why PLS-SEM?

A robust tool which can be used when (F. Hair Jr, Sarstedt, Hopkins, & G. Kuppelwieser, 2014)

1. When the data is non-normal.
2. Small sample size
3. Formatively measured constructs.

Steps explaining PLS path models

The standard PLS procedure recommended by Hair Jr et al. (2013) was followed to test measurement and structural models. The first step includes model specification (derived from theory), inner model (relationship between constructs) and outer model (relationship between indicator variables and associated constructs) specification. The second step involves outer model evaluation also known as measurement model. Calculation of case values for latent variables, the empirical values of the indicators predicting theses latent variables are measured. In an effort to maximize the explained variance of each of the dependent variable weights are estimated for each case value. These weighted averages of the construct's indicators yields values for latent constructs (Haenlein & Kaplan, 2004). The third step includes the estimation of path co-efficient for the structural model and finally estimating the model fit indices. A bootstrap estimation with 5000 samples were used to test the significance of path coefficients.

Measurement Model

The purpose of this assessment of measurement model was to confirm whether the indicators can still be included in the model. Henseler et al. (2016) calls this step as confirmatory factor or composite analysis. The first step includes calculation of case values for latent variables, the empirical values of the indicators predicting theses latent variables are measured. In an effort to maximize the explained variance of each of the dependent variable weights are estimated for each case value. These weighted averages of the construct's indicators yields values for latent constructs also known as outer loadings (Haenlein & Kaplan, 2004). The outer loadings or the factor loadings of each indicator, i-e outer loading below 0.50 should be eliminated from the measurement models since it specifies that an indicator has less influence on the factors. For each construct the iterative PLS algorithm thus creates a linear relationship between indicators and its associated constructs.

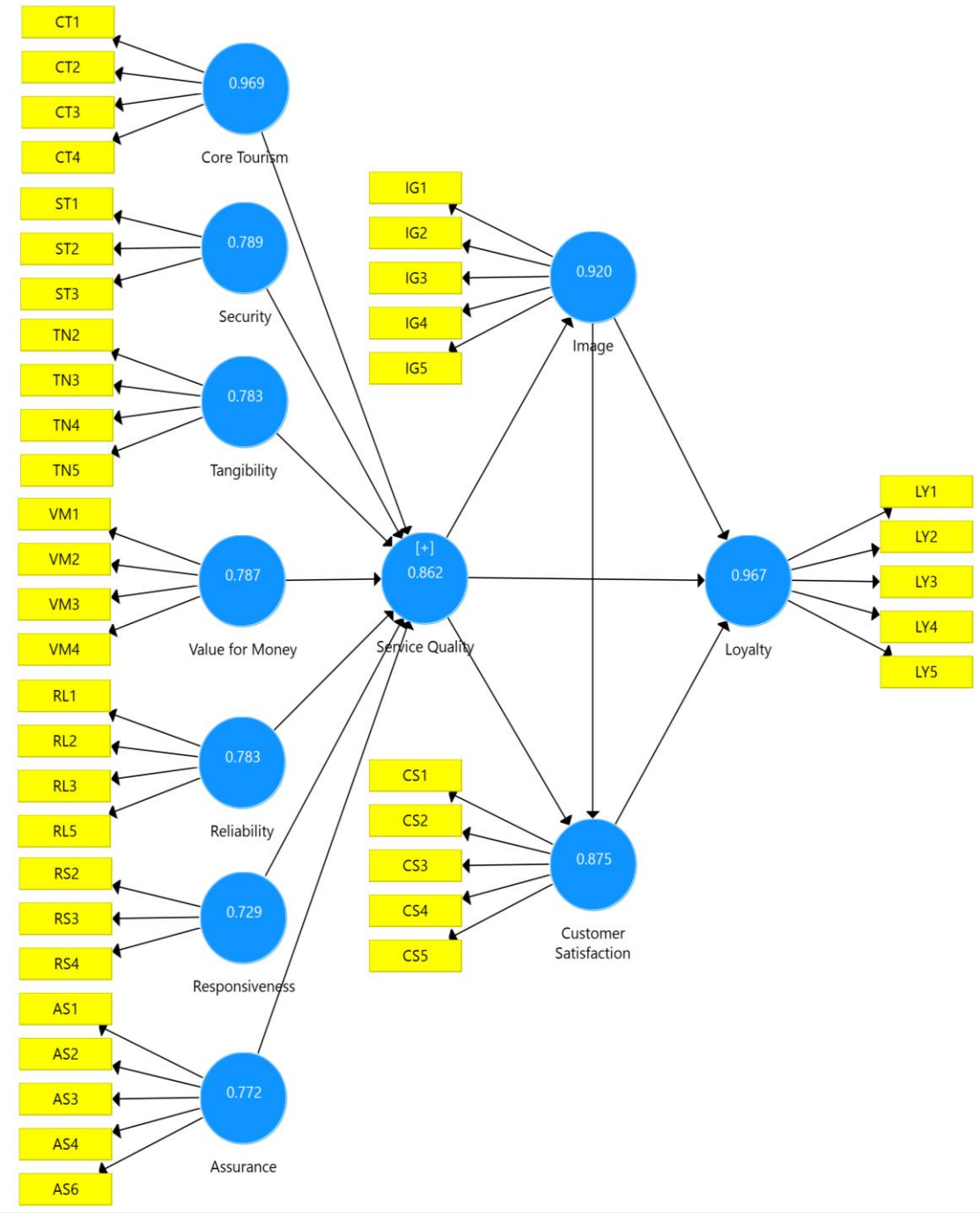

Figure 9 Research model PLS algorithm inner model

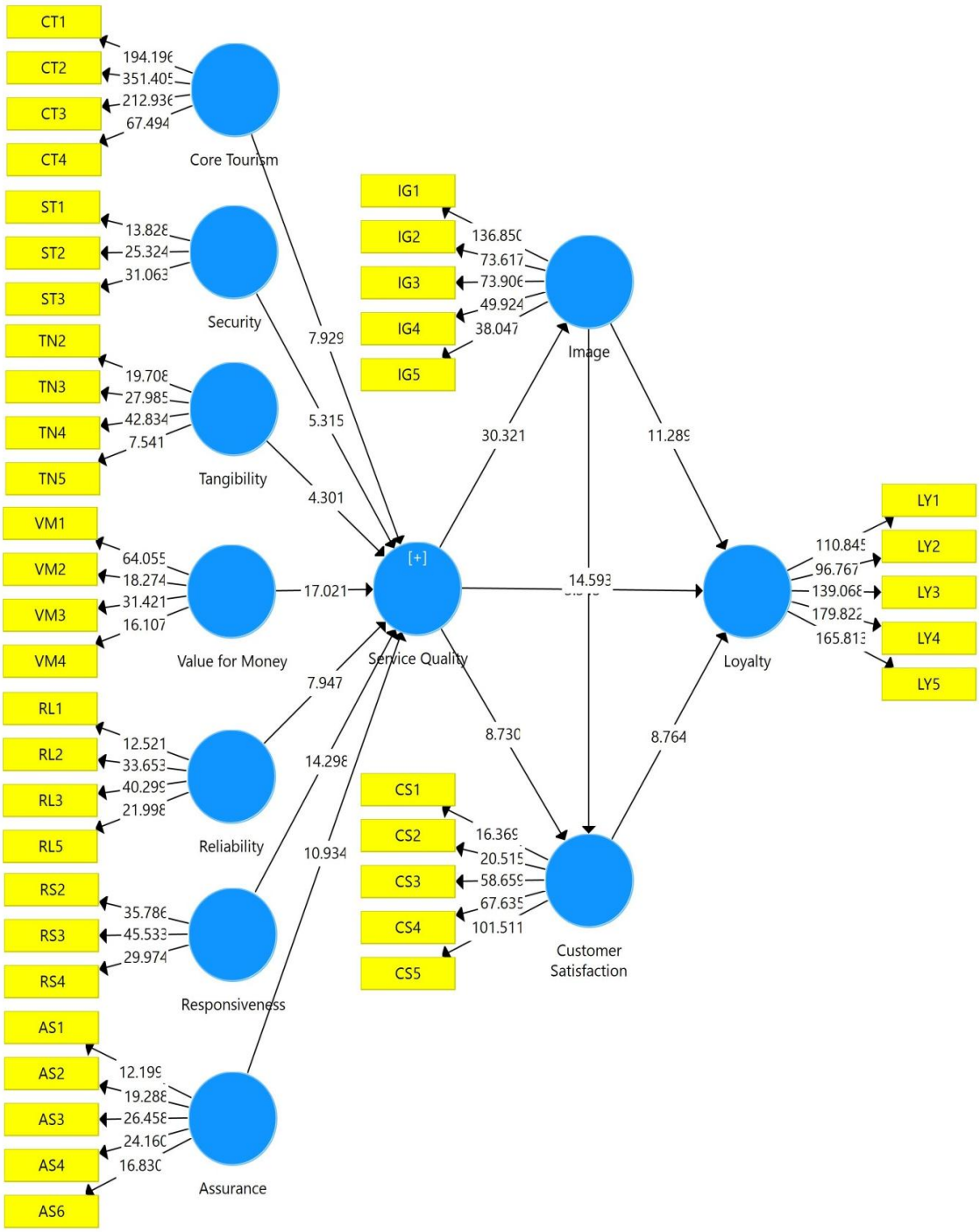

Figure 10 Research model PLS algorithm outer model

Table 19

Factor loading and T statistics of service quality scale

Items	Loadings	M	SD	T Statistics	P Values
AS1	0.624	0.622	0.052	11.987	0.000
AS2	0.732	0.731	0.038	19.079	0.000
AS3	0.750	0.750	0.028	26.431	0.000
AS4	0.772	0.771	0.032	24.356	0.000
AS6	0.705	0.702	0.043	16.541	0.000
CT1	0.955	0.955	0.005	193.956	0.000
CT2	0.974	0.974	0.003	357.241	0.000
CT3	0.958	0.958	0.005	209.325	0.000
CT4	0.880	0.879	0.013	67.834	0.000
RL1	0.612	0.612	0.049	12.373	0.000
RL2	0.831	0.829	0.025	33.084	0.000
RL3	0.850	0.849	0.021	40.031	0.000
RL5	0.741	0.742	0.033	22.357	0.000
RS2	0.812	0.810	0.023	35.793	0.000
RS3	0.836	0.836	0.018	47.537	0.000
RS4	0.767	0.768	0.025	30.269	0.000
ST1	0.768	0.761	0.055	13.924	0.000
ST2	0.845	0.845	0.033	25.224	0.000
ST3	0.860	0.855	0.027	31.832	0.000
TN2	0.748	0.745	0.039	19.364	0.000
TN3	0.818	0.816	0.030	27.388	0.000
TN4	0.861	0.859	0.020	42.930	0.000
TN5	0.528	0.522	0.072	7.369	0.000
VM1	0.878	0.878	0.014	63.409	0.000
VM2	0.729	0.728	0.041	17.967	0.000
VM3	0.803	0.802	0.026	30.678	0.000
VM4	0.638	0.638	0.040	16.052	0.000

AS-Assurance, CT-Core Tourism Experience, RL-Reliability, RS-Responsiveness, ST-Security, TN-Tangibility, VM-Value for Money,

The table 19 shows the factor loadings of service quality items. The scale items of the construct's loadings are above .50 which shows that the items are significantly measuring the service quality construct. Drawing on the standard error the significance of each parameter is estimated by *'t-'*value. All the '*t*'-values are significant at 0.00 level. Further reliability and validity of the service quality scale is checked.

Table 20

Factor loading and T statistics of latent variables

Items	Loadings	M	SD	T Statistics	P Values
CS1	0.654	0.654	0.040	16.555	0.000
CS2	0.649	0.649	0.032	20.565	0.000
CS3	0.849	0.849	0.014	58.717	0.000
CS4	0.898	0.897	0.013	67.020	0.000
CS5	0.922	0.922	0.009	99.534	0.000
IG1	0.924	0.924	0.007	134.693	0.000
IG2	0.888	0.888	0.012	72.593	0.000
IG3	0.876	0.876	0.012	72.634	0.000
IG4	0.836	0.835	0.017	49.413	0.000
IG5	0.801	0.800	0.021	38.094	0.000
LY1	0.935	0.935	0.008	111.499	0.000
LY2	0.906	0.907	0.009	97.122	0.000
LY3	0.947	0.948	0.007	143.128	0.000
LY4	0.953	0.953	0.005	182.048	0.000
LY5	0.953	0.953	0.006	166.230	0.000

CS-Customer Satisfaction, IG-Image, LY-Tourist Loyalty

The table 20 shows the factor loadings of the items of the constructs of customer satisfaction, Image and Loyalty. The scale items of each of the construct's loadings are above .50 which shows that the items measuring these standard scales are significantly measuring the construct. Drawing on the standard error the significance of each parameter is estimated by *'t-'*value. All the '*t*'-values are significant at 0.00 level. Further reliability and validity of these scales are checked.

Measurement model assessment

To assess the measurement model internal consistency is measured by composite reliability, indicator reliability, convergent and discriminant validity.

Reliability

Cronbach's alpha is unlikely to consistently assess the reliability of PLS construct scores (Dijkstra & Henseler, 2015). Because of the limitations of Cronbach's alpha (W. W. Chin, 2010) suggested the composite reliability (Heise & Bohrnstedt, 1970) as a right measure of reliability. The composite reliability is a proper measure when the parameter estimates are accurate (Chin, 1998). Indicator loadings are assessed to measure the reliability of the constructs. Referring to the above study the construct's reliability was measured using composite reliability method. The composite reliability value for the seven dimensions ranges between .72 to .99 (see table 21) and which is less than the conventional maximum value < 1 (Henseler et al., 2016) demonstrating high internal consistency and thus the reliability of each dimension. Similarly, the composite reliability values of other constructs range from .89 to .97 demonstrating a high reliability of the scales.

Table 21

Summary of alpha, rho_A, composite reliability and AVE

Variables	Alpha	rho_A	CR	AVE
Assurance	0.764	0.778	0.841	0.515
Core Tourism	0.958	0.998	0.969	0.886
Customer Satisfaction	0.855	0.884	0.899	0.646
Image	0.916	0.920	0.937	0.750
Loyalty	0.966	0.966	0.974	0.882
Reliability	0.760	0.763	0.849	0.586
Responsiveness	0.729	0.729	0.847	0.648
Security	0.768	0.778	0.865	0.681
Tangibility	0.734	0.807	0.823	0.550
Value for Money	0.762	0.779	0.849	0.586

Convergent Validity

Validity assessment for measurement model focuses on convergent and discriminant validity. The measurement factors must be error free and unidimensional, this can be explained through convergent validity. The principal measure for measuring convergent validity is AVE (average variance extracted). The AVE should be greater than .50 (Fornell & Larcker, 1981). In the present study, AVE values ranged between .51 and .88 for service quality dimensions and .64 to .88 for other constructs. The other measure is the factor loadings, each item loadings should be greater than .70 (F. Hair Jr et al., 2014) but according to (Hulland, 1999) loadings of .40 are acceptable, the results found that the factor loadings ranged between .52 (TN5) to .97 (CT2). Hence, the study established the convergent validity for the Service quality construct. Similarly, the factor loadings of

customer satisfaction, image and loyalty are .85, .91 and .96 which are greater than .70, indicating that the study established convergent validity for other constructs as well.

Discriminant Validity

The discriminant validity for measures is examined by AVE and correlation of latent constructs. The average variance extracted (AVE) values should be greater than the squared correlations of the each pair of construct (Fornell & Larcker, 1981).The results show that the AVE values are greater than the squared correlations for each pair of the constructs (see table 22). It indicates that the scale has discriminant validity. Thus, the measurement model satisfies with the acceptable reliability and validity criteria, the next step is to assess the structural model. If the measurement model does not satisfy the acceptable reliability and validity criteria, the analysis of the structural model seizes to be meaningless.

Table 22

Measurement model discriminant validity using Fornell-Larcker criterion

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
(1) Assurance	**0.718**									
(2) Core Tourism	0.076	**0.941**								
(3) Customer Satisfaction	0.444	0.308	**0.804**							
(4) Image	0.436	0.277	0.785	**0.866**						
(5) Loyalty	0.455	0.311	0.849	0.861	**0.939**					
(6) Reliability	0.294	0.105	0.296	0.262	0.291	**0.765**				
(7) Responsiveness	0.466	0.348	0.496	0.444	0.483	0.185	**0.805**			
(8) Security	0.030	-0.009	0.240	0.277	0.238	0.170	0.067	**0.825**		
(9) Tangibility	0.223	-0.066	0.166	0.219	0.181	0.187	0.138	0.157	**0.742**	
(10) Value for Money	0.445	0.184	0.699	0.688	0.726	0.159	0.410	0.197	0.211	**0.765**

Structural Model Assessment

After the measurement models have been validated, the structural model was estimated using PLS software with bootstrapping simulation to drive t-statistics of coefficient parameters (Chin, Marcolin, & Newsted, 2003). The structural model is evaluated based on following assessment criteria; collinearity of the structural model, coefficient of determination (R^2) and significance of the path coefficients (β), Global fit indices, predictive relevance (Q^2), and effect size. Though PLS-SEM is a Non-parametric statistical model, (F. Hair Jr et al., 2014) recommended that the data should not be too far from normal. If the data is highly skewed Bootstrapping is used. A Kolmogrov-Smirnov test and Shapiro-Wilks test for normality were used with skewness and kurtosis to check for normality using SPSS.

Collinearity Assessment

The issues related to collinearity of the structural model was assessed using the variance inflation factor (VIF) criteria obtained from Smart PLS software.

Table 23

Collinearity statistics (VIF)

	SQ	Satisfaction	Image	Loyalty
Assurance	1.558			
Core Tourism	1.181			
Reliability	1.157			
Responsiveness	1.528			
Security	1.078			
Tangibility	1.117			
Value for Money	1.425			
Service Quality		1.952	1.000	2.309
Image		1.952		2.904
Customer Satisfaction				3.122

The results showed in Table 23 evidenced that all variance inflation factor (VIF) for latent constructs are below 5.0, hence, there is no collinearity issue in the data and also confirms that there are no redundant constructs in the model.

Significance of the path coefficients (β)

The significance of the path coefficients was determined by comparing these to the critical t values for significance levels of .05 and .10. (see table 24). Bootstrapping was used to calculate the empirical t value for significance of path coefficients using 5,000 subsamples (F. Hair Jr et al., 2014). Both significance levels (.05 and .10) were addressed, as (F. Hair Jr et al., 2014) recommended .10 for exploratory research.

Table 24

Results of PLS Path Analysis

	B	M	SD	T Statistics	P Values
Assurance -> Service Quality	0.312	0.309	0.028	11.048	0.000
Core Tourism -> Service Quality	0.278	0.275	0.035	7.964	0.000
Customer Satisfaction -> Loyalty	0.395	0.395	0.046	8.628	0.000
Image -> Customer Satisfaction	0.552	0.549	0.037	15.004	0.000
Image -> Loyalty	0.461	0.461	0.040	11.439	0.000
Reliability -> Service Quality	0.181	0.179	0.023	8.033	0.000
Responsiveness -> Service Quality	0.250	0.249	0.017	14.411	0.000
Security -> Service Quality	0.127	0.126	0.024	5.364	0.000
Service Quality -> Customer Satisfaction	0.338	0.341	0.038	8.949	0.000
Service Quality -> Image	0.698	0.702	0.023	30.163	0.000
Service Quality -> Loyalty	0.128	0.127	0.038	3.382	0.001
Tangibility -> Service Quality	0.114	0.113	0.026	4.367	0.000
Value for Money -> Service Quality	0.395	0.394	0.023	16.917	0.000

The result showed in table 25 indicates that there is a significant relationship between service quality to customer satisfaction (β=.33, p<.00), Corporate Image (β=.69, p<.00), and Tourist loyalty (β=.12, p<.01). Likewise, corporate image significantly correlates with customer satisfaction (β=.55, p<.00), and Tourist Loyalty (β=.46, p<.00). Customer satisfaction significantly correlates with Tourist Loyalty (β=.39, p<.00). All the hypotheses in the research model have statistically significant path coefficients, f^2 values, and significant effect of coefficients on the dependent variable.

Table 25

Results of hypotheses testing on direct relationship of the research model

	Hypothesized relationship	B	T	Result
H1	Service Quality → Tourist Satisfaction	.33	8.94	Supported
H2	Service Quality → Corporate Image	.69	30.16	Supported
H3	Tourist Satisfaction → Tourist Loyalty	.39	8.62	Supported
H4	Corporate Image → Tourist Loyalty	.46	11.43	Supported
H5	Corporate Image →Tourist Satisfaction	.55	15.00	Supported
H6	Service Quality → Tourist Loyalty	.12	3.38	Supported

Coefficient of determination (R^2)

The predictive accuracy of the model is measured by adjusted R^2.The R^2 value gives the degree of variance in the endogenous constructs which are explained by the exogenous constructs with paths to it (F. Hair Jr et al., 2014; Urbach & Ahlemann, 2010). The value of adjusted R^2 was used to avoid bias toward complex models by decreasing the number of explaining constructs from the sample size to compensate for nonsignificant exogenous constructs (F. Hair Jr et al., 2014). The co-efficient of determination for tourist loyalty is .84. The research model explained that 84 % of the variance from its antecedents is higher (J. Hair, C. Ringle, & M. Sarstedt, 2011; Henseler et al., 2009).

Similarly, the coefficient of determination for Tourist satisfaction is R^2=.68 and Corporate Image is R^2=.45.

Effect Size (f^2)

The effect size, f^2, was used to assess whether an omitted variable has a substantive impact on the dependent variable (F. Hair Jr et al., 2014). The adjusted R^2 is calculated with each independent variable omitted from the model to determine the impact on the dependent (F. Hair Jr et al., 2014). In this study, the overall effect size was .58 (Table 26). It can be concluded that SQ has significant influence on Tourist loyalty via corporate image and customer satisfaction.

Predictive relevance (Q^2)

Stone-Geisser's, Q^2, was used to determine the predictive relevance of the model.

Table 26

Summary of Predictive relevance (Q^2) and effect size (f^2)

	Service Quality	Satisfaction	Image	Loyalty	Q square
Assurance	53.087				
Core Tourism	55.520				
Reliability	24.190				
Responsiveness	34.881				
Security	12.631				
Tangibility	9.943				
Value for Money	93.005				
Service Quality		0.183	0.952	0.041	0.1856
Image		0.487		0.423	0.3426
Customer Satisfaction				0.289	0.4096
Loyalty					0.6804

A blindfolding procedure was used to omit every fifth data point, which was treated as missing (F. Hair Jr et al., 2014). The resulting estimates were used to predict the omitted data points, and the difference calculated between the true and predicted values. A Q2 greater than 0, indicated the predictive relevance of variables (W. W. Chin, 2010). For the present research model, the Q^2 value ranged from .18 to .68 (Table 26). The model has predictive relevance as all the values are in the cut off limit.

Model Comparison

Table 28 presents the comparative analysis of the different models namely impact of SQ dimensions on CS, image, CS and TL. Model fit summary results show that the proposed research model has better fit indices compared to alternate models. In PLS we can only compare the global fit indices is SRMR (standardized root mean square residual) and the correlation matrix (L.-t. Hu & Bentler, 1998).

Table 27

Model fit summary

Fit Summary	Satisfaction	Image	Loyalty
SRMR	0.074	0.077	0.063
d_ULS	2.884	3.116	2.102
d_G1	1.189	1.323	1.211
d_G2	0.817	0.854	0.729
Chi-Square	2,171.575	2,369.287	1,981.017
NFI	0.746	0.739	0.803
R Square Adjusted	0.584	0.559	0.613
Q^2	0.354	0.354	0.508

Table 28

Impact of SQ dimensions on tourist satisfaction, image and tourist loyalty

	Customer Satisfaction				Image				Tourist Loyalty			
	B	T	VIF	f^2	B	T	VIF	f^2	B	t	VIF	f^2
Assurance	0.085	2.001	1.557	0.011	0.107	1.687	1.549	0.017	0.096	2.556	1.551	0.016
Core Tourism	0.130	4.287	1.189	0.035	0.140	4.429	1.183	0.038	0.141	4.686	1.188	0.044
Reliability	0.126	4.119	1.154	0.033	0.096	2.749	1.147	0.018	0.118	3.183	1.154	0.032
Responsiveness	0.165	3.692	1.532	0.043	0.097	2.537	1.535	0.014	0.128	3.167	1.533	0.028
Security	0.111	3.704	1.089	0.028	0.138	4.448	1.093	0.040	0.099	3.552	1.092	0.023
Tangibility	0.021	0.661	1.118	0.001	0.041	1.111	1.117	0.003	-0.006	0.216	1.119	0.000
Value for Money	0.530	11.750	1.424	0.482	0.527	12.830	1.414	0.453	0.568	15.293	1.419	0.597

The SRMR value of zero indicates perfect fit, and a value of .08 indicates adequate fit (L.-t. Hu & Bentler, 1998). The results of the model fit indices show that the SRMR value is less than .08 this indicates that the proposed model is fit (Table 27). Apart from the value of SRMR, values of NFI, chi square, R square adjusted and Q^2 are also used to test the model fit. All the values report that the model has good fit indices. In this section, assessment of both the inner and outer models were evaluated, and the results confirms that all assessment criteria were satisfactory.

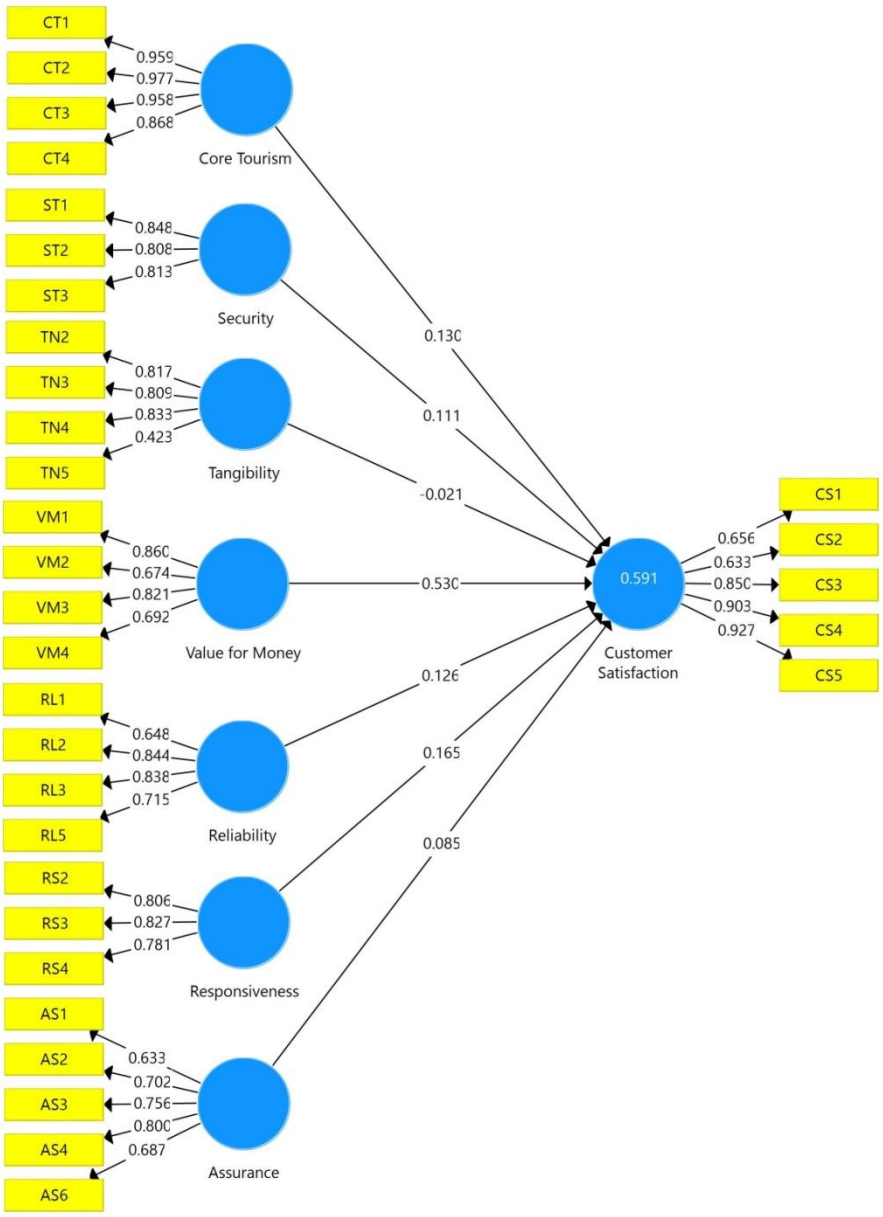

Figure 11 Satisfaction model (Impact of SQ dimensions on customer satisfaction)

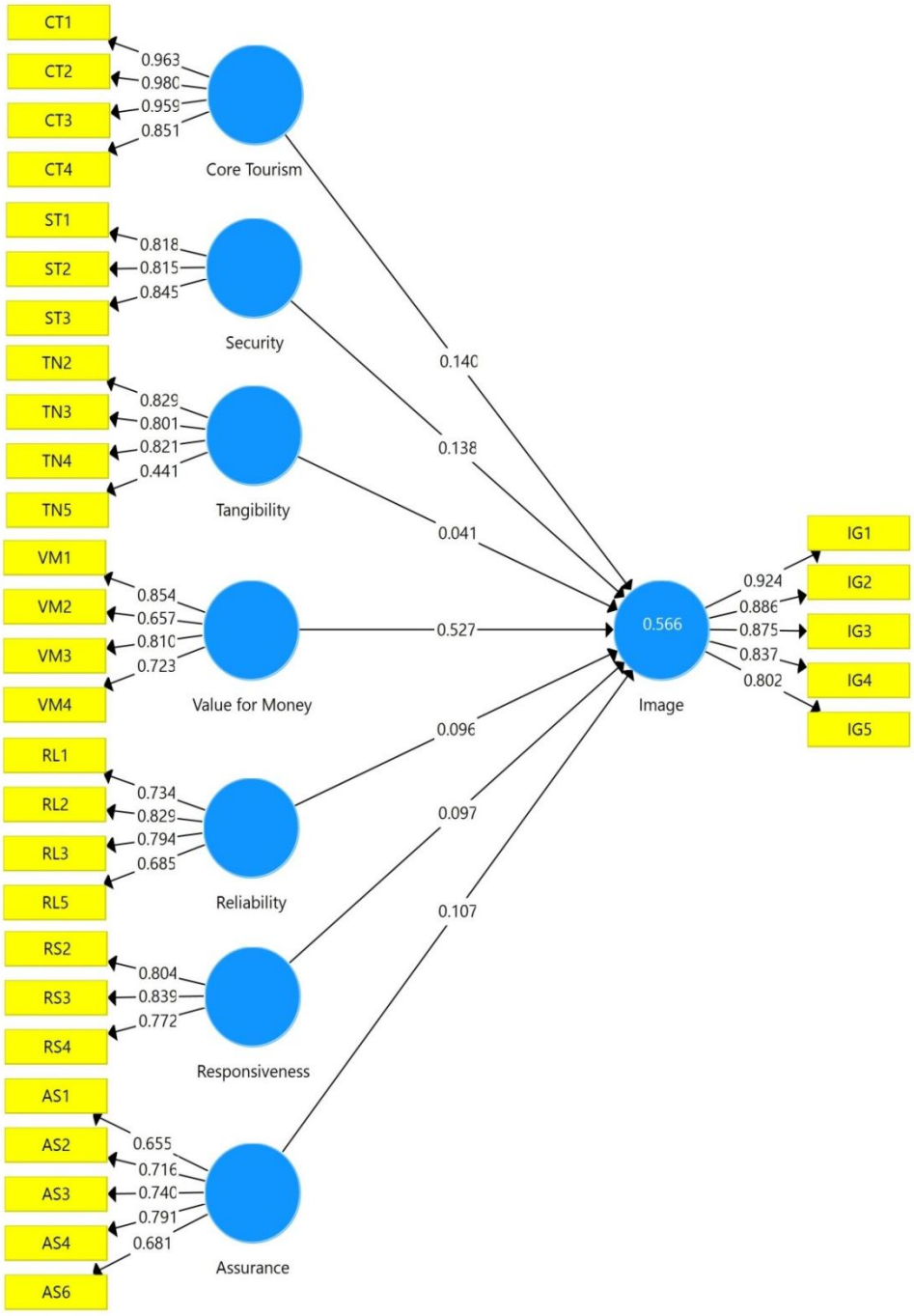

Figure 12 Image model (Impact of SQ dimensions on image)

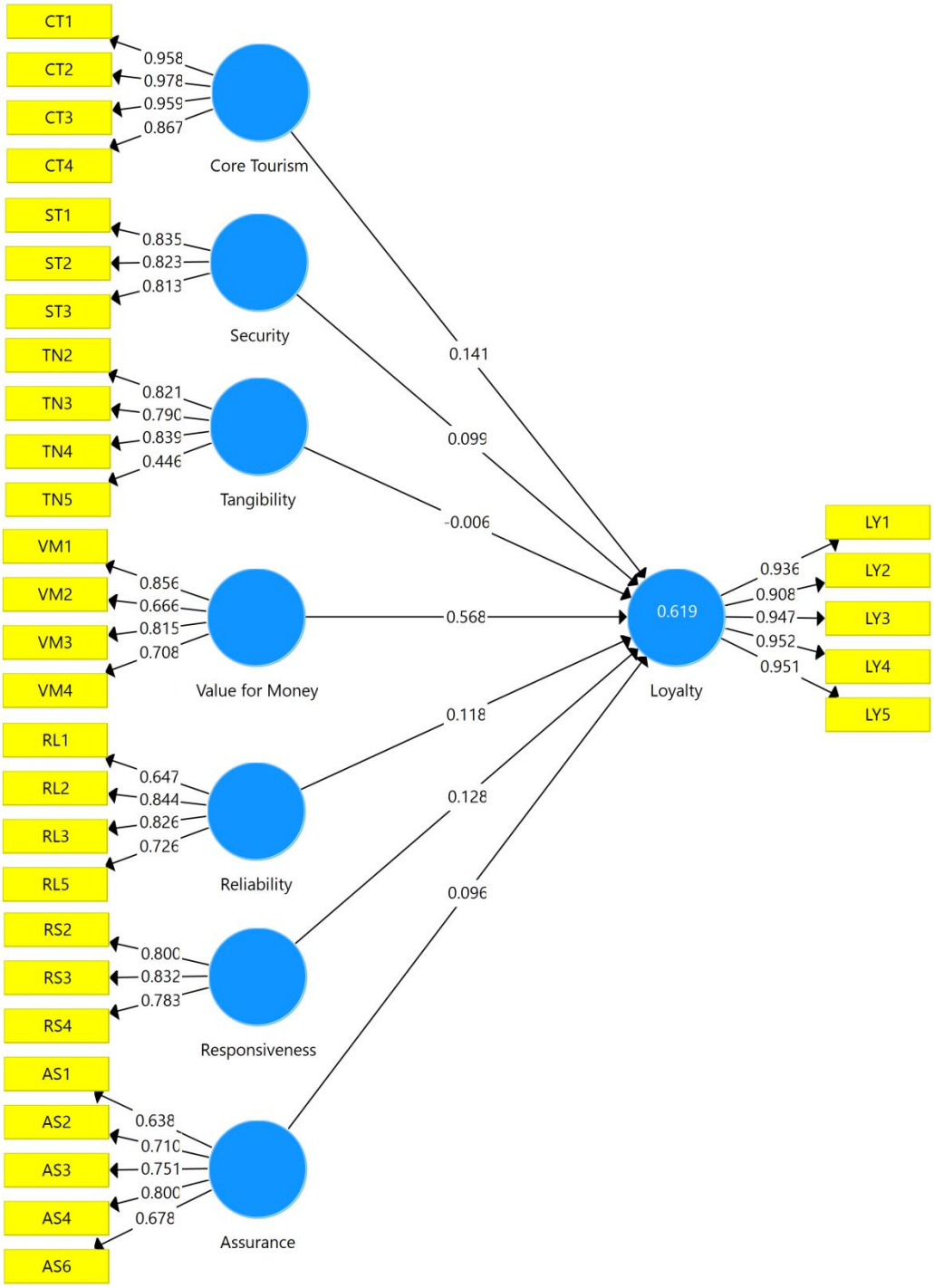

Figure 13 Tourist loyalty model (Impact of SQ dimensions on TL)

STAGE 3

Serial mediation model

Mediation analysis involves testing for a causal mechanism to explain the effect of one variable on the other variable. In order to test the two paths and three path mediation effects the study used latent scores produced by the PLS algorithm to generate the lower limit and upper limit confidence limit values for the proposed paths. In the present study, the serial mediation effect between service quality and loyalty order (service quality → corporate image→ customer satisfaction→ tourist loyalty) was analyzed using Hayes (2013b) guidelines. Estimation was carried out using Hayes PROCESS macro in SPSS. PROCESS uses ordinary least squares (OLS) regression to estimate model coefficients. Output generated bias-corrected 95% bootstrap confidence intervals (Efron & Tibshirani, 1993) for indirect effects and various indices of effect size of the indirect effect, using 5000 bootstrap samples.

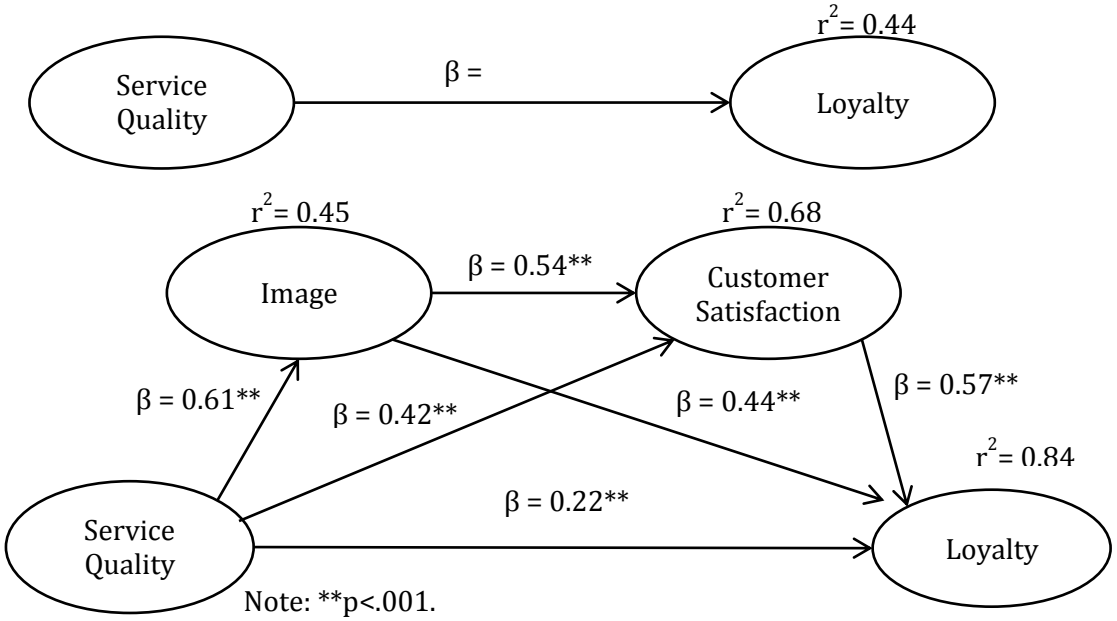

Figure 14 Service quality tourist loyalty serial mediation model

Bootstrapping methods employ a statistical algorithm for resampling from the original sample and is used to generate empirical estimates of a population distribution. First SQ → corporate image → TL relationship was tested. Second, SQ → SC→ TL was tested. In both the cases, the results identified that the partial mediation effect is present since both direct and indirect effects were significant. Then a serial mediation was tested, the path model (SQ → corporate image→ CS→ TL) has highest beta coefficient (B=0.22. p<.001, SE=.013, 95% CI = [.156, .253]). The results showed in table 29 that the corporate image and customer satisfaction were partially mediated between service quality and tourist loyalty.

Table 29

Direct effect relationship among the constructs

Direct relationships	Path Coefficient	t	P	LLCI	ULCI
SQ->image	1.615	18.259	0.000	1.441	1.789
Image->CS	0.542	18.235	0.000	0.484	0.601
SQ->CS	0.420	5.755	0.000	0.276	0.563
Image->TL	0.435	12.522	0.000	0.367	0.503
CS->TL	0.573	13.596	0.000	0.491	0.656
SQ->TL	0.223	3.354	0.001	0.092	0.354
Age	-0.004	-1.589	0.113	-0.009	0.001
Income	-0.005	-1.008	0.314	-0.014	0.004
Gender	-0.086	-1.785	0.075	-0.180	0.009
Education	0.029	1.061	0.289	-0.025	0.084
Employment	0.011	0.615	0.539	-0.023	0.045
Marital status	0.189	3.578	0.000	0.085	0.293
Purpose of the travel	0.015	0.534	0.593	-0.041	0.071

Note: SQ=Service Quality, CS= Customer Satisfaction, TL=Tourist Loyalty

Table 30

Results of mediation model and hypothesis testing on indirect relationships of the research model

	Effect	**LLCI**	**ULCI**	**Decision**
Total effect	0.584	0.531	0.637	Supported
Indirect Paths				
H7: SQ->Image->TL	0.284	0.23	0.349	Supported
H8: SQ ->CS->TL	0.097	0.058	0.139	Supported
H9: SQ ->Image->CS->TL	0.203	0.156	0.253	Supported

Note: SQ=Service Quality, CS= Customer Satisfaction, TL=Tourist Loyalty

Based on reciprocity assumption SET theory states that the benefits (quality of the service) received by the customers will positively react towards the service provider (building Image), which in turn it involves the long-term exchange of relationship with the service provider (loyalty). Based on this assumption we posit that quality of service leads to building brand image which in turn leads to long-term association with the service provider. This long-term association is considered as repurchase intention or loyalty. The study results (Table 30) confirm that Customer image mediates the relationship between SQ and TL (B=0.28. p<.001, 95% CI = [.23, .349]). Similarly, S-O-R model proposes that, "S (the environmental stimuli) influences O (individuals 'processing of environmental cues received and individuals' responses—emotional states: pleasure, arousal, and dominance), and individual's emotions then drive individuals to different R (responses or behaviors such as approach or avoidance behaviors)" (Mehrabian & Russell, 1974). Based on this notion we posit service quality as a stimulus, customer satisfaction as an organism and tourist loyalty as a response. Results confirms

that customer satisfaction mediates the relationship between SQ and TL (B=0.097. p<.001, 95% CI = [.058, .139]). Finally, we integrate this two theoretical frameworks using serial mediation approach by proposing that Image and customer satisfaction serially mediates the relationship between SQ and loyalty (Hayes, 2013a). The effect of SQ on TL is represented by the path co-efficient. The beta co-efficient of the path relationship between SQ and TL is 0.67 and the r^2 value is .44. After including corporate image and CS variables in the relationship between SQ and TL to test the whether there is a mediating effect, the reduced beta co-efficient value .22 and the increase in the value of r^2 (.84) (P<0.001) reveals that corporate image and customer satisfaction have a significant mediating effect.

Understanding unobserved heterogeneity in the research model

This section examines the importance of brand image and satisfaction to build the long-term relationship with the travelers. Heterogeneity is the major concern for applying different techniques in service research. To address this issue, we used Classification and Regression Tree Approach (CART), to ensure the robustness of the research model. Many researchers defined that the customer satisfaction is an antecedent of loyalty (Cirillo, Eboli, & Mazzulla, 2011; Anantharanthan Parasuraman et al., 1985). In this research we analyzed the importance of image and customer satisfaction to enhance the loyal customer in the long run. The CART is a non-parametric technique to capture the underlying relationship between endogenous and exogenous variables without the prior knowledge. This technique is widely used to identify the unobserved heterogeneity in the homogeneous population (Eboli & Mazzulla, 2011). It is one of the powerful statistical tools for prediction and segmentation problems.

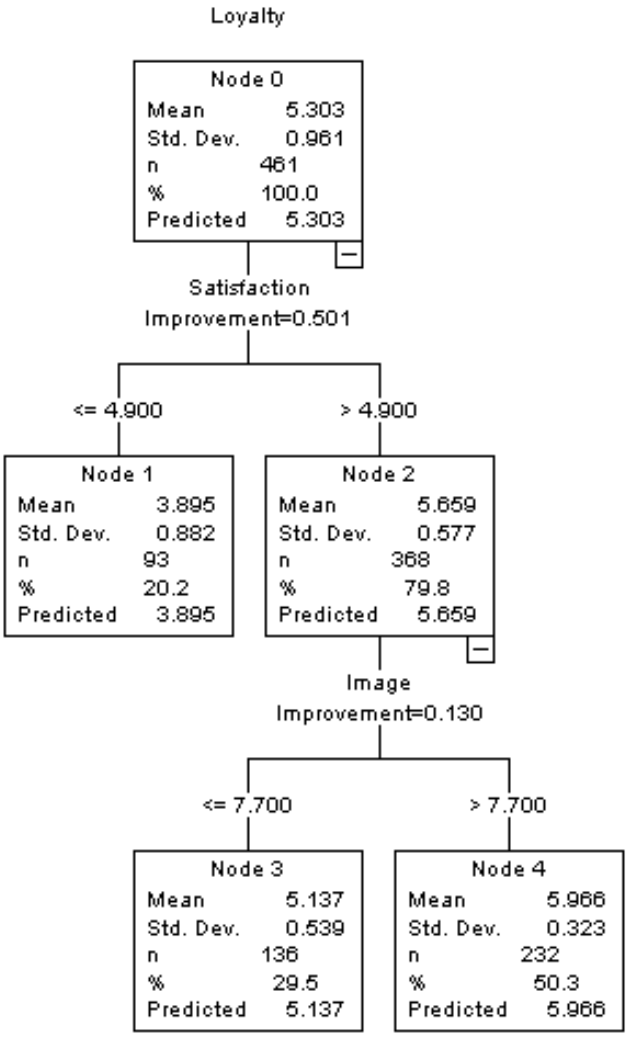

Figure 15 Classification and regression tree (cart) to predict tourist loyalty

Table 31

Summary of CART result

Node	N	Percent	Mean
4	232	50.3%	5.9655
3	136	29.5%	5.1368
1	93	20.2%	3.8946

Growing Method: CRT, Dependent Variable: Loyalty

The study used IBM SPSS21.0 software to apply CART methodology to identify key variables to predict the tourist loyalty. We sued all demographic variables and other

independent variables used in the research. For all the groups, CART used a 10-fold cross-validation of the sample for obtaining the precision ratio (Witten, Paynter, Frank, Gutwin, & Nevill-Manning, 2005) of the categorization of the variable class. The results showed (Table 31) that the whole samples can be divided into three groups. First group consist of 232 (50.3%) travelers, second group consist of 136 (29.5%) travelers and third group consist of 93 (20.2%) travelers. The results also evidenced that the corporate image and CS are the key variables of tourist loyalty. The profiling of these groups can help us the get deeper understanding of data and the relationship between endogenous and exogenous variables.

CHAPTER 5

DISCUSSION

CHAPTER 5

DISCUSSION

This chapter summarizes the study with a logical discussion while addressing the objectives and research questions. Furthermore, the study highlights the theoretical contribution and how it can be implemented in the industry. Finally, the study concludes that for complex industries like tourism and hospitality where multiple players are involved to deliver the service (government, travel and tourism organizations, local and civic bodies etc.), service quality has become a crucial element in creating a positive image in the minds of the customer and thereby increasing tourist loyalty.

Socio demographic profile of the respondents

The sample consisted of 33 % female and 66 % male. The respondent's average age was 33 years. The respondent's minimum age was 20 years and the maximum age was 71 years. Majority of the respondents qualified Graduation (45%), followed by PG (44%) and other qualifications (11%). Majority of them are private employees (52%). Leisure was the main purpose of travel (93%) followed by family visit (7%) there are no respondents who have travelled for business purpose in this sample. The respondents those who travelled frequently on leisure trips were (58%) followed by occasionally (36%) and rarely (3%). The minimum annual income of the respondents was rupees ten lakhs per annum and maximum was rupees fifty lakhs per annum.

Service Quality Scale

Objective 1: To assess the psychometric properties of service quality scale in the context of tourism.

The service quality dimensions specific to tourism industry have been identified through thorough literature review to address the research gap that a context specific adaptation of SERVQUAL is needed to assess service quality (Niranjan & Metri, 2008a) in tourism sector. Seven dimensions namely Reliability, Responsiveness, Assurance, Tangibility, Core tourism experience, Security and Value for money has been extracted through factor analysis and principal component analysis. The underlying structure was identified by application of Principal component analysis. The results produced a seven-factor solution, comprised of internally consistent factors. The results indicate that reliability and validity of the tests showed satisfactory and are consistent with different service quality scales (A. Parasuraman et al., 1988; A. Parasuraman, Valarie A. Zeithaml, & Arvind Malhotra, 2005). Core tourism experience (.95) with four items had the highest reliability value followed by security (.76) three items, assurance (.76) five items, value for money (.76) four items, reliability (.76) four items, responsiveness (.72) three items, tangibility (.73) four items. The factor structure extracted consisted of twenty-seven items with seven dimensions. Cronbach's alpha value is .81 indicating a good internal consistency, as according to Hair et al. (2006) a minimum value of .70 is acceptable for using the scale for further analysis. The final dimensions were considered as antecedents to measure overall SQ, the single item was measured by applying multiple regression analysis. The results have shown that the seven dimensions of tourism service quality namely, Reliability, Responsiveness, Assurance, Tangibility, Core tourism experience, Security and Value for money are good predictors for the overall services quality.

The above service quality scale was used to measure service quality of state tourism development corporations of Andhra Pradesh and Telangana states and the study found

that the weighted scores of the dimensions reveal that tangibility had low score indicating poor service followed by security. Tangibility items include having spacious rooms, appealing interior and exterior décor, having modern furniture, the low scores indicate that the tourism development corporations have to improve the tangible aspects and security aspects. Value for money dimension had good weighted score indicating value for money for food, transportation, accommodation and tour package services, followed by assurance dimension which includes items assessing staff behavior, communication in an understandable language, helping undecided guests regarding tour plan and knowledge of services. Further the scale can be used to measure service quality of other state tourism development corporations as well as private tourism service operators.

One of the gaps identified in the study was to include value for money as one among the service quality dimensions instead of considering it as a separate construct (Narayan et al., 2009), in this study the value for money was considered as one of the dimensions measuring SQ , results revealed that this dimension had good factor loadings and after including value for money dimension the reliability of the scale improved.

Research Model

Objective 2: The second objective is to test the proposed integrated theoretical model on tourist loyalty.

The present study is drawn from theory of reasoned action (Ajzen & Fishbein, 1980; Fishbein & Ajzen, 1975) Research framework and the integrated research model and hypotheses were proposed based on the above theory.

SQ has a positive impact on corporate image, the findings suggest that the customer who received superior service quality would form a favorable corporate image. The previous

studies specify that SQ is a key influencer of corporate image in hospitality business (Kandampully et al., 2011). Therefore, it is an important factor and hence authorities have to build strategies to improve their service quality, particularly in tourism sector and thereby build corporate image. Tourists are having a positive image towards APTDC and TSTDC, still these corporations must build image on a global scale. The findings of the study are in line with other studies in leisure and hospitality industry (Kandampully et al., 2011).

SQ has a positive effect on CS and this is the crux of any business. Numerous studies have reported the significant effect of SQ on CS in leisure and hospitality sector (Baker & Crompton, 2000; Chadee & Mattsson, 1996; H.-H. Hu et al., 2009). The study's results are in line with above studies. Customer satisfaction has a positive influence on tourist loyalty. A satisfied customer remains loyal to a product or service and carries a positive word of mouth resulting in increase in companies' profits. In this study most of the respondents have opted for APTDC/TSTDC based on the feedback and positive word of mouth from friends and family members. A model proposed by (Woodside et al., 1989) concludes from his study that CS is an intervening variable which mediates the relationship between SQ and purchase intentions i-e loyalty. In this study after including the satisfaction variable in the relationship between SQ and TL the r square value increased indicating a significant effect of satisfaction between service quality (SQ) and tourist loyalty (TL). Satisfaction also mediates between corporate image and loyalty. In the present study it showed that satisfaction has partial mediation effect between SQ and TL.

Customer loyalty is defined as "a consumer's deep and consistent commitment to a product, service, or brand" (N. Oliver, 1990). Loyalty can be increased by a firm's commitment to consistently provide quality services. Tourism is a distinct product having a combination of services like accommodation, transportation, food and tourism experience, satisfying a tourist in all the aspects needs a high commitment to delivering superior quality. Delivering superior service quality helps in satisfying the customer and maintaining corporate image results in gaining loyal customers in the long run. In the present study effect of all these variables have been studied their impact on tourist loyalty. The results (see table 32) of the structural model revealed that image and CS have a significant relationship between service quality and tourist loyalty which are assessed through significance of the path coefficients (β).

Table 32

Table showing the hypothesized relationship and its results

	Hypotheses	B	T	Result
H1	Service Quality → Tourist Satisfaction	.33	8.94	Supported
H2	Service Quality → Corporate Image	.69	30.16	Supported
H3	Tourist Satisfaction → Tourist Loyalty	.39	8.62	Supported
H4	Corporate Image → Tourist Loyalty	.46	11.43	Supported
H5	Corporate Image →Tourist Satisfaction	.55	15.00	Supported
H6	Service Quality → Tourist Loyalty	.12	3.38	Supported

Serial Mediation

Objective 3: To test the serial mediating role of corporate image and CS in the relationship between SQ and TL.

The study developed a serial mediation model based on theories from psychology and marketing. The path estimates reflect the significant relationship between the constructs, a bootstrap analysis was run with 5000 sub samples to test significance. The total direct and indirect effect of service quality on tourist loyalty are .67 and .22 respectively (see table 33). The indirect effect of SQ on tourist loyalty was observed to be more through corporate image than through CS. The direct effect of service quality on tourist loyalty (.67 in the direct model) reduced to (.22) in the serial mediation model. The total variance of tourist loyalty increased from .44 in the direct model to .84 in serial mediation model, indicating a stronger influence of the variables. The study concludes that research model explained that 84 % of the variance in tourist loyalty is from its antecedent's service quality, image and satisfaction, which is higher according to (Joe F Hair, Christian M Ringle, & Marko Sarstedt, 2011).

Table 33

Results of mediation model and hypothesis testing on indirect relationships of the research model

	Effect	**LLCI**	**ULCI**	**Decision**
Total effect	0.584	0.531	0.637	Supported
Indirect Paths				
H7: SQ->Image->TL	0.284	0.23	0.349	Supported
H8: SQ ->CS->TL	0.097	0.058	0.139	Supported
H9: SQ ->Image->CS->TL	0.203	0.156	0.253	Supported

Note: SQ=Service Quality, CS= Customer Satisfaction, TL=Tourist Loyalty

Theoretical contribution

The present study has the following theoretical contributions. Value for money is used as a distinct construct in relation to satisfaction and loyalty. In this study we have considered value for money as a one of the dimensions of service quality. Adding value for money, core tourism, security along with the existing SQ dimensions (reliability, responsiveness, assurance and tangibility) has improved the construct domain. Thereby the explained variance in the outcome variables was ensured. SQ and loyalty relationship is better understood by integrating SET and SOR theory by using image and satisfaction as a serial mediator.

Practical implications

The study would help policy makers and mangers of tourism service providers to frame strategies that help to increase the firm's image and increase customer loyalty by improving service quality. The study results showed that corporate image is the major influencing factor in increasing tourist loyalty; this throws an insight for the tourism firms to develop strategies that pitches corporate image in the highly competitive tourism industry. The APTDC and TSTDC tourism organizations would benefit from this study by knowing where they are lacking in terms of service attributes and these corporations can build strategies to improve their service quality.

Conclusion

The present study validated the psychometric properties of the multi-dimensional service quality scale containing 27 items under seven dimensions (Tangibility, responsiveness, reliability, assurance, core tourism experience, security and value for money) to evaluate service quality of State Tourism Development Corporations of Andhra Pradesh and

Telangana states. Value for money as a dimension of service quality has been considered for the first time and the results revealed that after including the value for dimension the reliability value of the service quality scale increased indicating its importance in assessing service quality in tourism sector. The study tested the integrated model on SQ and tourist loyalty. The study has advanced the theory by using serial mediation effect of SQ on loyalty through corporate image and CS. Empirical support is available for the proposed theoretical relationships among SQ, image, CS and loyalty. The serial mediation model reveals that the relationship between SQ and loyalty is serially mediated by corporate image and CS.

Limitations and directions for further Research

The present research suffers from the following limitations: The study is cross-sectional in nature. The longitudinal study is required to establish the causality. Further research work is required, calling for a nationally comparable data. Private tourism companies and resorts have not been included in the study. In the serial mediation model, researcher found partial mediation effect. Many variables (e.g., commitment, involvement, trust, perceived value etc.) are to be included in the path between SQ and loyalty. Two pathways for future research would be, first to study the effect of service quality on tourists in each phase of the tourism experience (before, during and after), second the effect of internal SQ on delivery of quality services to tourists.

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APPENDICES

Annexure 1

SURVEY INSTRUMENT

Dear Sir/Madam

I am J. Chitti Seshu, pursuing Ph.D. (Management) from University of Hyderabad. As a part of my study I am carrying out a survey on quality of Andhra Pradesh Tourism Development Corporation (APTDC). The survey has following statements that are related to your opinion about the quality of Andhra Pradesh Tourism Development Corporation (APTDC). Participation in this survey is voluntary and information will be kept confidential. Your taking of survey will be valuable for my study. In case of any queries, Please feel free to contact me.

1. Choose only one tourist spot that you have visited and based on your experience with APTDC's services at that location please mark your responses for the Questions below.

Nagarjuna Sagar	
Papikondalu	
Dindi	
Araku	
Visakhapatnam	
Hyderabad	
Anantagiri	

2. How did you come to know about APTDC?

APTDC website	
Media	
Friends & Relatives	
Social Networking Site	

3. How many times in a year do you go on a leisure tour? _____

4. Have you exclusively opted for this tour?

Yes	☐
No	☐

5. Your current tour plan is based on:

LTC	☐
Own Expense	☐

6. Have you opted for a Tour Package in APTDC?

Yes	☐
No	☐

7. How did you book your stay at APTDC?

APTDC Web site	☐
APTDC information center	☐
After arriving at the spot	☐

8. Have you visited APTDC web site for information before coming here?

Yes	☐
No	☐

8a. If yes, does APTDC website has clear information?

Yes	☐
No	☐

8b. Was the APTDC web portal a user friendly one?

Yes	☐
No	☐

8c. Have you encountered any problem while booking the services online?

Yes	☐
No	☐

if yes, Specify_____

Service Quality Measurement

Direction: Please circle the appropriate number,1-Strongly Disagree, 2-Disagree, 3-Neutral, 4-Agree and 5-Strongly Agree

Statements					
1. APTDC provides prior information about my tour schedule	1	2	3	4	5
2. APTDC provides correct information about hotel services	1	2	3	4	5
3. Confirmation of my stay is informed in advance by APTDC	1	2	3	4	5
4. APTDC provides information regarding my pickup and drop	1	2	3	4	5
5. APTDC provides accurate information about prices in advance	1	2	3	4	5
6. APTDC delivers services at the time promised (e.g. arranging vehicle on time etc)	1	2	3	4	5
7. APTDC's chosen tourist spots are exciting (eg: waterfalls, forest visit etc.)	1	2	3	4	5
8. There are good sightseeing places at the tourist spot	1	2	3	4	5
9. The sightseeing place has rich cultural heritage	1	2	3	4	5
10. The tourist spot has historical value	1	2	3	4	5
11. There is scope for exploring local folk culture	1	2	3	4	5
12. The sightseeing place has natural scenic beauty	1	2	3	4	5
13. There is scope for tasting local food	1	2	3	4	5
14. There is safety at the place of stay	1	2	3	4	5
15. There is safety and security at the tourist spot	1	2	3	4	5
16. Safety instructions are displayed at the tourist spot	1	2	3	4	5
17. APTDC has booking offices/information centers at convenient location	1	2	3	4	5
18. APTDC hotels are in convenient locations	1	2	3	4	5
19. APTDC has comfortable vehicles	1	2	3	4	5
20. Overall, the APTDC vehicles are in good condition	1	2	3	4	5
21. There is good ambience for relaxed leisure at APTDC hotels	1	2	3	4	5
22. APTDC has spacious cottages and rooms	1	2	3	4	5
23. APTDC has appealing exterior hotel décor	1	2	3	4	5
24. APTDC has appealing interior hotel décor	1	2	3	4	5
25. The furniture at APTDC hotel looks modern	1	2	3	4	5
26. There is internet connectivity at the place of stay	1	2	3	4	5

27. APTDC hotel room items are in working condition (Air conditioning, lighting etc)	1	2	3	4	5
28. Bed sheets and Towels are well cleaned at APTDC hotels	1	2	3	4	5
29. Toilets are well cleaned at APTDC hotels	1	2	3	4	5
30. APTDC hotel rooms are clean and hygienic	1	2	3	4	5
31. APTDC restaurants are clean and hygienic in appearance	1	2	3	4	5
32. APTDC restaurants have wider choice of menu	1	2	3	4	5
33. APTDC restaurants serve tasty food	1	2	3	4	5
34. APTDC restaurants serve food on time	1	2	3	4	5
35. APTDC anticipates guests needs	1	2	3	4	5
36. Attitude of the staff towards tourists is friendly	1	2	3	4	5
37. APTDC employees are knowledgeable to answer guest's questions	1	2	3	4	5
38. APTDC Staff communicate fluently in understandable language	1	2	3	4	5
39. APTDC Staff advise undecided guests regarding tour plan	1	2	3	4	5
40. APTDC Staff are courteous with tourists	1	2	3	4	5
41. The guide appointed by APTDC communicates fluently in understandable language	1	2	3	4	5
42. APTDC Staff are ready to help the guests	1	2	3	4	5
43. APTDC staff respond quickly in resolving the complaints	1	2	3	4	5
44. APTDC has well trained and knowledgeable staff	1	2	3	4	5
45. APTDC has convenient check in services	1	2	3	4	5
46. APTDC has convenient check out services	1	2	3	4	5
47. APTDC provides information on local events/entertainment	1	2	3	4	5
48. APTDC maintains error-free transactions	1	2	3	4	5
49. APTDC provides services that are promised	1	2	3	4	5
50. There is price worthiness of tour package offered by APTDC	1	2	3	4	5
51. There is price worthiness of accommodation in APTDC	1	2	3	4	5
52. There is price worthiness of food at APTDC restaurants	1	2	3	4	5
53. There is price worthiness of Transportation provided by APTDC	1	2	3	4	5

Customer Satisfaction

Direction: Please indicate your agreeableness on the following statements. Please circle the appropriate number. 1-Strongly Disagree, 2-Disagree, 3-Somewhat Disagree, 4-Neutral, 5-Somewhat Agree, 6-Agree and 7-Strongly Agree.

Statements							
1. I am satisfied with APTDC's hospitality services	1	2	3	4	5	6	7
2. I am satisfied with APTDC's transportation services	1	2	3	4	5	6	7
3. I am satisfied with APTDC's restaurants	1	2	3	4	5	6	7
4. I am satisfied with APTDC's tour package services	1	2	3	4	5	6	7
5. I am satisfied with overall APTDC's services	1	2	3	4	5	6	7

Tourist Loyalty

Direction: Please indicate your agreeableness on the following statements. Please circle the appropriate number. 1-Strongly Disagree, 2-Disagree, 3-Somewhat Disagree, 4-Neutral, 5-Somewhat Agree, 6-Agree and 7-Strongly Agree.

Statements							
6. I would recommend APTDC to others	1	2	3	4	5	6	7
7. I would say good things about APTDC to others	1	2	3	4	5	6	7
8. I encourage friends and relatives to opt APTDC services	1	2	3	4	5	6	7
9. If I plan for a tour again I choose APTDC services	1	2	3	4	5	6	7
10. I intend to stay a customer of APTDC for a long time	1	2	3	4	5	6	7

Image

Direction: Considering any experiences you may have had with other others; Please evaluate Overall APTDC services (e.g. lower the value lower the quality and Higher the value higher the quality)

Lower Quality	1	2	3	4	5	6	7	8	9	10	**Higher Quality**
Lower standard	1	2	3	4	5	6	7	8	9	10	**Higher Standard**
Poor	1	2	3	4	5	6	7	8	9	10	**Excellent**
Gloomy	1	2	3	4	5	6	7	8	9	10	**Excited**

Demographic Profile

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81. Gender: ☐ Male ☐ Female

82. Age: _____ (yrs)

83. Marital Status:
☐ Single ☐ Married

84. Family / Colleague members on tour

85. Family annual Income_____

86. State you belong to_____

87. Highest level of education completed
☐ Tenth ☐ Graduate
☐ Inter ☐ Post Graduate
☐ Others_____

88. Employment status:
☐ Unemployed
☐ Private Employee
☐ Student
☐ Govt. Employee
☐ Own Business

89.Since how long you are using APTDC services? _____(e.g. six month, 1year, 2 years, etc.)

90. How often do you travel?
☐ Never ☐ Frequently
☐ Rarely ☐ Always
☐ Occasionaly

91. Main purpose of the trip:
☐ Work ☐ Education
☐ Family Visit ☐ Leisure
☐ Medical
Others_____

92. Most important reasons for selecting APTDC services (tick as many as)
☐ Affordable price
☐ Comfortable stay
☐ Security
☐ No other alternative
☐ Brand Image
☐ Satisfied with the Previous service
☐ Attractive Tour Package

Is there anything else you would like to tell us about the quality of service provided by the APTDC? _____

Annexure 2

Publication

Published a paper in UGC listed journal IJBARR

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DIMENSIONS OF SERVICE QUALITY IN TOURISM: ADAPTION AND VALIDATION OF A SCALE

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Abstract
Service Quality concept is a persistent topic for industry analysts and researchers. According to Badler services are an important element of business that must be improved in order to survive today and in the future (Badler, H. 2004). Comprehensive measurement of quality, in turn, is the key to effective quality management (Martin Fassnacht Ibrahim Koese 2006). The aim of this paper is to study service quality dimensions in the tourism sector in order to emphasize the need for better quality services.

Keywords; Service Quality, Dimensions of Service Quality, Tourism Sector.

Introduction-Indian Tourism Sector

Tourism is the world's largest and dynamic industry in today's global economy. It makes a major contribution to the economies of most developed and developing countries because it is being used as a ubiquitous vehicle for economic development and diversification and an integral element of economic development policy at a local, regional and national level (Sharpley, Richard and Telfer & David J. 2002.)

Indian tourism sector is one of the most contributing sectors to GDP (Gross Domestic Product) and foreign exchange reserve of the country. Tourism in India contributes to 9.6% to the National GDP and 9.3% of the total employment. According to WTTC 4th April 2017 report, India ranks 7th in terms of in terms of total contribution to GDP. The world tourism organization reports that the international tourism receipts in 2016 grew by US$208.9 Billion, India with a share of 22.8 billion receipts holding 40th position in the world in terms of international visitors. Tourism has the potential to become a major source of revenue and employment generation in India. According to World Travel and Tourism Council, India will be a tourism hotspot, having the highest growth potential.

Literature Review

Many scales have been developed to measure service quality in different service sectors and thereby identified dimensions specific to each sector. Parasuraman, Zeithaml, and Berry (1985)developed SERVQUAL battery for measuring service quality which is a widely adopted scale to measure service quality by academic and industrial practitioners. The extant literature review identifies that the SERVQUAL specific dimensions do not measure service quality in all the sectors. Niranjan and Metri (2008)challenged Parasuraman, Zeithaml, and Berry (1988), gap model and argued that a new paradigm was needed to accurately depict service quality in different sectors. They also suggested to instigate a separate scale for measuring service quality concept in different contexts.The earliest form of scale measuring customer satisfaction in tourism sector was developed by (Pizam, 1978). The most popular among the service quality scales is SERVQUAL a 22 item scale which was developed by Parasuraman et al. (1985). Several scales have been developed based on SERVQUAL model. Saleh and Ryan (1991) were the earliest researchers to develop a scale with 33 items which measures service quality in tourism sector by adopting SERVQUAL model. Knutson, Stevens, Wullaert, Patton, and Yokoyama (1990) developed LODGSERV an instrument which measures service quality of a lodge. Akama and Kieti (2003) and Ekinci, Prokopaki, and Cobanoglu (2003) have also developed scales based on SERVQUAL model.

In line with the above background, this study seeks to examine the dimensions measuring quality of services in tourism sector. We need to study further the factors that enable tourism corporations to entice and retain their customers.

Method

Data Collection

The data has been collected from the tourists who have used the services of tourism development corporations of Andhra Pradesh and Telangana during the period January 2015 to February 2016. Using a purposive sampling technique(Lai & Chen, 2011), a total of 300 domestic tourists were interviewed. A screening question was asked ascertaining whether they have stayed at least one night in hotel during their visit in Hyderabad (70), Papikondalu (100) and Dindi(72). Out of 300 questionnaires distributed 68 questionnaires were unusable.

Measures

Service quality was measured using dimensions that were adapted from different studies from literature namely: Tangibility, Assurance, Reliability, and Responsiveness (Parasuraman et al., 1985), Core tourism experience (Sureshchandar, Rajendran, & Anantharaman, 2002), Hygiene (Yüksel & Yüksel, 2001).

Data Analysis

The data were analyzed using IBMSPSS v21software. The principal component analysis(Parasuraman, Zeithaml, & Malhotra, 2005)was performed with orthogonalvarimax rotation to identifying underlying dimensions of tourism service quality attributes.To test the measurement properties of the scale researcher first conducted reliability analysis by grouping the items according to the six priori conceptual dimensions from past literature.

Results

An individual item analysis of the service quality scale showed that the items had a mean scores ranging from 5.42 to 5.58 and satisfactory inter-item correlation values. The sample adequacy is ensured with KMO value (.72) must exceed .50 (Joseph F. Hair, Black, Babin, & Anderson, 2010).Table 1 shows the factor loadings and reliability of the service quality dimensions. Principal component analysis was used as the extraction method to identify the underlying dimensions in the present study. Each group of variables was analysed using a varimax rotation, with a factor loading of .5 or above.A series of iterations was then conducted to eliminate items with low factor loadings on all factors or high cross-loadings on two or more factors.This iterative process resulted in the final service quality scale, consisting of 33 items on six dimensions, which study labelled as Reliability, Assurance, Tangibility, Core Tourism, Responsiveness and Hygiene.

Table 1: Factor Loadings and Reliability of the Service Quality Dimensions

	Reliability	Assurance	Tangibility	Core Tourism	Responsiveness	Hygiene	Alpha
RL2	.901						.835
RL3	.813						
RL4	.656						
RL6	.656						
RL5	.638						
RL1	.618						
AS1		.834					.832
AS5		.819					
AS2		.712					
AS3		.660					
AS4		.617					
AS6		.603					
TG5			.746				.769
TG4			.668				
TG3			.665				
TG2			.634				
TG1			.621				
TG6			.565				
CT5				.762			.729
CT4				.659			
CT3				.643			
CT1				.623			
CT2				.583			
RS3					.839		.767
RS4					.783		
RS5					.650		
RS2					.618		
RS1					.545		
HG3						.780	.630
HG4						.691	
HG1						.553	
HG5						.537	
HG2						.518	

The percentage of variance explained by the six factors are 55.52%. The computation of the Cronbach alpha, was performed separately for the six dimensions (.63 to .84)are satisfactory for service quality to ascertain the extent to which items making up each dimension shared a common core.

Discussion

This paper has tried to measure the importance attached by a tourist to each of these dimensions and in turn at a particular destination by adapting scale for measuring the construct.Following a literature review of the existing scales for measuring service quality in tourism, it was found that existing service quality scales are either services specific, western consumer perspective, or have weak psychometric properties. The service quality scale was then purified and validated through principle component analysis and reliability analysis respectively.The final version of the tourism service quality assessment scale contains 33 items under six dimensions namely, Reliability (6 items), Assurance (6 items), Tangibility (6 items), core tourism services(5 items), Responsiveness(5 items) and Hygiene(5 items). However the further validation of scales is required in terms of touristperception in the other part of country for generalizability.

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SERVICE QUALITY, IMAGE, SATISFACTION AND TOURIST LOYALTY: A SERIAL MEDIATION MODEL

by J Chittiseshu

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