

**TRAVEL AUTOMATION AND CUSTOMER SATISFACTION ON INTERSTATE BUS
TICKET BOOKING PROCESS**

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ABSTRACT

Automation has revolutionized every aspect of travel industry. Automation process with the help of ICT and internet connectivity has facilitated e-commerce in retail tourism, through websites, online portals and recently with Apps. Travelling by Bus is the most economic and popular mode of transportation. This paper studies the inter state bus travel automation and customer satisfaction on interstate bus ticket booking process a division of retail tourism services in **pre corona pandemic era**. A descriptive study was carried out in Bengaluru city by collecting Primary data from around 400 respondents who undertake regular interstate bus travel on a random sample method through a questionnaire. Data analysis indicates that qualification and age play a vital role in the use of online services/portals or Apps based internet-driven technology. Young generation commuters prefer to buy bus tickets from online portals and help aged people to book online bus tickets. Customers are satisfied with web page layout, design, booking procedure, cancellation policy and refund process.

KEY WORDS: Travel Automation, Interstate Bus tickets, Customer satisfaction

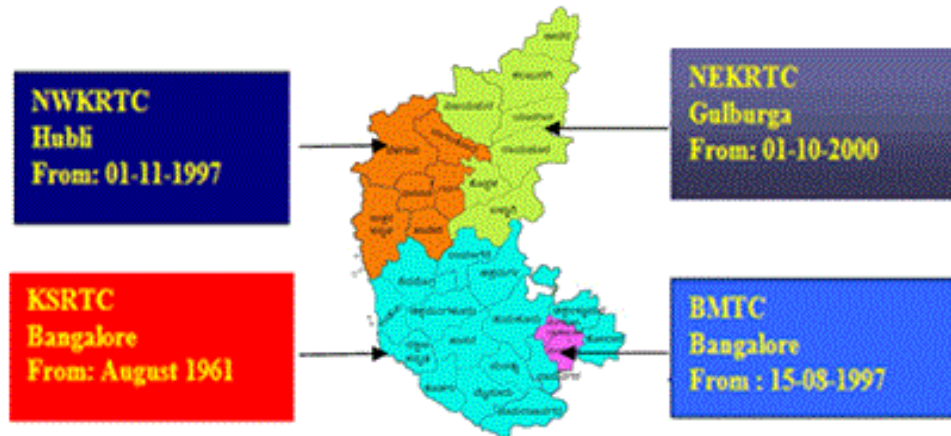
Introduction

Accessibility is the second important element of tourism which deals with transportation. There are three types of transportation namely Landways, Waterways and Airways. Landways is further segregated into Roadways and Railways. Roadways consists of travel by foot, bicycles, scooters, autos, cars, coaches and Bus services. Bus services can be classified into local service, intrastate and inter-state services popularly known as local and mofussil services. Travelling by Bus is the most economic and popular mode of transportation for lower and middle income group people. Government operates local transportation and mofussil buses for Intra and Interstate travel, along with few private operators. They operate bus services to all the interior cities and districts of the state which caters to intra state travel. They connect all the district headquarter and popular outlets of the neighbouring states also catering to inter-state travel. Majority of Bus services are government operated and very few are operated by private operators. Customers need not book the bus ticket in advance for local travel (journey within the Urban and city limits), whereas for intrastate and inter-state bus travel advance booking must be done. Passengers must go to advance ticket booking counters to book the ticket for bus journey in good old days.

India with 130 crore citizens is the second most populated country in the world. Due to rapid economic growth and urbanization, there is population movement to metropolitan cities like Delhi, Mumbai Kolkata Chennai Hyderabad and Bengaluru. Around 80 percent of Indian population is in BPL(Below Poverty Line) category and they mostly travel by buses. Bengaluru city selected for this study is capital of Karnataka state. The transportation network of Karnataka is spearheaded by Karnataka State Road Transport Corporation (KSRTC) owned and operated by Government of Karnataka. KSRTC caters to

the Mofussil areas of every district, intra state and inter state network transportation. In the year 1996, KSRTC was bifurcated into Bengaluru Metropolitan Transport Corporation (BMTC) with its corporate office at Bengaluru to cater the local city travel in Bengaluru city, and the North West Karnataka Road Transport Corporation (NWKRTC), with its corporate office at Hubli for Mofussil travel in and around north west districts of Karnataka. Similarly one more division North East Karnataka Road Transport Corporation (NEKRTC) with head office in Gulbarga was formed in the year 2000.

Karnataka State Transport Unit Operations



Source:www.ksrtc/history.com

KSRTC covers seventeen Districts namely Bengaluru Urban, Bengaluru Rural, Ramanagar, Kolar, Chickballapur, Tumkur, Chitradurga, Davanagere, Shivamogga, Mangaluru, Udupi, Chikkamagaluru, Hassan, Mysuru, Mandya, Chamarajnagar, Kodagu with Bengaluru as its headquarters. NWKRTC's jurisdiction covers 08districts, with headquarters at Belagavi, Hubballi, Sirsi, Bagalkot, Gadag, Chikkodi, Haveri and Dharwad. NEKRTC's jurisdiction covers 08districts namely Bidar, Kalburgi, Yadgir, Raichur, Bellary, Hospete, Koppal and Vijayapura districts with headquarters in Kalburgi.

A total number of 1065 routes with 1029 schedules are operated by KSRTC. They operate a total number of 40 inter state routes with neighbouring states on an reciprocal basis covering popular districts of various states such as Maharastra, Goa, Kerala, Andhra Pradesh, Telangana, Tamilnadu and Pondicherry. KSRTC has a total number of 1518 vehicles and it transports an average number of 4.35lakh passengers per day. KSRTC is main lifeline transportation of the State mofussil services and local transportation is catered by BMTC in Bengaluru city.

Online Interstate Bus Ticket Booking

ICT enabled activities of retail tourism is popularly known as E-tourism. Every aspects of retail tourism is automated and bus transportation is no exception. Inspite of bus ticket sale being automated, still customers must go to bus transport office counter to buy a confirmed automated bus ticket, saleable for any sector serviced by that transport company.

Technocrat Phanindra Sama software engineer could not join his family in Hyderabad for Diwali festival in the year 2005 due to nonavailability of confirmed bus ticket from Bengaluru to Hyderabad. He had no time to go to transport company's office to buy the bus ticket and therefore he could not make it. Necessary is mother of invention. This crisis paved way for booking bus tickets through websites, online portals or Apps. Shruti Jani (2018) states that, Three software engineers namely Phanindra Sama, Sudhakar Pasupunuri and Charan Padmaraju, jointly started an startup venture called Redbus an search engine to book bus tickets through online portals in the year 2006. This venture was a huge success and they created online portals, web site and Apps to book bus tickets Pan India. They linked all the state

transport operators in India along with private bus operators under one platform and customers who surfed the Redbus portal can choose, select and book any bus ticket from the convenience of home or office by click of a button not only in India but also abroad since Redbus portals operate overseas also. Customers need not go to transport office counters and stand in queue to buy bus ticket. RedBus portal gave such a competition that every state transport company's also provided website portals to book online bus journey tickets. There are plenty of online portals, websites and Apps now available to book and confirm Bus tickets Pan India.

Scope and Need for Study

Bengaluru city, also known as Silicon Valley has a huge influx of tourists and workers from PAN India who regularly undertake interstate travel. Around 60 percent of interstate travel is undertaken by bus transportation, which are booked through online portals or websites. Therefore, there is a need to study the level of "Travel Automation And Customer Satisfaction On Interstate Bus Ticket Booking Process"

Review of Literature

Collett & King (1999) demonstrate that nearly 78percent of the online shoppers never close the sale. Getting customers to the website of a company is one thing, making them to purchase is just another.

Chang and Arnett (2000) identified factors associated with website success in the context of electronic commerce. The factors identified were information and service quality, system use, playfulness, and system design quality. System design qualities have a direct relationship with website success.

Avery (2000) reports the quality and usability of the site plays a major role in converting visitors into buyers. Web quality and usability are key factors in differentiating companies doing business on the Web.

Phalguni Gupta (2001) Computer with power of internet and e-commerce has significantly affected the general public in India. IT is the main force for achieving successful business models that are capable of sustaining a high growth rate. India is well positioned as a global hub for IT-enabled services.

Siriginidi Subba Rao (2005) highlights the fruits of IT sector and states that India is in the context of the digital divide by discussing its infrastructural bottleneck in areas that includes electricity, IT penetration, tele density and Internet industry.

Anil Bilghan & Milos Bujisic (2015) states Web design features play an important role in the minds of customers and create loyalty and commitment in promoting relationship marketing.

Kaini (1998) quotes new technological innovations and wide internet access; enables service providers to do online marketing and achieve their business goals.

Md.Kashif Ansari et al. (2017) information and communication technologies have revived the Indian tourism industry like never before. The impact can be noted in the form of price competition, changes in consumer behavior, demand for customization, reduced barriers to entry and increased bargaining power of buyers.

Ahn, Kijung (2009), focuses on bus fares and its frequency of bus services and indicates that private welfare can be improved by incorporating congestion interaction by using better bus services for transportation.

Mahzabeen, Arma (2019), Bus is the most convenient and comfortable transportation used by the masses. Technology and the use of internet helps customers to book bus tickets through online portals without wasting time by travelling to the transportation office just to buy a confirmed bus journey ticket.

Shruti Jani (2018) Redbus the online bus booking platform was an entrepreneurial effort made by three Indian technocrats in 2005 to revolutionize the inter city, or interstate bus travel by automating the booking process of bus tickets.

Objective of Study

1. Ascertain the socioeconomic profile of respondents availing online services
2. Assess customer satisfaction towards online interstate bus bookings.
3. To understand the reasons for success of online interstate bus bookings.

Methodology

The present study is descriptive in nature. The study of the universe comprises of travelers who book interstate bus tickets through online portals or App in Bengaluru city. Primary Data was collected from 400 respondents spread across the Bengaluru Urban city to ascertain customer satisfaction towards travel automation of interstate bus ticket booking process. Secondary data were collected through journals, blogs and website articles.

Tools Applied

SPSS (Statistical Package for Social Sciences) and appropriate statistical tools were applied to study the relationship, preference and interpretation of findings by using Chi-square test and Likert Scale Statements with frequency and percentage analysis of the information collected.

Analysis of Data

Data was collected from 400 respondents on an random sampling method spread across the Bengaluru city. The collected data is analysed and presented in a tabular form with description.

1.1 Age and Online Portal Services

	Value	Df	Asymptotic Significance (2-sided)
Pearson Chi-Square	106.158a	10	.000
Likelihood Ratio	41.722	10	.000
Linear-by-Linear Association	14.569	1	.000
N of Valid Cases	400		

The association of variables, namely respondents Age and Use of App driven services has got the Chi-Square Test result of <0.1 and the value indicates that there is a direct association between the Respondents age and their choice of using App driven services.

1.2 Qualification and Online Portal Driven Services

	VALUE	DF	Asymptotic Significance (2 Sided)
PEARSON CHI-SQUARE	38.395 ^A	8	.000
LIKELIHOOD RATIO	40.331	8	.000
LINEAR-BY-LINEAR ASSOCIATION	10.336	1	.001
N OF VALID CASES	400		

The association of variables, namely Respondents Qualification and Use of App driven services has got the Chi-Square Test result of <0.1 and the value indicates that there is a direct association between the respondents qualification and their choice of booking interstate bus travel tickets using App driven services.

Table 1.3: Region-Wise Customers Participation in Booking Online Bus Tickets .

Location	Frequency	Percent
North	106	26.4
South	102	25.6

East	99	24.8
West	93	23.2
Total	400	100.0
Source: Primary data		

Primary data were collected from 400 respondents residing in different locations of Bengaluru as shown in the above table. North region shows the highest number of 106 respondents, accounting for 26.4 per cent, South region shows 102 respondents, accounting for 25.6 percent, East region shows 99 respondents, accounting for 24.8 percent and West region shows 93 respondents, accounting for 23.2 percent are respectively participating in the online booking of interstate bus transportation.

Table 1.3: Respondents Age

Age	Frequency	Percent
15-35 yrs	224	56.0
35-55 yrs	134	33.5
>55 yrs	42	10.5
Total	400	100.0
Source: Primary data		

The above table indicates that 224 respondents, accounting for 56 percent of 400 respondents are in the age group of 15-35 years, 134 respondents, accounting for 33.5 percent are in the age group of 35- 55 years. 42 respondents accounting for 10.5 percent of under the age group of >55 years. This clearly suggests that interstate bus travel online services are comfortable with the younger generation as compared to people who are aged above 55years.

Table 1.4: Respondents Educational Qualification

Qualification	Frequency	Percent
Graduation	186	46.5
Post-Graduation	118	29.5
Professional	62	15.5
Others	34	8.5
Total	400	100.0
Source: Primary data		

The above table indicates that 186 respondents, accounting to 46.5 percent of 400 respondents were graduates; 118 respondents, accounting for 29.5 percent were Post Graduates; 62 respondents accounting for 15.5 percent were Professionals. Only 34 respondents, a accounting for 8.5 percent, the lowest number was another category. This clearly indicates that 366 respondents, accounting for 91.5 percent were educated with graduation and above.

1.5 Online Booking of Interstate Bus Tickets:

	Frequency	Percent
SA	83	20.8
A	124	31.0
NAND	57	14.2
DA	92	23.0
SDA	44	11.0
Total	400	100.0
Source: Primary data		

Data was collected from 400 respondents out of which 83 respondents, accounting for 20.8 percent strongly agree, and 124 respondents, accounting for 31 percent Agree that they book their interstate bus transportation through online portals. 57 respondents, accounting for 14.2 percent neither agree nor disagree, 92 respondents, accounting for 23 percent Disagree and 44 respondents, accounting for 11 percent strongly disagree that their interstate bus tickets are booked through online portals..

1.5 Satisfied with Rate and Seat Offered in Booking Online Bus tickets:

	Frequency	Percent
SA	108	27.0
A	170	42.5
NAND	54	13.5
DA	36	9.0
SDA	32	8.0
Total	400	100.0
Source: Primary data		

Data was collected from 400 respondents out of which 108 respondents, accounting for 27percent Strongly agree, 170 respondents, accounting for 42.5 percent Agree, 54 respondents, accounting for 13.5 percent neither agree nor disagree, 36 respondents, accounting for 9 percent Disagree and 32 respondents, accounting for 8 percent Strongly disagree with the rates quoted and seats offered while booking online interstate bus tickets. Customers are satisfied to browse different portals and ascertain the best competitive price and seat availability to book interstate bus tickets.

1.7 Comfortable with the layout of the Online Portals and Websites

	Frequency	Percent
SA	142	35.5
A	162	40.5
NAND	50	12.5
DA	30	7.5
SDA	16	4.0
Total	400	100.0
Source: Primary data		

Data collected from 400 respondents indicate that 142 respondents, accounting for 35.5 percent Strongly agree, 162 respondents, accounting for 40.5 percent Agree, 50 respondents, accounting for 12.5 percent Neither agree or disagree, 30 respondents accounting for 7.5 percent Disagree and 16 respondents accounting for 4percent strongly disagree. 304 respondents, accounting for 76 percent of sample size are comfortable with the layout of the online portals and websites offered for book interstate bus tickets.

1.8 Comfortable With Online Booking Procedure of Interstate Bus Tickets

	Frequency	Percent
SA	118	29.5
A	160	40.0
NAND	62	15.5
DA	32	8.0
SDA	28	7.0
Total	400	100.0
Source: Primary data		

Data collected from 400 respondents indicate 118 respondents, accounting for 29.5 percent Strongly agree, 160 respondents, accounting for 40 percent Agree, 62 respondents, accounting for 15.5 percent

Neither agree or disagree, 32 respondents, accounting for 8percent Disagree and 28 respondents accounting for 7percent strongly disagree that they are comfortable with online interstate bus ticket booking procedures.

1.9 Bus Ticket Bookings are done by me

	Frequency	Percent
SA	91	22.8
A	129	32.2
NAND	132	33.0
DA	32	8.0
SDA	16	4.0
Total	500	100.0
Source: Primary data		

Data collected from 400 respondents indicate 91 respondents, accounting for 22.8 percent Strongly agree, 129 respondents, accounting for 32.2 percent Agree, 132 respondents, accounting for 33 percent Neither agree or disagree, 32 respondents, accounting for 8.0 percent Disagree and 16 respondents, accounting for 4.0 percent strongly disagree that the Online interstate bus bookings are done by themselves. Young and qualified respondents are comfortable with online interstate bus bookings and they book bus tickets through online portals by themselves.

1.10 Bus Bookings are Done By Family Members/Colleagues and Friends

	Frequency	Percent
SA	86	21.5
A	218	54.5
NAND	60	15.0
DA	18	4.5
SDA	18	4.5
Total	400	100.0
Source: Primary data		

Data collected from 400 respondents indicate 86 respondents, accounting for 21.5percent Strongly agree, 218 respondents, accounting for 54.5 percent Agree, 60 respondents, accounting for 15 percent neither agree or disagree, 18 respondents, accounting for 4.6 percent Disagree and 18 respondents, accounting for 4.6 percent strongly disagree that the online interstate bus transportation bookings are done by family members, colleagues or Friends who are very comfortable with online transactions. Aged respondents are not comfortable with online bookings and when they undertake travel the bus ticket bookings are booked through online portals by younger generations such as their family members friends or colleagues.

1.11 Comfortable With Online Payment:

	Frequency	Percent
SA	129	32.2
A	132	33.0
NAND	91	22.8
DA	32	8.0
SDA	16	4.0
Total	400	100.0
Source: Primary data		

Data collected from 400 respondents indicate 129 respondents, accounting for 32.2 percent Strongly agree, 132 respondents, accounting for 33 percent Agree, 91 respondents, accounting for 22.8 percent Neither agree or disagree, 32 respondents, accounting for 8 percent Disagree and 16 respondents, accounting for 4 percent strongly disagree that they are comfortable with online or cash payment for interstate bus ticket booking through Online portals or website. Interstate bus ticket booking is booked through online portals or directly to bus operators’s website by providing credit card details, or through online payment modes for purchase bus tickets by paying the fare directly to the transport operators at the time of booking.

1.12 Comfortable With Cancellation And Refund Process

	Frequency	Percent
SA	108	27.0
A	160	40.0
NAND	44	11.0
DA	60	15.0
SDA	28	7.0
Total	400	100.0
Source: Primary data		

Data collected from 400 respondents indicates that 108 respondents, accounting for 27 percent Strongly agree, 160 respondents, accounting for 40 percent Agree, 44 respondents, accounting for 11 percent Neither agree or disagree, 60 respondents, accounting for 15 percent Disagree and 28 respondents, accounting for 7 percent strongly disagree that they are comfortable with Cancellation and Refund process followed by interstate bus operators.

Findings

The study was based on data collected from 400 respondents of different demographic groups spread across Bengaluru urban city. The study with statistical test confirms that young qualified respondents are more comfortable with Online Portals and App services in booking interstate bus tickets. The study clearly indicates that Customers are satisfied with Online interstate bus ticket booking facilities, website information, layouts, booking procedures, cancellation rules and refund procedures but it is the younger generation who are comfortable with booking of online interstate bus tickets through travel portals or through transport operators’ websites. Interstate bus tickets of the Aged passengers are booked by family members, friends and colleagues who are young and qualified to handle online portals for ticket bookings.

Limitations and Scope of further study

The study is limited to bookings of online portal based interstate bus booking including various bus transport operators from Bengaluru city alone. Further research regarding different categories, frequency, number of stops or point to point buses, and segregation of buses operated in Bengaluru city and in other cities of India can be studied.

Conclusion

Qualified young generation members are comfortable with ICT and internet operations. Aged passengers are not comfortable to do the bookings by themselves, but they get it done through young family members, friends or colleagues. Online portal websites include government and private operators buses. Travel automation facilitates customers to book bus tickets from any point to any point of the world or in India, including remote areas after ascertaining the facilities, timings and frequencies by

browsing the website or portals of the bus operators. Customers are comfortable and satisfied with web page layout, design, booking procedure, cancellation policy and refund process involved in booking online bus tickets. Travel automation enable the customers to book bus tickets with seat number from the comfort of their home or office by the click of a button.

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