



# The Effects of Cashless Transactions Small and Medium-Sized Entities

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## Abstract

Today, the ability to conduct financial transactions without the need of cash is essential. Improvements to current cashless payment techniques and the introduction of new, more efficient methods have resulted from research and development in this area. After conducting a thorough search of published and unpublished literature, the researcher concluded that there was a need to conduct the present study due to the paradigm shift in Indian consumer behavior, the necessity of cashless transactions, and the Government initiatives to encourage cashless transactions. So, by identifying the goals of this study and achieving them via analysis of the main data gathered from 400 legitimate replies, the current study has sought to fill in the research gaps. Five cities were selected for this research based on their high HDI (Human Development Index) scores: Ghaziabad, Gautam Budh Nagar, Lucknow, Kanpur, and Jhansi. Using Exploratory Factor Analysis and Analysis of Variance, the research aimed to determine what characteristics contribute to cashless transactions and how they vary among the chosen cities. Chi-square tests were used to examine the connection between e-service quality and customer happiness in regards to cashless transaction techniques, and rankings of cashless transaction issues and general knowledge of government activities followed. The research found that seven variables influence the prevalence of cashless transactions. The components were largely behavioral in character, and there was a notable variation between them among the chosen cities; the model explained 73% of the variance among the variables. A significant and robust correlation was found between consumers' opinions on the quality of the procedures used by e-services and their overall satisfaction. The analysis of difficulties showed that not all difficulties are of similar significance, with transaction security, password remembrance, and human mistake standing out as particularly pervasive. In addition, evidence from surveys of citizens' knowledge of government programs seems to corroborate the Indian government's secondary data, suggesting that citizens are as informed as they should be about the many projects it has launched.

Keyword- Security, Transaction, Cashless, Smartphones

## Introduction

The widespread adoption of smartphones may be attributed to the many ways in which they benefit their users, including increased efficiency in their professional and personal lives. Smartphones have become increasingly important in people's lives as a result of the ease with which they can be used to carry out tasks such as making purchases, paying bills, transferring money between accounts, making

purchases online, and communicating with friends and family. Consumers' willingness to purchase through their smartphones has been a game-changer for the retail sector because to the smartphone's versatility. Economic Times (2019) found that one-third of Indians' awake time is devoted to browsing the internet on their cellphones. The vast number of young people in India is fuelling the rapid expansion of the

smartphone industry there. Marketers of all stripes are now concentrating on making available a wide range of products and services through mobile devices because to the transformative power of smartphones and high-speed internet. These days, there's an app for just about everything you can imagine.

As a result of the rapid development of the internet and mobile communications over the last several years, a new market for mobile commerce has emerged, and businesses of all sizes are scrambling to find ways to take advantage of it. E-commerce has made room for mobile payment systems because to the ever-increasing number of mobile phone users and the rapid growth of mobile 3 technology, which have enabled things like online shopping and online banking. Since a key component of every m-commerce transaction is the collection of money in a timely manner, mobile payment is rapidly expanding as a field throughout the world. Financial inclusion in India is challenging because of the country's large rural population and high illiteracy rate (25%). There are still 190 million adults in India who do not have access to financial services, despite the success of government projects as JAM Trinity, which saw 25.68 crore bank accounts opened under JDY.

In India, just 6.2 bank branches serve every 100,000 residents in rural regions, whereas the figure rises to 14.2 for those living in cities. M-payment is often equated with "banking without a branch." Opening a traditional bank branch in a rural location is an expensive venture for financial institutions since serving customers from lower socioeconomic backgrounds often does not provide substantial returns on investment. Quartz India (2018) reports that out of all countries, India has the highest percentage of dormant bank accounts (48%, or those that haven't been used in a year). 66% of inactive users, however, have a mobile phone that might be utilized as an efficient way for banking channels, according to the same survey. If the potential of mobile technology is used in the proper manner, financial inclusion may be accomplished via the use of a mobile phone as a form of banking.

The debut of M-pesa by Safaricom in Kenya is a well-known example of how technology may improve financial inclusion; currently, almost all young people in Kenya have access to an M-Pesa account. The economy will benefit greatly from widespread access to digital financial services. Mobile payment, as the next generation of e-payment solutions, has completely altered the banking industry. In a developing country (like India) where mobile phone owners outnumber bank account holders, mobile payment can act as a bridge between the financially disadvantaged and financial services, allowing them to perform transactions like direct bank transfer (DBT), make deposits, pay for services and utilities, and withdraw money.

### Literature Review

**Ben Haobin Ye et.al (2020)** The researchers in this study combed through 124 papers on "smart tourism" using a variety of techniques of analysis. Ten distinct types of "smart" travel writing were identified via qualitative research. The majority of the articles examined the effects of technology on the attitudes, routines, and discoveries of vacationers. We utilized co-occurrence analysis to look at how scholarly discourse has changed over the last five years, and we used co-authorship (country) analysis to see how various nations work together. These publications were also assessed in terms of the study areas, industries, methodologies, and theories they used. Implications for theory and practice/management were offered, as were suggestions for where the field may go from here.

**Ishwar Khatri (2019)** In order to evaluate the most current shifts and uses of IT in the tourist and hospitality sector, this study provides a comprehensive overview of the literature on the topic. In particular, 64 research publications published in major tourist and hospitality journals over the last 10 years and focusing on the role of information technology in the business are evaluated. Fundamental goal, internal business process or process redesign, and value generation & competitive advantage are the three overarching themes that emerge from the content analysis of the articles. According to the research, the most popular

uses of IT in the hotel and tourist sector are related to providing answers to questions, analyzing behavior and performance, managing business processes, and creating new ideas. There is still room for innovation in the ways that information technology is used for advertising, customer service, and the development of value and competitive advantage.

**Luis Seguí-Amortegui et.al (2019)** they provide a state-of-the-art examination of the interplay between tourism, sustainability, and competitiveness (TSC), with a special emphasis on TSCD. Thus, the Web of Science database was mined for data on recent publications in these areas. Further biometric analysis was made possible using the VOS viewer software, which allowed for the data to be categorized according to authors, institutions, nations, and publications. According to the research done, there have been a total of 808 publications published on topics related to TCS, and 409 on TSCD. In addition to demonstrating a considerable and exponential uptick in both situations over the last several years, the data obtained highlight the stronger research output on elements linked to sustainability than on features connected to competitiveness. There is a lack of a holistic 60 overview of this triad of topics (tourism, sustainability, and competitiveness) since they are seldom studied together in the literature. According to the data shown here, the discovered trend likely reflects a promising new career path for the years ahead.

**Rajeswari K et.al (2019).** Their research centered on the fact that Indian hospitality has a rich history and a unique niche in the global industry. The purpose of this article is to survey the state of the Indian hospitality industry in terms of recent technological developments. According to the research, managers may encounter roadblocks when trying to integrate new ideas and procedures because they may not know how the advances are being handled in

other functional divisions. The hotel sector in Tamil Nadu continues to grow despite intense rivalry in the market. However, it is crucial for hotels to be able to distinguish their goods and services, and through innovation, this distinction may be maintained and new kinds of differentiation can be created. Given this fact, the report is relevant to hotel owners and government officials interested in tracking trends in the Indian hospitality sector.

**Bahman Khanalizadeh et.al (2018)** The goal of this research is to use the Attractiveness of Regional Destinations (ARDL) index to examine the elements that have contributed to an increase in international tourism to Iran from 2015 to 1983. Therefore, this research shown that international tourism is impacted by the aforementioned factors: hotel growth, retail trade, real exchange rate, and real gross domestic product. They have a mutually beneficial and mutually respectful relationship in Iran. The real effective exchange rate and real GDP also have a major influence on the rise in the number of visitors visiting Iran.

### Research Methodology

Time series analysis might help figure out how to increase tourism by making it popular all year long rather than only during the summer. It also examines the supply and demand for hotels in Chennai.

### Trends In Tourist Arrival

Monthly tourist arrivals in Chennai throughout the period of 2010-2019, as well as trends in the arrival of domestic and international visitors in Chennai and Tamil Nadu during this time period, are shown below, The Number of Visitors from Every Country

### Domestic and foreign tourist arrival in Tamil Nadu and Chennai from 2010 - 2019.

Table 1 shows the number of domestic and international visitors to Tamil Nadu and Chennai from 2010 to 2019.

**Table 1: Domestic and foreign tourist**

Year	Tamil Nadu				Chennai			
	No. of Domestic Tourists	No of Foreign Tourists	Total	%	No. of Domestic Tourists	No of Foreign Tourists	Total	%
2010	18436900	515755	18952655	4.83	1546070	6815	1552885	9.20
2011	20010950	692900	20703850	5.27	1778426	8795	1787221	10.60
2012	21015875	765320	21781195	5.54	1524277	10655	1534932	9.09
2013	27735620	810440	28546060	7.27	1422790	6185	1428975	8.46
2014	30241200	981200	31222400	7.95	1506974	7843	1514817	8.97
2015	32339000	1179100	33518100	8.52	981497	21353	1002850	5.94
2016	39215200	1336118	40551318	10.32	1507988	40914	1548902	9.17
2017	50647500	1753255	52400755	13.34	1956873	33481	1990354	11.79
2018	62618150	204030	64658450	16.46	2160272	38912	2199184	13.02
2019	78038300	2369220	80407520	20.50	2279243	44267	23233510	13.76

### : Center, 2019 Tourist Information Centre, Chennai.

The number of visitors to Tamil Nadu is shown in Table 3.1 from 2010 to 2019. The year 2018-2019 had the highest percentage of visitors (20.50%), followed by the years 2017-2018 (16.46%) and 2016-2017 (13.34%), with 2009-2010 (4.83%) seeing the lowest. There are more local and international visitors visiting Tamil Nadu than any other state in India. The bulk, or 13.76 percent, of the total domestic and

international visitors to Chennai this year have come from inside India. In 2010–2011, there were 10.60% of visitors, 11.79% in 2009–2010, and 13.02% in 2017–2018. During 2014-2015, just 5.94% of visitors made reservations. The number of visitors to Chennai has been on the rise during the research period.

### Trend and Compound growth

Table 2 displays the expected growth rate of various hotel types in the study region as calculated

**Table 2: Trends and Compound growth rate estimates of boarding and lodging units (2010-2019)**

Sl.No.	Tourist	Regression coefficient		R <sup>2</sup>	Growth Rate in Percentage
		A	B		
1	First Class	2.7987	0.0893* (16.8382)	0.9827	9.34
2	Second Class	3.0004	0.0951* (7.6100)	0.9205	9.98
3	Third Class	4.8660	0.0319* (4.3307)	0.7895	3.24
4	Low Class	5.1176	0.0451* (8.1196)	0.9295	4.62

T-values are indicated by the numbers in brackets.

\* means the coefficients have a 5% degree of significance.

The trend coefficients are significantly different from zero at the 5% level, as shown in Table 2 Compared to hotels in the first and third tiers, as

well as the lowest tier, the value of the trend coefficient is greatest for those in the second tier. First-class hotels have a trend value of 0.08, second-class hotels of 0.09, third-class hotels of 0.03, and budget hotels of 0.04. In Chennai, the rate of expansion of lodging establishments was highest for second-class hotels between 2003 and 2009, followed by hotels of the first and

third classes. The rates of expansion for luxury, deluxe, economy, and budget hotels are 9.34, 9.98, 3.24, and 4.62 percent annually, respectively.

### Classification and availability of hotel accommodation in the year 2019

Table 3 below classifies 50 different hotels in Chennai for 2019 and indicates which ones have rooms available. All fifty hotels were chosen at random by the researcher. Fifty hotels were ranked according to four categories: high (luxury), medium (standard), low (budget), and very low (very cheap).

**Table 3: Classification and availability of hotel accommodation in Chennai 2019**

Sl.No.	Classification	Tariff Rates (in Rs.)	No.of Hotels	No.of Double Rooms (2 beds)	No.of Double Rooms (3,4,5 beds)	Total No.of Rooms	Total No.of Beds
1.	First Class (Luxury Class)	Rs.3000-5000	16	104	92	196	596
2.	Second Class (Medium Class)	Rs.1500-3000	18	680	296	976	2544
3.	Third Class (Economy Class)	Rs.500-1500	10	466	83	549	1264
4.	Fourth Class (Low Class)	Rs.500 and below	6	94	55	149	408
	<b>Total</b>		<b>50</b>	<b>1344</b>	<b>526</b>	<b>1870</b>	<b>4812</b>

Information from the Tourist Information Centre in Chennai was used in the calculation. The total number of available beds each day across all four hotel classes was calculated by tallying up the beds in each property and is shown in table 3 below. Rates in the table reflect those in effect during the research period. The table shows that there were a total of 1870 rooms and 4812 beds throughout the research period. There are a total of 1870 rooms, 1344 (71.87%) of which have two double beds, while

the rest 526 (28.13%) have three to five beds. There are hotels with prices below \$500, hotels in the \$500–\$1,500 range, hotels in the \$1,500–\$3,000 range, and hotels in the \$3,000–\$5,000 range.

### Trend and growth of demand and supply of beds during 2013 to 2019

Bed demand and supply were analysed by fitting the corresponding equation 4 to reveal long-term trends and projections. Table 4 displays our best estimates for these variables.

**Table 4: Trends and growth of demand and supply of beds during 2013- 2019**

Particulars	Trend Coefficient		R <sup>2</sup>	Growth Rate in Percentage
	a	B		
Demand	3.9154	0.1141* (12.9417)	0.9710	12.09
Supply	9.0684	0.1188* (15.1367)	0.9786	12.63

The t-values are the numbers in brackets.

A significance level of 5% for the Coefficients is indicated by a star (\*).

Table 4 shows that both the demand and supply trend coefficients are statistically significant (at the 5% level) and positive. It shows that both the need for beds and the number of available beds are growing at a steady annual pace of

0.114 percent and 0.118 percent, respectively. The annual rates of increase for both demand for and supply of beds are similar, coming in at 12.09 and 12.63 percent. From this data, we can infer that the number of available beds in Chennai has increased steadily over time.

### Analysis and Discussion

#### Education level of the respondents

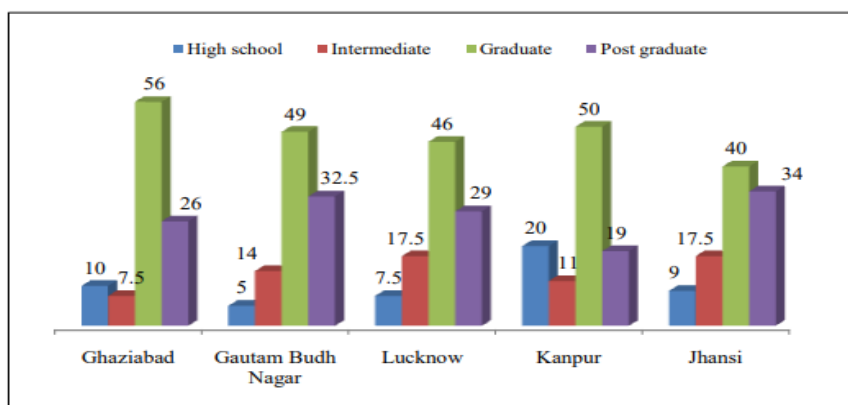


Figure 1: Education level of the Respondents (in Percentage)

**Source- Depiction of primary data**

Figure 1 shows that the majority of respondents in all five cities were college graduates (56% in Ghaziabad, 49% in Gautam Budh Nagar, 46% in Lucknow, 50% in Kanpur, 40% in Jhansi), while the minority were college graduates with master's degrees (26% in Ghaziabad, 32.5 % in Gautam Budh Nagar, 29% in Lucknow, 19.5% in Kanpur, and 34.4 % in Jhansi). Only 5% of responders in Gautam Budh Nagar and 7.5% in Lucknow have completed high school. In contrast, 20 percent of responders in Kanpur were high school students. The data shows that there are some commonalities between Ghaziabad, Gautam Budh Nagar, and Lucknow, and that there are also some commonalities between Kanpur and Jhansi.

**Assessment Of Association Between E-Service Quality of Cashless Transaction Methods and Consumer Satisfaction**

Here, Chi-square tests are used to evaluate the hypotheses about the relationship between E-service quality and cashless transaction techniques. The researcher has rated the various cashless transaction options using a weighted average technique before evaluating the correlation.

**Comparative ranking of cashless transaction methods**

The weighted average was determined by adding together all of the scale values, converting each % to a decimal, and then dividing that total by the sum of the weights for all five scales.

Table 5: Combined ranking of cashless transaction methods

Methods	Usage frequency						W.A	Rank
	NU	RA	OC	FR	AL	(N)		
UPI	33	29	62	122	154	(400)	113.50	I
E-wallet	29	20	68	168	115	(400)	112.00	II
Debit card	18	76	119	153	34	(400)	90.90	III
NEFT/RTGS	59	61	88	136	56	(400)	86.90	IV
IMPS	84	115	118	70	13	(400)	61.30	V
CHQ/DD	88	179	88	38	7	(400)	49.70	VI
Credit card	263	44	43	33	17	(400)	29.70	VII
USSD	350	35	15	00	00	(400)	6.50	VIII
AEPS	388	07	05	00	00	(400)	1.70	IX

Note W.A. stands for a weighted average of responses that include the words "rarely," "occasionally," "frequently," and "always." Uniform Protocol for Payments; UPI CHQ/DD = 82 Cheque/Demand Draft USSD = Unstructured Supplementary Service Data

AEPS = Aadhaar Enabled Payment System  
 NEFT = National Electronic Fund Transfer  
 RTGS = Real Time Gross Settlement  
 IMPS = Immediate Payment Service  
 Based on the data in Table 5 it appears that UPI is the most popular form of cashless transaction,

with a weighted average of 113.50, followed by e-wallets (with 112), debit cards (with 90.90), NEFT/RTGS (with 86.90), IMPS (with 61.30), checks/demand drafts (with 49.70), credit cards (with 29.70), and USSD/AEPS (with the lowest W.A. For the sake of hypothesis testing, we will only consider cashless transaction techniques ranked 1–7, eliminating those with a W.A 10.

**H01 There is no significant difference between psychological factor responsible for cashless transactions in the selected cities**

Levene's test is used to examine the assumption of homogeneity of variance, and the results of this test are  $F(4, 395) = 12.866$ ,  $p = 0.00$ . We reject the null hypothesis for the assumption of 74 homogeneity of variance since the p-value of the F statistics ( $p = 0.00$ ) is smaller than the significance value ( $p = 0.05$ ). An adjusted F statistic is used if there is a violation of the premise that there is a substantial difference between the variances of a particular data set.

**Table 6: Robust tests of equality of means**

	Statistic	df1	df2	Sig.
Welch	4.750	4	196.304	.001

The results of the Welch test are shown in Table 6:  $F(4, 196.304) = 4.750$ ,  $p = 0.001$ . The adjusted F ratio is statistically significant since the p-value of the test statistics ( $p = 0.001$ ) is less than the significance value ( $p = 0.05$ ). Therefore, the null hypothesis is rejected and it is determined that there is a statistically significant difference in the means of the scores for the psychological component responsible for cashless transactions in at least one pair of the chosen cities. Therefore, a Post-Hoc Games Howells multiple comparison test was used, since the assumption of equal variance was untenable.

**H02 There is no significant difference between personal factors responsible for cashless transactions in the selected cities**

Using Levene's test, we check for the lack of heterogeneity in the variance and get  $F(4, 395) = 0.982$ ,  $p = 0.417$ . We accept the null hypothesis for the assumption of homogeneity of variance since the p-value of F statistics ( $p = 0.417$ ) is larger than the significance value ( $p = 0.05$ ). Additionally, owing to the reliability of equal variance, a one-way ANOVA has been performed.

**Table 7: Anova**

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	31.240	4	7.810	4.340	.002
Within Groups	710.750	395	1.799		
Total	741.990	399			

According to Table 7 of the ANOVA, the test results are  $F(4, 395) = 4.340$ ,  $p = 0.002$ . The null hypothesis is rejected and it is concluded that there is a statistically significant difference between the mean scores of the personal factor responsible for cashless transactions in at least one pair of the selected cities ( $p = 0.002$ ). A Post-Hoc Tukey HSD multiple comparison test was

used since the assumption of equal variance seemed reasonable in this context.

## Conclusion

Data analysis is the topic of the fourth chapter. Beginning with demographic data from the sampled cities, descriptive statistics are presented. The demographic profile included questions on age, gender, marital status,

geography, education, and income. Exploratory Factor Analysis was used to analyze the data from the first goal, and the resulting factorization into seven components was then used in the second goal's one-way ANOVA to determine whether or not there were statistically significant differences in mean score across the selected cities. Applying Chi-square tests, directional measurements, and the Somers' Delta Test to the link between e-service quality and cashless transaction method satisfaction allowed us to achieve our third goal. Ranking the difficulties of cashless transactions and public knowledge of government initiatives allowed us to accomplish the fourth and fifth goals. In addition, secondary data was compared to the original data rankings to clear up any discrepancies or misunderstandings.

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