# USAGE PATTERN OF CREDIT CARD – A STUDY OF KALABURAGI AND YADGIR DISTRICTS IN KARNATAKA

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#### Abstract

Perhaps, the money has been changing its form ever since it was invented. Of late, advancement in information technology has given it the shape of plastic cards. Thanks to the distinct edge of plastic cards against money they have become so popular that they are the order of the day in channelizing one's fund for different purposes. The plastic cards consist of debit card (DC), credit card (CC) and smart card (SC).

The present study makes an attempt to find out the factors influencing the use of CC and a comparative analysis of their use in two districts (Kalaburagi and Yadgir) of North Karnataka in India. The study is based on 160 sample CC users belonging to both public and private sector banks. The researchers have used Chi-square test, Co-efficient of correlation and Z-test for interpreting the field data.

The study reveals that occupation and usage of CC are dependent in Kalaburagi (but not in Yadgir), membership duration and age of the CC users is dependent in Kalaburagi (but not in Yadgir) and income and usage of CC are dependent in both the districts. It is also revealed that the correlation between CC limit and monthly spending of the respondents is significant in Kalaburagi (but not in Yadgir). Visa card is very popular as more than 75% of CC holders hold it. More than 90% of CC holders have a single card.

Key Words: Coin and Currency, Credit Card, Debit Card, Plastic Card, and Usage Pattern.

## 1. INTRODUCTION

The significance of money needs no exaggeration. Money is what money does; reveals its scope. Money, which was hither to confined to coins and currencies, has now taken new incarnation in so called plastic cards viz Credit Cards (CCs) Debit Cards (DCs) and Smart Cards (SCs). CCs and DCs have become necessities of everyday life. The 21<sup>st</sup> Century is slated to exploit much more from these cards and make the card users' life different. While the invention of conventional money has changed the economic system itself the invention of plastic money has changed the banking and business models. Even the personal life of an individual has dramatically changed.

Though plastic cards are not money by themselves in practice they work as money, thanks to its wider acceptability across the society. While the coins and currencies carry their fixed face value the CCs and DCs are the storehouse of money and they have flexible value depending upon the bank balance (in case of DCs) and bank authorization/approval (in case of CCs). This feature is a distinct edge of these cards against the coins and currencies.

In India banks introduced ATM services in 1990s and in the same decade automation of branch accounting was taken up. To look into the issues pertaining to use of technology in banking and related sectors committees under the chairmanship of Y B Damle<sup>1</sup>, C Rangarajan<sub>2</sub>, TNA Iyer<sup>3</sup>, W S Saraf<sup>4</sup>, K S Shere<sup>5</sup>, A Vasudevan<sup>6</sup>, R H Patel<sup>7</sup>, A Vaidyanatan<sup>8</sup> and R Gandhi<sup>9</sup> were set up from time to time. These committees made a number of recommendations in connection with application of technology in banking sector. And these recommendations were implemented by the concerned organizations.

In the last few years there is a quantum jump in the use of plastic cards in India. However, what is significant is that, the use of plastic cards is more intensive in urban areas supported by economically and educationally developed people. Whereas, in rural areas, inhabited mainly by economically and educationally less empowered people, the plastic cards are in less use. The usage pattern of these cards, perhaps, differs in urban and rural areas.

The various issues like purpose of CC, categorization of CC users, purchase behavior in CC use, consumers' debt by use of CC, popularity of CC as a medium, attitude of the consumer towards the use and acceptability of CC emotional and cognitive attitudes in use of CC, interest rate impact on use of CC, etc, have been discussed by academicians and researchers like Jean

Kinsey (1981)<sup>10</sup>, Ausubel (1991)<sup>11</sup>, Canner and Luckett (1992)<sup>12</sup>, Xiao, Noring & Anderson (1995)<sup>13</sup>, Brito and Hartley (1995)<sup>14</sup>, Calem and Mester (1995)<sup>15</sup>, Chakravorti (1997, 2000)<sup>16</sup>, Peter and Olson (1999)<sup>17</sup> in their studies.

#### 2. OBJECTIVES OF THE STUDY

Present study is undertaken with a view to:

- Study the usage pattern of CC in Kalaburagi and Yadgir districts of Karnataka (India).
- Study the factors influencing use of CC in the districts under study.
- Make comparative analysis of usage pattern of CC in the districts under study.

## 3. METHODOLOGY OF THE STUDY

The study is empirical in nature. It is based on primary data, gathered from 160 CC users in the districts of Kalaburagi (100) and Yadgir (60). The data has been collected by administering a structured questionnaire consisting of closed ended questions to the sample respondents chosen, on the basis of stratified cum convenience random sampling methods. The sample respondents are CC users and they consist of account holders of both, public and private sector banks. The secondary data was taken from different published reports and web sources.

For the purpose of deriving accurate results the statistical tools viz Chi-square test, Co-efficient of correlation and Z-test have been used.

#### 4. STUDY RESULTS AND DISCUSSION

Information gathered has been edited and tabulated to suit to the requirements of statistical tools. The hypotheses have been framed based on the objectives of the research study. Hypotheses from  $H_1$ - $H_6$  test the dependency between two factors; while hypotheses from  $H_7$ - $H_{10}$  concentrate on correlation co-efficient. Similarly, the hypotheses  $H_{11}$ - $H_{13}$  infer the statistical judgments using statistical parameters. The hypotheses along with their tabulated value and decision are summarized in table 4.1.

TABLE 4.1: STATISTICAL HYPOTHESES, TESTS APPLIED AND RESULTS.

Type of Test	$H_{i}$	Statement	Results (Kalaburagi	Remark	Results (Yadgir)	Remark
	$H_1$	Membership duration and age factor of card holders are independent.	p=0.0002	Reject H <sub>0</sub>	p=0.1205	Accept H <sub>0</sub>
st of	$H_2$	Occupation and usage of CC are independent.	p=0.0470	Reject H <sub>0</sub>	p=0.3533	Accept H <sub>0</sub>
e te	$H_3$	Income and usage of CC are independent.	p=0.000061	Reject H <sub>0</sub>	p=0.0024	Reject H <sub>0</sub>
Chi-Square test of Independence	$H_4$	CC limit and monthly spending of cardholders are independent.	p=0.0038	Reject H <sub>0</sub>	p=0.0014	Reject H <sub>0</sub>
Chi-	$H_5$	Cash back offer and monthly spending of cardholders are independent.	p=0.0486	Reject H <sub>0</sub>	p=0.2258	Accept H <sub>0</sub>
	$H_6$	Occupation and purpose of cardholders are independent	p=0.9537	Accept H <sub>0</sub>	p=0.9817	Accept H <sub>0</sub>
Test of Significance of Correlation	H <sub>7</sub>	The co-efficient of correlation between usage of CC limit and expenditure per month is not significant.	r=0.9101	Reject H <sub>0</sub>	r=0.7141	Accept H <sub>0</sub>
	$H_8$	The co-efficient of correlation between Income and Expenditure per month is not significant.	r=0.3526	Accept H <sub>0</sub>	r=0.5501	Accept H <sub>0</sub>
	$H_9$	The co-efficient of correlation between usage and purchase pattern is not significant.	r=0.0880	Accept H <sub>0</sub>	r=0.1446	Accept H <sub>0</sub>
	H <sub>10</sub>	The co-efficient of correlation between average percent of cash back and expenditure per month is not significant.	r=-0.5563	Accept H <sub>0</sub>	r=-0.7337	Accept H <sub>0</sub>
Test for Prop ortio	H <sub>11</sub>	At least 75% of the respondents use CC for shopping purpose.	Z= 1.091	Accept H <sub>0</sub>	z=-3.399	Accept H <sub>0</sub>



H <sub>12</sub>	At least 75% of the respondents own Visa CC.	z=-3.00	Accept H <sub>0</sub>	z=-5.724	Accept H <sub>0</sub>
H <sub>13</sub>	At least 90% of the respondents own single CC.	z=-2.667	Accept H <sub>0</sub>	z=0.258	Accept H <sub>0</sub>

Source: Computed from field study data.

In table 4.1, the researchers have listed various hypotheses inconsonance with objectives of the study classified as Test of independence, Test of significance of correlation and Test for proportion. The classification of the hypotheses test, results and discussions are presented in the following paragraphs.

The test of independence uses Chi-square test to test the dependency factors between two characteristics. The *p-value* approach is used to increase the "Rejection Region" until it "captures" the sample mean. Initially, the researchers discus the hypotheses in which similar results were obtained. The hypotheses  $H_3$  and  $H_4$  tested and obtained rejection of the hypotheses in both the districts. The characteristics such as Income and CC limit have influenced the use of CC and monthly spending by the respondents. Put in other words, the result showed that there exist a dependency between income and usage of CC in both the districts. Also, it influences with each other the CC limit and monthly spending in the districts under study. The contradictory results have been obtained towards the hypotheses  $H_1$ ,  $H_2$  and  $H_5$ . These hypotheses have been rejected in Kalaburagi district but accepted in Yadgir district. As regard to usage of CC it seems the customers of Yadgir districts are influenced by their occupation, age and offers extended by the banking institutions while, it is not so in case of Kalaburagi district.

In the case of H<sub>6</sub> the hypothesis has been accepted in both the districts, which means that the occupation and purpose of cardholders are independent.

The test of significance of correlation was conducted to understand the strength of association between two important characteristics. The hypotheses are from  $H_7$  to  $H_{10}$ , listed in table 4.1. Except  $H_7$  the other three hypotheses have been accepted in both the districts and have shown no association between income and expenditure, usage and purchase pattern, and cash back offer and expenditure. The results are also supportive towards hypotheses  $H_1$  to  $H_7$  as similar results were obtained.

The test for proportion was tested to know whether proportion is significant. The hypotheses  $H_{11}$ ,  $H_{12}$  and  $H_{13}$  were all accepted in the case of both the districts indicating at least 75% of the respondents own Visa Card and use it for shopping purpose; as many as at least 90% of the respondents own single credit card.

#### KALABURAGI DISTRICT

Table 4.2: Intermediate Values of Correlation and Associated Results.

	r	r <sup>2</sup>	SE (Standard T-test			Confidence Interval	
Hypothesis	(Co-eff. of	(Co-eff. of		T-test	Whether Significant?	Lower	Upper
	Correlation)	Determination)	Error)			Limit	Limit
$H_7$	0.9101	0.8283	0.0649	4.1910	Definitely Significant	0.8663	0.9539
$H_8$	0.3526	0.1243	0.3575	0.7536	Not sure	0.1115	0.5937
$H_9$	0.0880	0.0077	0.4961	0.1249	Not sure	-0.4081	0.5841
$H_{10}$	-0.5563	0.3094	0.3088	-1.1595	Not sure	-0.8651	-0.2475

Source: Computed from field study data.

### YADGIR DISTRICT

Table 4.3: Intermediate Values of Correlation and Associated Results.

Hypothesi s	r (Co-eff. of	r <sup>2</sup> (Co-eff. of Determination)	SE (Standard Error)	T-test	Whether Significant?	Confidence Interval	
	Correlation)					Lower Limit	Upper Limit
$H_7$	0.7141	0.5099	0.1852	2.2807	Not sure	0.5891	0.8390
$H_8$	0.5501	0.3026	0.2847	1.3173	Not sure	0.3580	0.7421



$H_9$	0.1446	0.0209	0.4896	0.2067	Not sure	-0.3449	0.6342
$H_{10}$	-0.7337	0.5384	0.2064	-1.8705	Not sure	-0.9402	-0.5273

Source: Computed from field study data.

#### CONCLUSION

In this study, the researchers have chosen usage pattern of CC holders in Kalaburagi and Yadgir districts. Researchers used the statistical tools to test the validity of the assumptions regarding the usage pattern of CC in the selected districts. The study has found that reasonably good awareness exists towards CC and its usage amongst the card holders in the selected districts. Researchers have selected a proportion of people holding CCs by way of survey and carried out the comparative study of usage pattern of CC in Kalaburagi and Yadgir districts;

As per the study the usage of CC in Yadgir district compared to Kalaburagi district is very less because when compared to Kalaburagi district the necessity, availability and opportunity for use of CC is very less in Yadgir district. The banking institutions must arrange awareness programs like seminar etc., about uses of CC involving the holders off CC and encourage them to use more and more. As recently announced by the Central Government no extra charges will be levied on use of card while booking Railway tickets by online payment through CC, filling petrol, gas, etc. if Central Government makes it mandatory for all types of transactions through CC, DC, cheques and demand drafts the problems of black money will be substantially reduced. The recent decision of Government of India in this regard also deserves appreciation.

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