Study on Credit Card Usage Behaviour in Mumbai

Puneet Singh
Management Student,
School of Pharmacy & Technology Management, NMIMS,
Mumbai

Geetha Iyer
Assistant professor,
School of Pharmacy & Technology Management, NMIMS,
Mumbai

Abstract

The study investigates credit card ownership and usage in Indian metro cities, taking Mumbai into consideration, and their posited association with consumer demographics. In this study, we find that credit card usage behaviour in Mumbai is relatively high and that this appears to be influenced by consumer demographics and in particular income, age, gender and income as well as number of credit cards owned per person, i.e., ownership pattern.The growing popularity and ownership of credit cards in the western belt of India makes it relevant for such a research to be conducted taking a sample representative of the population of Mumbai. This will aid in interpreting the manner in which demographics influence the usage pattern.

The study shows that the results obtained are inconsistent with the previous studies, where the usage was expected to increase with age and income, and males were expected to use credit cards more frequently. The study recommends segmenting the market in Mumbai based on consumer demographics.

Keywords: Consumer Behaviour, Credit Cards, Mumbai.

Introduction

There is growing popularity of credit cards being used as a mode of payment as opposed to other modes of payment like cash and cheques. The credit card offers the users the benefit of acquiring goods and services without having the burden of carrying cash. It also offers access to credit without having to go through the elaborate paperwork involved in case of a loan.

As the credit card ownership and use has expanded around the world, credit cards have become a major source of financing consumer purchases as well as a method of money transmission.

Credit cards serve two important functions for the consumers:

(1) A means of payment and

(2) A source of credit.

The popularity of credit cards as a payment medium has been attributed to convenience of not carrying cash, thus credit card usage particularly has been increasing in developing countries. At the beginning usage of credit cards had been very limited. However, later significant changes occurred in Indian credit card market. Credit card

use and ownership have expanded very rapidly in India - mostly in upscale hotels and restaurants and retail stores, moreso in major urban centres.

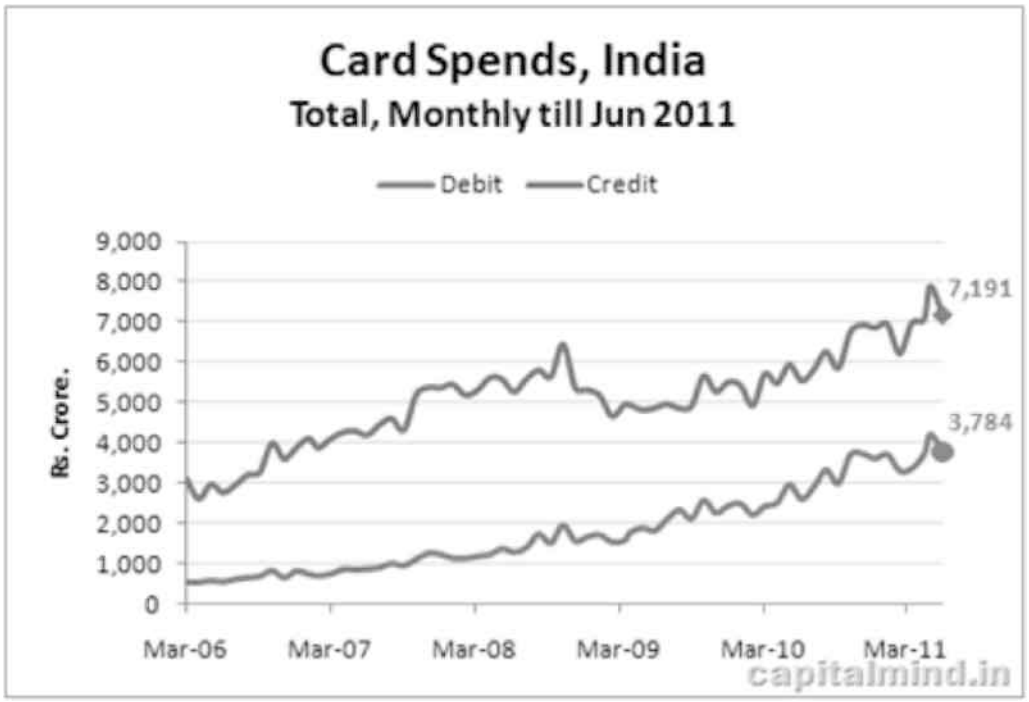
Despite these all benefits, credit card usage and ownership has been significantly associated with increased unplanned spending and debt. Debt associated with credit card usage has been on the rise. This has raised concern over the adverse effects on the consumers and economy at large. People have a tendency to increase their expenses while using credit cards rather than debit cards, cash, cheques or other modes of payment.

According to The Wall Street Journal data, urban India's ownership of credit cards increases as income levels rise. In the high income category of Rs.20 lakh and above, the average ownership was found to be around 62%. In the low income category of upto Rs.75,000, the average card holding not very high, i.e., less than 1%. It rises to just about 5% in the next income bracket of upto Rs.5 lakh. If zone wise card ownership is considered, the western region leads with respect credit card ownership, with average ownership of almost 30% compared with a little over 26% in the east, south and north. This is particularly why the current research on credit card usage behaviour has been conducted in Mumbai.

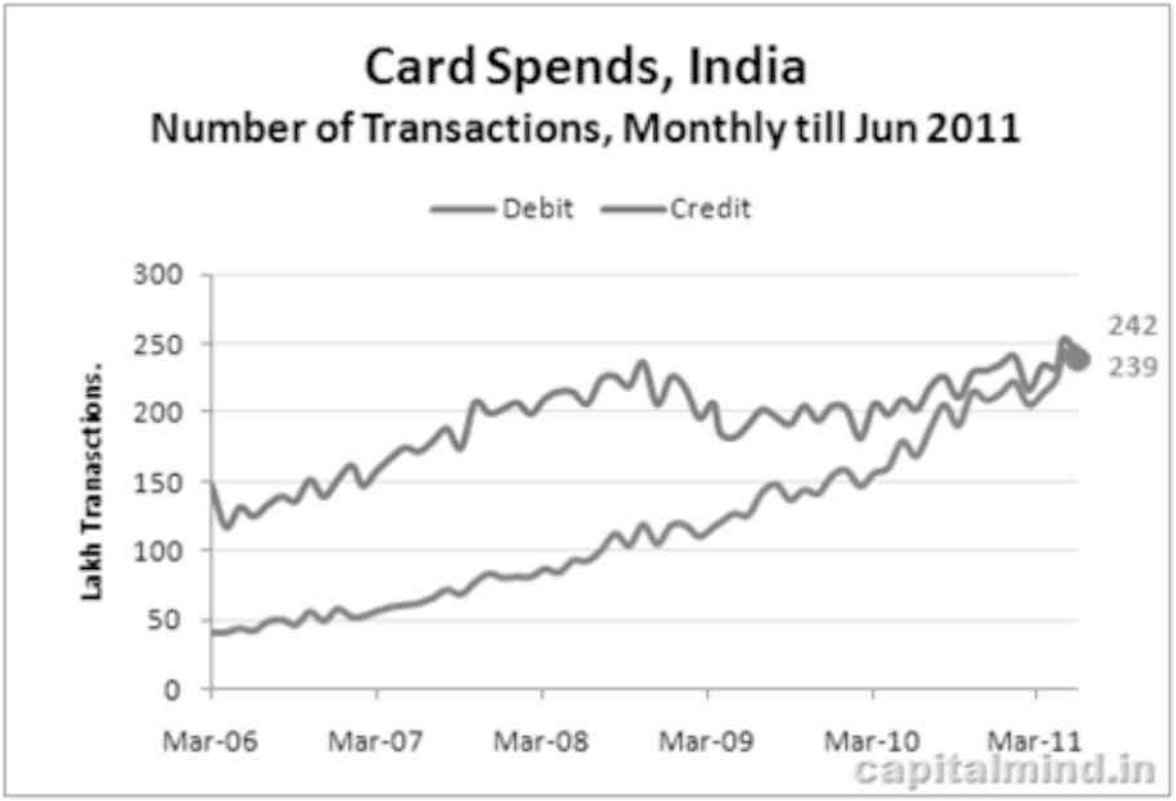
Data provided by the credit information company CIBIL indicates that the credit card segment has seen a growth in active cards, new disbursals and more importantly, credit card usage in the past few quarters. The information revealed that there is a 30% increase in average balances per borrower in the previous year. This implies that credit card holders are utilising their cards for higher amounts.

The research attempts to decipher the influence of age, gender, income, type of user and credit card ownership on the frequency of using credit cards as a mode of payment as well throw light on the major purchase situations in which credit card holders frequently use credit cards for payment.

GRAPH 1: Credit card spending in India till June 2011



Graph 2: Credit card spending in India till June 2011



Literature Review

This review is based on literature regarding credit card usage and ownership in context to different nationalities with a special focus on the pattern in Botswana.

According to the literature, there are differences and similarities in credit card usage ownership among different countries based on their socio-economic development (Gurugamage and Wickramasinghe, 2009; Kaynak et al. 1995). The credit card usage and ownership vary among nations and the levels are found to be higher in those countries where the infrastructure is highly developed for processing the electronic payments and where the per capita income is high (Abdul-Muhmin and Umar, 2007). Harcar and Kaynak (2001) stated that there is a relationship between the socio-economic development in a country and level of credit card usage.

Literature also finds that credit card usage behaviour and ownership differ with respect to the demographic characteristics of the users (Ramayah et al. 2002). Many studies have stated that credit card usage behaviour and ownership are influenced by gender, age, income, education, marital status as well as ethnicity (Ramayah et al. 2002; Kaynak & Harcar, 2001; Wickramasinghe and Gurugamage, 2009; Abdul-Muhmin and Umar, 2007). Sharpe et al. (2012) stated that in Urban China, people under 35 years of age were more likely to own credit cards and were more aware of the characteristics of credit cards. Abdul-Munhim and Umar (2007) indicated that the credit card usage behaviour in Saudi Arabia was positively related to education, age, income as well as attitude towards debt. Kaynak and Harkar (2001) stated that credit card usage in Turkey was influenced by knowledge, attitudes and beliefs of owners. Gan et al. (2008) during their study in Singapore found that credit card ownership was influenced by perception regarding credit card, gender as well as income. As per extant literature, consumers find credit cards to be a convenient mode of payment for goods and services as opposed to cash (Nasir 2006; Barker and Sekerkaya, 1992).

Several empirical studies have thrown light on the existence of gender differences in credit card usage and ownership (Abdul-Munhim and Umar, 2007; Khare et al. 2011; Kaynak et al. 1995). With reference to India, Khare et al. found that males in India are more likely to own a credit card than females. Apart from this, there are many other studies that also indicate that as compared to women, males are more likely to own credit cards. In contrast, Abdul-Munhim and Umar (2007), Hayhoe et al. (1999) and Kaynak et al. (1995)

indicated that the probability of females owning credit cards is more than males. Differences in gender with respect to the kind of services or products purchased using credit cards have also been found (Kaynak and Harcar, 2001; Wickramasinghe and Gurugamage, 2009). Empirical studies indicate that women use credit cards to purchase, clothing, household products and personal belongings while men use credit cards to purchase electronics, to pay for travel, entertainment and food (Kaynak and Harcar, 2001).

There is also a relationship that has been found between credit card ownership and usage behaviour, where the former has a significant influence on the latter and vice versa (Ramayah et al. 2002; Abdul-Munhim and Umar, 2007). Ramayah et al. (2002) showed that the number of credit cards owned by a person has an influence on the usage level in Malaysia. On the same lines, usage intensity rose as the number of credit cards owned by a person increased, as found by Abdul-Munhim and Umar (2007).

The opposite is also indicated, as Gan et al. (2008) found that, customers who used their credit cards daily or at least once a week were owners of more credit cards as opposed to those who used credit cards less frequently. Hirshman (1979) also found that the owners with more than two cards used them more often than those who owned only one credit card.

Thus it is pretty evident from the previous literature that a lot of research has been conducted focussing on the credit card usage behaviour and ownership in the high and middle income countries. As per The World Bank data, India is a lower middle income country with an ever growing population and immense opportunities, thus it makes sense to focus the study in urban Indian cities like Mumbai. This study investigates the credit card usage behaviour and ownership pattern focussing on a few demographic variables like – age, gender, income level as well as number of credit cards owned. The study also attempts to find out the purchase situations in which credit cards are frequently used as a mode of payment.

Research Objective

The prime objective of this research is to assess the influence of demographic variables like age, gender, income as well as credit card ownership on the usage frequency and usage pattern of credit cards as a mode of payment among the urban population of Mumbai.

Based on the literature review, the following hypotheses with respect to credit cardholders in Mumbai are postulated:

Hypotheses

H_1: People who own more than one credit card use their credit cards more frequently.

H_2: Credit cards owners who are males use their credit cards more frequently than females.

H_3: Credit card usage frequency increases with age.

H_4: Credit card owners with a higher income use credit cards more frequently.

Methodology

Sample:

Sample Size – 35

Sampling Method – Convenience sampling

The sample consisted of a population of 35 respondents belonging to the age group of 18 – 60 years. The sample selected was a convenience sample, wherein the researcher sent out questionnaires to familiar people who were known to own and use credit cards for making payments. Details of the demographics as well as ownership have been depicted in the following Figures and Tables – 1, 2, 3, 4, and 5.

Data collection tool: Structured, non-disguised questionnaire.

Design of Study:

The respondents were initially asked whether they owned a credit card, following which those people who answered in the affirmative were asked to complete the given questionnaire not necessarily in the presence of the researcher. Data was collected using a structured, non-disguised questionnaire as a survey tool. The questionnaire contained all close ended questions in order to obtain objective data as responses. The questionnaire was not divided into sections, but contained a flow of questions to enable ease of filling.

The initial questions focussed on obtaining the demographic characteristics of the respondents, since the objective of the research involves analysing the influence of demographics on the credit card usage and ownership pattern. The questions that followed collected information with respect to the usage and ownership of credit cards. Respondents were asked to indicate the number of credit cards they owned in order to ascertain their ownership. Similarly, the credit card usage frequency was determined by asking the respondents to indicate how frequently they used their credit cards as well as how they made their credit debt payment.There was also only question dedicated to analyse the purchase situations in which respondents preferred to use their credit card as a mode of payment. The responses to this can help understanding the reason behind the increasing popularity of this payment mode.

Results

The major tests used to carry out the analysis are –

Factor Analysis: This test helped in isolating the most frequent purchase situations in which credit cards are a preferred mode of payment.

Chi Square Test: This test assessed the relationship between the demographics, ownership and credit card usage frequency.

The following are the findings of the research:

a)Demographic profile of the respondents:

TABLE 1: Gender

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Male	20	50.0	57.1	57.1
	Female	15	37.5	42.9	100.0
	Total	35	87.5	100.0	
Missing	System	5	12.5		
Total		40	100.0		

Out of the 35 respondents, 20 (57%) were males and the remaining 15 (43%) were females. The males thus constitute the majority of the sample population (Table 1, Figure 1).

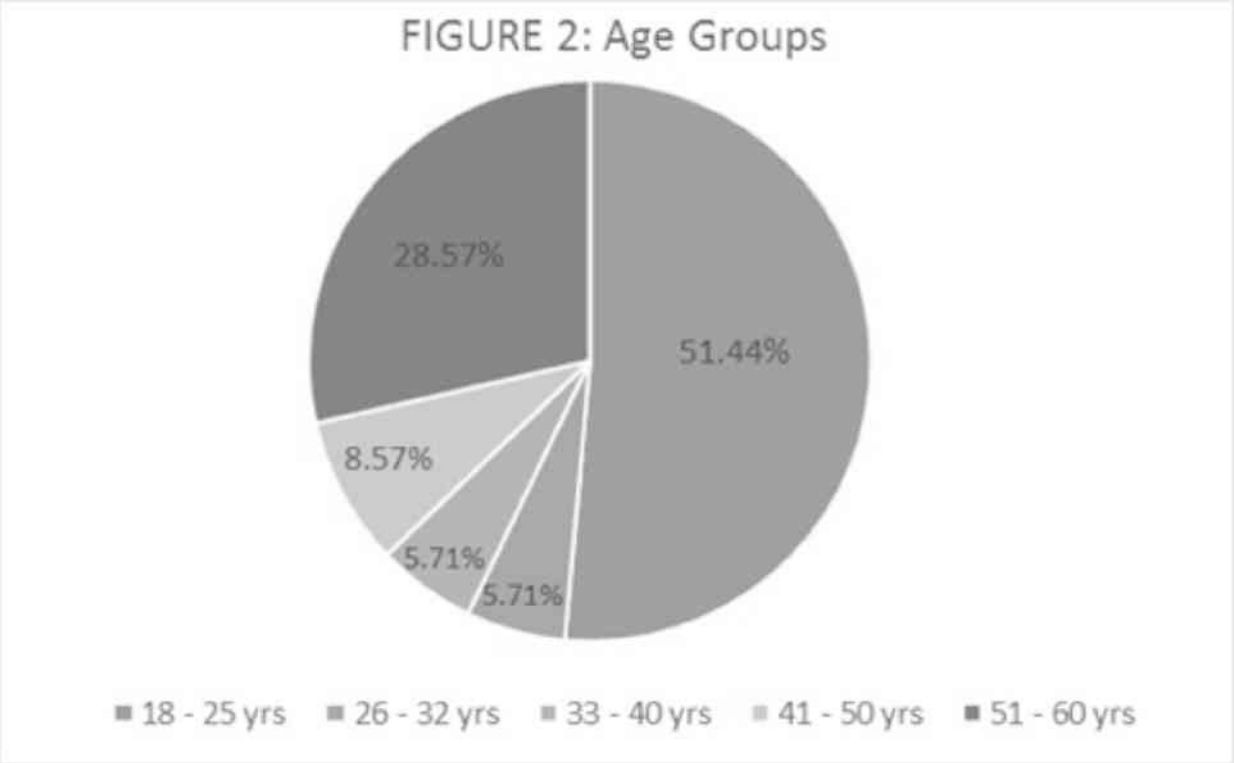


TABLE 2: Age

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	18 - 25 yrs	18	45.0	51.4	51.4
	26 - 32 yrs	2	5.0	5.7	57.1
	33 - 40 yrs	2	5.0	5.7	62.9
	41 - 50 yrs	3	7.5	8.6	71.4
	51 - 60 yrs	10	25.0	28.6	100.0
	Total	35	87.5	100.0	
Missing	System	5	12.5		
Total		40	100.0		

As can be seen in Table 2 and Figure 2, there are two primary age groups within the sample – the youth (18 – 25 years) and the adults (above 36 years). The youth made up a majority of 51.4% of the sample and the adult population constituted 48.6% of the sample.

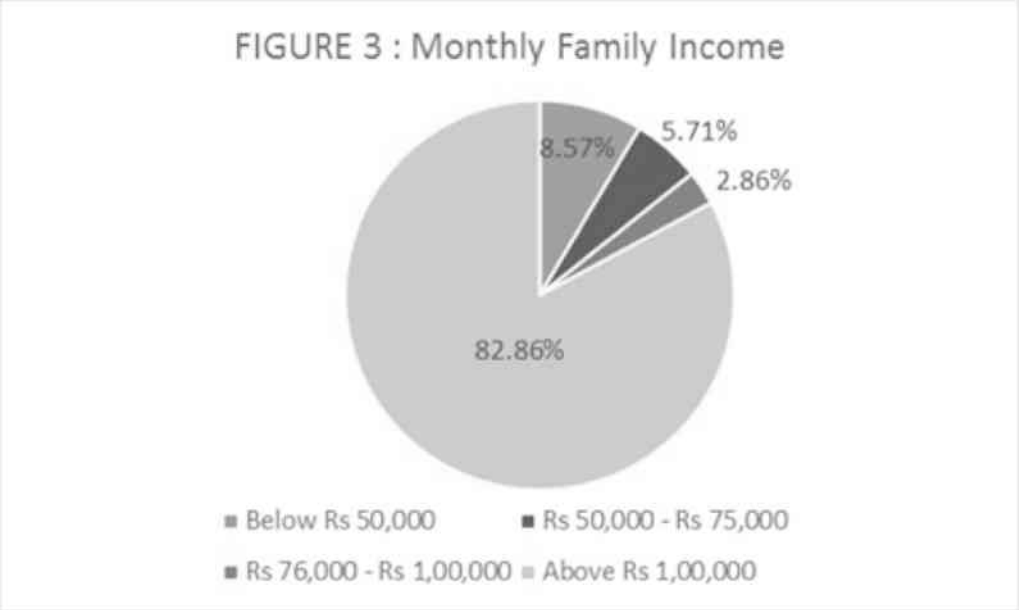


TABLE 3: Monthly income

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Below 50,000	3	7.5	8.6	8.6
	Rs. 50,000 - Rs. 75,000	2	5.0	5.7	14.3
	Rs. 76,000 - Rs. 1,00,000	1	2.5	2.9	17.1
	Above Rs. 1,00,000	29	72.5	82.9	100.0
	Total	35	87.5	100.0	
Missing	System	5	12.5		
Total		40	100.0		

A majority of the respondents (89%) fall into the income category of "Above Rs. 1, 00,000 per month". The other income groups make up the remaining 11% of the sample (Table 3, Figure 3). This indicates that the sample in itself represents a high income group population.

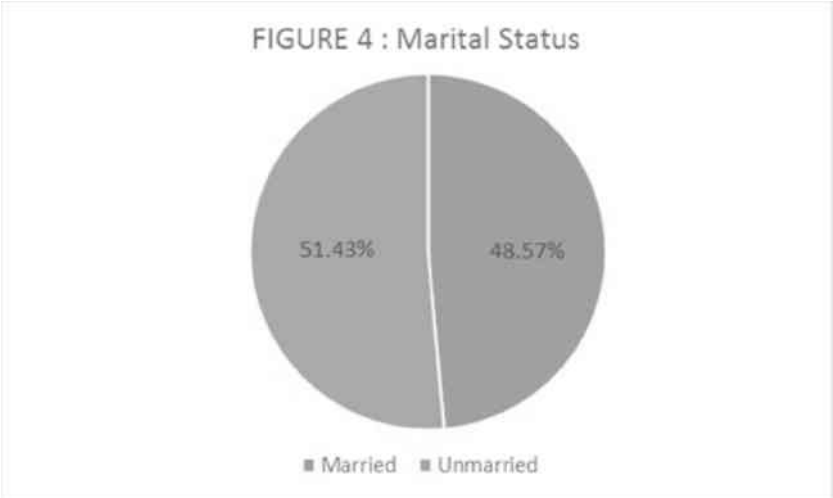


TABLE 4: Marital Status

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Married	17	42.5	48.6	48.6
	Unmarried	18	45.0	51.4	100.0
	Total	35	87.5	100.0	
Missing	System	5	12.5		
Total		40	100.0		

The split between the married and unmarried sample population is almost equal, where 17 out of 35 respondents (49%) are married and 18 (51%) are unmarried (Table 4, Figure 4).

a)Credit Card Ownership:

TABLE 5: Number of credit cards owned

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	20	50.0	57.1	57.1
	2	9	22.5	25.7	82.9
	3	6	15.0	17.1	100.0
	Total	35	87.5	100.0	
Missing	System	5	12.5		
Total		40	100.0		

All the respondents involved in the survey are credit cardholders. Figure 5 depicts the ownership pattern of the sample chosen for analysis. It can be seen that 20 out of 35 respondents (57%) own one credit card, which makes up the majority. This is followed by 9 owning two credit cards (26%) and 6 owning three credit cards (17%) (Table 5).

a)Association between credit card ownership and demographics:

Age -

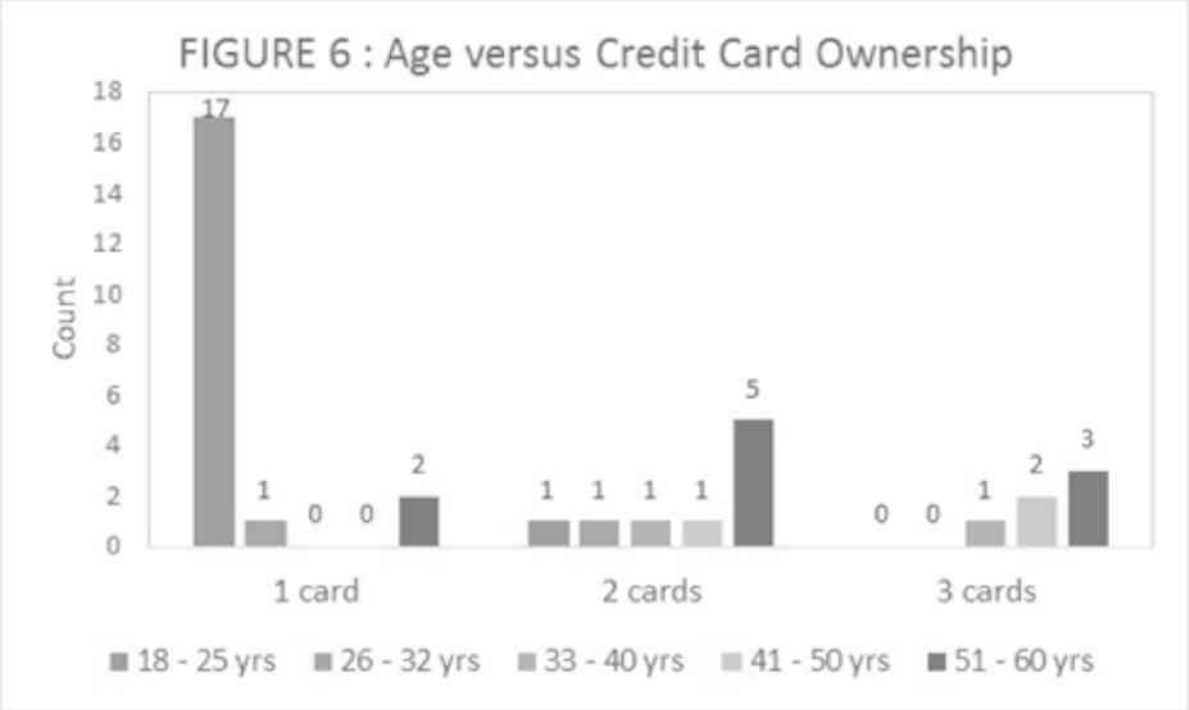


TABLE 6: Number of credit card owned * Age (Cross tabulation)

Count		Age					Total
		18 - 25 yrs	26 - 32 yrs	33 - 40 yrs	41 - 50 yrs	51 - 60 yrs	
Please_specify_the_number_of_credit_cards_you_own	1	17	1	0	0	2	20
	2	1	1	1	1	5	9
	3	0	0	1	2	3	6
Total		18	2	2	3	10	35

The relationship between credit card ownership with age can be seen within the chosen sample population of 35 respondents (Table 6, Figure 6). It can be inferred that, 17 out of 18 respondents who fall under the youth category (18 – 25 years) own one credit card. As the age groups increase, it is evident that people own more than one credit card because 15 out of the adult sample population (15) of 17 own more than one credit card.

Gender -

TABLE 7: Number of credit cards owned * Gender (Cross tabulation)

Count		Gender		
		Male	Female	Total
Please_specify_the_number_of_credit_cards_you_own	1	10	10	20
	2	6	3	9
	3	4	2	6
Total		20	15	35

A relationship between gender and the credit card ownership can also be drawn from Table 7, which indicates that although there is not a significant difference in the pattern; males were found to more often own multiple credit cards as compared to women (10 males against 6 females owning multiple credit cards). This difference could also be due to the fact that males constituted a majority of the sample of respondents.

Income -

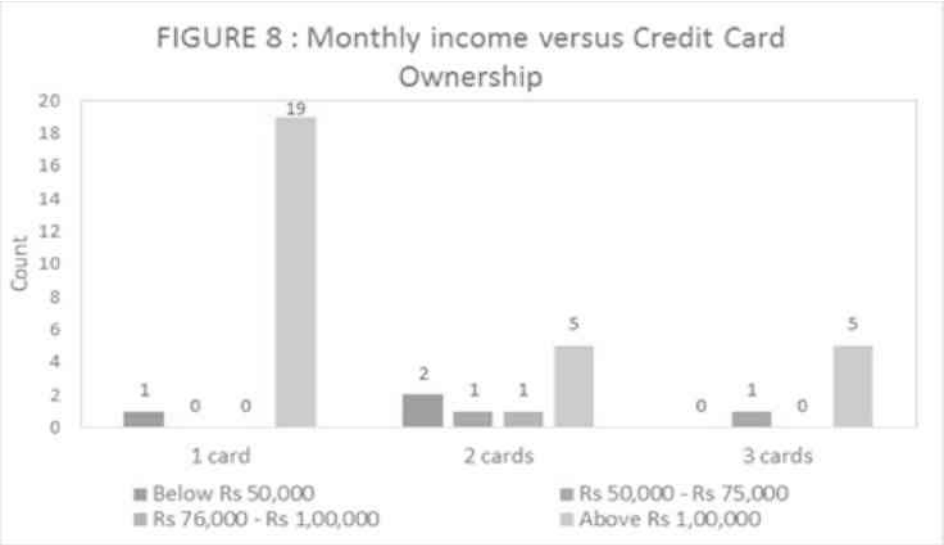


TABLE 8: Number of credit cards owned * Family monthly income (Cross tabulation)

Count		Please specify your family monthly income				
		Below 50,000	Rs. 50,000 - Rs. 75,000	Rs. 76,000 - Rs. 1,00,000	Above Rs. 1,00,000	Total
Please_specify_the_number_of_credit_cards_you_own	1	1	0	0	19	20
	2	2	1	1	5	9
	3	0	1	0	5	6
Total		3	2	1	29	35

In the present study, from Table 8 and Figure 8 it can be seen that, of the 15 respondents who own more than one credit card, a majority of 11 belong to the higher income group (above Rs. 75,000 per month).

a) Credit card usage:

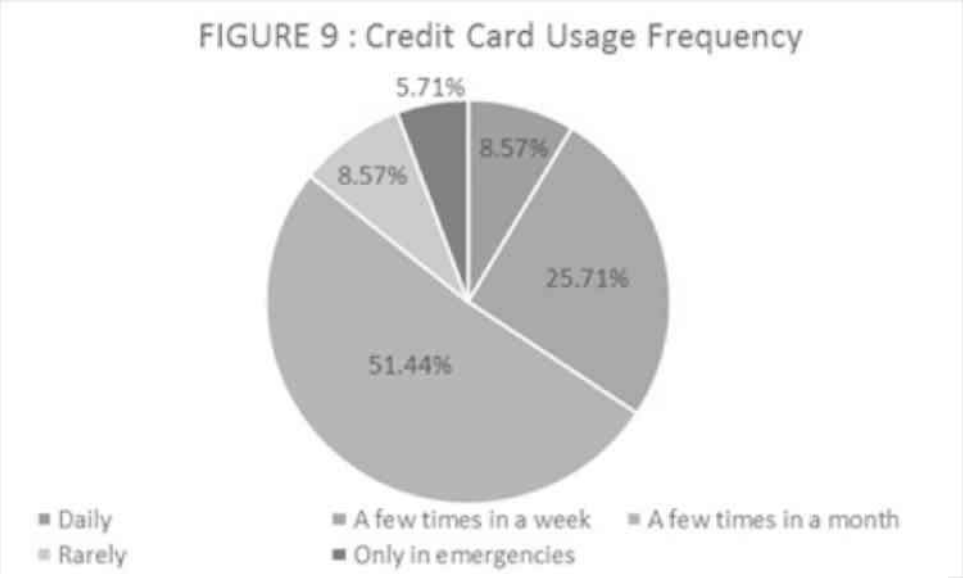


TABLE 9: Credit Card usage frequency

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Daily	3	7.5	8.6	8.6
	A few times in a week	9	22.5	25.7	34.3
	A few times in a month	18	45.0	51.4	85.7
	Rarely	3	7.5	8.6	94.3
	Only in emergencies	2	5.0	5.7	100.0
	Total	35	87.5	100.0	
Missing	System	5	12.5		
Total		40	100.0		

The credit card usage frequency among the 35 respondents is depicted in Figure 9 and Table 9. The details reveal that 34% of the respondents use their credit cards very frequently (multiple times a week) and another 51% use them a few times a month (moderate usage).

a) Association between credit card usage and demographics:

Age -

TABLE 10 (I) : Credit Card Usage Frequency * Age (Cross tabulation)

Count		Age					Total
		18 - 25 yrs	26 - 32 yrs	33 - 40 yrs	41 - 50 yrs	51 - 60 yrs	
How_often_do_you_use_your_credit_card	Daily	3	0	0	0	0	3
	A few times in a week	4	1	0	1	3	9
	A few times in a month	7	0	2	2	7	18
	Rarely	2	1	0	0	0	3
	Only in emergencies	2	0	0	0	0	2
Total		18	2	2	3	10	35

TABLE 10 (II): Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	14.648[a]	16	.551
Likelihood Ratio	16.923	16	.391
Linear-by-Linear Association	.060	1	.806
N of Valid Cases	35		

Table 10 (I) indicates that, credit card usage does increase with increase in age, as 4 respondents belonging to the youth category have indicated that they use their credit cards very rarely or only in emergencies, as opposed to one in the adult age group. Also, out of the 30 respondents who use their credit cards multiple times a month, 16 belong to the adult age group. However, since this result is not statistically significant (level of significance > 0.05, Table 10 (II)), it cannot be said with certainty that there exists such a relationship.

Thus, hypothesis H3 is rejected.

Gender –

TABLE 11 (I): Credit Card Usage Frequency * Gender (Cross tabul ation)

Count		Gender		Total
		Male	Female	
How_often_do_you_use_your_credit_card	Daily	3	0	3
	A few times in a week	6	3	9
	A few times in a month	10	8	18
	Rarely	1	2	3
	Only in emergencies	0	2	2
Total		20	15	35

TABLE 11 (II): Chi-Square Tests

	Val ue	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	5.963[a]	4	.202
Likelihood Ratio	7.797	4	.099
Linear-by-Linear Association	5.433	1	.020
N of Valid Cases	35		

Table 11 (I) indicates that males are more frequent users of credit cards than women since 9 male respondents use their credit cards very frequently (multiple times a week) as against 3 female credit cardholders. Also, 4 female respondents use their credit cards less frequently (rarely and in emergencies) as against only 1 male respondent out of a sample size of 35.

The significance level in this case is also higher than 0.05, hence this result is not statistically significant (Table 11 (II)).

Thus, hypothesis H_2 is rejected.

Income –

TABLE 12 (I): Credit Card Usage Frequency * Monthly income (Cross tabulation)

Count		Please specify your family monthly income				Total
		Below 50,000	Rs. 50,000 - Rs. 75,000	Rs. 76,000 - Rs. 1,00,000	Above Rs. 1,00,000	
How_often_do_you_use_your_credit_card	Daily	0	0	0	3	3
	A few times in a week	1	1	0	7	9
	A few times in a month	1	1	1	15	18
	Rarely	1	0	0	2	3
	Only in emergencies	0	0	0	2	2
Total		3	2	1	29	35

TABLE 12 (II): Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	4.995[a]	12	.958
Likelihood Ratio	5.269	12	.948
Linear-by-Linear Association	.053	1	.817
N of Valid Cases	35		

The credit card usage frequency increases with increase in levels of income as can be seen from the responses submitted by the 35 respondents (Table 12 (I)). 10 out of 35 respondents belonging to a higher income group (above Rs. 1,00,000 per month) use their credit card multiple times a week which amounts to frequent usage, as opposed to 2 respondents belonging to the lower income group.

However, this result does not hold any statistical significance since Table 12 (II) shows a significance level above 0.05. One reason for this would be majority of the sample population belongs to the higher income group (29 out of 35 have monthly incomes above Rs. 1, 00,000.

Thus, hypothesis H_4 is rejected.

a) Association between credit card usage and ownership:

TABLE 13 (I): Credit Card Usage Frequency * Ownership (Cross tabulation)

Count		Please_specify_the_number_of_credit_cards_you_own			Total
		1	2	3	
How_often_do_you_use_your_credit_card	Daily	3	0	0	3
	A few times in a week	4	1	4	9
	A few times in a month	9	7	2	18
	Rarely	2	1	0	3
	Only in emergencies	2	0	0	2
Total		20	9	6	35

TABLE 13 (II): Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	11.051[a]	8	.199
Likelihood Ratio	12.317	8	.138
Linear-by-Linear Association	.566	1	.452
N of Valid Cases	35		

As can be inferred from Table 13 (I), there doesn't exist much difference in the usage pattern between credit cardholders owning one credit card and those owning multiple credit cards. However, among all the respondents, there are three who use their credit cards daily. Apart from this, there is no significant difference. Hence, hypothesis H_1 cannot be accepted.

a) Association between credit card usage and debt payment:

TABLE 14: Credit_card Usage Frequency * Credit debt payment (Cross tabulation)

Count		How do you make your credit debt payment			Total
		Minimum payment	Partial payment	Complete payment	
How_often_do_you_use_your_credit_card	Daily	1	0	2	3
	A few times in a week	0	1	7	9
	A few times in a month	1	2	15	18
	Rarely	0	0	3	3
	Only in emergencies	0	0	2	2
Total		2	3	29	35

Another parameter depicting credit card usage behaviour is the manner in which the respondents make their credit debt payment. It was found from Table 14 that a majority of 29 respondents make their credit debt payment in full, i.e. complete payment. It was also found that only one respondent who used credit card daily made minimum payment, whereas the other two respondents who used their credit cards daily made their debt payment in full. Thus, there was no significant relationship found between the manner in which respondents made their debt payment and the frequency of usage ,as mostly all preferred to make complete debt payment.

a) Preferred purchase situations to use credit cards as a mode of payment:

TABLE 15 (I): KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.687
Bartlett's Test of Sphericity	Approx. Chi-Square	256.694
	df	91
	Sig.	.000

TABLE 15 (II):

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	5.739	40.989	40.989	5.739	40.989	40.989	3.206	22.901	22.901
2	1.758	12.559	53.548	1.758	12.559	53.548	2.964	21.172	44.073
3	1.518	10.842	64.390	1.518	10.842	64.390	2.023	14.450	58.523

4	1.101	7.863	72.253	1.101	7.863	72.253	1.922	13.731	72.253
5	.804	5.744	77.998						
6	.648	4.629	82.627						
7	.626	4.472	87.099						
8	.497	3.553	90.652						
9	.353	2.524	93.176						
10	.321	2.289	95.465						
11	.267	1.909	97.374						
12	.187	1.334	98.708						
13	.106	.760	99.468						
14	.074	.532	100.000						

Extraction Method: Principal Component Analysis.

TABLE 15 (III): Component Matrix [a]

	Component			
	1	2	3	4
Please_specify_your_credit_card_usage_pattern_in_the_following_p	.376	-.152	.480	.597
Please_specify_your_credit_card_usage_pattern_in_the_following_1	.511	.062	.700	.036
Please_specify_your_credit_card_usage_pattern_in_the_following_2	.673	-.146	.428	.011
Please_specify_your_credit_card_usage_pattern_in_the_following_3	.738	-.539	.063	-.042
Please_specify_your_credit_card_usage_pattern_in_the_following_4	.520	.580	.044	-.311
Please_specify_your_credit_card_usage_pattern_in_the_following_5	.734	-.242	-.080	-.181
Please_specify_your_credit_card_usage_pattern_in_the_following_6	.719	.457	-.005	-.035
Please_specify_your_credit_card_usage_pattern_in_the_following_7	.717	-.169	.111	-.304
Please_specify_your_credit_card_usage_pattern_in_the_following_8	.724	.330	-.288	.291
Please_specify_your_credit_card_usage_pattern_in_the_following_9	.589	-.013	-.417	.534
Please_specify_your_credit_card_usage_pattern_in_the_following10	.540	.346	.159	.077
Please_specify_your_credit_card_usage_pattern_in_the_following11	.712	-.210	-.521	.106
Please_specify_your_credit_card_usage_pattern_in_the_following12	.630	-.575	-.142	-.291
Please_specify_your_credit_card_usage_pattern_in_the_following13	.658	.429	-.128	-.214

Extraction Method: Principal Component Analysis.

a. 4 components extracted.

TABLE 15 (IV): Rotated Component Matrix [a]

	Component			
	1	2	3	4
Please specify your credit card usage pattern in the following p	.043	-.082	.280	.815
Please_specify_your_credit_card_usage_pattern_in_the_following_1	.213	.343	-.182	.748
Please_specify_your_credit_card_usage_pattern_in_the_following_2	.480	.278	.027	.591
Please_specify_your_credit_card_usage_pattern_in_the_following_3	.824	.023	.231	.327
Please_specify_your_credit_card_usage_pattern_in_the_following_4	.081	.836	-.024	.018
Please_specify_your_credit_card_usage_pattern_in_the_following_5	.701	.288	.220	.120
Please_specify_your_credit_card_usage_pattern_in_the_following_6	.171	.764	.276	.191
Please specify your credit card usage pattern in the following 7	.681	.378	.015	.201
Please_specify_your_credit_card_usage_pattern_in_the_following_8	.138	.559	.671	.135
Please_specify_your_credit_card_usage_pattern_in_the_following_9	.181	.141	.858	.129
Please_specify_your_credit_card_usage_pattern_in_the_following10	.071	.548	.182	.324
Please_specify_your_credit_card_usage_pattern_in_the_following11	.576	.196	.673	-.103
Please_specify_your_credit_card_usage_pattern_in_the_following12	.902	.009	.136	.008
Please_specify_your_credit_card_usage_pattern_in_the_following13	.238	.763	.200	-.014

Extraction Method: Principal Component Analysis.

Rotation Method: Varimax with Kaiser Normalization.

Variables 1 to 13 define different purchase situations as follows:

Variable 1: Airline bookings

Variable 2: At a book store

Variable 3: At a clothing/shoe store

Variable 4: For education/school

Variable 5: At an electronic store

Variable 6: At a furniture store

Variable 7: For grocery shopping

Variable 8: For hospital payments

Variable 9: For hotel payments

Variable 10: For petrol payments

Variable 11: At a restaurant

Variable 12: At the supermarket

Variable 13: At a drug store/pharmacy

Factor analysis was carried out in order to determine the most important purchase situations out of the 14 listed ones in which credit cards are used as a preferred mode of payment.

Table 15 (II) shows that four factors having Eigen values more than one have been extracted. A look at the cumulative percentage column indicates that these four factors extracted, together account for 72 per cent of the total variance (information contained in the fourteen variables). Thus, 72 per cent of the total information is retained by the four extracted factors.

Table 15 (III) shows that variables 4, 6 and 9 have high loadings on factor 1 (0.738, 0.734, and 0.724 respectively). Similarly, variables 5 has the highest loading on factor 2 (0.58), variable 2 has a high loading on factor 3 (0.7) and variable 1 has a high loading on factor 4 (0.59).

Table 15 (IV) shows similar findings, where variables 4 and 13 have high loadings on factor 1 (0.824 and 0.902 respectively), variable 5 has a high loading on factor 2 (0.836), variable 10 has a high loading on factor 3 (0.858) and variable 1 has a high loading on factor 4 (0.815).

Several authors have recommended using the rotated factor matrix (Table 15 (III)) rather than the unrotated factor matrix (Table 15 (II)) for interpreting factors.

Thus, by looking at Table 15 (III), we can say that the purchase situations in which credit cards are used more often as a preferred mode of payment are – Airline booking, Apparel/ Footwear shopping, Education/ Schooling and Hotels.

Conclusion

The results regarding the association of age, income, gender as well as credit card ownership with usage are found to be

inconsistent with previous studies that were conducted about a decade ago (Ramayah et al. (2002), Kaynak and Harcar (2001), Hayhoe et al. (1999), Kaynak et al. (1995),etc.). These results however, do reflect similar findings by Clara Tumedi and Godfrey Themba in their study of credit card usage behaviour in Botswana conducted in 2012. This only goes to show that there has been a change in the responses, and in turn the results obtained from similar studies conducted in different areas and at different time points.

The study indicates a relatively high level of credit card ownership and usage in Mumbai. The study also offers further support and information for the posited association between credit card usage and ownership and demographic characteristics of credit cardholders

Limitations and Directions for Future Research

Although the study does provide useful information relating to the credit card usage behaviour as well as ownership, there are certain limitations in the research.

Firstly, the research has been conducted using only a small sample size, where the number of respondents is less, as compared to other studies conducted in the same field.

Secondly, the study is limited to only Mumbai, which is the capital of Maharashtra and is a metro city. Other cities, towns as well as certain rural areas have not been taken into account in order to get an overall view of the credit card usage behaviour and ownership in the western belt of India.

Thirdly, the analysis involves associations that have been drawn between variables of interest using chi-square test. This test is limited in its ability to provide insights related to the strength of association between the variables. Thus, other sophisticated analysis techniques can be used to draw more concrete results.

In particular, there is definitely a need for a nationwide study to be conducted to possibly throw light on the differences in the credit card usage and ownership pattern amongst the rural and urban customers. There is also a need for further research in order to determine the strength of association between the demographic variables of interest and the credit card usage pattern.

References

Abdul-Muhmin, Alhassan G., & Umar, Yakubu A. (2007). Credit card ownership and usage behaviour in SaudiArabia: The impact of demographics and attitudes towards debt. Journal of Financial Services Marketing, 12(3),219-235.

Kaynak, E., & Harcar, T. (2001). Consumer's attitudes and intentions towards credit card usage in an advanceddeveloping country. Journal of Financial Services Marketing, 6(1), 24.

Ramayah, T., Nasurdin, A. M., & Choo, L. H. (2002). Cardholder's attitude and Bank Credit Card Usage in Malaysia.Asian Academy of Management Journal, 7(1), 75-102.

Khare, A., Khare, A., & Singh, S. (2011). Factors affecting credit card use in India. Asia Pacific Journal ofMarketing and Logistics, 24(2), 236-256.

Sharpe, D. L., Yao, R., & Liao, L. (2012). Correlates of Credit Card Adoption in Urban China. Journal of Familyand Economic Issues.

Wickramsinghe, V., & Gurugamage, A. (2009). Consumer credit card ownership and usage practices: empirical evidence from Sri Lanka. International Journal of Consumer Studies, 33, 436-447.

Pebe, M., Eze, U. C., Yeow, J. A., & Li, K. P. (2012). Credit Card Use Patterns among Working Adult in Batswana. International Journal on Social Science Economics & Art, 2(2), 81-88.

Kaynak, E., & Ugur, K. (1984). A cross –Cultural Study of Credit Card Usage Behaviours: Canadian and American credit Card Users Contrasted. International Journal of Bank Marketing, 2(2), 113-133.

Dr. Süphan NASIR,Prof. Dr. Kemal KURTULUŞ, (2006).Consumer Behavior of Credit Card Users in an Emerging Market.

Capital Mind: Card Usage and Payments In India. Accessed on April 5, 2013 from:http://capitalmind.in/2011/08/charts-card-usage-and-payments-in-india/

Credit Cards used more than 30 times the Debit Card in India. Accessed on April 2, 2013 from: http://openmarkets.in/4203/credit-debit-card-stats-india

Urban India's ownership of credit cards increases as income rises. Accessed on April 2, 2013 from: http://www.livemint.com/Money/df90y6z5IOYsfjGPTiW5DN/Urban-indias-ownership-of-credit-card-increases-as-income-r.html

Economic Times - Average credit card usage in India on the rise: CIBIL. Accessed on April 7, 2013 from:

http://articles.economictimes.indiatimes.com/2012-08-10/news/33137593_1_number-of-active-credit-credit-card-cibil

The World Bank data. Accessed on 8 April, 2013 from: http://data.worldbank.org/country/india