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A Study on the Impact of Plastic Money on Consumer Spending Pattern

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Abstract- The paper examines the perceptions of consumers regarding the impact of plastic money on their spending pattern. This study was conducted among the bank customers in UAE. A sample of 250 customers has been taken from UAE. According to the central bank of UAE, 23 local banks are functioning in the UAE. Out of these 23 banks, five banks were selected randomly for this study, and 50 respondents from each bank were picked randomly for this study. Chi-square test and the Proportional test have been used to analyze the data. The analysis reveals that majority of the customers have the opinion that using of plastic money has a high impact on their spending pattern and are struggling to manage their money irrespective of their age, sex and income. The analysis was done to find out why consumers prefer plastic money even though they struggle to control their money while using plastic cards and the main reasons for which plastic money has a high impact on consumer spending pattern. Plastic money made a revolution in the banking industry across the world. Plastic money has many advantages when compared to paper money, but the convenience of plastic money makes it easy to spend beyond means. Plastic money is a good system but if you are not managing your plastic cards in a proper way that will lead to overspending, financial burdens, and financial stress.

Keywords: *plastic money, plastic money users, paper money, overspending.*

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ASTUDYONTHEIMPACTOFPLASTICMONEYONCONSUMERSPENDINGPATTERN

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A Study on the Impact of Plastic Money on Consumer Spending Pattern

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Abstract- The paper examines the perceptions of consumers regarding the impact of plastic money on their spending pattern. This study was conducted among the bank customers in UAE. A sample of 250 customers has been taken from UAE. According to the central bank of UAE, 23 local banks are functioning in the UAE. Out of these 23 banks, five banks were selected randomly for this study, and 50 respondents from each bank were picked randomly for this study. Chi-square test and the Proportional test have been used to analyze the data. The analysis reveals that majority of the customers have the opinion that using of plastic money has a high impact on their spending pattern and are struggling to manage their money irrespective of their age, sex and income. The analysis was done to find out why consumers prefer plastic money even though they struggle to control their money while using plastic cards and the main reasons for which plastic money has a high impact on consumer spending pattern. Plastic money made a revolution in the banking industry across the world. Plastic money has many advantages when compared to paper money, but the convenience of plastic money makes it easy to spend beyond means. Plastic money is a good system but if you are not managing your plastic cards in a proper way that will lead to overspending, financial burdens, and financial stress. Plastic money is convenient, less risky, and safer than paper money, but it is important to remember that it is not compulsory that you should use plastic money especially if you are not able to manage your money while using the plastic cards. When we spend cash, there is emotional pain associated with handing over our money and concretely knowing we now have less in our wallets. With paper money, the exchange of physical money for goods is visible, tangible, and immediate, but when a plastic card is swiped, it doesn't give any immediate feeling of loss. Even when a message is communicated to the plastic money users, by the time they comprehend that the money is gone; the overspending has already been done and cannot be reversed.

Keywords: plastic money, plastic money users, paper money, overspending.

I. INTRODUCTION

Plastic Money or Polymer Money, made out of plastic, is a new and better way of paying for goods and services and is used every day in place of actual bank notes. According to Business Dictionary, plastic money is a generic term for all types of bank cards, credit cards, debit cards, smart cards, Automated Teller Machine cards and charge cards. In recent years, there has been a dramatic growth in the usage of plastic money among the people.

Twenty-two years since plastic money business got introduced to the UAE; the country has emerged as one of the fastest growing markets for credit cards and debit cards regarding of market penetration and per capita spending in the Middle East. As part of the plastic money boom, the UAE today has more than 3.5 million credit and debit cards in circulation. Merchant adoption rates for plastic money are very high in the UAE compared to many other countries in the region. With the role of electronic payments evolving in the UAE, Card companies are encouraging cardholders to use their plastic for everyday life, rather than just for high-value purchases or travel and entertainment. Card companies argue that Card-based payments support larger purchase and thus are more beneficial to merchants. Consumers often spend more on cards than they do with cash.

a) Plastic money and spending pattern

Plastic Money is the alternative to the paper money or the standard Money. The psychological impetus behind impulse spending via credit or debit cards is one of the main reasons people tend to overspend. Carey Kirk, counselling psychologist at Light House Arabia said, "Due to the absence of payment pain; people are less likely to thoroughly evaluate an item and their need for it before they purchase it, making it more likely for them to indulge in impulse buys. When we buy more impulsively, we are paying less attention to our spending and are more likely to lose track of how much money we have spent. When we spend cash, there is emotional pain associated with handing over our money and concretely knowing we now have less in our wallets. With cash, the exchange of physical money for goods is visible, tangible, and immediate".

In addition to money leaving our wallets, when using credit cards, balance payments are not due immediately is another reason for overspending. The lag between purchasing an item and having to settle the credit card bill further distances our association between using a credit card and spending money. Robert (2001) in his study, 'Money Attitudes and Intentions towards Credit Card Use and Compulsive Buying among American College Students, used a simple modelling approach to investigate the role of money attitudes and credit card use in the campus buying within a sample of American college students. It was found in the study that the money attitudes, power, prestige, distrust, and anxiety are much related

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to compulsive buying and that Credit card often moderates these relationships.

C. Prakash (2003), in his study "Impact of Credit Cards on Spending Patterns" had focused on the impact of credit cards on spending pattern to study the conceptual aspects and the evolution of credit cards in India. An interview schedule was given to three hundred credit card holders. Simple Percentage, F test, ANOVA and Chi-square test were used to analyze the collected data. It was found out that almost all the respondents irrespective of their income levels had agreed that their purchasing power had increased after they had begun to use their credit cards. The accessibility of the credit cards is limited to relatively small institutions like airlines, jewellers shop, and restaurants.

b) Objectives of the Study

The fact that consumers do not feel physical cash leaving their hands also plays into the tendency of some to use plastic more often. Those who are using the plastic cards many times tend to buy more than those who are using the currency note and inevitably end up buying more than they thought they would. When they leave the shopping mall they realize the fact that their card has been swiped a number of times, but they are not worried just yet, but by the end of the month when they receive their credit card bill or bank statement they will realize the fact that they have spent more than they could afford. So increased use of plastic money among the people has generated the concern that the convenience of the plastic money may tempt the users to live beyond their means that eventually leads to ineffective cash management and overspending and push the people into severe indebtedness. Inexperience with plastic cards and a lack of personal financial knowledge are likely to place some users at greater financial risk of having large, and perhaps unmanageable, debts burdens.

From the above theoretical perspective, the following research objectives have been developed for this study.

1. To understand the impact of plastic money on consumer spending pattern.
2. To know the preferences behind using the plastic money.
3. To find out the factors for which/why plastic money has a high impact on consumer spending pattern.
4. To offer suggestions from the findings and conclusions of the study, so that deficiencies and shortcomings can be rectified.

c) Hypothesis

The following hypotheses are maintained for the study.

Hypotheses 1: Plastic money has no impact on the consumer spending pattern.

- 1(a) No relationship exists between the age of the plastic money users and their perception towards

the impact of plastic money on their spending pattern.

- 1(b) No relationship exists between the sex of the plastic money users and their perception towards the impact of plastic money on their spending pattern.

- 1(c) No relationship exists between the income of the money users and their perception towards the impact of plastic money on their spending pattern.

II. METHODOLOGY

a) Data Collection

Data has been collected from both primary and secondary sources. Primary data has been collected from the respondents through a field survey. The researchers adopted a face-to-face distribution of the questionnaire to the respondents of this study in the scrutiny of obtaining higher response rate.

The data for this study were collected using survey questionnaires. All questionnaires were accompanied with a covering letter stating the purpose of this study. It also guaranteed anonymity of respondents. Right before collecting data from the final respondents, the instrument was reviewed by an expert in the area to justify for the content validity.

Using a convenient sampling methodology, the researchers gathered 250 responses for this study. Data has been collected from both primary and secondary sources. Primary data has been gathered from the respondents through a field survey. The secondary data for the study was collected from the published journals, magazines and other periodicals, books on research works, etc. Internet services were also used to gain the latest information through various websites

b) Sampling Design

The sampling frame of this study comprises credit card customers of major local banks in UAE. Convenient sampling technique has been adopted for this study. According to the central bank of UAE, 23 local banks are functioning in UAE. Out of these 23 banks, five banks were selected randomly for this study. The data for this study were gathered using survey questionnaires. Primary data has been collected from 250 respondent's i.e. 50 respondents from each bank with the help of a structured questionnaire. While selecting a respondent, due importance was given to various factors such as age, sex, and income, etc.

c) Techniques for Data Analysis

In this study, we mainly use the chi-square test to test whether the hypothesis that attributes are associated or not. And the Proportional test to assess whether the proportion (ratio of number of responded in favour to total number of respondent) is more than 0 p (50% in our case) or not, We use the statistics where x is the number respondent in favor and n is the total number and $q_0 = 1 - p$.

III. FINDINGS

The demographic profile of the sample

Table 1: Respondent's Profile

Sl. No.	Variables	Frequency	Percentage
1.	Age		
	Below 25	7	2.8
	26-35	24	9.6
	36-45	94	37.6
	Above 45	125	50
	Total	250	100
2.	Sex		
	Male	216	86.8
	Female	34	13.2
	Total	250	100
3.	Income		
	Below 10,000	187	74.8
	10,000 - 20,000	43	17.2
	More than 20,000	20	8
	Total	250	100

Source: Field Survey

Table 2: Perception of plastic money users towards the impact of plastic money on their spending pattern

Rate the impact of plastic money on your spending pattern	Frequency	Percentage
High impact	156	62
Some impact	70	28
No impact	24	10
Total	250	100

Source: Field Survey

Table 2 presents the perception of the plastic money users towards the impact of its use on their spending pattern. Out of 250 respondents, 62 percent have the opinion that uses of plastic money have a high influence on their spending pattern. 28 percent of the respondents have the notion that uses of plastic money have some relation on their spending pattern, and 10 percent of the total respondents have the idea that uses of plastic money have no effect on their spending pattern. In this context, the following hypothesis is constructed and put to the test, such that H₁, Plastic money has no connection on the consumer spending pattern. To verify this, we conducted the proportional trials which gives Calculated value (Z) = 3.7947 and is significant at 5% level (Tabled value= 1.645).

Since calculated value is more than the tabled value, we reject H₁. Hence we can conclude that the Plastic money has a high impact on the consumer spending pattern.

For this study Plastic money users are separately studied by their age, sex, and income.

- a) *The Relation existing between the age of the plastic money users and their perception towards the impact of plastic money on their spending pattern*

In order to prove that relationship exists between the age of the plastic money users and their perception towards the impact of plastic money on their spending pattern, the following hypothesis is constructed and put to the test, such as H₀, there is no relationship existing between the age of the plastic money users and their perception towards impact of plastic money on their spending pattern. Chi-Square test for independence is applied to test whether H₀ is true or not.

Table 3: Impact of plastic money on spending pattern based on age of the plastic money users

Cross Tab							
			Age				
			Below 25	25-35	35-45	45 and Above	Total
Impact of plastic money on spending pattern	Some Impact	Count	2	10	26	32	70
		% within Age	28.6%	41.7%	27.7%	25.6%	28.0%
	High Impact	Count	3	10	59	84	156
		% within Age	42.9%	41.7%	62.8%	67.2%	62.4%
	No Impact	Count	2	4	9	9	24
		% within Age	28.6%	16.7%	9.6%	7.2%	9.6%
Total		Count	7	24	94	125	250
		% within Age	100.0%	100.0%	100.0%	100.0%	100.0%

Chi-Square Tests				
	Value	df	Tabled Value	Sig.
Pearson Chi-Square	7.898	4	9.488	0.095
Not Significant				

Source: Field Survey

The result of the Chi-square test to prove the relation between the age of the plastic money users and their perception towards the impact of plastic money on their spending pattern is as follows.

The calculated value of χ^2 is = 7.898

Tabled value = 9.488

Since the calculated value is less than table value, the Hypothesis (H0) is accepted. Hence it is proved that there is no close association between age of the plastic money users and their perception towards the impact of plastic money on their spending pattern.

b) *Relation between the sex of the plastic money users and their perception towards the impact of plastic money on their spending pattern*

In order to prove that relationship exists between the sex of the plastic money users and their perception towards the impact of plastic money on their spending pattern, the following hypothesis is constructed and put to test, such as H0, there is no relationship existing between the sex of the plastic money users and their perception towards impact of plastic money on their spending pattern. Chi-square test for independence is applied to test whether H0, is true or not

Table 4: Impact of plastic money on spending pattern based on the sex of the plastic money users

Cross Tab					
			Age		
			Male	Female	Total
Impact of plastic money on spending pattern	Some Impact	Count	57	13	70
		% within SEX	26.4%	38.2%	28.0%
	High Impact	Count	136	20	156
		% within SEX	63.0%	58.8%	62.4%
	No Impact	Count	23	1	24
		% within SEX	10.6%	2.9%	9.6%
Total		Count	216	34	250
		% within SEX	100.0%	100.0%	100.0%

Chi-Square Tests				
	Value	df	Tabled Value	Sig.
Pearson Chi-Square	0.215	1	3.841	0.643
Not Significant				

Source: Field Survey

The result of the Chi-square test to prove the relationship between the sex of the plastic money users and their perception towards the impact of plastic money on their spending pattern is as follows.

The Calculated Value of χ^2 is = 0.215

Tabled Value = 3.841

Since the calculated value is less than the table value, the Hypothesis H₀ is accepted. Hence it can be concluded that there is no close association between sex of the plastic money users and their perception towards the impact of plastic money on their spending pattern.

c) *Relation between the income of the plastic money users and their perception towards the impact of plastic money on their spending pattern*

In order to prove that relationship exists between the income of the plastic money users and their

perception towards the impact of plastic money on their spending pattern, the following hypothesis is constructed and put to test, such as H₀, there is no relationship existing between the income of the plastic money users and their perception towards impact of plastic money on their spending pattern. Chi-square test for independence is applied to test whether H₀ is true or not.

Table 5: Impact of plastic money on spending pattern based on income of the plastic money users

Cross Tab						
			Income			
			More than 20,000	10,000 to 20,000	Below 10,000	Total
Impact of plastic money on spending pattern	Some Impact	Count	6	9	55	70
		% within income	30.0%	20.9%	29.4%	28.0%
	High Impact	Count	12	27	117	156
		% within income	60.0%	62.8%	62.6%	62.4%
	No Impact	Count	2	7	15	24
		% within income	10.0%	16.3%	8.0%	9.6%
Total		Count	Count 20	43	187	250
		% within income	100.0%	100.0%	100.0%	100.0%

Chi-Square Tests				
	Value	df	Tabled Value	Sig.
Pearson Chi-Square	2.458	2	5.991	0.293
Not Significant				

Source: Field Survey

The result of the Chi-square test to prove the relationship between the income of the plastic money users and their perception towards the impact of plastic money on their spending pattern is as follows.

The calculated value of χ^2 is = 2.458

Tabled value = 5.991

Since the calculated value is less than the table value, the Hypothesis H₀ is accepted. Hence it can be concluded that there is no close association between the income of the plastic money users and their perception towards the impact of plastic money on their spending pattern.

To find out why customers prefer plastic money to paper money, further analyses have been conducted among the customers.

Table 6: Which mode of money you use more

Which mode of money you use more	Total Respondents	Percentage
Plastic Money	216	86.4
Cash	34	13.6
Total	250	100

Source: Field Survey

The above analysis reveals the facts that out of a total of 250 customers 216 customers, i.e., 86.4 percent prefer and use the plastic money only 13.6 percent i.e., 34 customers are using or preferring paper money.

To find out which plastic money customers use more, further analyses have been conducted among the customers who prefer plastic money.

Table 7: Type of plastic money you use more

Type of plastic money used	Total Respondents	Percentage
Credit Card	104	48.15
Debit Card	96	44.44
Specific Outlet card	16	7.41
Total	216	100

Source: Field Survey

An analysis of respondents, who prefer plastic money to paper money, states that 48.15 percent, majority of the customers use credit cards and 44.44 percent of the customers use debit cards. Only 7.14 percent of the customers use specific outlet cards.

To find out the pivotal reasons for which/why customers prefer plastic money, further analyses have

been conducted among the customers who prefer plastic money.

Table 8: Preference behind uses of plastic Money

Preference behind uses of plastic Money	Total Respondents	Percentage
Security in respect to paper money	43	19.91
Convenient to carry and use	55	25.46
Less risky to carry as compared to paper money	33	15.28
Suits personality	36	16.67
More credit options	49	22.68
Total	216	100

Source: Field Survey

Among the customers who prefer plastic money, 25.46 percent expressed the reason for preference as convenient to handle and use 22.68 percent of the respondents prefer plastic money because it gives them more credit options. 19.91 percent have the opinion that they prefer plastic money because of security reasons. 16.67 percent pointed out the facts that using plastic money suits their

personalities. 15.28 percent have the answer that they prefer plastic money because it is less risky to carry as compared to paper money.

To find out the many reasons for which plastic money have a high impact on consumer spending pattern, further analyses have been conducted among the customers who prefer plastic money.

Table 9: Why plastic money leads to overspending?

Why plastic Money leads to overspending?	Total Respondents	Percentage
While using the plastic money, we don't feel physical cash leaving our hands	32	14.81
The Convenience of the plastic money may tempt the users to live beyond their means	85	39.35
The Psychological impetus behind impulse spending say spending via credit or debit cards etc	43	19.91
The time lag between purchasing an item and having to settle our credit card bill further distances our association between using a credit card and spending money	56	25.93
Total	216	100

Source: Field Survey

The above table consolidates a detailed analysis of the main reasons for which/why plastic money has a high impact on the consumer spending pattern 39.35 percent of the respondents have the opinion that the usage of plastic money leads to overspending mainly because of the reason that the convenience of the plastic money may tempt the users to live beyond their means. 25.93 percent expressed the reason for overspending as the time lag between purchasing an item and having to settle the credit card bill further distances the association between using a credit card and spending money. 19.91 percent of the respondents have the view that psychological impetus behind impulse spending via credit or debit cards etc, many times leads to overspending. 14.81 percent pointed out the reason as while using plastic the money they don't feel physical cash leaving their hands many times, hence, leads to overspending.

d) Findings

1. Majority of the plastic money users have the opinion that plastic money has a high impact on their spending pattern.

2. There is no close association between age of the plastic money users and their perception regarding the impact of plastic money on their spending pattern.
3. Majority of the respondents who are above 35 years of age expressed the strong agreement to the view that uses of plastic money have a high impact on their spending pattern.
4. There is no close association between sex of the plastic money users and their perception regarding the impact of plastic money on their spending pattern.
5. There is a close association between the income of the plastic money users and their perception regarding the impact of plastic money on their spending pattern.
6. Majority of the respondents who belong to the income range of 10,000 to 20,000 expressed the strong agreement to the view that the uses of plastic money have a high impact on their spending pattern.

7. The above analysis reveals the fact that the majority of the customers use plastic money than paper money.
8. Analyses of respondents, who prefer plastic money to paper money, among the different plastic cards, the credit card is the plastic money that the majority use more.
9. Analysis proves the fact that customers prefer plastic money because it is secure, convenient to carry and use and it gives them more credit options.
10. A detailed analysis to find out why plastic money leads to overspending, majority of the respondents expressed strong agreement to the view that convenience of the plastic money may tempt the users to live beyond their means. Hence, the time lag between purchasing an item and having to settle their credit card bill further distances there association between using a credit card and spending money.

e) *Suggestions*

Based on the findings following suggestions seem feasible for managing the credit card debt.

1. Plastic money has many advantages over paper money but, it does not mean that paper money is obsolete. It is always recommendable to reduce the use of plastic money because consumers don't feel physical cash leaving their hands also plays into the tendency of some to use plastic more often.
2. Those who are using the plastic many times tend to buy more than those who are using the currency note and inevitably end up buying more than they thought they would and have more chances of getting deeper in debt.
3. Impulse spending via credit or debit cards is one of the main reasons people tend to overspend. Due to the absence of payment pain, people are less likely to thoroughly evaluate an item and their need for it before they purchase it, making it more likely for them to indulge in impulse buys.
4. Rampant usage of credit cards should be avoided since it leads to an endless cycle where the users maximize their credit card and get another one because they are unable to pay for the previous one, and they finally fall into debt.
5. Sharing the credit cards with others may lead to over-spending, misuse of the card and related disputes. It may also disturb the personal budget of the card bearer.
6. It is always better to use paper money because of the availability of money itself-work as a managing system. When we use paper money, there is emotional pain associated with handing over our money and concretely knowing we now have less in our wallets. With cash, the exchange of physical money for goods is visible, tangible, and immediate.
7. Too much usage of debit card, also may lead to effective cash management because there's immediate loss when cash is handed over, but when a plastic card is swiped, it doesn't give any immediate feeling of loss. Even when a message is communicated to the person, by the time they comprehend that the money is gone, the damage has already been done and cannot be reversed.
8. While using the card there is a time lag between purchasing an item and settling the bill in future. This lag between purchasing an item and having to settle our credit card bill further distances our association between using a credit card and spending money. Small expenses do not get visualised when using a card. When it is the end of the month people realize that their card expenses are not payable and, once this takes place, it is too late to avoid late payment fee.
9. When carrying cash, people know how much they can spend, but when they carry card, they feel that as long as there is money, they can still spend. This may be good for the retailers and bank but not good for people especially in managing their money in an effective way.

IV. CONCLUSION

Plastic money made a revolution in the banking industry across the world. It has many advantages compared to paper money, but the convenience of plastic money makes it easy to spend beyond means. Plastic money is a good system but if you do not manage your plastic cards in a proper way that will lead to overspending, financial burdens, and financial stress. Plastic money is convenient, less risky, and safer than paper money, but it's important to remember that it is not compulsory that you should use plastic money especially if you are not able to manage your money while using the plastic cards. When we spend cash, there is emotional pain associated with handing over our money and concretely knowing we now have less in our wallets. With cash, the exchange of physical money for goods is visible, tangible, and immediate, but when a plastic card is swiped, it doesn't give any immediate feeling of loss. Even when a message is communicated to the person, by the time they comprehend that the money is gone, the damage has already been done and cannot be reversed. So the selection of the mode of money should depend on which mode helps you more to have a better control over your hard earned money.

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