

Attitude Toward Plastic Money Usage: A Leap of Faith Toward Green Banking and Sustainable Development

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Abstract

With the advancement of technology, banking sector in Bangladesh has witnessed a dramatic shift in financial sector especially in the form of transactions. Cashless transactions, through Plastic money are growing rapidly from its inception in 1997. The purpose of this particular study is to unearth the moderating influence of the perceptions about the plastic money (Perceived advantages, Perceived disadvantages, Psychological factors) on the perceived future growth of plastic money market of Bangladesh. This study used 159 replies, with a response rate of 78 percent, which was collected through a self-administered survey using Mall intercept technique, judgmental technique and snowball technique. The results, derived from Step-wise multiple linear regression analysis by the usage of AMOS 20 showed that perceived advantages, perceived disadvantages and psychological factors-all three significantly modify customers' attitude toward growth. Moreover, the study attempts to link how the growth of plastic money market leads to green banking practices, which in turn will accelerate sustainable development. Plastic money marketers (Banks and Financial institutions) will have a great implication from this study regarding how to utilize the growth potential and become a sustainable development agent.

Keywords: Plastic Money, Green Banking, Sustainable Development, Growth

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1. Introduction

The developed world has entered markedly to plastic money and payment gateways, whereas, in Bangladesh money is outlawed by plastic money. Plastic money is a type of product, whose business is definitely going very well in Bangladesh (Hossain & Nesa, 2013). Plastic money pertains to the usage of all types of debit cards, credit cards, charge cards and ATM cards(Dhanda & Arora, 2017). Plastic cards customers can make use of banking services, through holding Plastic money issued by any bank or financial service provider, without restricting himself in the official banking hours(Sindhu, 2016).

This particular study would measure the future growth prospect of plastic money market in Bangladesh, which has direct and indirect effect on sustainable development through ensuring Green Banking practices.

2. Literature Review

2.1 Types of Plastic Cards:

Credit Cards:

Credit card refers to a small plastic card, issued by a bank or financial service provider, which places right to the holder of that card, to make purchase on credit within a pre-specified credit limit (Dhanda & Arora, 2017). Since, Credit card enables it's holders to purchase certain products and services without actually having money in their account or paying immediately, it allure consumers to spend recklessly and fall in deep debts (Islam, Karim, & Alam, 2015). The study of Islam et al. (2015), on 85 customers of Bangladesh reveals that, less affluent customers (customers holding one credit card) are more prone to use credit cards in contrast to the customers holding multiple credit cards.

Debit Card:

Debit card is a magnetically encoded plastic card (Sindhu, 2016), which is used to make a digital withdrawal from funds pre-deposited in a bank (Dhanda & Arora, 2017). However, Debit card subtracts money directly from the cardholder's account to pay for a purchase (any goods or service) or cash withdrawal from any ATM booth (Dhanda and Arora, 2017; Sindhu, 2017). Debit card is issued free of cost against any current account and/or any savings account (Mishra, 2007)

Smart Card

Smart Cards are comparatively new payments technology (Sindhu, 2016). Smart card is a plastic card that contains an electronic chip, which enables the card holder to do buying and selling of goods and services, access

technical details, medical records, financial statements. Enter restricted areas or perform other tasks. (Dhanda & Arora, 2017). For example, Bangladesh is introducing smart card instead of previously circulated National Identity Card (NID), which is supposed to be used in literally everywhere in Bangladesh.

Charge Card

A charge card is almost like a credit card; nevertheless, the card holder needs to pay the full amount that has been billed within the due date given, Failing to doing so, will be treated as a defaulter and will have to pay up late payment charge (Dhanda & Arora, 2017). Nevertheless, it is providing a convenient way to make purchases of goods and services, without paying any interest; whereas, It is also preferable for them who prefer to settle debt every month in addition to enjoy better rewards with no limit on spending (Hossain & Nesa, 2013). Moreover, unlike the Credit card, Charge cards typically do not charge a minimum payment since the balance is to be paid in full (Hossain & Nesa, 2013).

Amex Card

Amex stands for American Express, which is one of the oldest and most popular charge card. Amex card has set up its separate network and works independently among its own merchant establishment tie-ups. (Dhanda & Arora, 2017).

Master Card and Visa

MasterCard and Visa are international NPO's (non-profit organizations). Their main purpose is to promote the growth of the card business usage across the globe. A massive chain of merchant establishments has been built by them so that customer's from any part of the world are able to use their plastic cards to make their desired payments. (Dhanda & Arora, 2017)

ATM Cards

ATM stands for automatic teller machines. Cash withdrawals, deposits, transferring funds in the accounts etc. are some of the functions, which are performed through ATM cards. The cards are inserted into an automated teller machine and then a PIN has to be entered for security. The account is then checked by the system for adequate availability of funds in the cardholders account before any transaction is permitted. (Dhanda & Arora, 2017)

2.2 Plastic Cards' usage in Bangladesh:

A study of BIBM (Bangladesh Institute of Bank Management) unearthed that, in 2016 alone, through digital marketing, a sum of 180 crore transactions (which is six times the current year's national budget) worth about Tk. 23 lakh crore took place (Rahman, 2018). According to Bangladesh Bank, total number of plastic cards in circulation as of first quartiles of 2018 is 13,023,769, which penetrates 6 percent of total population; whereas, debit card penetration is 5.5 percent and debit card penetration is 0.5 percent (Islam & Alam, 2018). This clearly indicates that, there remain large portion of population untapped. However, the user of plastic money is increasing gradually since, it has an huge impact on the buying behavior of the customers through making it easier for them; but interestingly, it is found that, many cardholders in Bangladesh are non-active card holders (Sulatan & Hasan, 2016).

From the consumer perspective, the banks commonly offer various facilities against their digital payment instruments (Debit/Credit/ATM cards) ahead of almost all national and religious festivals; for example, Banks and financial service providers are awarding discounts ranging from 10 percent to 50 percent for shopping with their debit and credit cards, targeting the Pahela Baishakh (Bengali new year (Alo, 2018). Rahman (2018, pp.B1) further added, referring to the experts that, 'the benefits of cashless transactions are enormous as it reduces the scope for tax avoidance on real estate purchases, curbs generation of black money, reduces the costs of currency printing and its management, is less risky and frictionless'. Nevertheless, when the Banks market and promote their products, The offers they make deceitfully alluring to the customers' (complimentary meal, complimentary air tickets, and many others); however, the charges made by the banks are very high in reality (Islam, Karim, & Alam, 2015).

According to, Mohammad Anwar Hossain, senior vice-president and head of the card division of Mutual Trust Bank, since, people still prefer cash to plastic money for shopping, different banks are offering discounts and promotional offers, hoping that, these will change the way consumers buy products and services (Alo, 2018).

2.3 Impact of Plastic Money usage on Green Banking:

Green banking refers to conducting banking business in such a manner that reduces external carbon emission through green technology and pollution reducing projects (Meena, 2013). According to the guideline provided by Bangladesh Bank, to facilitate green banking, banks should implement more online banking/mobile banking/sms banking/plastic money transaction rather than using paper cash. Because, this type of banking

system reduces the paper works, which is ultimately environment friendly and it reduces wastes while increases productivity and customers' satisfaction (Chowdhury & Dey, 2016). Meena, 2013 further suggests that, Banks can reduce their carbon footprints (which is a way to ensuring green banking and sustainable development) by adopting Paper less banking (using plastic money), Energy consciousness, Using mass transportation systems and, Green buildings.

2.4 Overview of Previous Studies on usage of plastic money:

Title	Author	Country	Findings
Smart cards - the smart way for the banks to go?	(Puri, 1997)	Kuwait	Benefits for Consumers: Convenience, Flexibility, control, increased security. Benefits for Retailers: Lower processing cost, immediate cash flow, Operational convenience, Reduced theft/fraud/security/insurance cost, and increased sales.
Globalization of Credit Card Usage: The Case of a Developing Economy	(Barker & Sekerkaya, 1992)	Turkey	Relative Advantage (Convenience, Paying installments), Compatibility, Triability, Complexity.
Factors affecting credit card use in India	(Khare, Khare, & Singh, 2012)	India	Major determinants of credit card use among Indian customers are use and convenience. Sense of belongings and sense of fulfillment dimensions of MILOV moderate use, convenience and status attributes. Young customers are more prone to use credit cards.
Satisfaction of Debit Card Users in Bangladesh: A Study on Some Private Commercial Banks	(Parvin & Hossain, 2010)	Bangladesh	80 percent customer use credit card for withdrawal whereas 12 percent use it for purchases and only 8 percent use it for both purposes. The most dominating factors found to stimuli the use of debit cards are Time saving, instant transactions and easy to use.
Problems and Prospects of Plastic Money in Bangladesh	(Sumi & Saifullah, 2014)	Bangladesh	80 percent customer use credit card for withdrawal whereas 20 percent use it for purchases. Problems faced by the card user are unavailability of Taka at ATM booths and having fake notes there. The first and foremost factor to make users happy is good network.
Investigating the Consumers' Perception towards Usage of Plastic Money in Bangladesh: an Application of Confirmatory Factor Analysis	(Sulatan & Hasan, 2016)	Bangladesh	78.7 percent customers use plastic money for shopping, 2.5 percent for Hotel reservations, 8.8 percent for restaurants, 0.5 percent for hospital and 9.4 percent for travel. Leading reasons for plastic money are adding value to lifestyle, time effectiveness and secure transaction. Causes for dissatisfactions are higher interest rate, non-availability and complicity of technology, and likelihood of getting fake notes

Table 1: Overview of Previous literature on Plastic Money

3. Methodology:

3.1 Research Questions:

The researchers set out to unearth the potential market growth of plastic money market in Bangladesh through examining the following research questions:

- How do perceived advantages influence consumer's attitude toward the usage of plastic money?
- How do perceived risks affect consumer's attitude toward the usage of plastic money?
- How do psychological factors influence consumer's attitude toward the usage of plastic money?
- How the usages of plastic money do facilitate the green banking and sustainable development?

3.2 Hypotheses:

The study was designed to test the following hypothesizes:

- H₁:** Perceived advantages significantly moderate the customers' attitude toward plastic money market growth in Bangladesh
- H₂:** Perceived advantages and Perceived disadvantages together significantly moderate the customers' attitude

toward plastic money market growth in Bangladesh

H₃: Perceived advantages, Perceived disadvantages and, psychological factors together significantly moderate the customers' attitude toward plastic money market growth in Bangladesh

H₄: Perceived advantages, Perceived disadvantages, psychological factors and Demographic variables together significantly moderate the customers' attitude toward plastic money market growth in Bangladesh.

3.3 Research Framework:

Figure 1 represents the research framework which was tested regarding the attitude toward the credit card use in Bangladesh.

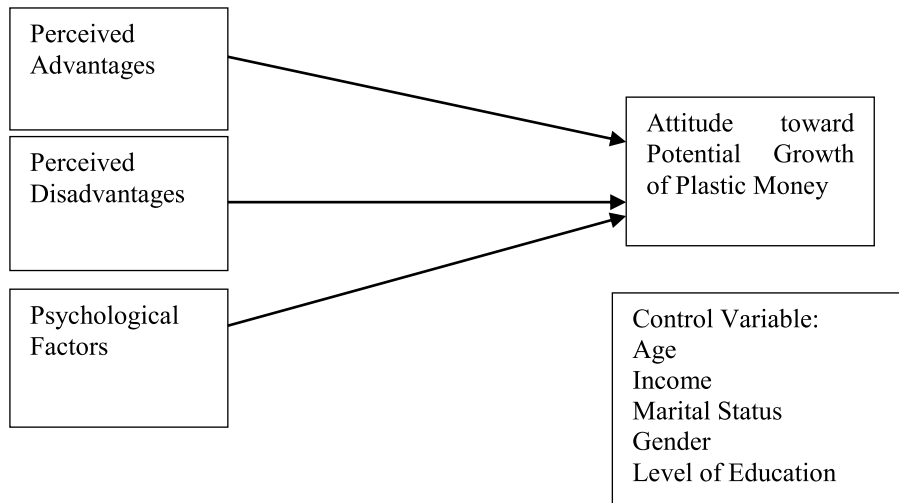


Fig 1: Conceptual Framework (Developed by the Authors)

3.4 The instrument:

The data was collected by using self administered questionnaire survey method. The questionnaire were developed using different previously sought out factors of different studies (like Dhanda & Arora, 2017; Khare et al., 2012; Sultana and Hasan, 2016; Meidan & Davos, 1994). To identify the effects of demographic factors are used: Age, Income, Organization type, Education, Marital Status, and Gender. The questionnaire is comprised of 28 statements, among which 12 statements are related to perceived advantages (statement like, "Plastic money increased my purchasing power"), 9 statements are related with perceived disadvantages (item like, "damaged magnetic strip"), 4 statement are related with psychological factors (item like, "prestigious"). The attitude toward growth has been measured using 3 statements (statements like, "I believe I am going to increase my dependence on plastic money"). All 28 items were measured using a 5 point likert scale which ranged from 1 (strongly disagree) to 5 (strongly agree). To tap out the demographic characteristics of the respondents, a second part of demographic information was devised.

	Factors affecting Consumer Attitudes	(Dhanda & Arora, 2017)	(Sultana and Hasan, 2016)	(Meidan & Davos, 1994)	(Khare, & Singh, 2012)
Advantages	Purchasing power	√		√	
	Convenient	√	√	√	√
	More Security	√		√	√
	Reasonable interest rate		√		
	Extensive Benefits on Selective purpose		√		
	Saves time to purchase		√		
	Secure transaction		√		
	Purchasing High Price Products		√		
	Purchasing Huge Size Products		√		
	Easy to carry				√
	Ease travelling overseas				√
	Shopping Abroad			√	
	Easier to control expenditure				√
Disadvantages	Few Vendors	√	√		
	Less Worldwide Availability	√			
	Damaged Magnetic Strip	√			
	Increasing Debt	√			
	Mounting Number of Frauds	√			
	Technological Complications		√		
	Fake notes on ATM booths		√		
	Scarcity of Taka at ATM		√		
	Compulsive buying beyond budget				√
Psychological Or Influential Factors	Prestigious		√	√	
	Adds Value		√		
	Ease Complex Purchase		√		√
	Fashionable				√

Table 2: Sought after factors influencing plastic money usage from previous studies.

3.5 The sample:

Table 3 represents the sample characteristics. The sample was collected from 159 different plastic money users of Dhaka, Bangladesh. Considering the age demographic of the respondents, 45.9 percent falls in the 25-35 years of age group, whereas 26.4 percent dwells in the 35-45 years age group. When it comes to income demographic 40.3 percent respondents, earn 25,000-40,000 BDT per month, while 28.3 percent earn above 40,000 BDT but less than 55,000 BDT. Only 5 respondents' (3.1 percent) income level is more than 1,00,000 BDT. The sample contains 19.5 percent Debit card users, 20.1 percent Credit card users, 28.9 percent ATM card users, 4.4 percent Visa card users and 27 percent all types of card users. A total of 39 percent of the sample holds a bachelor degree, while the other 25.8 percent achieved a masters degree. The sample consisted of 70.4 percent male and 29.6 percent female respondents; whereas, 62.9 percent are married and 35.8 are single.

Variable	Frequency	Percent	Valid Percent	Cumulative Percent
Age	Above 18	21	13.2	13.2
	Above 25	73	45.9	45.9
	Above 35	42	26.4	26.4
	Above 45	17	10.7	10.7
	Above 55	6	3.8	3.8
Income	Above 25,000	64	40.3	40.3
	Above 40,000	45	28.3	28.3
	Above 55,000	31	19.5	19.5
	Above 70,000	14	8.8	8.8
	Above 1,00,000	5	3.1	3.1
Type	Debit Card	31	19.5	19.5
	Credit Card	32	20.1	20.1
	ATM Card	46	28.9	28.9
	Visa Card	7	4.4	4.4
	All	43	27.0	27.0
Education	S. S. C	26	16.4	16.4
	H. S. C	23	14.5	14.5
	Bachelor	62	39.0	39.0
	Master	41	25.8	25.8
	Phd	7	4.4	4.4
Marital status	Married	100	62.9	62.9
	Single	57	35.8	35.8
	Other	2	1.3	1.3
Gender	Male	112	70.4	70.4
	Female	47	29.6	29.6
	Total	159	100.0	100.0

Table 3: Sample characteristics

4. Analysis and Discussion:

To examine the moderating influence of perceptions toward advantages, disadvantages and psychological factors associated with credit card usage, stepwise regression analysis was conducted (Table 4). Perceived advantage was used as the predicting variable for the first model ($R^2 = 0.774$, $P < .000$). The first model reveals that, perceived advantages account for 77 percent of attitude toward growth. As predicted by hypothesis H₁, Perceived Advantage significantly moderates the customers' attitude toward growth of plastic money market. Hence, the null hypothesis is accepted.

In the second model perceived advantages and perceived disadvantages were used as independent variables ($R^2 = 0.837$, $P < .000$). Result shows that, both of the predictors together can predict 83 percent of customers' attitude toward growth. Hypothesis H₂ predicted that, Perceived disadvantages moderates significantly the customers' attitude toward growth of plastic money market. Therefore, the null hypothesis is accepted.

In the third Model perceived advantages, disadvantages, and psychological factors were used as predictors ($R^2 = 0.871$, $P < .000$). The model suggests that, above three predictors can predict 87 percent of the attitude toward growth as hypothesized by H₃. That is why null hypothesis H₃ is accepted.

While using perceived advantages, disadvantages, psychological factors and demographic factors as predictors in model 4, result reveals that, the model can predict the attitude toward plastic money market growth ($R^2 = 0.884$, $P < .000$). The model accounts for 88 percent of customer attitude. Therefore, H₄ is accepted and negative β value of income indicates that, customers of lower income spectrum tend to have relatively negative attitude toward growth.

Model	Variable	Beta	R Square	Adjusted R Square	Significance
1	Dependent Variable: Attitude Toward Growth Independent Variable: Advantages	.879	.774	.772	.000
2	Dependent Variable: Attitude Toward Growth Independent Variable: Advantages, Disadvantages	.539 .423	.837	.835	.000
3	Dependent Variable: Attitude Toward Growth Independent Variable: Advantages, Disadvantages, Psychological Factors	.451 .313 .264	.871	.868	.000
4	Dependent Variable: Attitude Toward Growth Independent Variable: Advantages Disadvantages Psychological Factors Age Income Type of Organization Education Marital Status Gender	.373 .271 .245 .024 -.072 .024 .159 .025 -.054	.884	.877	.000

Table 4: Step wise regression analysis

5. Conclusion:

Plastic money market has a great potential in Bangladesh as it is rising as an “aspiring tiger economy” (Basu, 2018). People of Bangladesh are craving for a better and comfortable yet prestigious life style. Plastic money empowers people to have such life style. From the analysis of this study, it is clearly evident that, people are warmly grabbing the plastic money use in their day to day life, and they have a great optimism about the growth of this form of transactions. What plastic money marketers have to do is utilize this untapped growth opportunity properly and perfectly. Banks and financial institutions launching various plastic cards are suggested to make the use of it more convenient, accessible and facilitating while reducing as much as possible the problems faced by the customers in particular. Marketer’s survival will be ensured whether they can successfully create an emotional attachment to the targeted customers of their offerings using psychological factors like making the offering more prestigious and classy while providing extensive advantages. Moreover, national and global concern about green banking and resulting sustainable development will also be served if the plastic money market growth potential is addressed properly. Finally this will provide for all around blessings to all the stakeholders like customers being facilitated largely, companies having strong and unique brand image of being environmentally concerned and consequently environment being protected through green banking activities and sustainable development achieved.

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