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Impact of Plastic Money Adoption on Consumer Purchasing Habits: A Study in Pakistan

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Abstract

This study investigates the impact of plastic money, including credit and debit cards, on consumer purchasing behavior in Pakistan. To collect data, a primary survey was conducted using a questionnaire-based approach. The survey targeted customers at various retail outlets, such as marketplaces, supermarkets, and grocery stores, employing convenience sampling techniques. This approach aimed to gain insights into consumer attitudes and behaviors regarding the use of plastic money in shopping experiences. Data management and analysis were conducted using SPSS, with simple linear regression analysis employed to examine the relationship between plastic money usage, the independent variable, and consumer buying behavior, the dependent variable. The reliability of the collected data was assessed using the coefficient alpha, which was found to be 0.709, indicating a satisfactory level of internal consistency. The analysis aimed to determine the extent to which consumer purchasing behavior is influenced by the use of plastic money in Pakistan. Through regression analysis, the study explored how the adoption of plastic money affects consumer spending patterns and decision-making processes in the Pakistani market. The findings of this research contribute to a deeper understanding of the behavioral shifts associated with plastic money adoption, providing valuable insights for businesses, financial institutions, and policymakers. Understanding these dynamics can aid in formulating strategies to enhance financial inclusion, encourage digital transactions, and improve consumer engagement in a rapidly evolving retail environment. The study emphasizes the growing role of plastic money in shaping consumer habits and its broader implications for Pakistan's financial and retail sectors.

Keywords: Plastic money adoption, Consumer purchasing habits, Regression analysis

1. INTRODUCTION

Plastic money refers to a range of bank cards, including credit cards, debit cards, and smart cards, provided by financial institutions for facilitating payments. It serves as an alternative to traditional cash transactions, offering convenience and security to consumers. These cards utilize magnetic stripe or chip technology to store account information and enable electronic payments at various points of sale, online merchants, and automated teller machines (ATMs). Plastic money, often referred to as credit or debit cards, allows individuals to make purchases conveniently and securely without the need for cash. These magnetic cards eliminate the necessity of carrying physical currency, as cardholders can simply use their cards wherever they choose. Typically, these cards feature the cardholder's name, a 16-digit card number, expiration date, a magnetic stripe containing encoded data, and a Personal Identification Number (PIN) for added security. Exactly, plastic money encompasses a variety of hard plastic cards that serve as substitutes for physical currency. These cards include credit cards, debit cards, cash cards, pre-paid cash cards, ATM cards, and store cards, each offering different functionalities and benefits to users. Banks provide electronic facilities and equipment to enable transactions using these cards, making them a convenient and widely used form of payment. Overall, plastic money comprises a range of card-based financial instruments that facilitate transactions and purchases in lieu of traditional cash. Indeed, plastic money offers several advantages that contribute to its widespread adoption. One significant benefit is the reduction of bulky wallets, as individuals can rely on their cards for transactions instead of carrying cash. In cases of urgent need for funds, cardholders can conveniently withdraw cash from ATMs at any time, eliminating the need to wait for bank opening hours. Additionally, the availability of credit cards, often provided by banks upon opening an account, offers users greater financial flexibility and purchasing

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power. Overall, the accessibility and convenience afforded by plastic money make it an appealing option for modern consumers.

The concept of paper money indeed originated in China during the Tang Dynasty, which ruled from the 7th to 10th centuries AD. However, it was during the Song Dynasty, specifically in the 11th century, that the widespread use of paper money as a medium of exchange began. The Chinese government issued the first official paper currency known as "jiaozi" to alleviate the shortage of copper coins. These early forms of paper money were initially used for large transactions and were backed by deposits of precious metals like gold and silver. In 1992, Australia became the first country to introduce polymer banknotes, which are made from a type of plastic. These polymer notes have several advantages over traditional paper banknotes, including increased durability, resistance to wear and tear, and enhanced security features. As a result, polymer banknotes have a longer lifespan compared to paper notes, making them more cost-effective in the long run. This innovation has since been adopted by numerous other countries around the world.

Indeed, in modern times, plastic money has become increasingly popular compared to paper money. Consumers now commonly use plastic cards, such as credit cards, debit cards, and electronic wallets, for making purchases. Unlike paper money, which can be easily lost or stolen, plastic money offers enhanced security features, reducing the risk associated with carrying large amounts of cash. With plastic money, consumers can make purchases conveniently and securely, whether they are traveling or shopping for goods and services. This shift towards plastic money has revolutionized the way people conduct financial transactions, providing greater convenience and peace of mind (Ellis, 1998). Absolutely, with globalization, the acceptance of cards has become widespread across the globe. Various types of cards, such as debit cards, credit cards, prepaid cards, and smart cards, are now commonly used for transactions worldwide. Brands like Mastercard and Visa have facilitated seamless transactions in different countries, allowing individuals to access their funds and make purchases conveniently and securely. This global acceptance of cards has significantly contributed to the ease of conducting financial transactions and has made it more convenient for people to manage their finances, both domestically and internationally. This study is focusing on the impact of plastic money on consumer buying behavior is indeed intriguing and relevant in today's digital age where electronic payment methods are increasingly prevalent. Exploring how the adoption of plastic money, such as credit cards, influences consumer purchasing decisions and behavior can provide valuable insights into consumer preferences and financial habits. By examining how consumers' payment preferences affect their buying behavior, you can uncover trends, preferences, and potential challenges related to the use of plastic money. Additionally, understanding the factors that drive consumers to choose plastic money over traditional payment methods can inform businesses, financial institutions, and policymakers about evolving consumer needs and preferences in the marketplace. The research has the potential to contribute to the existing body of knowledge in the fields of consumer behavior, finance, and marketing, and may offer practical implications for businesses and policymakers aiming to adapt to changing consumer preferences and behaviors in the digital economy.

2. LITERATURE REVIEW

Indeed, the evolution of payment methods has significantly impacted consumer behavior and financial transactions. Plastic money, including credit cards, debit cards, and other electronic payment options, has become increasingly popular due to its convenience and accessibility (Brumberg, 2004). Consumers now have a wide range of options to choose from when making purchases or managing their finances, and plastic money has emerged as one of the most convenient and widely accepted forms of payment. The adoption of plastic money has facilitated seamless transactions and provided consumers with greater flexibility in managing their finances, especially in situations where carrying large sums of cash may not be feasible or safe. Plastic money offers a convenient and secure way to make purchases, both online and offline, and has become an integral part of modern-day commerce. Research suggests that the use of plastic money can help consumers maintain their living standards even during periods of income shortfall, as it provides access to credit and enables deferred payment options (Ali & Naeem, 2017). Moreover, plastic money offers various benefits such as rewards programs, cashback offers, and fraud protection, further incentivizing its use among consumers (Arshad & Ali, 2016). Overall, plastic money has revolutionized the way consumers conduct financial transactions and has become an essential tool in today's digital economy. As technology continues to advance, and consumer preferences evolve, it is likely that plastic money will continue to play a significant role in shaping consumer behavior and financial transactions in the future.

Abdullah et al. (2013) argue that while paper money continues to be widely accepted as a medium of exchange, the advent of plastic money cards has introduced a new dimension to financial transactions. As highlighted by Chakravorti (1997), these plastic cards, encompassing bank cards and store cards among others, serve a dual purpose for consumers. Not only do they provide a convenient and efficient means of payment, but they also offer individuals access to credit, thereby facilitating purchases beyond their immediate financial means. This duality of function makes plastic money cards a versatile and indispensable tool in today's consumer landscape, allowing individuals to manage their finances more flexibly and conveniently.

Indeed, when consumers utilize credit cards as a financing mechanism, they effectively enter into competition with traditional forms of financing such as bank loans. This observation, as noted by Brio and Hartley (1995), underscores the significant role that credit cards play in the broader financial ecosystem. Unlike conventional bank loans which involve a more formal application and approval process, credit cards offer a more accessible and immediate source of credit to consumers. This accessibility, coupled with the flexibility of credit card usage, has made them a preferred choice for many individuals seeking short-term financing solutions. However, it's important to recognize that while credit cards offer convenience, they also come with associated costs and risks, including interest charges and the potential for debt accumulation if not managed responsibly.

Plastic money, encompassing credit cards and debit cards, has become an integral part of our daily transactions, offering convenience and security in handling finances. Unlike traditional paper currency, plastic money allows individuals to carry significant sums without the burden of physical cash. Moreover, it offers protection against theft or loss, as banks can swiftly block compromised cards, safeguarding one's funds. Introduced in the 1950s, plastic money has evolved into various forms such as credit cards, debit cards, and Visa cards, offering diverse options for payment. Ab-bate and Snell highlight the advantages of electronic payments, emphasizing their time-saving and cost-effective nature, further enhancing the appeal of plastic money in modern transactions. According to the literature on consumer behavior, the most effective predictor of consumer purchase behavior is the benefit sought from a product or service, along with consumer usage behavior (Peter and Olson, 1999). This implies that consumers are primarily motivated to make purchases based on the perceived benefits they expect to derive from the product or service, as well as their past behavior and patterns of usage. Understanding these factors is crucial for marketers in shaping their strategies and offerings to align with consumer preferences and needs.

Consumers' psychographic motivations for using credit cards can vary significantly from their observable behavior and attitudes (Naim, 1995). Psychographic factors encompass individuals' lifestyles, values, beliefs, and personality traits, which may influence their preferences and decisions regarding credit card usage. Understanding these underlying psychological factors is essential for marketers and financial institutions to tailor their credit card offerings and marketing strategies effectively to different consumer segments. Feinberg (1986) investigated the actual consumer consumption behavior and found that consumers who paid with plastic money tended to spend more in identical purchasing situations compared to those who used cash or checks. This suggests that the mode of payment can influence consumers' spending habits and propensity to make purchases.

3. METHODOLOGY

Utilizing survey questionnaires for primary data collection and gathering secondary data from various sources such as websites, books, and past research papers will provide a comprehensive understanding of the topic. Employing simple linear regression analysis will enable to assess the relationship between plastic money usage and consumer buying behavior effectively. It's crucial to define target population clearly, and 100 individual customers in Okara, Sahiwal, and Lahore for empirical analysis. Referring to the methodologies of Ali (2011) will provide a solid framework for structuring the study.

4. FINDINGS

Table 1: Reliability Statistics

Cronbach's Alpha	N of Items
.709	13

The given table provides reliability statistics for a set of items, as measured by Cronbach's Alpha coefficient. Cronbach's Alpha is a measure of internal consistency reliability, indicating the extent to which items within a scale or questionnaire are correlated with one another. In this case, the Cronbach's Alpha coefficient is calculated to be 0.709. A Cronbach's Alpha coefficient value ranges from 0 to 1, where higher values indicate greater internal consistency among the items. Generally, a Cronbach's Alpha value above 0.7 is considered acceptable for research purposes, suggesting that the items within the scale or questionnaire are moderately to highly correlated with each other. The table also indicates that the set of items consists of 13 items. This information is useful for understanding the size of the scale or questionnaire being assessed for reliability. The Cronbach's Alpha coefficient of 0.709 suggests satisfactory internal consistency reliability for the set of items, indicating that they measure a cohesive construct or concept reasonably well.

Table2: Statistics

		Gender	age	Qualification
N	Valid	120	120	120
	Missing	20	20	20

The given table presents statistics related to three variables: gender, age, and qualification. This indicates that there were 120 valid responses for the gender variable. These responses were complete and could be included in the analysis. However, there were 20 missing responses for gender, which means that data for 20 participants were not available or not provided for this variable. Similar to gender, there were 120 valid responses for the age variable, indicating complete data for these participants. However, there were 20 missing responses for age, suggesting that data for 20 participants were not available or not provided for this variable. For the qualification variable, there were also 120 valid responses, implying complete data for these participants. However, there were 20 missing responses for qualification, indicating that data for 20 participants were not available or not provided for this variable. The table provides information about the number of valid responses and the number of missing responses for each of the three variables: gender, age, and qualification. This information is crucial for understanding the completeness of the dataset and potential limitations in the analysis due to missing data.

With 28.7% of respondents below the age of 20 and 63.9% above the age of 20, we have a diverse sample representing different age groups. This distribution allows for insights into how different age demographics perceive and utilize plastic money, contributing to a comprehensive understanding of consumer behavior in the study.

Table 3: Age

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	below 20	31	28.7	31.0	31.0
	above 20	69	63.9	69.0	100.0
	Total	100	92.6	100.0	
Missing	System	8	7.4		
Total		108	100.0		

With 63.9% of respondents being male and 36.1% being female, we have a diverse sample representing both genders. This allows for a more comprehensive analysis of how plastic money usage may vary between male and female consumers, contributing to a deeper understanding of consumer behavior in the study.

Table 4: Gender

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Male	69	63.9	69.0	69.0
	Female	31	28.7	31.0	100.0
	Total	100	92.6	100.0	
Missing	System	8	7.4		
Total		108	100.0		

Table 5: Qualification

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Graduate	37	34.3	37.0	37.0
	under graduate	55	50.9	55.0	92.0
	3.00	8	7.4	8.0	100.0
	Total	100	92.6	100.0	
Missing	System	8	7.4		
Total		108	100.0		

Table 6: Regression

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.647[a]	.418	.400	.21572

Table 7: ANOVA

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	3.215	3	1.072	23.026	.000[b]
	Residual	4.467	96	.047		
	Total	7.682	99			

It appears that undergraduate students make up the majority of your sample at 50.9%, followed by graduates at 34.3%. Understanding the educational background of your respondents is essential for interpreting their consumer behavior, as educational attainment can influence spending habits and attitudes towards financial matters. Additionally, the coefficient provided suggests that changes in factors such as convenience, mobility, and security have a significant impact on consumer usage behavior, with

a 0.418 change expected for every one unit change in these factors. This insight is valuable for understanding the drivers of consumer behavior related to plastic money usage.
It appears that security has the lowest coefficient at 0.209, indicating that a one-unit change in security is associated with a 20.9% change in consumer usage behavior. Convenience follows with a coefficient of 0.118, suggesting that a one-unit change in inconvenience results in an 11.8% change in consumer usage behavior. Lastly, mobility has the highest coefficient at 0.290, indicating that a one-unit change in mobility corresponds to a 29.0% change in consumer usage behavior. These coefficients provide insight into the relative impact of each factor on consumer behavior related to plastic money usage.

Table 8: Coefficients

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.827	.344		5.307	.000
	Security	.209	.053	.311	3.945	.000
	Convenience	.118	.067	.168	1.772	.080
	Mobility	.290	.069	.402	4.220	.000

Table 9: Correlations

		Cu	Se	Con	mob
Cu	Pearson Correlation	1	.398**	.440**	.548**
	Sig. (2-tailed)		.000	.000	.000
	N	100	100	100	100
Se	Pearson Correlation	.398**	1	.134	.159
	Sig. (2-tailed)	.000	S	.185	.115
	N	100	100	100	100
Con	Pearson Correlation	.440**	.134	1	.572**
	Sig. (2-tailed)	.000	.185		.000
	N	100	100	100	100
Mob	Pearson Correlation	.548**	.159	.572**	1
	Sig. (2-tailed)	.000	.115	.000	
	N	100	100	100	100

**. Correlation is significant at the 0.01 level (2-tailed).

The coefficients derived from the analysis provide further insights into the relationships between consumer usage, security, convenience, and mobility concerning the use of plastic money. The coefficients indicate the magnitude and direction of the effect that changes in each variable have on consumer usage behavior. The coefficient for security is 0.209, indicating that a one-unit change in security results in a 20.9% change in consumer usage behavior. While this relationship is weak, it suggests that improvements in security measures may lead to a modest increase in the adoption and usage of plastic money among consumers. For convenience, the coefficient is 0.118, signifying that a one-unit change in convenience leads to an 11.8% change in consumer usage behavior. Again, while this relationship is weak, it suggests that enhancing the convenience of plastic money transactions could positively impact consumer adoption and usage. The coefficient for mobility is 0.290, indicating that a one-unit change in mobility results in a 29.0% change in consumer usage behavior. This relationship, being moderate, suggests that improvements in mobility and accessibility to services could have a more substantial influence on consumer behavior regarding plastic money usage. The coefficients demonstrate the varying degrees of influence that security, convenience, and mobility have on consumer usage behavior, they also underscore the importance of considering these factors collectively in promoting the adoption and usage of plastic money. By addressing concerns related to security, enhancing convenience, and improving mobility, stakeholders can work towards encouraging greater acceptance and utilization of plastic money among consumers.

5. DISCUSSION

This study aims to investigate the influence of various factors on consumer behavior regarding the usage of plastic money, particularly focusing on the behaviors exhibited by consumers when conducting transactions using plastic money in their daily lives. To achieve this objective, a thorough review of existing literature related to the topic is conducted, drawing insights from previous research studies. The literature review encompasses a comprehensive examination of studies that have explored the relationship between consumer behavior and the adoption, usage, and perceptions of plastic money, including credit cards, debit cards, and electronic payment methods. Previous research in this area has investigated various factors that influence consumer behavior, such as security concerns, convenience, mobility, financial literacy, attitudes towards cashless transactions, and socio-demographic characteristics. By synthesizing the findings of prior studies, this research seeks to build upon existing knowledge and contribute new insights into the dynamics of consumer behavior related to plastic money usage. By understanding the underlying factors that shape consumer attitudes and behaviors in this context, policymakers, financial institutions, and businesses can develop more effective strategies to promote the adoption and usage of plastic money, thereby advancing financial inclusion and driving economic growth. Following the literature review, the study proceeded to outline the methodology employed to investigate the impact of factors on consumer behavior regarding the usage of plastic money. A key aspect of this methodology was the selection of an appropriate instrument for data collection. In this case, a questionnaire was chosen as the primary tool for gathering data from the target population. The questionnaire was designed to contain a series of close-ended questions, which were adapted from previous research studies and tailored to suit the specific objectives of this study. Careful consideration was given to the selection and modification of questions to ensure they effectively captured the relevant variables and factors influencing consumer behavior related to plastic money usage. Furthermore, the questionnaire was designed to be comprehensive yet succinct, allowing for efficient data collection while ensuring that all relevant aspects of consumer behavior and perceptions regarding plastic money were adequately addressed. The questions were structured in a logical sequence to facilitate respondent understanding and minimize confusion. The questionnaire underwent a rigorous review process to ensure clarity, coherence, and relevance to the research objectives. Pilot testing was conducted to assess the validity and reliability of the instrument, and necessary adjustments were made based on the feedback received. Following the selection of the questionnaire as the data collection instrument, the next step was to identify the target population for the research. In this study, the target population consisted of consumers residing in Okara, Sahiwal, and Lahore, representing urban areas of Pakistan where plastic money usage is prevalent. To ensure the study's findings were representative and applicable to the broader population of interest, a sample size of 120 respondents was determined. This sample size was selected to provide sufficient statistical power while maintaining practical feasibility in terms of data collection. Upon distribution of the questionnaires to the identified target population, a total of 120 completed questionnaires were received back from the respondents. However, upon screening for completeness and reliability, 20 questionnaires were deemed ineligible for analysis due to missing or inconsistent responses. As a result, the final dataset for analysis comprised responses from 100 respondents, which were considered adequate for drawing meaningful conclusions regarding the impact of factors on consumer behavior related to plastic money usage in the selected geographical areas. After ensuring the reliability of the collected data, various statistical methods were employed for analysis. One such method was the use of frequency distribution to examine patterns and trends within the dataset. The survey results indicated that a majority of respondents reported using plastic money as their preferred mode of payment. Additionally, a significant proportion of respondents expressed agreement with the notion that utilizing plastic money facilitated effective shopping experiences and encouraged saving habits. These findings suggest a positive impact of plastic money on consumer usage behavior, as evidenced by its widespread adoption and perceived benefits among respondents. By leveraging plastic money, consumers are able to conduct transactions more conveniently and efficiently, leading to improved shopping experiences and potentially enhanced financial management practices.

6. CONCLUSIONS

The findings of this study provide valuable insights into consumer behavior regarding the use of plastic money. The results confirm that consumers generally feel comfortable using plastic money for their transactions. This sentiment is consistent with the global trend of increasing acceptance and adoption of plastic money, driven largely by advancements in technology and the convenience it offers in financial transactions. As technology continues to evolve, plastic money has become more ubiquitous worldwide, offering consumers a convenient and secure means of making purchases and managing their finances. The widespread acceptance of plastic money underscores its importance in modern commerce and highlights its role in shaping consumer behavior and preferences. The widespread adoption of plastic money among the general public underscores its significant role in modern financial transactions. This study was conducted with the aim of observing the usage behavior of customers regarding plastic money, and the findings have generally been positive. However, like all research endeavors, there are areas for further exploration and improvement. Moving forward, there is ample scope for future research to delve deeper into various aspects of plastic money usage, including consumer preferences, attitudes, and behaviors. Additionally, investigating the impact of emerging technologies and changing consumer trends on the use of plastic money could provide valuable insights for financial institutions and policymakers. Moreover, exploring the effectiveness of different strategies aimed at promoting responsible and secure usage of plastic money, as well as addressing potential concerns such as security and privacy, could contribute to enhancing consumer confidence and trust in these payment methods. This study has provided valuable insights into consumer behavior regarding plastic money, there remains a rich landscape for future research to further advance our understanding of this important aspect of modern financial systems. The limitation of the study lies in its sample size, which was constrained to 100 respondents due to time constraints. Increasing the sample size could potentially yield different results, providing a more comprehensive understanding of the relationship between the variables under investigation. Additionally, the adjusted R-square value suggests that there may be other factors influencing consumer behavior regarding plastic money that were not accounted for in this study. This highlights the need for further research to explore these factors in more depth and to gain a more nuanced understanding of the complexities involved. Expanding the scope of the study to include a larger and more diverse sample size, as well as incorporating additional variables and factors that may influence consumer behavior, could enhance the robustness and validity of the findings. Moreover, conducting longitudinal studies over an extended period could provide insights into the dynamics and changes in consumer behavior over time.

REFERENCES

Abdullah, M., Chani, M. I., & Ali, A. (2013). Determinants of Money Demand in Pakistan: Disaggregated Expenditure Approach. *World Applied Sciences Journal*, 24(6), 765-771.

Ali, A. (2011). Disaggregated import demand functions of Pakistan; An empirical Analysis. M-Phil Thesis, NCBA&E, Lahore, Pakistan, 1-70.

Ali, A., & Naeem, M. Z. (2017). Trade Liberalization and Fiscal Management of Pakistan: A Brief Overview. *Policy Brief-Department of Economics, PU, Lahore*, *1*(1), 1-6.

Arshad, S., & Ali, A. (2016). Trade-off between inflation, interest and unemployment rate of Pakistan: Revisited. *Bulletin of Business and Economics (BBE)*, *5*(4), 193-209.

Brumberg, M. A. (2004). Consumer's resolution of credit card problems and exist behavior. *The Journal of Service of Marketing,* 18, 19-34.

Chakravorti, S. (1997). 'How do we pay? ', Federal Reserve Bank of Dallas. *Financial Industry issues Quarter,* 4, 1-8.

Ellis, D. (1998). The Effect of Consumer Interest Rate Deregulation on Credit Card Volumes, Charge - Offs and the Personal Bankruptcy Rate. *Working Paper* , 12-48.

Feinberg. (1986). Credit card as spending Facilitating stimuli. *The gernal of consumer research 13* , 348-356.

Naim, F. (1995). Credit Cards . *Modern Arab Press, Cairo, Egypt* , 1-8.