



Perceptions towards Credit Card Usage: Factor Analytic Finding from Pakistan

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Abstract

This paper aims to present the individual differences among credit card users with reference to their age and Sex. Data for the research were collected through a survey of customers of Credit Card users in Pakistan. The results show that some age and Sex differences exist in the credit card usage. The research focuses on credit card services in Pakistan; further research from dispersed geographic areas may be necessary before generalization can be made on the entire service industry. Service providers can use this model for their market segmentation and targeting activities leading to better positioning their products/services in the competitive banking services. Although there are studies on individual differences of services; research on individual differences on credit cards is very limited; this research adds significant value on the subject area.

Keywords: Age differences; sex differences; consumer behaviour; credit card; services.

1. Introduction

Ubiquitous in modern world, as part of consumer culture the usage of credit cards is becoming an important part of the life. There has been an increased trend for purchases through credit cards because of its ease of use and its expanded operational expanded. However, looking at the users profile and spending patterns there seems to be a mix approaches in terms of credit cards utility; where few of the users are able to handle credit card prudently, others seem to be less in control of spending habits. With regard to social concerns, the credit card market has targeted not only the traditional customer, but new markets are also been emerged, such as senior citizens and students.

The purpose of this paper is to explore different types of usage and relevant individual differences (age and sex) among credit card users for their usage of credit card services. This paper provides meaningful insights to credit card marketers in Pakistan who are facing more challenges due to slow growth of credit card markets and adoption of smart marketing techniques. In this competitive service industry, individual differences among consumers provide pivotal importance for both academicians and marketers.

2. Literature review

According to the [World Fact Book](#), Pakistan, is an impoverished and under-developed country having a population of more than 174 million (2010 estimates), with a meagre per capita income of \$2,500 per year (2010 estimates). In between 2002-2007 it has generated solid macro-economic recovery ([World Fact Book, 2010](#)). Pakistan is already the sixth most populous nation in the world and the fourth most populous in Asia, and that its population is expected to increase to 350 million by the year 2025 ([Khan & Bamber, 2007](#)). Furthermore, they argued that although the country is poor and 25% of the population lives under the poverty line, Pakistan nevertheless imports around \$10 billion in commodities, and a remarkable growth of 7% in GDP, with a unique set of barriers to entry, represents a market with good potential for

growth to credit card services (Khan & Bamber, 2007).

2.1 Pakistan banking industry

Pakistan's banking sector has been ranked in third position worldwide by a report published by the International Monetary Fund (IMF). This is due to its higher profitability in the international banking markets, which has attracted foreign investors, including multi-national financial institutions. The South American states of Colombia and Venezuela occupy first and second places on the IMF list, whilst Pakistan's neighbours India and China are in 36th and 40th positions respectively. The report said "Pakistan's banking system continued to strengthen since 2004" (The Daily Times, 2006).

2.2 Credit card service providers in Pakistan

Although credit cards were introduced in Pakistan long time back but neither banks nor the card holders benefited from credit cards at large; however, liberalization of the economy in the early 1990s facilitated many banks to introduce Master and Visa credit cards in the country paving a way for much wider acceptance. Currently almost all local and foreign commercial banks operating in Pakistan offer credit card services to their customers, most in collaboration with VISA or MasterCard International (Pakistan and Gulf Economist, 2002).

2.3 Credit card users in Pakistan

According to the State Bank of Pakistan (SBP) the total number of credit cards reached 1.613 million at the end of December, 2010. In a recent study conducted by Oxford Policy Management it was revealed that consumer credit specifically, and credit in the private sector more generally, has grown sharply in the last decade and the number of credit card holders in the country has increased five-fold since 2000 as reported by the department for International Development - DFID, UK in 2007. Still credit cards are not very common and are provided only to people with a certain level of disposable income. As the idea behind this selective distribution is to evaluate customers' repayment worthiness before offering them the credit card, this item has emerged as a status symbol in some of the parts of the world (Meidan & Davo, 1994).

2.4 Credit card services

Credit cards are services that are intangible in nature (Lovelock, 1983), normally described as part of continuous membership-based services (Lovelock, 1983). Credit card services are categorised as information processing services (Lovelock, 1983). The most significant element that has changed the nature of credit card services and its delivery is "technology" (Suoranta, Mattila, & Munnukka, 2005), by the creation of technologically-enabled services, which allow services to operate at a global level, based on telecommunications and information technologies. These technology-enabled services contribute to the creation of economies of scale and economies of scope for services and service providers (Edvardsson, Haglund, & Mattsson, 1995); allow ways to standardise the service and facilitate the definition of specifications of service quality (McLaughlin & Fitzsimmons, 1996); and most importantly transform high-contact to low-contact services as customers progressively depend on services (Bitner et al., 2000). Being technologically-enabled, credit card services became as 'low contact' services.

2.5 Research gap

Much has been written about the credit card usage in literature; some of earlier researchers compared Asian and Hispanic Consumers in America for their usage and holding patterns (Delner & Katzenstein, 1994); some scholars presented their findings from Middle East focusing on correlates of credit card acceptance (Kaynak, Kucukemiroglu & Ozmen, 1995); some academicians compared the affinity card market in the USA and the UK (Schlegelmilch & Woodruffe, 1995); some researchers suggested to credit card companies for educating students about credit card usage (Austin & Phillips, 2001); some social scientist presented consumer's way of resolving credit card problems and exit behaviour (Hogarth, Hilgert & Kolodinsky, 2004); some studious researchers developed a model using fashion orientation, credit card usage, and compulsive buying (Park & Burns, 2005) and some of them presented their findings about main and subsidiary credit card usage patterns (Devlin, Worthington & Gerrard, 2006); and more recently some scholars predicted the money attitudes, financial knowledge and credit card debt in college students through personality factors (Norvilitis et al., 2006). After an exhaustive search, the author could not find any meaningful research available on credit card usage patterns in Pakistan.

3. Method

3.1 Sampling

The sample comprised university students enrolled on at least their second year throughout Pakistan. All three levels of university education, i.e. undergraduate, graduate and doctoral were considered for this study. The student component provided a significant proportion of young people, and also includes respondents who were familiar with credit card services. Part-time students, enrolled in evening, weekend, executive or doctoral programmes also proved to be a better target for credit card usage. It is important to note that both of these populations have been selected from larger populations on the basis of both judgment and convenience. Based on the evidence from the literature a sample size of 250 university students was believed to be adequate for the current study (Hair et al., 2006). The final sample size was random 250 in which 74% are Men and 36% are Women from the various cities of Punjab.

3.2 Research instrument

This study uses Wilska's (2003) instrument to measure credit card usage styles. All measures adapted for credit card usage and use five-point likert scales. Various non-statistical validity checks were made prior to the questionnaire's actual implementation. Firstly, all of these constructs were adopted from earlier studies providing acceptably reliable and valid measures. Secondly; these measures had acceptable reliability figures mostly stated in terms of Cronbach's alpha above 0.5. They have reported a reasonable internal consistency among the items; Cronbach alpha > 0.50 (Wilksa, 2003). Finally these measures were processed in a systematic manner in the earlier stages of the research project. In addition to these steps, pre-testing of the questionnaire was also performed.

3.3 Data collection

The strategy of using classrooms for group questionnaire administration worked out well and provided a suitable environment necessary for participant's motivation and convenience. All questionnaires were properly filled and 100% response rate was achieved.

4. Findings and discussion

The data was analyzed in a number of stages. Firstly, exploratory factor analyses were used to determine the factor structure of items related to credit card usage behaviour. Secondly, summated score were calculated for resultant credit card usage factors and finally individual differences were measured for various credit card usage factors. Factor analyses were conducted for the credit card usage scale using a multi-step process which includes three steps; (a) extracting the factors; (b) labelling the factors; c) creating summated scales and examining the descriptive statistics.

Analysis of 28 items related to the credit card attitudinal scale, using the maximum likelihood method of extraction with direct oblimin rotation, yielded, a three-factor solution, to which various criteria were then applied for refinement. Initially the solution was examined to determine whether all the factors satisfied the Kaiser criterion (eigenvalues (1) and they did. Secondly, the resulting scree plot was examined from which considerable discontinuity after factor three emerged, suggesting a possible three-factor solution. On a final reading of the individual items for coherence, no doubts arose concerning the coherence of the factors. All the items loading on each separate factor were found to cohere to some degree, and therefore they were included in their respective factors. The above analyses resulted in a final three-factor solution, comprised of 28 items, all with communality values greater than 0.3.

Factor 1 had an eigenvalue of 6.81 and it accounted for 23.48% of the variance. It had loadings on 15 items. This factor was labelled as Utilitarian. It reflects persons who are most utilitarian in nature and more usage oriented. They use credit card services in their routine matters and it is something for them having important in their routine life. The analysis shows that they are the keen user of credit card and they are keen on keeping them as a utility in their life. They are more concerned about the utility or usefulness rather than beauty, ornamentation.

Factor 2 had an eigenvalue of 2.42 and it accounted for 8.35% of the variance with loadings on three items. This factor has been labelled as Parsimonious. It reflects persons who have normal use of credit card and have no intentions to get facility of credit card services without any specific necessity. It's important for them to save the service charges of credit card usages as credit card is not the necessity for them. They

people based on the concept of “less is better” and they are recognized as users who use the credit card services whenever they feel a desperate need of money supply rather than a normal facility to be used on regular basis.

Factor 3 had an eigenvalue of 2.15 and it accounted for 7.42 % of the variance. This factor has been labelled as Affluent. It refers to persons who mostly rely on credit card services no matter what cost they are paying for them as they are getting much more value of money through using credit cards. This group of people uses credit cards as a style. Another interesting analysis reflects they have more than one credit card in use with relatively higher credit limits for their use based on their profession and status.

This study uses Cohen’s criteria for interpreting effect size (d), which was extensively used for presenting sex and other individual differences in social research (Larsen & Buss, 2005), and a score of $d = 0.2$ or -0.2 means small difference, a score of $d = 0.5$ or -0.5 considered as medium difference while a score of 0.8 or -0.80 is taken seriously and summarized large or significant difference.

The younger persons (with age < 26 years) were found to be less utilitarian and less affluent in nature as compared to elder group members. While the elder students group (with age > 26 years) were found more parsimoniousness as compared to younger ones. The Cohen’s d was less than 0.2 in all three cases which mean these differences were small not significant.

Women tend to be more utilitarian in nature as compared to their opposite sex. Although the Sex differences explain in Parsimonious and Affluent factors is also tilted towards Women but not statistically significant. Cohen’s d score of -0.41 reflects medium sized difference among men and women for utilitarianism. The other two types of credit card behaviours exhibit small differences among men and women.

The study suggests that there are different credit card usage patterns named above as Utilitarian, Parsimonious and Affluent. Utilitarian are keen users of credit card services and wish to use and they are keen on keeping them as a utility in their life. They are heavily dependent on credit cards and they can’t go outside without their credit cards in their valets. Parsimonious and Affluent factors are reflection of two different market segments. Both are users of Credit card services. Parsimonious tend to pay their credit card bills (minimum or full) in cash while Affluent pay their bills through cheques. Parsimonious people find themselves in financial difficulties for paying credit card bills and they look for lower interest rate credit card services. On the other hand Affluent people tend to have many credit cards with higher credit limits and probably interest rates on credit cards are not a major consideration among them. They tend to use credit cards on suitable locations.

This leads to a discussion about customer profiling with their demographics. Being more affluent, less parsimonious and more utilitarian elder people (aged above 26 years) tend to appear as the best market for credit card companies. The younger persons (with age < 22 years) must be considered as another good market segment as they were found to be least utilitarian, more parsimonious and less affluent. This reflects that they must be willing to spend more amount and having less payment problems. Similarly women tend to be more utilitarian, more affluent and more parsimonious in nature as compared to their opposite sex. Significant difference between men and women made women more attractive market segment for credit card companies.

5. Practical implications

The study produces various implications for practicing managers especially those who are responsible for segmentation, targeting and positioning their services. Technically speaking this piece of research provides insights not only for Credit Card companies but also may serve the managers working in the services industry in general. Other potential beneficiary groups might be marketing professionals interested to know more about their customers and their key differences among them across the globe. The findings clarify the role of demographic variables in segmenting the respective markets and positioning the services accordingly. This information will allow banks to better characterize their customer base.

Conclusion

This survey examined the usage of credit card in relation to consumption style of professionals, their approach toward these services and their technological requirements. The socio-economic characteristics of

their social needs affected somewhat the respondents' perceptions of their own economic situation. However social-economic background variables had no effect on the self perceived consumption style or on the use of the credit card. Many of the respondents regarded themselves as utilitarian consumers. Although the credit card is usually regarded as elite lifestyle of some people, it is not an isolated category, while a significant segment having parsimonious behaviour.

According to this survey, their usage of credit card is consistent with their general consumption style. Addictive use of credit card is connected to Affluent factor and Sex-wise; women are the foremost users in utilitarian. Men on middle level jobs are parsimonious and higher salary holders are bit more affluent as compare to women. The link between consumption styles and the use of technologically sophisticated credit card services is obvious. They always envisioned as the "the consumer of the future" whose relationships to the technology impacts bigger part of life.

References

- Austin, M. J., & Phillips, M.R. (2001). Educating students: an ethics responsibility of credit card company. *Journal of Services Marketing*, 15(7). 516-528.
- Bitner, M. J., Brown S. W., & Meuter, M. L. (2000). Technology Infusion in Service Encounters. *Journal of the Academy of Marketing Science*, 28(1), 138-149.
- Credit Card (2010). In Encyclopedia Wikipedia Online, (2010). Retrieved July 7, 2010, from Encyclopedia Wikipedia http://en.wikipedia.org/wiki/Credit_card
- Delner, N., & Katzenstein, H., (1994). Credit Card Possession and Other Payment Systems: Use Patterns among Asian and Hispanic Consumers, *International Journal of Bank Marketing*, 12, 4, 13-24
- Devlin, J. F., Worthington, S., & Gerrard, P. (2007). An analysis of main and subsidiary credit card holding and spending. *International Journal of Bank Marketing*, 25(2), 89-101.
- Edvardsson, B., Haglund, L., & Mattsson, J. (1995). Analysis, planning, improvisation and control in the development of new services. *International Journal of Service Industry Management*, 6(2), 24-35.
- Hair, J. F., Black, W. C., Babin, B. J., Anderson, R. E., & Tatham, R. L. (2006). *Multivariate Data Analysis*. Prentice Hall, New Jersey.
- Hogarth, F. M., Hilgert, M.A., & Kolodinsky, F. M. (2004). Consumers Resolution of credit card problems and exit behaviour. *Journal of Services Marketing*, 18(1), 19-34.
- Kaynak, E., Kucukemiroglu O., & Ozmen, A. (1995). Correlates of credit card acceptance and usage in an advanced developing Middle Eastern country. *Journal of Services Marketing*, 9(4), 52-63.
- Khan, H., & Bamber, D. (2007). Market entry using country-of-origin intelligence in an emerging market, *Journal of Small Business and Enterprise Development*, 14 (1), 22-35.
- Larsen, R. J., & Buss, D. M. (2005). *Personality psychology: Domains of knowledge about human nature*. New York: McGraw Hill
- Lovelock, C. H. (1983). Classifying services to gain strategic marketing insights. *Journal of Marketing*, 47(3), 9-20.
- McLaughlin, C. P., & Fitzsimmons, J. A. (1996). Strategies for globalizing service operations. *International Journal of Service Industry Management*, 7(4), 43 – 57.
- Meidan, A., Davo, D. (1994). Credit and charge cards selection criteria in Greece. *International Journal of Bank Marketing*, 12(2), 36-44.
- Norvilitis, J. N., Merwin, M. M., Osberg, T. M., Roehling, R, P. V., Young, P., & Kamas, M. M. (2006). Personality Factors, Money Attitudes, Financial Knowledge, and Credit-Card Debt in College Students. *Journal of Applied Social Psychology*, 36(6), 1395–1413.
- Pakistan and Gulf Economist. (2002). *Credit Cards*. May, 06– 12. <http://www.pakistaneconomist.com/database2/cover/c2002-30.asp> [accessed on 07-Jul-2010]
- Park, H., & Burns, L.D. (2005). Fashion orientation, credit card use, and compulsive buying. *Journal of Consumer Marketing*, 22(3), 135–141.

Schlegelmilch, B.B., & Woodruffe, H. (1995). A comparative analysis of the affinity card market in the USA and the UK. *International Journal of Bank Marketing*, 13(5), 12 – 23.

Suoranta, M., Mattila, M., & Munnukka, J. (2005). Technology-based services: a study on the drivers and inhibitors of mobile banking. *International Journal of Management and Decision Making*, 6(1), 33 – 46.

The Daily Times. (2006). *Pakistan 3rd in world in banking profitability*. December 13, Pakistan. http://www.dailytimes.com.pk/default.asp?page=2006%5C12%5C13%5Cstory_13-12-2006_pg5_2 [accessed on 07-Jul-2010]

Wilska, T. A. (2003). Mobile Phone Use as Part of Young People's Consumption Styles. *Journal of Consumer Policy*, 26, 441–463.

World fact book, (2010). “*Pakistan*” Retrieved July 7, 2010 from Central Intelligence Agency (CIA) <https://www.cia.gov/library/publications/the-world-factbook/geos/pk.html>.

Table(s)

Table 1: Exploratory factor analysis of credit card usage

Items	Factors		
	Utilitarian	Parsimonious	Affluent
Eigenvalue	6.81	2.42	2.15
Variance explained (42% total)	23.48	8.35	7.42
Mean	3.44	3.06	3.02
SD	0.59	0.50	0.67
Item 1	0.69		
Item 2	0.67		
Item 3	0.66		
Item 4	0.64		
Item 5	0.60		
Item 6	0.59		
Item 7	0.58		
Item 8	0.56		
Item 9	0.53		
Item 10	0.52		
Item 11	0.50		
Item 12	0.46		
Item 13	0.43		
Item 14	0.40		
Item 15	0.39		
Item 16	0.38		
Item 17		0.84	
Item 18		0.70	
Item 19		0.56	
Item 20		0.53	
Item 21		0.34	
Item 22			0.63
Item 23			0.61
Item 24			0.61
Item 25			0.58
Item 26			0.54
Item 27			0.51
Item 28			0.45
Item 29			0.43
KMO = 0.8; Bartlett test of Sphericity = 2523.1; Cronbach's Alpha = 0.85			

Table 2: Age differences in credit card usage patterns

	Under 26 yrs (N=89)		Above 26 yrs (N=161)		Total (N=250)		Cohen's
	M	SD	M	SD	M	SD	<i>d</i>
Utilitarian	3.40	0.55	3.44	0.62	3.44	0.59	-0.07
Parsimonious	3.04	0.56	3.01	0.47	3.06	0.51	0.06
Affluent	2.92	0.69	3.04	0.68	3.02	0.67	-0.18

Table 3: Sex differences in credit card usage patterns

	Men (N=184)		Women (N=66)		Total (N=250)		Cohen's
	M	SD	M	SD	M	SD	<i>d</i>
Utilitarian	3.38	0.58	3.62	0.58	3.44	0.59	-0.41
Parsimonious	3.05	0.48	3.07	0.55	3.06	0.5	-0.04
Affluent	2.98	0.65	3.11	0.73	3.02	0.67	-0.19