DEMOGRAPHICAL FACTORS AFFECTING THE ADOPTION OF ELECTRONIC PAYMENTS AMONG YOUNG POPULATION IN CENTRAL ALBANIA

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Abstract

The advent of Information and Communication Technologies is seen as a means to increase volume of business transactions by millions of users across the world. Internet adopting enterprises are witnessing an upsurge of their customers' interest, lower cost transactions and increased competitive advantage since they have been offered services and products via internet. On the other hand, ICT using population, especially young population that will soon perform eletronic payment transactions is being paid attention as potential target group. This paper analyzes the factors affecting the adoption of electronic payments among some young population in Central Albania. Structured questionnaires have been randomly distributed to young people in Tirana and Durres - considered the largest metropolitan cities in Albania. The study investigates the relationship between demographical factors and young population' attitude towards e-payment adoption. Results might be used by companies to refine strategic marketing approach towards young population as potential e-payment users and suggest that the study is worth investigating further in Albania.

Introduction

Technological innovations have resulted in various payment transactions conducted electronically. One of the objectives of Information and Communication Technologies (ICTs) is to facilitate the financial markets (Radovanović, 2009). Electronic payment systems, a.k.a E-payment systems must be convenient for internet purchasing, reliable and especially cost-effective in order to provide low-value transactions in developing economies (Choi et al., 1997). Electronic money was first introduced through Automated Teller Machines (ATMs) in

Albania in 2003, while there are currently two existing systems: Automated Electronic Clearing House (AECH) clears small-value payments; and Albanian Interbank Payment System (AIPS) settles large-value payments (Mersini and Cota, 2010). In 2011, about 75,269 transactions totalling about ALL1 4,085 billion were processed in AIPS. Annual transactions processed in this system fell about 6.33% in volume and about 7.92% in value from 2010. Year-on-year, the volume and value of payments cleared in 2011 in the AECH were up by 16.66% and 45.76%, respectively. The uptrend of volume and value cleared through AECH reflects the increase of the upper limit for transactions cleared in AECH from ALL 1 million to ALL 1.5 million, as well as relevant measures taken for cost reduction (Central Bank of Albania Annual Report, 2011). Payment Cards are widespread across Albania, and at the end of 2011 credit cards increased by 39%, against the 4% of debit cards. According to this report, 58% of the questioned cardholders are males, whilst 42% of them are females (Pie Chart, Figure 1). Moreover, cardholders' gender and age 2-column chart shows that 25-35 year-old males outperform all age-group females (2-Column Chart, Figure 1).

Fig. 1: Cardholders in Albania by gender and age, 2011
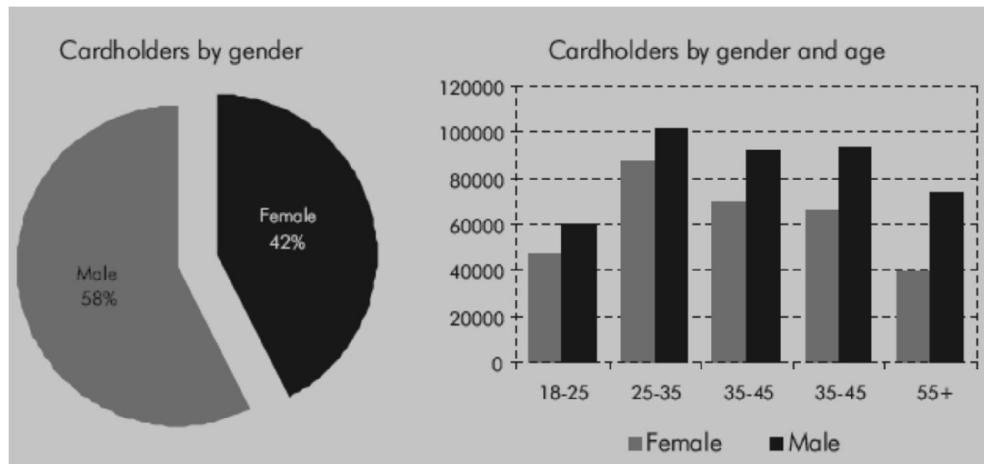
Source: Central Bank of Albania, Annual Report 2011

More importantly, customer payments through payment instruments constitute only 1/3 of the total payments which suggests high prevalence of cash payment. Albanian banks have to attract more customers and increase electronic payments by analyzing the effect of demographics on the adoption of e-payments in particular and e-banking products in general. Wang et al. (2003) and Alagheband (2006) findings show that marital status, age and education level are important demographic determinants of customer adoption and usage of e-

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[1] Albanian Lek

banking services. Gender, marital status, residential location, age, education, and household income are found to be important demographic predictors of Internet purchasing (Sultan and Henrichs, 2000), while women represent the major seasonal holiday buyer. However, (U. S. Department of Commerce, 2003) states that Internet buyers show a diversity of income and education. Rogers (2003), Choudrie and Dwivedi (2005) and Marchionni & Ritchie (2007) conclude that technology adopters are young, wealthy, usually have a good level of education. It indicates that more educated, younger, males, and wealthier people in contrast to less educated, older, females, and less wealthier are more likely to use the e-payment for Internet purchasing As a result, Rogers (2003) has shown that demographic variables play a crucial role in predicting technology adoption and that economic status (income) is highly correlated to initial adoption.

1   Survey Data and Methodology

A survey questionnaire has been designed to study the effect of some demographical factors on the adoption of electronic payments among young population in Central Albania. This geographical area provides the largest labor force and is over-populated as a result of migration of young people who are employed or seek for job opportunities. 74 samples have been randomly distributed to resident students in Tirana and Durres which constitute the two largest cities in Albania. Only 60 valid survey samples were statistically evaluated using SPSS software package. All respondents pertain to the same age group, consequently variable age has not been tested. Three predictor demographic factors (gender, employment status and monthly income) are tested over the dependent variable aep (adoption of electronic payment). Provided that, the dependent variable is a dichotomous one, Binary Logistic Regression technique has been used to analyze if the demographic factors significantly affect the adoption of electronic payments.

1.1   Young Population Profile

All MBA students involved in this empirical study pertain to the 22-30 years age group. They reside in both Durres and Tirana (largest city and capital of Albania). 33 male and 27 female youngsters participated in the survey. Besides, 70% are employed while 30% of them are unemployed and seeking for a job position. In total, 45% of the respondents earn less than Eur 400 every month either in the form of salary or family provided stipends and 55% of the youngsters' monthly income exceeding Eur 400 originate from salaries and money earned from other sources.

1.2 Crosstabulation Results of Gender, Employment Status and Adoption of Electronic Payments

Results from applying Crosstabulation technique to the following categorical variables, namely gender and employment status are summarized below in Table 1. More male youngsters (31) than female ones (20) have adopted electronic payments. This result is in compliance with the 2011 Annual Report of the Central Bank of Albania and Akhter (2002). It reinforces previous findings regarding male willingness to adopt technological innovation and e-banking services. Moreover, more employed youngsters have adopted electronic payments. Again, this is a logical outcome deriving from Rogers (2003) taking into consideration that they are being paid salaries through debit cards and they can afford internet purchasing as well. Whereas, unemployed students might have adopted electronic payment either as having experienced internet purchasing or having utilized own family or acquaintance payment instruments thus having adopted usage of electronic payments.

Tab. 1: Gender*Adoption of Electronic Payments Crosstabulation, Employment Status* Adoption of Electronic Payments Crosstabulation

		Adoption of Electronic Payments		Total
		No	Yes	
Gender	Male	2	31	33
	Female	7	20	27
Total		9	51	60
		Adoption of Electronic Payments		Total
		No	Yes	
Employment Status	Unemployed	3	15	18
	Employed	6	36	42
Total		9	51	60

1.3 Binary Logistic Regression: The Effect of Demographic Factors on the Adoption of Electronic Payments

Binary Logistic Regression technique has been employed to investigate the effect of gender on the adoption of electronic payments among a young population. By looking a closer look at Sig. column in Table 2, significance level (.03) being less than .05, means that gender is a statistically significant demographic factor over the adoption of e-payments. Moreover, value of Exp(B) (in Table 4) shows that male respondents tend to use e-payments 5.425 times more than female students do. The fair value of Cox & Snell R Square (Table 3), might be increased in case gender interrelates to another variable with respect to adopting electronic payments (Aep).

Tab.2: Omnibus Tests of Model Coefficients (Gender-Aep)

		Chi-square	df	Sig.
Step 1	Step	4.732	1	.030
	Block	4.732	1	.030
	Model	4.732	1	.030

Tab. 3: Model Summary (Gender-Aep)

Step	-2 Log likelihood	Cox & Snell R Square	Nagelkerke R Square
1	45.993ᵃ	.076	.133

a. Estimation terminated at iteration number 5 because parameter estimates changed by less than .001.

Tab.4: Variables in the Equation (Gender-Aep)

		B	S.E.	Wald	df	Sig.	Exp(B)
Step 1ᵃ	Gender(1)	1.691	.852	3.944	1	.047	5.425
	Constant	1.050	.439	5.715	1	.017	2.857

a. Variable(s) entered on step 1: Gender.

Binary Logistic Regression analysis of the effect of Employment Status on Aep, concludes that Employment Status is not statistically significant at p= .814. Thus, employment status of a student does not affect the adoption and usage of electronic payments.

Binary Logistic Regression analysis of the effect of Monthly Income on Aep, concludes that Monthly Income is not statistically significant at p= .480. Consequently, monthly income of a student does not affect the adoption and usage of electronic payments.

Conclusion

Adoption of Electronic Payments among a group of graduate students in Central Albania is determined by gender which is statistically significant. The finding is also supported by quantitative data retrieved from the recent Annual Report of the Central Bank of Albania and various studies. However, female youngsters should be more encouraged to learn and adopt innovative technologies.

Employment status does not seem to affect adoption and usage of electronic payments. It is comprehensible that although youngsters are employed, they might retrieve their salaries in cash and not through payment instruments. Furthermore, they might not have been aware that electronic payments comprise POS transactions as well as internet purchasing. These results might relate to the fact that the respondents might not be fully informed regarding the electronic payment instruments.

Monthly Income is neither significant on adoption of electronic payments. This result is also supported by (U. S. Department of Commerce, 2003) stating that Internet buyers show a diversity of income. Low or high monthly incomes do not effect adoption of e-payments.

Further studies might try to observe bivariate or multivariate effect on adoption of e-payments. Another limitation that might have caused these outcomes is the reduced number of samples. Observations on an extended young population might result in better statistical significance.

Additionally, commercial private banks in Albania should invest more in marketing their electronic payment instruments; offer trainings and work to ensure earning new and existing consumers' trust in adoption and usage of electronic payments.

References

Alagheband ,P. (2006). Adoption of Electronic Banking Services by Iranian Customers. *Master thesis*. Sweden, Lulea University of technology.

Central Bank of Albania Annual Report. (2011). Retrieved from http://www.bankofalbania.org/web/pub/ps_raport_2011_4928_1.pdf

Choi, S., et.al. (1997). Economics of Electronic Commerce. United States: *Macmillian Computer Publishing*.

Choudrie, J. & Dwivedi, Y.K. (2005). The demographics of broadband residential consumers of a British local community: the London borough of Hillingdon. *Journal of Computer Information Systems*, 45, 4, pp. 93-101.

Marchionni, C. & Ritchie, J. (2007). Organizational factors that support the implementation of a nursing Best Practice Guideline. *Journal of Nursing Management*, 16, 3, pp. 74-266.

Mersini, R., Cota, A. (2010). *An overview of the albanian electronic payment system*. In *Proceedings of the 18th Annual Conference on Marketing and Business Strategies for Central & Eastern Europe* (pp. 473-481). Vienna: Institute fot International Business.

Radovanović, P. (2009). Digital economy, digital money and digital banking. *The Facta Universitatis Journal of Economics and Organization Series*, 6, pp. 153-160.

Rogers, E.M. (2003). *Diffusion of innovations*. New York; London: Free Press.

Sultan, F., Henrichs, R.B. (2000). Consumer preferences for Internet services over time: initial explorations. *The Journal of Consumer Marketing*, Vol. 17, No. 5, pp. 386-403.

U.S. Department of Commerce (2003). *Estimated quarterly US retail ecommerce sales*. Washington, D.C.: U.S. Dept of Commerce. Retrieved from: www.census.gov/mrts/www/current.html

Wang,Y.S., Wang, Y.M., Lin, H.H. Tang, I. (2003). Determinants of User Acceptance of Internet Banking: An Empirical Study. *International Journal of Service Industry Management.* 14 (5), pp. 501-519.

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