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GENDER DIFFERENCES AMONG ELDERLY IN THE USE OF INTERNET BANKING SERVICES

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ABSTRACT

The Internet banking has changed the type of relationship between clients and banks. Today it is possible to manage accounts and all of the services online having the opportunity to compare different providers quickly and easily. The future of the Internet bank is in the type of services offered and in the way they interact with clients satisfying their needs. In this work, through a sample of 415 individuals older than 55 years, we analyse the gender gap in the use of Internet Baking and preferences for personal contact as key variables in the explanation of the frequency of use of ten services regularly offered by the Internet banking. Results show the existence of a gender gap in the frequency of use, although the level of autonomy in the preference for personal contact dilutes gender differences for some services.

KEYWORDS: Elderly, Internet banking, gender gap, personal contact.

1. INTRODUCTION

Internet banking is one of the most successful business-to-consumer applications in electronic commerce (Al-Jabri & Sohail, 2012). Internet banking (IB) is a channel that allows consumers to perform a wide range of financial and non-financial services through a bank's website (Hoehle, Scornavacca & Huff, 2012). IB has emerged as one of the most profitable e-commerce applications along the last decade (Lee, 2009; Yuen et al. 2010). Moreover, IB customers are the most interesting for banks (Pikarainen et al., 2004), showing an increased satisfaction, more positive word-of-mouth communications and the lowest intention to change to other financial institutions (Mols, 1999). However, although the growth from 2008 to 2012 is noticeable (31% for Europe and 60% for Spain) no everyone uses IB: a 38% of the population aged from 16 to 74 years in Europe and only a 32% in Spain. But age is not the single socio demographic variable explaining differences in UE countries; it is also possible to capture these differences in the use of IB across genders (Eurostat, 2013) (Figure 1).

Figure 1. Percentages of IB users in UE (27) and in Spain by gender (2005-2012).

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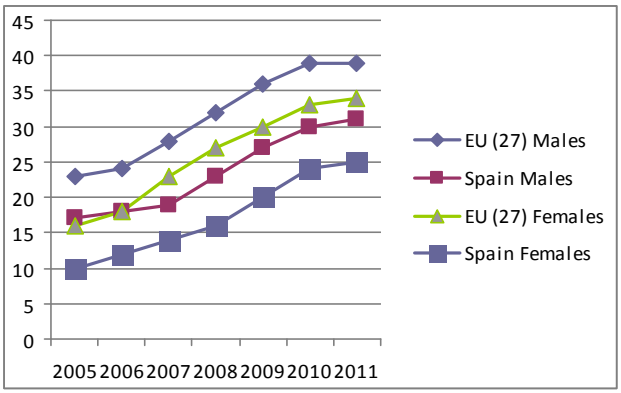

Several studies have documented the attractiveness in the financial status of the grey market. Managing the grey market is one of the hot topics in electronic banking today. Retirement can decrease household income, however, the income per member of the household does not decrease that much since the children has usually already moved away. Thus, mature consumers have significant purchasing power but also a need for carefully managing their assets along their lifespan, making the 55-plus segment extremely lucrative for the financial service providers. Mature consumers are becoming familiar with technology such as computers, Internet and mobile phones.

Marketers too often stereotype older consumers and ignore them in their marketing actions (Laukkanen et al. 2007). Elders present a high heterogeneity (Mattila, Karjaluoto & Pento, 2003; Mumel & Prodnik, 2005) in their purchase behaviour making necessary to design strategies capturing this heterogeneity to correctly drive marketing actions to the grey market. For these reasons, this work tries to analyse if gender and preferences for personal contact with banks' staff influences IB use. Finding out these differences would allow banks to identify prone clients to use IB and adapt their strategies through the personalization of the service.

2. INTERNET BANKING USE

Some authors (Durkin, 2004; Lassar, Manolis & Lassar, 2005; Martínez-Guerrero, Ortega-Egea & Román-González, 2005) show demographic variables affecting IB use, although most of the findings point to variables such as gender, age, income, level of education, occupation or family size affecting IB use (Ding, Verma & Iqbal, 2007; Howcroft, Hamilton & Hewer, 2002; Mattila et al., 2003). Other factors could be helpful detecting existing segments regarding IB use: geographical and psychological criteria (Gounaris & Koritos, 2008; Kaynak & Harcar, 2005), attitudes, expected benefits (Machauer & Morgner, 2001) or the perception of the security and privacy risks (Chen, Gillenson & Sherrell, 2002; Howcroft et al., 2002). In addition, the property of financial products and perceptions and attitudes towards received services and Internet as a financial distribution channel (Martínez-Guerrero et al., 2005), banking transactions conducted by clients (Zuccaro & Savard, 2010) or the number of banks used by customer, acquired bank products and the frequency of use (Dimitriadis, Kouremenos & Kyrezis, 2011) are criteria that have been also analysed to explain IB use.

Regarding elderly and technology and although they are not a homogeneous segment to banking market, a stereotyped profile of older persons has been used Mattila et al., 2003). For this reason, our work aims to analyse the use of IB services in the elderly segment, analysing gender and the preference for personal contact in banking.

Firstly, concerning gender and Internet use, it has been suggested that technology adoption differs between males and females. Men tend to be more task-orientated (Minton & Schneider, 1980), systems-orientated (Baron-Cohen, 2004) and more willing to take risks than women (Powell & Ansic, 1997). Men's decisions to use a computer system could be considered more influenced by the perceived usefulness while women's decisions would be influenced by the ease of use of the system (Venkatesh & Morris,

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2000) and there may be gender differences in the motivation, duration and enjoyment as e-consumers (McCloskey, 2006). Given that females have traditionally expressed more negative attitudes and greater levels of anxiety toward computers than males (Nayak et al., 2006), less self-perceived competence and a lower ease of use with respect to the Internet (Wood et al., 2010), it seems reasonable to consider that Internet banking use may be depend on gender. Therefore, we expect that older women use Internet banking less than men.

Secondly, some people prefer technology-enabled services be provided precisely because it eliminates the need for personal contact and interaction with service personnel and other customers and even they find it enjoyable (Curran, Meuter & Surprenant, 2003; Walker & Johnson, 2006). Others, however, prefer to deal or interact with people rather than machines, which are often thought to be impersonal and incapable of providing a personalized service (Dabholkar & Bagozzi, 2002; Walker et al., 2002). For this, it is reasonable to expect that customers who desire personal interaction with the bank may be reluctant to adopt and use technologically facilitated means of service provision, simply for their preference toward the personal element and the opportunity of social interaction (Curran & Meuter, 2005; Patsiotis, Hughes & Webber, 2012). Desire for personal contact does have negative impact on usage of internet banking (Walker & Johnson, 2006), while "self-sufficient" financial customers, preferring to make their financial decisions on their own, without need of advice from their financial entities, are more likely to use the Internet for banking transactions (Martínez-Guerrero et al., 2005). Therefore, we expect that elderly with high preferences for personal contact use IB less than self-sufficient ones.

3. METHODOLOGY

Data were collected through a survey during the months of November and December 2012 using students over 55 years hold enrolled in the "*Experienced Classroom"* initiative in a University in the South of Europe. The number of valid surveys was 415 with a proportion of women of 62.5%. The average age was 63.6. Most of them had secondary studies 54.2%, and university studies 36.1% and socioeconomic class was mostly middle class 80.2%.

We employed scales tested in previous research to measure preferences for personal contact (Walker & Jonhson, 2006) and IB use (Kwon & Wen, 2010). These items were anchored on a 7-point Likert scale (1 = strongly disagree; 7 = strongly agree). The Internet banking services' concept was measured using an existing scale (Patsiotis et al., 2012): S1- Check the balance of my accounts; S2- Transfer funds between accounts; S3- Make payments (credit card, telephony and electricity bills, other payments); S4- Transfer funds from my account to other person's account; S5- Get information on my investment portfolio (shares, mutual funds); S6- Trade shares and check the status of my order; S7- Get information on different types of loans; S8- Get an update on my existing financing loan(s); S9- Apply for a financial service; S10- Contact my bank to answer a question. Use frequency for each service described was anchored by: no use, under 5 times a year, between 6 and 11 times a year, once a month, several times a month, several times a week, once or more times a day. To eliminate possible ambiguities in the questionnaire, it was piloted using seven older adult volunteers.

To assess the constructs, we conducted a confirmatory factor analysis (CFA) using PLS with SmartPLS 2.0.M3 (Ringle, Wende & Will, 2005). Based on the CFA results, we analyzed convergent validity, discriminant validity, and the reliability of all the multiple-item scales (Fornell & Larcker, 1981) (Table 1). Composite factor scores were calculated to perform further analysis.

Table 1. Reliability and Validity

Construct	Items	Loadings
Personal contact	*AVE: 0.761*	
	Composite reliability: 0.927	
	Cronbach's Alpha:0.896	
	I prefer to deal face-to-face with customer service people	0.869
	I am more reassured by dealing face-to-face with customer service people	0.904

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	I like to communicate with people when services are being provided	0.817
	I feel like I'm more in control when dealing with customer service people than with automated systems	0.897
Use	*AVE: 0.848* *Composite reliability: 0.943* *Cronbach's Alpha: 0.911*	
	I use the Internet banking frequently	0.915
	I expend a lot of time using Internet banking	0.918
	I am very involved with the Internet banking	0.931

4. RESULTS

The use of contingency tables is the basic technique for examining the dependence between two categorical variables. We analyse if IB use, in general, and if the frequency of use of online bank services are independent from gender. In addition, we examine if there are differences in the preferences for dealing with bank staff considering gender.

As it is shown in table 2, the two-sided asymptotic significance of the chi-square statistic was lower than 0.01 for all the bank services analysed. It shows evidence for the existence of dependence between gender and IB use and gender and the frequency of each bank services. Men have, on average, higher frequency of use than women. Regarding the preferences for contact with bank staff, women have higher average values than men (5.395 vs. 4.752) (see Table 2).

Table 2. Chi-square statistics, differences across genders

	Chi-Square (Asymp Sig.)	**Mean of frequencies Men - Women**
S1- Check the balance of my accounts	38.081 (.000)	4.56 - 3.38
S2- Transfer funds between accounts	34.356 (.000)	3.12 - 2.22
S3- Make payments (credit card, telephony and electricity bills, other payments)	23.381 (.001)	2.78 - 2.01
S4- Transfer funds from my account to other person's account	29.460 (.000)	2.77 - 2.12
S5- Get information on my investment portfolio (shares, mutual funds)	24.866 (.000)	2.89 - 2.21
S6- Trade shares and check the status of my order	32.298 (.000)	2.27 - 1.65
S7- Get information on different types of loans	27.043 (.000)	2.3 - 1.66
S8- Get an update on my existing financing loan(s)	23.186 (.000)	1.74 - 1.37
S9- Apply for a financial service	26.289 (.000)	1.83 - 1.45
S10- Contact my bank to answer a question	18.841(.004)	2.37 - 2.28
USE_MED	51.372 (.000)	3.376 - 2.488
PC_MED (Personal Contact)	69.524 (.000)	4.752 - 5.395

With respect to the symmetric measures (phi, Cramer´s V and contingency coefficient), the statistics indicated a statistically significant relationship and the values of all three measures reached values from 0.243 to 0.417, showing strong relationships among the constructs under analysis.

We analyse the dependence among preference for personal contact and the frequency of use of online banking services, both ordinal variables. As result of the Gamma analysis, the dependence between preference for personal contact and the frequency of use of online banking services is shown being the parameters statistically significant but negative indicating that the greater is the preference to deal with bank staff, the lower frequency of online banking and IB use are (Table 3).

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Table 3. Symmetric measures

	Gamma (Asymp Sig.)	Kendall´s Tau c (Asymp Sig.)
S1- Check the balance of my accounts	-.261 (.000)	-.222 (.000)
S2- Transfer funds between accounts	-.368 (.000)	-.269 (.000)
S3- Make payments (credit card, telephony and electricity bills, other payments)	-.287 (.000)	-.179 (.000)
S4- Transfer funds from my account to other person's account	-.358 (.000)	-.245 (.000)
S5- Get information on my investment portfolio (shares, mutual funds)	-.234 (.000)	-.149 (.000)
S6- Trade shares and check the status of my order	-.285 (.000)	-.146 (.000)
S7- Get information on different types of loans	-.227 (.000)	-.125 (.000)
S8- Get an update on my existing financing loan(s)	-.292 (.000)	-.117 (.000)
S9- Apply for a financial service	-.285 (.000)	-.127 (.000)
S10- Contact my bank to answer a question	-.166 (.001)	-.113 (.001)
USE_MED	-.410 (.000)	-.321 (.000)

Other question analysed is the possible existence of dependence between the preferences for personalized attention and gender of the respondent and the variables of IB use and frequency of use of services online. For this reason, we use the variable personal contact to divide the sample into two parts: those who prefer to be self-sufficient or autonomous (personal contact values 1 to 4) and those who prefer to deal directly with the staff of the bank (values 5 to 7). The chi-square test was performed separately for both groups.

Results indicate that for six of the online bank services gender and frequency of use are related, independently from if the person prefers or not to deal with staff bank. However, for four of the services: SERV5- Get information on my investment portfolio; SERV8- Get an update on my existing financing loan(s); SERV9- Apply for a financial service and SERV10- Contact my bank to answer a question), elders who enfolding the group of self-sufficient in their financial decisions, presented no differences among men and women. In addition, differences in the frequency of use of online banking services depending on gender for elders preferring to deal with bank employees were statistical significant.

5. DISCUSSION, LIMITATIONS AND FURTHER RESEARCH

The Internet banking offers advantages for elders, 24 hours access, versatility, independence and the possibility to overcome the physical barriers of the age in the access to services. However, the grey market presents a lack of adaptation and still remains in the call for a personal attention. The Internet banking has changed the type of relationship between clients and banks. Traditionally, this relationship was based on the physical presence of both, client and staff. Today, in contrast, it is possible to manage accounts and all of the services online having the opportunity to compare different providers quickly and easily. In this market, banks need to better understand the new type of relationship that the use of Internet generates and how to operate. The future of the Internet bank is in the type of services offered and in the way they interact with clients satisfying their needs. In this line, it seems reasonable to consider that the success could be in the personalization of services to attractive segments.

The elderly constitute a growing segment today and presents different characteristics from the rest of the population (more free time, greater freedom in their economic and financial decisions, and less use of Internet and other ICTs). However, they do not constitute a homogeneous segment. In fact, the present work shows the existing gender gap described in the real dependence among the Internet Banking use and gender. Specifically all the Internet Banking services analysed presented significant differences among genders, being used in a higher extent by men than women. An explanation of these differences

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could arise from the preference of women for personal contact. In the sample analysed woman presented higher mean values for this preference and, as it is shown in our results, preference for personal contact seems to be negatively related to the use of Internet Banking services. Women prefer a personal contact in the IB showing a preference for personal sources of information and lower risks.

A deeper analysis, differentiating between autonomous and dependent clients -who present low and high levels of personal contact preferences respectively- show how autonomous get information, interact and apply for a service independently from gender. Maintaining the gender differences observed in the complete sample for the rest of the services.

How to personalize services for elders? Regarding the results presented in this paper, a first idea comes from the gender gap, it seems appropriate differentiate the offer among genders. Females prefer higher levels of security and personal contact, and then companies interested in this segment must prepare their Web to the interaction to them. Webs constitute the only communication channel in this case and designs must fit the presence of autonomous and dependent elder people. Autonomous must feel a similar experience to the personal contact and the security and assistance provided by the absence of staff must be compensated by design, functionality, available information and ease of use. Women show this need for attention in a higher extent. Banks must analyse all the current data they have about relationships with elders from different genders to personalize the offer to them changing the service from the concept of segmentation to personalization. Through the personalization based in data analysis, banks can reinforce the interaction with clients in manners not achieved by the personal contact because services can be offered in a cheaper, faster and better manner. Banks trying to attract the attention of elders toward the Internet banking must consider to drive their offer specifically to them, trait them as people more than a segment and personalize the service through the Internet.

This work must be considered as a first step in the understanding of the grey Internet banking. Further research could persecute more ambitious objectives to compensate the limitations of this research. First, the difficulty to collect data from elders drove us to those members of the population that were at our disposal, being our sample collected without consider a probabilistic approach. Although the sample is diverse and the proportion of socio demographics present in the population is consistent with the distribution of the sample used, convenience sample must be understood as a first approach calling for a deeper analysis of this group. Secondly, the concepts analysed in this paper are only a narrow vision of the complex phenomena of Internet banking for elders. Many other variables could be helpful in the understanding of the grey market behaviours, for instance psychological variables as those appearing in TAM2 (Venkatesh & Davis, 2000) or TAM3 (Venkatesh & Bala, 2008) or concepts such as self-confidence, tolerance to risk and so on. Further research could deeply analyse the psychological profit of elders using Internet

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