An investigation on the role of brand equity on electronic acceptance

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C H R O N I C L E	A B S T R A C T
	This paper presents an empirical study to investigate the effect of brand equity on customer's adoption of electronic banking. The proposed study uses a standard questionnaire for measuring brand equity, which consists of five items including brand associate, brand awareness, quality perception and brand loyalty. The study also uses another questionnaire, which measures electronic acceptance and both questionnaires are designed in Likert scale. Cronbach alphas for brand equity and electronic acceptance are measured as 0.83 and 0.75, which are above the acceptance level of 0.70. Therefore, we can confirm the validity of both questionnaires. The study is implemented among 384 regular customers of one of Iranian banks, randomly and using Spearman correlation ratio as well as stepwise regression techniques, the study has detected a positive and meaningful relationship between brand equity and customer's adoption on electronic banking.

1. Introduction

During the past few years, there have been significant changes on electronic banking and many people try to adopt recent advances on information technology to do their internet banking without bothering to go to banks. Obviously, there have been many studies on electronic banking adoption and studying various factors influencing adoption of electronic banking. Detecting factors influencing customer perception and behavior towards electronic banking plays essential role for bank's strategy formulation process in any emerging economy. Agarwal et al. (2009) performed a study on some Indian respondents and reported that customers were influenced in their usage of electronic banking services by different factors. These factors include the kind of account, age and profession, etc. Luarn and Lin (2005) strongly supported the extended TAM in forecasting users' intentions to adopt mobile banking.

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Akturan and Tezcan (2012) presented an empirical investigation on consumers' mobile banking adoption through an integration of the technology acceptance model (TAM) with work on perceived advantages and perceived risks. They reported that that perceived usefulness, perceived social risk, perceived performance risk and perceived advantage directly influence attitudes towards mobile banking. They also reported that attitude was the main determinant of mobile banking adoption intention. However, they did not find any no direct relationship between perceived usefulness and intention to use, perceived ease of use and attitude, financial risk, time risk, security/privacy risk and attitude.

During the past few years, many financial firms offer new banking channels to their customers, as technology provides new dimensions to the classic banking systems such as Internet banking. Calisir and Gumussoy (2008) investigated how some young consumers perceive Internet banking in association with other six banking channels. They reported that Internet banking, automated teller machines, and phone banking substitute each other, successfully. They also explained that Internet banking was considered to be efficient for ease of implementation and access, and that the users of Internet banking did not have sufficient confidence in the security of the web sites of Internet banking.

Giovanis et al. (2012) presented an extended TAM with some ideas from the innovation diffusion theory (IDT) and customers' perceived risk to study the factors influencing Greek customers' intentions to adopt internet banking services. They reported that service compatibility was the key factor, which mostly shaped customers' behavioral intentions toward internet banking adoption, followed by TAM builds and perceived risk elements. They also reported that TAM and perceived security and privacy risk constructs partially mediated the relationships between compatibility and customers' behavioral intentions. TAM has been implemented in much of the research into technology diffusion conducted in the world.

Sukkar and Hasan (2005) questioned the usefulness of the traditional TAM model for the investigation of e-commerce in a developing country. They investigated the literature and presented the preliminary results of some studies of Internet banking in Jordan. They evaluated modifications to the TAM to make it more appropriate for research on technological acceptance in less-developed and developing countries. Kuo and Yen (2009) applied the TAM model as the basis and incorporated personal innovativeness and perceived cost to understand consumer's behavioral intention to implement 3G mobile value-added services. They reported that the most essential factor in increasing consumer's behavioral intention to apply 3G mobile value-added services was attitude, followed by perceived ease of use, perceived cost and perceived usefulness.

2. The proposed

This paper presents an empirical study to investigate the effect of brand equity on customer's adoption on electronic banking. The proposed study uses a standard questionnaire for measuring brand equity, which consists of four items including brand associate, brand awareness, quality perception and brand loyalty. Fig 1 demonstrates the proposed study of this paper,
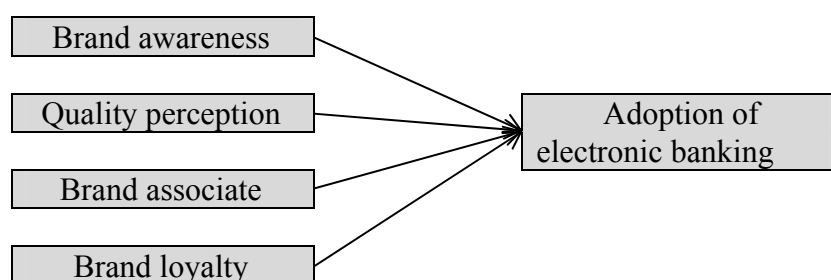

Fig. 1. The proposed study

The study also uses another questionnaire, which measures electronic acceptance and both questionnaires are designed in Likert scale. The population of the survey includes all existing people who use electronic banking of one of Iranian banks named Bank Mellat located in city of Tehran, Iran. Therefore, the sample size is calculated as follows,

$$N = Z_{\alpha/2}^2 \frac{p \times q}{e^2},$$ (1)

where N is the sample size, $p = 1 - q$ represents the probability, $z_{\alpha/2}$ is CDF of normal distribution and finally ε is the error term. For our study we assume $p = 0.5$, $z_{\alpha/2} = 1.96$ and $e=0.05$, the number of sample size is calculated as N=384. We have distributed 400 questionnaires among the participants and managed to collect 390 properly filled ones. Fig. 1 shows details of personal characteristics of the participants.
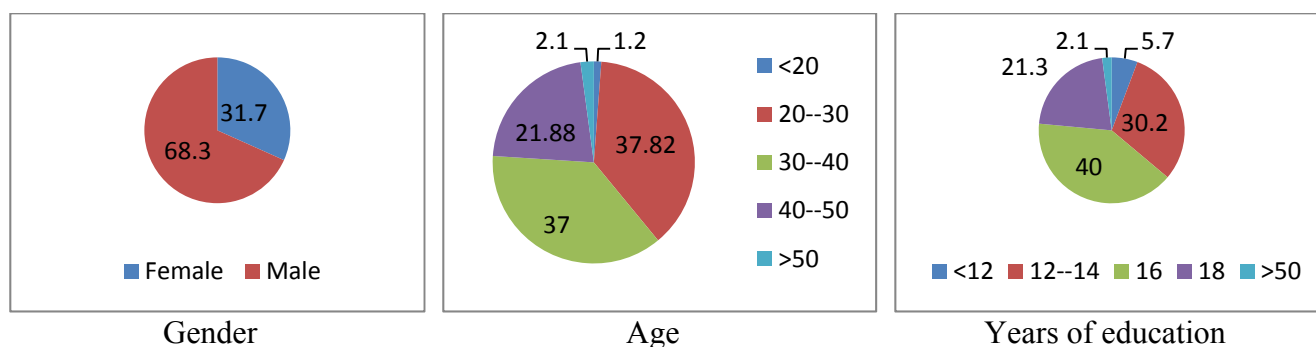

Fig. 1. Personal characteristics of the participants

As we can see from the results of Fig. 1, more participants in our survey were male (68.3%). In addition, they were mostly middle age people and mostly university educated. Cronbach alphas for brand equity and electronic acceptance are measured as 0.83 and 0.75, which are above the acceptance level of 0.70. Therefore, we can confirm the validity of both questionnaires. We have performed normality test using Kolmogorov–Smirnov test and detected that the data were not normally distributed. Therefore, we use Spearman correlation ratio to test the effects of various organizational climate on electronic learning summarized in Table 1 as follows,

3. The results

In this section, we present details of our findings on testing the effects of seven organizational climate on electronic learning. We have performed normality test using Kolmogorov–Smirnov test and detected that all data were normally distributed. Therefore, we use Pearson correlation ratio to test the effects of various organizational climate on electronic learning summarized in Table 1 as follows,

Table 1
The summary of Pearson correlation between organizational climate and electronic learning

Hypothesis	The relationship	r	Sig.	Result
1	Brand awareness and electronic banking	0.356	0.006	Confirmed
2	Quality perception and electronic banking	0.231	0.000	Confirmed
3	Brand associate and electronic banking	0.286	0.002	Confirmed
4	Brand loyalty and electronic banking	0.419	0.005	Confirmed

The results of Table 1 show that electronic banking maintains positive and strong correlations with brand loyalty (r=0.419, Sig. = 0.000), brand awareness (r=0.356, Sig. = 0.000), brand associate (r=0.286, Sig. = 0.000) and quality perception (r=0.213, Sig. = 0.000). We have performed a stepwise

regression analysis between electronic banking as dependent variable and brand equity components as independent variables and the results are summarized in Table 2 as follows,

Table 2
The summary of stepwise regression model

Variables	Coefficient	Standard error	Standard coefficient	t-value	Sig.
Intercept	51.138	4.981		13.684	0.006
Brand loyalty	0.529	0.281	0.368	2.531	0.000
Brand awareness	0.496	0.246	0.319	2.496	0.000
Brand associate	0.457	0.219	0.264	2.207	0.021

The results of Table 2 indicate that electronic banking has positive relationship with brand loyalty (β = 0.529), brand awareness (β = 0.496) and brand associate (β = 0.457).

4. Conclusion

In this paper, we have presented an empirical investigation on relationship between brand equity and electronic banking in one of Iranian banking industry. The proposed study designed two questionnaires, one for brand equity and the other for electronic banking adoption, and using Spearman correlation ratios as well as stepwise regression technique has detected a positive and meaningful relationship between brand equity and adoption of electronic banking. The findings of this survey are consistent with Sukkar and Hasan (2005), Calisir and Gumussoy (2008) and Agarwal et al. (2009).

Acknowledgement

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