

Print ISSN: 2288-4637 / Online ISSN 2288-4645
doi:10.13106/jafeb.2021.vol8.no5.0931

Determinants of Accepting Internet Banking System: A Case Study in Bangladesh

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Received: January 30, 2021 Revised: April 05, 2021 Accepted: April 15, 2021

Abstract

Since the service organizations have been moving towards digitization across the world, there is a wide range of technological innovations that have been integrated within the service firms, especially in banking services. As such, Internet banking is one of the innovative services that have reshaped the traditional banking activities, particularly in Bangladesh. In line with this, the research is designed to examine the Internet banking adoption based on five variables: perceived usefulness, perceived ease-of-use, trust, social influence, and perceived enjoyment, and the study also explores differences among respondents on these study variables based on gender and academic disciplines. The study has selected university students as study samples as they are the prospective customers to use Internet banking. Sample size in the research is 300, and a well-designed questionnaire was distributed to collect data. SPSS is used for statistical analysis. The research used ANOVA test to capture any difference on variables based on gender and academic disciplines. The findings indicate that male students in business have more intention to adopt Internet banking and preference for ease-of-use than female students, and business students will be more favorably inclined to adopt Internet banking service than students in other academic disciplines.

Keywords: Internet Banking, University Students, Gender, Ease-of-Use, Social Influence

JEL Classification Code: G21, M15, M38

1. Introduction

The overall economic development of a nation has been linked mainly to two broad sectors: manufacturing and service. Around the world, it has been reported that within the manufacturing sector, small- and medium-sized enterprises

contribute a major part to economic growth (Asheq & Hossain, 2019; Hossain & Asheq, 2019), and within the service sector, the financial industry, especially the banking sector, accounts for a remarkable part in advancing economic growth of a country (Islam et al., 2020; Santouridis et al., 2009). As of now, financial services of the banking sector need to be more user-friendly, easily accessible and convenient in this technological time. Within the banking sector, Internet technology has unlocked numerous opportunities to enable banking institutions to offer faster and more reliable financial services at customer's door step (Jahan et al., 2020). Internet banking has been viewed as the fastest-developing financial service due to its ease and flexible functionality. Globally, the adoption of Internet banking has been increasing at a sharp rate (Sadeghi & Heidarzadeh, 2010; Oruç & Tatar, 2017). The introduction of Internet in the financial sector has transformed the sector in a new way not experienced earlier (Raza et al., 2020; Rahi et al., 2019; Chauhan et al., 2019). This novel technology presents various benchmarks of financial benefits for today's digital customers, such as instant money-sending facility, faster payment option, and payment of utility bills (Liang & Nguyen, 2018). With the help of Internet banking, people can have quick access

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to their important financial particulars, because of its uninterrupted speed, and also financial institutions are able to keep their service costs down (Rahi & Abd-Ghani, 2019; Ali & Raza, 2017). Moreover, Internet banking service has been able to properly address the exact and timely needs of banking customers through providing customized financial benefits to them (Moghavvemi et al., 2018).

Although, there are several economic and social problems (Hossain & Asheq, 2020), Bangladesh is a country whose economic growth and GDP rate has been accelerating for the last few years (Akhter, Hossain & Asheq, 2020; Rahaman et al., 2020a; Rahaman et al., 2020b), because of a stable financial market and suitable environment for manufacturing industry's development (Gazi et al., 2021). It is observed that Internet usage is growing among the Bangladeshi people (Akhter, Asheq, Hossain, & Karim, 2020) and the current banking sector is also adopting Internet-based technology within their present banking operations to provide better and updated banking services to the customers (Rahaman et al., 2020c). Therefore, it has become urgent for the banking sector to identify and understand the variables, which might affect prospective banking customer's intention and willingness to accept Internet banking services in Bangladesh. It is crucial for banking management committee to examine what factors might predict customer's willingness to use Internet banking in this digitalized environment. Since, the growth of Internet banking is reliant on how people embrace and understand this novel banking service, hence banking institutions are required to look for factors that might induce customers to adopt Internet banking. Therefore, the research aims to examine the gender difference and differences among university students from various disciplines in regard to factors that would influence customers to adopt Internet banking in Bangladesh.

2. Literature Review

2.1. Perceived Usefulness (PU)

The perceived usefulness (PU) refers to the belief of customers about Internet banking that this service is supposed to enhance their financial fulfillment and transactions (Bashir & Madhavaiah, 2014). PU examines the degree of potentiality for a technological mechanism or process to be useful to an individual (Venkatesh et al., 2003). The literature has advocated that PU can be a vital factor in shaping a person's behavior to adopt technological services (Davis, 1993). PU is found to be an influential variable in driving a person's attitude toward a particular technology to accept (Mutahar et al., 2018). Previous studies supported the important role of PU in accelerating an individual's willingness and propensity to adopt Internet banking (Kaur & Malik, 2019).

2.2. Perceived Ease-of-Use (PEU)

Perceived ease-of-use (PEU) defines a person's perception about a technological service that the technological service is user-friendly, straightforward and effortless (Davis, 1993). PEU also helps to explain a person's feeling toward the easiness of any given technology (Agarwal & Karahanna, 2000). Customers perceive Internet banking facility to be more reliable if the service's technological platform tends to be simpler for the service users (Alalwan et al., 2018). Various research stated that the higher level of PEU will lead to more willingness and eagerness of a person to adopt Internet banking facility (Vukovic et al., 2019).

2.3. Trust (TR)

In the literature, there are several terms defining the concept of 'trust'. In marketing research, 'trust' can be described as the level of confidence and credence the customers might have in service-providing institution's capacity to deliver trusted service (Bashir & Madhavaiah, 2015). Trust (TR) essentially shows a person's prospect to constantly rely on a precise function, where a function can be referred as to a specific service (Koksal, 2016). It is a critical variable to offer potential trust and credence to the targeted customers. It is the prime responsibility for the financial sector to deploy a system, which will build a trusted service mechanism. Gefen et al. (2003) stated that trust would extend a supreme role in balancing conflict and grievance of the customers.

2.4. Social Influence (SI)

The term 'social influence' (SI) can be explained as "the persons' perception that most people such as friends, family, colleagues, peers and social group, who are important to him think he should or should not use the Internet banking services" (Fishbein & Ajzen, 1975). The significance of SI in regard to technology adoption has extensively been researched in the literature (Kesharwani & Tripathy, 2012). Various studies have found a positive effect of social influence (SI) on intention to adopt Internet banking. Martins et al. (2014) found that SI is a potential determinant of Internet banking adoption.

2.5. Perceived Enjoyment (PE)

The term 'enjoyment' refers to the internal motivation of a person to utilize and use a structure (Bashir & Madhavaiah, 2015). Perceived enjoyment (PE) defines a person's level of enjoyment about a new technology, meaning that to what level the technological service such as internet banking will be enjoyable from customer's viewpoint (Davis et al., 1992).

Until now, several research efforts have been made to examine the impact of PE on new technology adoption (Lee, 2009). It can be perceived that, if customers find the interface with Internet banking service more fun and enjoyable, then they will put more focus on this, which will lead to increasing their eagerness to accept Internet banking service (Abbad, 2013).

3. Methodology

The study has collected data from a few universities in Bangladesh, which have various education departments. From these universities, students in bachelor and master level degree programs have participated in this research as samples. To survey the university students, a systematic questionnaire has been developed, which has been self-administered. 400 questionnaires have been distributed among the students who were studying at various departments such as Business Administration, Humanities, Science and Engineering, and 352 survey responses were duly collected; out of which 300 responses were valid and duly complete.

The final sample size of the research is $n = 300$. The research has used a questionnaire that incorporated basic and generic questions about students such as their gender, which year they were studying, their academic discipline, income, and employment level; a five-point Likert scale was used to measure the study variables. To identify whether these variables are reliable, the study used Cronbach's Alpha of at least 0.7 or more, and for validity purpose, loading value of 0.5 or more is considered as acceptable (Table 1). SPSS was used to analyze the study data.

4. Results and Discussion

In this research, all the respondents ($n = 300$) were university students who were studying at different disciplines at the time of the survey. By analyzing age category, it is noted that the majority were in the first and second year of their bachelor program ($n = 212$, 70.60 percent), and only four students were over 40 years old (1.3 percent), indicating that respondents were young students (Table 2).

More than half of the students were male ($n = 167$, 55.7 percent), and 133 female students took part in this study (44.3 percent). Out of 300 students, 137 students were studying in departments of Business Administration (45.7 percent), 108 students were studying in Science and Engineering departments (36.0 percent), and 55 students were from Humanities departments (18.3 percent). By examining income level, it is noticed that 135 students earned below 10,000 Bangladeshi taka (45.0 percent), 124 students earned between 10,001 and 20,000 taka (41.3 percent), meaning that more than 80% of the students' income level were not more than 20,000 taka, whereas only two students were earning above 40,000 taka

Table 1: Reliability Analysis

Variables	Code	Factor Loading	Cronbach's Alpha
Intention to adopt i-banking (INTB)	INTB1	0.731	0.725
	INTB2	0.801	
	INTB3	0.809	
	INTB4	0.766	
Perceived Usefulness	PU1	0.883	0.805
	PU2	0.861	
	PU3	0.901	
	PU4	0.831	
Perceived Ease of Use	PEU1	0.811	0.759
	PEU2	0.733	
	PEU3	0.748	
	PEU4	0.893	
Trust	TR1	0.702	0.899
	TR2	0.706	
	TR3	0.770	
	TR4	0.762	
Social Influence	SI1	0.882	0.746
	SI2	0.790	
	SI3	0.700	
Perceived Enjoyment	PE1	0.801	0.831
	PE2	0.808	
	PE3	0.721	

(0.70 percent). It is also noticeable that 109 students were self-employed (36.3 percent), 18 were in full-time employment (6.0 percent), 41 had part-time job (13.7 percent), and 132 students were not employed (44.0 percent).

The research carried out ANOVA analysis to gauge whether there are any gender differences prevailing between male and female samples based on variables such as intention, usefulness, ease-of-use, trust, social influence, and perceived enjoyment. Table 3 shows that there have been two differences between male and female samples. Male students have more intention than female students to adopt Internet banking ($F = 9.932$, $p = 0.002$), and male students are more aware of perceived ease-of-use than female counterparts ($F = 4.323$, $p = 0.038$). Historically, the male population makes more banking transactions than the female population, due to the fact that male students might have more intention to use Internet banking. As male students do relatively more banking transactions on a frequent basis, hence they will look for easiness of the technology through which they can

Table 2: Descriptive Information

Description	Frequency	Percent
Gender		
Male	167	55.7
Female	133	44.3
Age		
18–20 years	109	36.3
21–23 years	103	34.3
24–27 years	43	14.3
28–30 years	11	3.7
31–35 years	22	7.3
36–40 years	8	2.7
>40 years	4	1.3
Discipline		
Department of Business Administration	137	45.7
Science & Engineering Department	108	36.0
Social Science & Humanities Department	55	18.3
Year of Education		
First Year	71	23.7
Second year	67	22.3
Third year	76	25.3
Final year	55	18.3
Master program	31	10.3
Income Level		
Below 10,000 Taka	135	45.0
10,000 to 20,000 taka	124	41.3
20,001 to 30,000 taka	36	12.0
30,001 to 40,000 taka	3	1.0
More than 40,000 taka	2	0.7
Employment Status		
Unemployed	132	44.0
Part-time	41	13.7
Full-time	18	6.0
Self-employed (i.e. tuition)	109	36.3

easily complete their financial transactions. Because of this reason, male students might have more interest on perceived ease-of-use of Internet banking service.

Table 4 shows the differences among students of various academic disciplines based on variables such as intention, usefulness, ease-of-use, trust, social influence,

and perceived enjoyment. Table 4 shows that there are two significant differences between the students from Business Administration, Humanities, and Science and Engineering department. The students from the Business Administration department have more willingness to accept Internet banking than students from Humanities and Science and Engineering

Table 3: One-way ANOVA Tests on Gender

Variables	Gender	N	Mean	F-value	p-value
Intention to adopt i-banking (INTB)	Male	167	4.0414	9.932	0.002*
	Female	133	3.9405		
Perceived Usefulness	Male	167	3.9101	3.640	0.057
	Female	133	3.9891		
Perceived Ease of Use	Male	167	3.9184	4.323	0.038*
	Female	133	3.8449		
Trust	Male	167	4.0508	2.847	0.092
	Female	133	3.9886		
Social Influence	Male	167	4.0270	2.176	0.141
	Female	133	4.0870		
Perceived Enjoyment	Male	167	4.0954	3.208	0.074
	Female	133	4.0380		

Table 4: One-Way ANOVA Tests on Educational Discipline

Variables	Department	N	Mean	F-value	p-value
Intention to adopt i-banking (INTB)	Business Administration	137	4.0333	7.777	0.000
	Science & Engineering	108	3.8406		
	Social Science & Humanities	55	3.9370		
Perceived Usefulness	Business Administration	137	3.8657	0.315	0.730
	Science & Engineering	108	3.8365		
	Social Science & Humanities	55	3.9074		
Perceived Ease of Use	Business Administration	137	4.1741	0.439	0.645
	Science & Engineering	108	4.1164		
	Social Science & Humanities	55	4.1259		
Trust	Business Administration	137	4.0873	1.387	0.251
	Science & Engineering	108	4.0008		
	Social Science & Humanities	55	3.9841		
Social Influence	Business Administration	137	3.9583	5.412	0.005
	Science & Engineering	108	3.8156		
	Social Science & Humanities	55	3.8796		
Perceived Enjoyment	Business Administration	137	4.0291	0.844	0.431
	Science & Engineering	108	3.9691		
	Social Science & Humanities	55	3.9630		

departments ($F = 7.777, p = 0.000$). The reason can be that Business students tend to start their own business and startups, which might require a lot of banking transactions; hence Business students are more willing to accept Internet banking. Table 4 also shows that students from Business

Administration department have more interest on social influence than other students ($F = 5.412, p = 0.005$). Also, Business students have more perception on other study variables as they have higher mean values than other disciplinary students.

5. Conclusion

The study surveyed 300 students from various universities who were studying different programs at different departments. The results indicate that there have been differences between male and female students on intention to use and adopt Internet banking and on perceived ease-of-use. In another words, male students tend to accept Internet banking and are more favorably inclined toward ease-of-use of Internet banking. The results also show that Business Administration students indicate more intention and willingness to adopt Internet banking and consider social influence more favorably as one of the determining variables that might affect their behaviors to accept Internet banking services. This is a quantitative study, which could be treated as limitation, hence future research might involve qualitative aspects for more explanatory findings. The study was conducted among private universities; taking samples from public universities can be undertaken by future research. Further research might also consider other service employees who are collar employees as study samples for stronger results. The research can be helpful for banking institutions to develop different strategic steps for different customers to promote their Internet banking service.

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