

Business Statistics Project

Data Analysis Practice Exercise

Instruction:

Based on the case given please answer the questions given below.

Actions:

1. Import the data given into SPSS.
2. Define each variable, variable label, value label etc.
3. Compute the variables as necessary.
4. Recode Age (G1) into these categories, 1 = 20 – 29 years, 2 = 30 – 39 years, 3 = 40 – 49 years, 4 = Above 49 years.
5. Describe the sample profile.

Questions (can be used as possible research objectives):

1. What is the level of intention to use Internet banking among the respondents?
2. Does intention to use Internet banking vary by age?
3. Does intention to use Internet banking vary by gender?
4. Does intention to use Internet banking vary by income level?
5. Is actual usage (g9) dependent on gender?
6. Is actual usage (g9) dependent on income level?
7. What is the impact of perceived usefulness on intention to use Internet banking?
8. Is perceived ease of use related to intention to use Internet banking?
9. Does perceived credibility influence intention to use Internet banking?
10. Is perceived risk negatively related to intention to use Internet banking?
11. What is the impact of perceived behavioral control on intention to use Internet banking?

INTENTION TO USE INTERNET BANKING IN PENANG

INTRODUCTION

On-line banking services are crucial for long term survival of banks in the world of electronic commerce (Burnham, 1996; Tan & Teo, 2000). Shih & Fang (2004) identified on-line banking as a new type of information system that uses the innovative resources of the Internet and WWW to enable customers to effect financial activities in virtual space. According to Liao et al. (1999) virtual bank is a “non-branch bank” and virtual banking is the provision of services via electronic media such as automated teller machines (ATMs), telephone, personal computers and/or the Internet (Tan & Teo, 2000)

Internetnews.com (2001) reported that according to the U.S. based research house expects local users of online banking will reach 1.1 million by 2004 with the total number of online banking accounts reaching 1.6 million, or 23 percent of all Malaysian Internet users that year. This indicates a potential growth of Internet banking in Malaysia.

Research Problem

The Internet is becoming an increasingly important channel for banks to provide banking services to both individual consumers and businesses. Financial services on electronic channels will amount to USD 80 billion by the year 2003, up from both USD 14 billion in 2000 (Ramayah & Koay, 2002). The main purpose of this paper was to gauge the user’s intention to use Internet banking and identify what are the main concerns that can affect their intention to use Internet banking in Malaysia. Although it has been 5 years since the introduction of Internet banking in Malaysia, the uptake is still very low.

Research Objectives

The main objective of this research is to identify factors influencing the intention to use Internet banking. Thus it hopes to achieve the following objectives:

1. To understand or to gauge the behavioral intention to use Internet banking among consumers in Penang,
2. To identify differences in behavioral intention to use Internet banking across various characteristics of the respondents such as age, gender, race, education level and income level,
3. To model the impact of perceived usefulness, perceived ease of use, perceived credibility, perceived risk and perceived behavioral control on the intention to use Internet banking among consumers in Penang.

To achieve the above objectives, the following research questions were posed for this study:

1. How high is the level of intention to use Internet banking among consumers in Penang?
2. Does behavioral intention vary across various demographic profiles of the respondents, such as age, gender, race, education level and income level?
3. What are the impacts of perceived usefulness, perceived ease of use, perceived credibility, perceived risk, and perceived behavioral control on the intention to use Internet banking among consumers in Penang?

Theoretical Framework

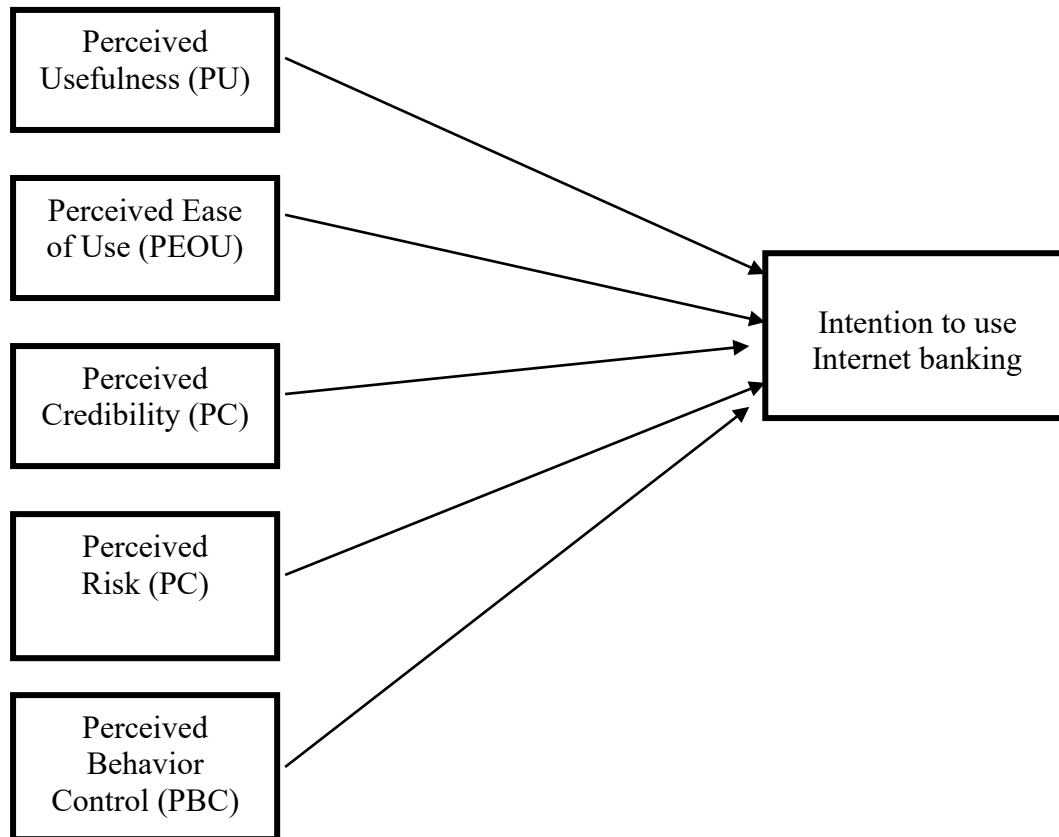


Figure 1 Theoretical Framework

Hypotheses

- H1: Perceived usefulness will be positively related to intention to use Internet banking
- H2: Perceived ease of use will be positively related to intention to use Internet banking
- H3: Perceived credibility will be positively related to intention to use Internet banking
- H4: Perceived risk will be negatively related to intention to use Internet banking
- H5: Perceived behavioral control will be positively related to intention to use Internet banking

Population and sample

The population of interest is defined as current and potential users of Internet banking in Malaysia. Individual working in both private and government sector in the State of Penang, mainly in Penang Island constitute the sampling frame for this research. Working individuals are considered appropriate as a sampling frame for the research because they are current Internet users and will, in all likelihood, be internet users in the future. Beside that, most of them are busy with their career thus they are hardly going to the bank during the weekday. Thus, on-line banking may be more suitable for them. The important aspect is basically all working individuals have their own bank and credit card accounts. Data was collected by means of questionnaires. A survey was conducted to determine user intention to use Internet banking and actual use. Data collection was conducted from end of Jan to early Feb 2005.

The questionnaires were handed out to working individual and were collected immediately after they were completed.

Variables and Questionnaire Design

To measure the variables of the study, various sources were used and these are summarized in the table below, together with information regarding the layout of the questionnaire.

The Measures and Layout of the questionnaire.

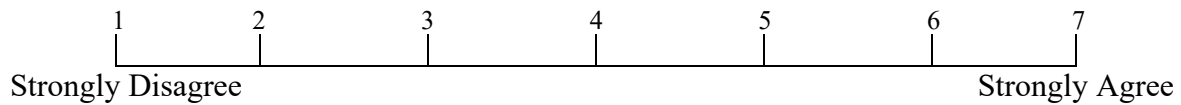
Section	Variable	Item	Sources
A	Perceived Usefulness (a1- a6)	6	Adams et al. (1996), Chan et al. (2004), Shih et al. (2004)
B	Perceives Ease of Use (b1 – b5)	5	Adams et al. (1996), Davis et al. (1996)
C	Behavior Intentions (c1 – c4)	4	Davis et al. (1996)
D	Perceived Behavior of Control 9d1 – d4)	4	Tan et al. (2000), George (2004)
E	Perceived Risk (e1 – e5)	5	Ramayah et al. (2002), Chan et al. (2004)
F	Perceived Credibility (f1 – f2)	2	Wang et al. (2003), Shih et al. (2004)
G	Personal data	9	
	Total	35	

REFERENCES

- Burnham, B. (1996). The Internet's Impact on Retail Banking, Booz-Allen Hamilton Third Quarter. (<http://www.strategy-business.com/briefs/96301/>).
- Internetnews.com (2001). Malaysia home banking consumers to reach 1M, (Online). Available: http://www.internetnews.com/bus_news/article.php/575351.htm
- Liao, S., Shao, Y. P., Wang, H. and Chen, A. (1999). The Adoption of Virtual Banking: An Empirical Study, *International Journal of Information Management*, 19(1), 63-74.
- Shih, Y. Y. and Fang, K. (2004). *The use of a decomposed theory of planned behavior to study internet banking in Taiwan*. Emerald Group Publishing Limited, 14(3), 213-223.
- Ramayah, T. and Koay P. L. (25-27th October, 2002). *An Exploratory Study of Internet Banking in Malaysia*. The proceedings of The 3rd International Conference on Management of Innovation and Technology (ICMIT '02 & ISMOT '02), Hangzhou City, P. R. China.
- Tan, M. and Teo, T. S. H. (2000). Factors Influencing the Adoption of Internet Banking. *Journal of the Association for Information Systems*, 1, 1-42.

QUESTIONNAIRE

Directions: Respond to each question with whatever knowledge you have. There is no right or wrong answers. Be honest and realistic in your assessment.



SECTION A: PERCEIVED USEFULNESS

Using the on-line banking systems would improve my performance in conducting banking transactions.	1	2	3	4	5	6	7
Using the on-line banking systems would make it easier for me to conduct banking transactions.	1	2	3	4	5	6	7
I would find the on-line banking systems useful in conducting my banking transactions.	1	2	3	4	5	6	7
On-line banking eliminates geographic limitation and increase flexible in mobility; thus I can bank any place that has Internet connection.	1	2	3	4	5	6	7
On-line banking eliminates time constraints; thus I can use the banking services at any time I like.	1	2	3	4	5	6	7
On-line banking would be a convenient way to manage my finances.	1	2	3	4	5	6	7

SECTION B: PERCEIVED EASE OF USE

My interaction with the on-line banking systems would be clear and understandable.	1	2	3	4	5	6	7
It would be easy for me to become skillful at using the on-line banking systems.	1	2	3	4	5	6	7
Learning to use the on-line banking systems would be easy for me.	1	2	3	4	5	6	7
Interacting with the on-line banking will not require a lot of my mental effort.	1	2	3	4	5	6	7
Overall, I would find the on-line banking systems easy to use.	1	2	3	4	5	6	7

SECTION C: BEHAVIORAL INTENTIONS

I plan to use on-line banking.	1	2	3	4	5	6	7
Assuming that I have access to the on-line banking systems, I intend to use it.	1	2	3	4	5	6	7
I intend to increase my use of the on-line banking systems in the next 6 months.	1	2	3	4	5	6	7
I will add on-line banking to my favorite links.	1	2	3	4	5	6	7

SECTION D: PERCEIVED BEHAVIOR OF CONTROL

I would be able to operate the on-line banking systems.	1	2	3	4	5	6	7
I have the resources to use the on-line banking systems.	1	2	3	4	5	6	7
I have the knowledge to use the on-line banking systems.	1	2	3	4	5	6	7
I have the ability to use the on-line banking systems.	1	2	3	4	5	6	7

SECTION E: PERCEIVED RISK

I am not confident over the security aspects of on-line banking in Malaysia.	1	2	3	4	5	6	7
Others will know information concerning my on-line banking transactions.	1	2	3	4	5	6	7
Others can tamper with information concerning my on-line banking transactions.	1	2	3	4	5	6	7
Advances in internet security technology provide for safer on-line banking.	1	2	3	4	5	6	7
It is very easy for my money be stolen if using on-line banking.	1	2	3	4	5	6	7

SECTION F: PERCEIVED CREDIBILITY

Using the on-line banking systems would not divulge my personal information.	1	2	3	4	5	6	7
I would find the on-line banking systems secure in conducting my banking transactions.	1	2	3	4	5	6	7

SECTION G: PERSONAL PROFILE

1. How old are you? _____ years

2. What is your gender?

1. Male	<input type="checkbox"/>	2. Female	<input type="checkbox"/>
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3. What is your race?

1. Malay	<input type="checkbox"/>	2. Chinese	<input type="checkbox"/>
3. Indian	<input type="checkbox"/>	4. Others	<input type="checkbox"/>

4. What is your qualification?

1. PMR and below	<input type="checkbox"/>	2. SPM	<input type="checkbox"/>
3. STPM / Diploma	<input type="checkbox"/>	4. Bachelor of Degree	<input type="checkbox"/>
5. Masters/PhD	<input type="checkbox"/>		

5. What is your current profession?

1. Private sector employee	<input type="checkbox"/>	2. Government sector employee	<input type="checkbox"/>
3. Self employed	<input type="checkbox"/>		<input type="checkbox"/>

6. What is your monthly income?

- 1. Less than RM 1500
- 3. RM 2501 – RM 3500

- 2. RM 1500 – RM 2500
- 4. Above RM 3500

7. How many banks are you dealing with?

- 1
- 3
- 5 and above

- 2
- 4

8. Profile of banking (You can tick more than 1)

- 1. Saving account
- 2. Credit card
- 3. Fixed deposit
- 4. Current account

Yes
1
1
1
1

No
2
2
2
2

9. Are you already using Internet Banking?

- 1. Yes
- 2. No