UNIVERSITI KUALA LUMPUR BUSINESS SCHOOL

FINAL EXAM

JANUARY 2016 SEMESTER

SUBJECT CODE : EIB20503
SUBJECT TITLE : BUSINESS RESEARCH METHODS
LEVEL : BACHELOR
TIME / DURATION : 9:00AM – 12:00PM / 3 HOURS
DATE : 19TH MAY 2016

INSTRUCTIONS TO CANDIDATES

1. Please read the instructions given in the question paper CAREFULLY.

2. This question paper is printed on both sides of the paper.

3. This question paper consists of TWO (2) sections; Section A and Section B. There are TWO (2) questions in Section A and THREE (3) questions in Section B. Answer ALL questions.

4. Please write your answers on the answer booklet provided.

5. All questions must be answered in English (any other language is not allowed).

6. This question paper must not be removed from the examination hall.

THERE ARE FOUR (4) PAGES OF QUESTIONS, EXCLUDING THIS PAGE.
SECTION A (60 MARKS)

INSTRUCTION: Answer ALL questions. Please use the answer booklet provided.

Question 1.

Read the following abstract and answer the following questions.

Title: Entrepreneurial Intention and Social Entrepreneurship among Students in Malaysian Higher Education

Radin Siti Aishah Radin A Rahman, Norasmah Othman, Zaidatol Akmalia, Lope Pihie, Hariyaty Ab. Wahid

Abstract

The recent instability in economy was found to be influencing the situation in Malaysia, whether directly or indirectly. Taking that into consideration, the government needs to find the best approach to balance its citizens' socio-economic strata level urgently. Education platform is among the efforts planned and acted upon, for the purpose of balancing the effects of the instability. Hence, the exposure of social entrepreneurship activity towards youth especially those in higher institutional level could become the driver. Armed with knowledge and skills that they had gained, with the support of entrepreneurial culture and environment while in campus; indirectly, the students will lean more on making social entrepreneurship as a career option when they graduate. Following the issues of marketability and workability of current graduates becoming dire, research involving in how far the willingness of students to create social innovation that contributes to the society without focusing solely on personal gain is relevant enough to be conducted. Hence, the purpose of this research is to identify the level of entrepreneurial intention and social entrepreneurship among higher institution students in Malaysia. Stratified random sampling for a survey involves 355 undergraduate students from five public universities. The data was then analyzed descriptively using mean score and standard deviation. The study found that the entrepreneurial intention of higher education students are on moderate level, however, it is contrary for social entrepreneurship activities, which turned out to be on a high level. This means that while the students only have a moderate level of willingness to be social entrepreneurs, they are very committed to create social innovation through the social entrepreneurship activities conducted. The implication from this study can be contributed towards the higher institutions authorities in predicting the tendency of students in becoming social entrepreneurs. Thus, the opportunities and facilities for realizing the courses related to social entrepreneurship must be created expansively so that the vision of creating as many social entrepreneurs as possible can be achieved.
CONFIDENTIAL

a. Identify the problem statement for the study (4 marks)

b. From the abstract, identify:
   i. The population
   ii. The samples
   iii. Type of investigation
   iv. Sampling technique (4 marks)

c. State the main objective for the research (2 marks)

d. Table 1 below shows the results from the study.

<table>
<thead>
<tr>
<th>Construct</th>
<th>Gender</th>
<th>n</th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>t</th>
<th>Sig</th>
</tr>
</thead>
<tbody>
<tr>
<td>Entrepreneurial Intention</td>
<td>Male</td>
<td>177</td>
<td>2.52</td>
<td>0.64</td>
<td>2.41</td>
<td>0.51</td>
</tr>
<tr>
<td></td>
<td>Female</td>
<td>178</td>
<td>3.35</td>
<td>0.65</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Social Entrepreneurial Activity</td>
<td>Male</td>
<td>177</td>
<td>4.07</td>
<td>0.36</td>
<td>1.37</td>
<td>0.02</td>
</tr>
<tr>
<td></td>
<td>Female</td>
<td>178</td>
<td>4.02</td>
<td>0.35</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

i. Deduce two (2) hypotheses used (4 marks)

ii. Write the conclusion based on the results given (6 marks)

[20 Marks]

Question 2

A 10-year study conducted by the American Heart Association provided data on how age, blood pressure, and smoking relate to the risk of strokes. Print-outs from the study are shown as Exhibits 1, 2, and 3. Risk is interpreted as the probability (times 100) that the patient will have a stroke over the next 10-year period. For the smoking variable, define a dummy variable with 1 as non-smoker and 2 indicating a smoker.

Exhibit 1

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>(Constant) -100.499</td>
<td>-7.085</td>
<td>.000</td>
</tr>
<tr>
<td></td>
<td>Age 1.077</td>
<td>.697</td>
<td>.648</td>
</tr>
<tr>
<td></td>
<td>Pressure .252</td>
<td>.552</td>
<td>.568</td>
</tr>
<tr>
<td></td>
<td>Smoker 8.740</td>
<td>.302</td>
<td>2.912</td>
</tr>
</tbody>
</table>

EIB20503_Business Research Methods
a Dependent Variable: Risk

Exhibit 2 (Model Summary)

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Std. Error of the Estimate</th>
<th>df1</th>
<th>df2</th>
<th>Sig. F Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>.935(a)</td>
<td>.873</td>
<td>5.757</td>
<td>3</td>
<td>376</td>
<td>.000</td>
<td></td>
</tr>
</tbody>
</table>

a Predictors: (Constant), Smoker, Pressure, Age

Exhibit 3 (ANOVA)

<table>
<thead>
<tr>
<th>Model</th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Regression</td>
<td>3660.740</td>
<td>3</td>
<td>1220.247</td>
<td>36.823</td>
</tr>
<tr>
<td>Residual</td>
<td>530.210</td>
<td>16</td>
<td>33.138</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>4190.950</td>
<td>19</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

a Predictors: (Constant), Smoker, Pressure, Age
b Dependent Variable: Risk

a. Develop an estimated regression equation that relates risk of a stroke to the person's age, blood pressure, and whether the person is a smoker.  
   (4 marks)

b. Write your interpretation of the results.  
   (6 marks)

c. What is the probability of a stroke over the next 10 years for Art Spade, a 68 year old smoker who has blood pressure of 175?  
   (10 marks)  
   [20 Marks]
SECTION B (TIME: 60 MINS)

INSTRUCTION: Answer ALL questions.
Please use the answer booklet provided.

Question 3.

For this question, read the article attached in appendix I.
Critique the article given in terms of objectives, hypothesis, method, results and conclusions.

[20 Marks]

Question 4.

a. Explain why it is necessary to use "samples" rather than "population" in a study.

(10 marks)

b. Justify why a sample size of 2000 may not be necessary be as accurate as a sample size of 200. Give appropriate examples.

(10 marks)

[20 Marks]

Question 5.

Compare and contrast validity and reliability of instrument between quantitative research and qualitative research. Your discussion must include three (3) main points for quantitative and three (3) main points for qualitative method.

[20 Marks]

END OF QUESTION PAPER
APPENDIX I
An Analysis of Behavioral Intention to use Thai Internet Banking with Quality Management and Trust

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**Department of Operations Management, Business Administration at Kasetsart University, Thailand

Abstract

This research explores the effects of quality management and trust towards behavioural intention of Thai consumers to use internet banking. It specifically investigates whether the quality management dimensions - information quality, system quality and service quality affect the level of trust of Thai consumers towards internet banking, and whether this trust correspondingly affect their intention to use the system. This study has been conducted in Thailand and focused on the years of internet banking system of various banks in the country. A total of 400 respondents were selected using simple random sampling. Multiple regression and correlations analysis were carried out to determine the effect between all of the independent variables and the dependent variable. The results showed that the system quality and service quality positively affect trust but information quality showed negative effect.

Keywords: Internet banking; Quality management; Trust; Behavioral intention to use internet banking

Introduction

In recent years, internet has become an important platform for organizations to offer new ways to reach out to their valued clientele [1]. Such is the case of internet banking, which now becomes a more favoured alternative for banks to extend their services to their consumers. Internet banking has shown immense benefits for both banks and customers as it facilitates higher cost savings, greater control over service delivery, waiting time reduction, and 24-hour convenient banking hours [2]. For financial institutions, the use of internet banking has become beneficial since it can standardize service delivery, reduce labour and service costs, expand delivery options and reach customers who are inaccessible through other channels [3]. In so doing, customers benefit from it since it can provide ease of use in terms of such services as balance inquiry, financial transactions statement printing, fund transfer, and bill payment [4]. Internet banking is achieved by investing in the development of transactional services using internet technology.

Internet banking in Thailand

Internet in Thailand was introduced in 1991 through academic and research application, while internet banking service was first used in 1999 by Siam Commercial Bank (SCB). The Asian recession in 1997 and the failing of Thai Baht brought the Bank of Thailand (BOT) to intervene in Thai financial market by forcing companies and several Thai banks to merge with foreign-owned banks [5]. The increase of bank's capital and technological advancement used by foreign banks helped in the improvement and encouragement of Thai banks to focus on the automated processing and transaction, which paved way for the greater efficiency in delivering their services. This situation led to the aggressive competition in the banking market and as a consequence, most commercial banks in Thailand have launched their own websites to offer internet banking services. This then marked the beginning of the use of internet as a new distribution channel among banks in Thailand. This move was anchored on the belief that the future of banking service lies on internet banking. Being aware of the importance of electronic transactions in the future economic development of the country, commercial banks have been active since 2000 to provide transaction online similar to the services offered in traditional banking service [6].

But the adoption of internet banking by potential customers and its acceptance by current customers remain an important issue that deserves serious investigation specifically within the Thai context.

The internet banking situation in Thailand is still at its early stage and there is only a small number of internet banking users up to this day. This is despite the fact that banks or internet banking providers have continuously invested and developed their internet banking services. There are 12 commercial banking institutions in Thailand, which offer internet banking services namely (1) Bangkok Bank, (2) Krung Thai Bank, (3) Siam Commercial Bank, (4) Kasikorn Bank, (5) Bank of Ayudhya, (6) Thai Military Bank, (7) Government Savings Bank, (8) Thanachart Bank, (9) Standard Chartered Bank, (10) CIMB Thai, (11) UOB, and (12) Libank (Bank of Thailand, 2015). In Thailand, the number of accounts using internet banking services at 8,943,950 in 2014, but only 15,886 customers accessed through their transaction services [5]. There has been a considerable expansion of internet users in nearly every country and the actual internet banking usage is also rising. The number of financial transactions carried out over the internet still remains low and the rate of internet banking adoption is slower than originally estimated as evidenced in several countries. At the same time, internet banking acceptance depends on bank service quality, trust of service and satisfaction. Factor analysis results indicate that security, user friendly, queue management, accessibility, time factor and fund transfer are the major factors.

In this research, factors that influence the behavioural intention to use internet banking among individuals and groups under mandatory and voluntary contexts are being investigated. The Theory of Reasoned Action (TRA) is a widely validated intention model that has been proven to be successful in predicting and explaining behaviour across a wide variety of domains. TRA is concerned with the determinants of consciously intended behaviours composed of attitudinal, social influence, and intention variables to predict behaviour. This helps guide banks to improve and develop service quality of internet banking system to promote a positive image and boost consumer confidence.

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in choosing internet banking. It is important to increase the number of users accomplishing financial transactions, and reduce their service costs as well as apply various kinds of marketing strategies which satisfy customers' needs.

**Research Questions**

1. How quality management affect Thai customers’ trust in internet banking usage?
2. How dimensions of quality management affect dimensions of trust?
3. Is there an influence of trust on behavioral intention to use internet banking in Thailand?

**Objectives of the Research**

In this study, the five main objectives are:

1. To study the effect of quality management (information quality, system quality and service quality) on the ‘ability’ aspect of trust.
2. To study the effect of quality management (information quality, system quality and service quality) on the ‘benevolence’ aspect of trust.
3. To study the effect of quality management (information quality, system quality and service quality) on the ‘integrity’ aspect of trust.
4. To study the effect of quality management on trust.
5. To study a relationship between trust and behavioural intention to use internet banking.

**Literature Review**

**Service quality**

Parasuraman defined service quality as the result of the comparison that customers make between their expectations about a service and their perception of the way the service has been performed [8,9]. SERVQUAL is a multi-item scale which is developed to assess customer perceptions of service. The author argues that SERVQUAL must be reliably assessed and measured in order to improve service quality. SERVQUAL is an important model to identify the gaps between customer expectations of the service and their perceptions of the actual performance of the service.

The initial ten dimensions that cover SERVQUAL was later reduced to five by using factor analysis [9]. A 22-item survey instrument to measure service quality was developed based on these five dimensions, which are composed of tangibles (having the appearance of facilities, equipment, materials, and personnel), reliability (having the performance of the service in a dependable and accurate manner), responsiveness (providing prompt response to consumers’ requests), assurance (having the required knowledge for responding to consumers’ requests), and empathy (having consumers’ best interests at heart).

Clow et al. [10] concluded that if consumers believe an online service provider is responsive to their particular requests, reassuring, and emphatic in caring for them as individuals, the trust of online service would be increased. Ahn et al. [11] stated that higher levels of service quality assist consumers in resolving their problems more promptly; this makes online banking easier to use. The higher service quality also helps consumers use online banking more effectively, which makes online banking more useful for consumers. Moreover, higher level of service quality is expected to generate an impression of competency and benevolence for the online service provider, which would improve consumers’ trust in the online service provider [12].

**System quality**

System quality depends on the users’ needs as defined during the system's analysis and development. It is an important factor in user satisfaction of a web technology alongside its appearance, technical adequacy, delay, navigation, security, and privacy [11]. Dalheart and Kahn [13] reported that consumers were able to separate the evaluation of waiting experience from the evaluation of the website. However, they also demonstrated that when there is uncertainty about the waiting (as with the majority of downloads), the negative feeling generated by the waiting experience were carried over to the evaluation of the website. Ease of navigation relates to the level of time and effort required to accomplish specific tasks [14]. Speed of system is important since it enables users to attain their goals without too much waiting [15]. High level of system quality may provide users more convenience, privacy, and faster responses.

System quality refers to the performance of information system in terms of reliability, convenience, ease of use, functionality, and other system metrics [16]. The technical aspect of the provider’s online system is defined as the extent to which the online system possesses the attributes of reliability, accessibility, speed, flexibility, aesthetics, and navigation [17].

**Information quality**

Information quality focuses on the content of the provider’s online system and represents the extent to which the online content possesses the attributes of accuracy, timeliness, completeness, relevance, and consistency [18].

During their direct interaction with the online system, consumers process its content and information to make decisions. A higher quality of information would make the online system more useful for decision-making [11]. Furthermore, the high quality of the online system information (e.g., accuracy of transaction records) would create an impression of competency and integrity of the online provider, which would result in consumers’ trust to them [18].

Information quality is a measure of the value that information provides to the user. "Quality" is often perceived as subjective and the quality of information can then vary among users of the information. Nevertheless, a high degree of quality increases its objectivity or at least the inter-subjectivity of the concept. Accuracy can be seen as just one element of information quality but, depending upon how it is defined, it can also be seen as encompassing many other dimensions of quality [11].

There is a trade-off between accuracy and other dimensions, aspects or elements of the information determining its suitability for any given task. Wang and Strong [19] proposed a list of dimensions or elements useful in assessing information quality which is listed below:

1. Intrinsic information quality: Accuracy, Objectivity, Believability, Reputation.
5. Compatibility.
Trust

Trust can be defined at the collective or group level as 'the belief that a group

(a) It makes good-faith efforts to behave in accordance with any
commitments;

(b) It is honest in whatever negotiations preceded such
commitments; and

(c) It does not take excessive advantage of another even when the
opportunity is available [20].

There are many definitions of trust across research areas. In the
context of internet banking services, trust is defined as the assured
confidence a consumer has in the internet banking service provider's
ability to provide reliable services through internet. In this study, trust
is operationalized as consumers' confident belief in internet banking
service provided by his or her bank.

Trust as a perception of competence has three characteristics:
ability, benevolence, and integrity [21,22]. Ability or also known
as competence means that a person securely believes that the other
party has the ability or power to do what needs to be done. In
the case of the internet relationship, the consumer believes that
the vendor can provide the goods and services in a proper and
convenient way. Benevolence means that a person securely
believes that the other person cares about another and is motivated
to act in another person's interest. A benevolent internet vendor
is not perceived to act opportunistically. Finally, Integrity means
that a person securely believes the other person makes good faith
agreements, tells the truth, and fulfills promises. This reflects the
belief that the internet vendor fulfills his or her promises such as
deliver goods or services on the designated time and circumstance;
or to keep private information secure.

Hypotheses

The hypotheses tested in this research are:

H1: Quality management (information quality, system quality and
service quality) has an effect on the 'ability' aspect of trust.

H2: Quality management (information quality, system quality and
service quality) has an effect on the 'benevolence' aspect of trust.

H3: Quality management (information quality, system quality and
service quality) has an effect on the 'integrity' aspect of trust.

H4: Quality management has an effect on trust.

H5: There is a positive relationship between trust and behavioral
intention to use.

The model of this study is shown in Figure 1.

Research Methodology

Sample design and data collection

This study reports on the analysis of primary data which have been
collected from a sample of 400 respondents, who had internet banking
experience in Thailand. The number of respondent was calculated by
using the formula of Yamane. The samples were identified randomly
and drawn from both public and private banks in different parts of
Thailand. The questionnaire was pretested among 30 trial respondents.
The collected data was analyzed by using multiple regression and
correlation analysis to study interrelationship among variables.
and system quality have upon trust can be written as:

\[ \text{Trust} = 0.077 + 0.687 \text{ service quality} + 0.284 \text{ system quality} \] (4)

The adjusted R–square attained is equivalent to 0.717, which implies that 71.7% of trust is influenced by service quality and system quality while the rest (28.3%) of the influence arises from other factors other than service quality, system quality, and information quality.

**Correlation**

In order to assess possible correlation between variables, Pearson coefficient of correlation was calculated. The result of hypothesis 5 shows that the correlations among the constructs of trust and behavioural intention to use internet banking are significant (p < 0.05) (2-tailed) with P value of 0.560. Thus, it can be concluded that the overall correlations towards trust lies on the positive value, which implies that there is a positive correlations in the same direction as the other factors (Figure 2).

**Conclusion**

This research was conducted to find out the effects of different dimensions of quality management on trust, and the corresponding effect of trust towards Thai consumers' behavioural intention to use internet banking.

The study found that quality management has a direct influence on trust but has varying effects on the three characteristics, which are the ability, benevolence and integrity. In case of its ability aspect, this study found that only the quality management dimensions of system quality and service quality has positive effect on trust. This is because attaining a complete and perfect information quality does not necessarily mean that it enhances the satisfaction of the users towards internet banking. As Lee and Chung [26] asserted the service quality and system quality has a positive effect on trust in mobile phone banking in Korea.

**Table 3** shows the result of hypothesis 3. The results show that H3 is supported. This means that all dimensions of quality management (information quality, system quality and service quality) have effects on integrity with system quality and service quality having positive effects while information quality having negative effect.

The regression equation is as follow:

Integrity = 0.197 + 0.650 service quality + 0.420 system quality – 0.123 information quality (H3).

The adjusted R–square attained is equivalent to 0.595, which implies that 59.5% of the 'Integrity' aspect of trust is influenced by service quality and system quality while the rest (40.5%) of the influence arises from other factors other than service quality, system quality, and information quality. However, it shows that information quality has a negative effect on integrity. But if there is a slight change regarding the value of information quality, this change will also affect the level of integrity in the opposite direction.

Table 4 shows the result of hypothesis 4. It shows that H4 is not supported. Not all dimensions of quality management (service quality, system quality and information quality) have effects on trust.

Only system quality and service quality have effects on trust while information quality has no effect at 0.05 statistically significant level.

The multiple regression equation of the effect that service quality

\[ \text{Behavioural Intention to Use} = -560^* \] (Figure 2: Direct effect of trust on Behavioural Intention to use.)

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In case of the benevolence and integrity aspects of trust, this study found that system quality and service quality have a positive effect on trust, while information system has a negative effect. This finding, however, is not supported in the study of Lee and Chung [26] who reported that information quality has a positive effect on trust. The dissimilarity might have been caused by the fact that information system in internet banking in Thailand is flooded with details, and respondents find it too tasking to fill-in these details. This is aside from the fact that respondents may also feel uncomfortable disclosing some information which they consider as too personal. In this regard, it is then important to consider the demographic profile of the population where the research is to be conducted. It is assumed that since this study employed all Thai respondents who may have various levels of orientation and knowledge in terms of internet banking, the results may have shown variation in their level of behavioral intention to use internet banking. Hence, in order to improve this level of trust among clients, it is recommended that banks should develop a more efficient way in bringing about quality information to their clients by revising the bank's fundamental infrastructure regarding their information system [27].

Finally, a significant relationship was found between trust and behavioural intention to use internet banking, which concurs with the findings of Yap et al. [28] that customers who are willing to trust have the behavioural intention to use internet banking with less apprehension about its security and reliability. This means that customers who get used with the service will continue to use the system in the future.

References
