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Gender Views on Trust in E-Banking Services in Saudi Banks

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This paper reports on research conducted in Saudi Arabia. The study examines trust in e-banking services comprising ATMs, credit cards, telephone banking, mobile SMS, and Internet banking services in Saudi banks. The design for the study used quantitative research methodology. Data were collected by means of questionnaires utilizing snowballing technique. Questionnaires were distributed to banks' respondents including males and females banks' customers. The quantitative data presented very strong evidence to support the hypothesis that there are significant trust differences between males and females banks' customers in their use of credit cards and Internet banking services in Saudi banks. The findings suggested how males have high trust in both the credit cards and the Internet banking services compared with their counterpart the females' respondents. This study could help Saudi banks' managers to assess the e-banking services offered and identify methods of improving trust in e-banking services in Saudi banks.

Keyword: E-banking

1. Introduction

This paper reports on research conducted in the Kingdom of Saudi Arabia (KSA) to examine trust in e-banking services in the commercial banking sector of Saudi Arabia. Initial investigation reveals insufficiency of research in the field of management of information technology (IT) and change in developing economies and that there is lack of information about the trust in e-banking services in Saudi banks. Saudi Arabia's economy remains heavily dependent on oil and petroleum-related industries, including petrochemicals and petroleum refining. Oil export revenues have accounted for around 90 percent of total Saudi export earnings, 80 percent of budget revenues and above 40 percent of the country's gross domestic product GDP (EIA 2011) that help in the expansion of the light industries in the KSA. Most recently the King Abdallah University of Science and Technology (KAUST) - Saudi Arabia's first co-educational university - has been opened to cater for both males and females students, and is attracting Faculty and postgraduates students from across the world. KAUST future graduates are anticipated to participate in the development of Saudi business organizations comprising banks. Saudi banking industry in the eastern province has been identified as an industry that plays a crucial role in the economic development of the Kingdom as well as providing valuable e-banking services to both indigenous people and huge number of expatriates residing and working in the eastern province of the Kingdom. The gender use of e-banking and the provision of better banking services in the cosmopolitan cities of the eastern province are among the reasons to conduct this research. Although information technology has attracted a number of academic researchers and banking practitioners alike (Zeithaml 2002, Zeithaml et al. 2002, Zhang & Prybutok 2005, Lee & Lin 2005, Bauer et al. 2005), there is still a considerable gap of knowledge on the issue of e-

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banking services and the wider issue of technological change in the banking industry of developing economies (Parasuraman & Zinkhan 2002). This relative lack of knowledge is a problem to companies seeking to meet customers' expectations by offering consistently high, favourably perceived service standards of e-banking services in a rapidly changing technological environment. Consequently, utilization of IT is a major challenge facing business organizations seeking to sustain competitive advantage in dynamic business markets including commercial banking sector. This challenge is more complex in developing countries where business organizations deal with problems such as inadequate investment, and lack of involvement in the management process of new technology and change (Mahdi & Dawson 2007).

The history of technology in banking highlights how IT has changed the methods by which the banking sector operate, for instance, 50 per cent of foreign exchange business trades are carried out through IT (Childs 1994). International banks as Harris (2001) points out are considered to be large investors in technology. Moreover, worldwide banks have invested heavily, for example, in telecommunications networks and SWIFT to link overseas branches with their headquarters in order to enable banks to effectively communicate business across the globe regardless of time and distance (Dixon 2002, Marlin 2004). As the banking external environments become increasingly competitive and turbulent, the most effective organizations would be those that build change, innovation, and learning into their normal operations (Hellriegel et al. 2005, Slocum et al. 2008). However, the issue is no longer a question of whether IT is used or not, rather the issue is how best it is efficiently used for sustainable and competitive advantage. As such, the improvements in the trust of e-banking services are not merely appreciated by customers, but have become very important to effective use of banking technology services. Previous studies such as Al-Somali et al. (2009) presented findings on the acceptance of online banking in the western province of the KSA. This study focuses on investigating and presenting findings on the gender views on trust in e-banking in the eastern province of the Kingdom. The paper has been organized to start with the introduction including research objectives, briefly explores literature on trust comprising e-banking, the study then presents research methodology, followed by results and analysis and ending with conclusion. Prior to embarking on literature review, the objectives and aims of the study are set and formulated.

1.1 Research Objectives

The research objectives were set to examine the gender views on trust in e-banking services in Saudi banks. The study evaluates the degree of trust in the e-banking services between males and females by testing the following null hypothesis: *That there are no significant trust differences between males and females in their use of electronic banking services in Saudi banks*.

The study aims at identifying methods of improving trust in e-banking services among banks' customers including ATMs, credit cards, telephone banking, mobile SMS, and Internet banking services in the eastern province of Saudi Arabia comprising Dhahran, Khobar, Dammam and Jubail. In so doing, the study helps Saudi banks' managers to improve their technology strategies and enhance their competitive advantage in developing customers trust in e-banking in the eastern province of the Kingdom.

The design for the study used quantitative research methodology. Data were collected by means of distributing questionnaires to bank customers including males and females' respondents through snowballing approach. The Statistical Package for Social Scientists (SPSS) for Windows package version 18 was used for the data analysis. The researcher

used the frequencies and crosstabulations, in addition to Mann-Whitney U test and one-Way ANOVA to test for statistical significance of the research hypotheses.

It is hoped that the research furthers our understanding and also enhances the understanding of business professional and banking practitioner on the trust in e-banking technology in a country from the Gulf region. The study contributes to the limited e-banking literature in presenting supporting evidence to gender differences on trust in e-banking in developing countries.

2. Literature Review

The literature review examines studies on information technology (IT) and change in the banking industry comprising trust in e-banking services. In the last decade, computer-based information technology had become essential in most organizations, and had a major influence on the development of electronic services in the banking industry all over the globe. The increase use and rapid developments of IT enabled fundamental changes in how companies including banks interact with customers (Dabholkar & Bagozzi 2002, Parasuraman & Zinkhan 2002, Bauer et al. 2005).

Prior to the development of a conceptual framework for this study, it is important to define electronic banking services. The current literature lacks a comprehensive definition of electronic and or automated service. Electronic banking in its simplest form may mean the provision of information about the bank and its products by means of a page on the Internet. Daniel (1999) defines the term as 'the provision of information and or services by a bank to its customers via computer, telephone or television'. A more developed service, in Daniel's (1999) view, is one that provides the customers with the opportunity to gain access to their accounts, carry out transactions or buy products online or using other electronic means such as TV, telephone or ATMs. This study, draws on Daniel's (1999), as it provides a more general definition of automated banking services that can be extended beyond ATMs, telephone and Internet banking as they are not the only automated services in the banking industry. This study would suggest that e-banking services include ATMs, SWIFT, credit cards, telephone banking, mobile SMS, interbranch online, and Internet banking services. Therefore, the study defines e-banking services as 'the provision of information and or services by a bank to its customers through ATMs, SWIFT, credit cards, telephone banking, mobile SMS, interbranch online, and or Internet banking services'.

2.1 Conceptual Framework

In developing a framework to study trust in e-banking in Saudi banks, the initial literature review reveals a number of models which can fit with this study including Technology Acceptance Model (TAM), which was developed from Theory of Reasoned Action (TRA) Davis (1989); Technology Acceptance Model (TAM2) Venkatesh & Davis (2000); the Unified Theory of Acceptance and Use of Technology (UTAUT) Venkatesh, et al. (2003) with four core determinants of intention and usage, and up to four moderators of key relationships. The UTAUT was formulated by theorising four constructs to play an important role as direct determinants of user acceptance and usage behaviour (Kripanont 2007). The extended TAM was further developed by Al-Sukkar (2005), and Al-Somali et al. (2009) with four core dependent variables of intention and usage comprising: *Perceived Usefulness, Perceived Ease of Use, Attitude Towards Use, Actual Usage*, and number of independent control variable including *Quality of electronic services, Age, Gender, Education, Income, Trust, and Culture* (Al-Sukkar 2005) in Jordan and (Al-Somali et al. 2009) in the KSA. Nonetheless, Al-Somali et al. (2009)

study investigated the acceptance of online banking in Jeddah, the largest multinational city in the western province of the Kingdom. In contrast, this study examines the gender views on trust in e-banking services in Dhahran, Khobar, Dammam and Jubail the four cosmopolitan cities in the eastern province of the KSA. The researcher draws upon the demographics and the trust variables and these are taken into consideration and included into the framework as briefly discussed below.

Demographics are the characteristics of a work group, an organization, a specific market, or various populations, such as age, gender, education, occupation, and income. Demographics play an important role in marketing, advertising, and human resources management (Slocum et al. 2008). The review of the literature reveals that a typical user of online banking or Internet banking services can be classified as a highly educated, relatively young and wealthy person with a good knowledge of computers and especially the Internet (Al-Ashban & Burney 2001, Karjaluoto et al. 2002) whereas having a good job and or occupation was not found significant. Many studies recognise that demographic characteristics impact on customer attitudes and behaviour concerning online banking (Sathye 1999, Lee & Lee 2001, Eastin 2002, Burke 2002, Lassar et al. 2005, Lai & Li 2005, Alagheband 2006).

Trust is the customers' confidence in the bank's integrity and effectiveness in providing better e-banking services to its users. Trust is 'the variable most universally accepted as a basis of any human interaction or exchange', and 'is a must in most business relationships' (Gundlach & Murphy 1993, Fukuyama 1995). In the online banking context, researchers found that trust plays a vital role in the adoption and continued use of e-banking (Suh & Han 2002, Rexha et al. 2003, Lichtenstein & Williamson 2006, Casalo et al. 2007, Vatanasombut et al. 2008). Moreover, Mukherjee & Nath (2003) tested a model of trust in India and concluded that both 'shared value' and 'communication' played a significant positive role on trust and that trust had a significant positive impact on commitment (Alsajjan & Dennis 2006, Al-Somali et al. 2009). Trust was also reported not only affects the intent to use e-banking (Suh and Han 2002, Liu & Wu 2007), but trust has also been established to be an antecedent to commitment in e-banking (Kassim and Abdulla 2006, Vatanasombut et al. 2008) and is therefore useful to minimize the perceived risk that consumers feel when using an online banking (Pavlou 2002). As trust plays a key role in the adoption and continued use of e-banking, it is suggested to be a major element in the study of e-banking services. Wong et al. (2009) set the hypothesis which forms the basic relationship between a consumer's trust in e-banking website and the consumer's willingness to use e-banking as: H1: *Specific trust in e-banking has a direct effect on willingness to use e-banking*. The Results showed that males have higher 'specific trust' than females regardless of income, age and qualification (Wong et al. 2009). Many researchers agree that trust is vital in online banking compared with offline banking as transactions of this nature contain sensitive financial information and people involved in the financial transaction have the feeling of insecurity about their access to important files and information transferred through the Internet such as credit card details (Alsajjan & Dennis 2006). Further, Suh & Han (2002) consider the issue of trust as very important in online compared with offline banking. Customers' trust in their online transactions is critical and has been recognized as a key to the growth of e-commerce comprising e-banking (Yousafzai, et al. 2003). We would assume that the feeling of insecurity or lack of trust is common among bank customers in their use of e-banking services, and therefore, the researcher would formulate the hypothesis: *That there are no significant trust differences among banks' customers in their use of electronic banking services*. The next section discusses the research methodology adopted for this study.

3. Methodology

In collecting primary data from financial institutions, the researcher was aware that access issues pose constraints particularly when seeking information related to personnel, customers, investors and or financial data (Saunders et al. 1997, 2009, Mahdi 2008). This study was necessarily exploratory as gaining access to banks in a complex environment of a developing country such as Saudi Arabia was a major research challenge (Al-Ashban & Burney 2001, Sohail & Shaikh 2007). The researcher used snowballing technique for data collection and closely worked to overcome problems of access in using his personal contacts as Bryman (2004, 2006, 2008) suggests a number of strategies for gaining access such as using friends, contacts, colleagues, and academics to help in gaining entry, in addition to getting support of a person within the institution to act as a promoter or a supporter (Bryman 2006, 2008, Mahdi 2008, Bryman et al. 2008).

To achieve the study objectives, a framework for data collection and analysis was used based on quantitative approach. Data were collected by means of snowballing technique that is often used in populations which are difficult for researchers to reach such as the case of the females and the bank staff in the KSA. Questionnaires were distributed through employment of undergraduate research assistants to banks' respondents including males and females banks' customers. The quantitative technique aimed at testing the following null hypothesis: *That there are no significant trust differences between males and females in their use of electronic banking services in Saudi banks.*

The hypothesis was addressed in data collected by the use of a questionnaire to provide quantitative data and an open ended question to provide qualitative data in seeking banks respondents' views. A questionnaire was formulated by reviewing relevant theoretical and empirical studies for example Alsajjan & Dennis (2006) in Europe, Al-Somali et al. (2009) in the Middle East, and Wong et al. (2009) in Asia. Pilot study was conducted by testing and pre-testing the questionnaire with 50 randomly selected banks' respondents. Feedbacks were incorporated and questions were then revised. The final version of the questionnaire consists of 21 closed questions and one open ended question placed at the end of the questionnaire to allow for further comments and provide qualitative data in seeking banks respondents' views. Snap10 was used in the design of the questionnaire. 500 copies of the questionnaire were distributed to bank respondents comprising students, workers, clerks, technicians, managers, and faculty in Dhahran, Khobar, Damman and Jubail, which are considered the four big cities in the eastern province of Saudi Arabia. The process of distributing and collecting data took six months. Eventually, 418 completed questionnaire copies were collected from respondents. Data were then filtered and 36 copies of questionnaire containing missing data were excluded from data entry, leaving 382 fully completed questionnaire copies which represented 76.4 response rate. Reliability statistics test was conducted which yielded Cronbach's Alpha 0.795 and Cronbach's Alpha 0.757 based on 6 standardized items of gender and 5 e-banking services. Questionnaire data were used to deduce the validity of research hypotheses in collecting responses from a pre-set series of questions (Bryman 2008, Mahdi 2008).

Initially, the study compared views of males against females banks' customers. The respondents' different viewpoints on trust in e-banking services formed the basis for comparison and evaluation. The Statistical Package for Social Scientists (SPSS) for Windows package version 18 was used for the data analysis. The researcher used the frequencies and crosstabulations, in addition to Mann-Whitney U test and one-Way ANOVA to test for statistical significance of the research hypotheses (Kinnear, & Gray

1999, p. 171). The next section presents the research results and the analysis.

4. Results and Analysis

4.1 Respondents Profile

This section presents findings from the study on trust in e-banking services in Saudi banks based in the eastern province of the Kingdom. The section considers findings about the respondents' general profile including gender as displayed in Table 1.

Table 1: Demographic of Respondents

Respondents' Demographics	Males (344)		Females (38)		Total (382)	
	N	%	N	%	N	%
Gender	344	90.1	38	9.9	382	100
Living area						
Ahsa	2	0.6	0	0	2	0.5
Dhahran	81	23.5	3	7.9	84	22
Khobar	53	15.4	10	26.3	63	16.5
Dammam	145	42.2	12	31.6	157	41.1
Jubail	53	15.4	11	28.9	64	16.8
Qatif	10	2.9	2	5.3	12	3.1
Age group						
Under 20	2	0.6	0	0	2	0.5
20-29	86	25	6	15.8	92	24.1
30-39	106	30.8	15	39.5	121	31.7
40-49	93	27	8	21.1	101	26.4
50-59	46	13.4	7	18.4	53	13.9
60 +	11	3.2	2	5.3	13	3.4
Educational level						
High School	36	10.5	4	10.5	40	10.5
Diploma	54	15.7	9	23.7	63	16.5
Bachelor	141	41	15	39.5	156	40.8
Master	64	18.6	2	5.3	66	17.3
Ph.D.	49	14.2	8	21.1	57	14.9
Income (SR00)						
1000-5000	73	21.2	15	39.5	88	23
6000-10000	119	34.6	12	31.6	131	34.3
11000 - 15000	102	29.7	8	21.1	110	28.8
16000 - 20000	33	9.6	1	2.6	34	8.9
21000 +	17	4.9	2	5.3	19	5
Bank account						
Less than a year	19	5.5	1	2.6	20	5.2
1-3 years	59	17.2	8	21.1	67	17.5
4-6 years	74	21.5	6	15.8	80	20.9
7-9 years	55	16	5	13.2	60	15.7
10 years +	137	39.8	18	47.4	155	40.6

Table 1, shows the respondents general profile for the entire sample which consists of (382) respondents comprising (90.1%) were males, and only (9.9%) were females. Vast

majority of respondents were males and only few of them were females. This is not surprising, as the smaller number of female participated in the survey reflects an access problem and difficulties in reaching females to collect primary data in a conservative environment such as Saudi Arabia. Saudi law does not allow direct contact and or interaction between males and females in general, and or between foreign males and Saudi females in particular. Sohail & Shaikh (2007) highlight that, in collecting primary data from Saudi Arabia 'legally and socially, females cannot be approached by male strangers' (Sohail & Kahtani 2005).

The questionnaires were distributed to banks' customers, both males and females, in the eastern province of Saudi Arabia. In terms of location, as to where these respondents live about (42.2%) of males, and (31.6%) of females reported that they live in Dammam. More than a quarter (28.9%) of females, and (15.4%) of males indicated that they live in Jubail. Less than a quarter (23.5%) of males, and (7.9%) of females showed that they live in Dhahran. About (26.3%) of females, and (15.4%) of males showed that they live in Khobar. Very few (5.3% and 2.9% and 0.6%) of both male and female respondents survey revealed that they live in Qatif and Ahsa respectively. The results satisfied the requirements of the study as it targets respondents living in the four largest cities of the eastern province of the Kingdom, namely Damman, Dhahran, Jubail and Khobar, and thus the survey generated reliable data.

The table reports that about (39.5% and 30.8%) of females and males respondents age group was between 30-39 years. More than a quarter (27%) of males and (21.1%) of females age group was between 40 and 49 years. About a quarter (25%) of male and (15.8%) of females age group was between 20 and 29 years. Whereas (18.4% and 13.4%) of both females and males age group was between 50 and 59 years. The table shows that the least age group represented in the study were the old and the young females and males respondents about (5.3%, and 3.2%, and 0.6%) had over 60 years and under 20 years of age respectively.

The overall results reveal how both males and females respondents were well educated as (41%, and 39.5%) of males and females had bachelor degrees. Less than a quarter (23.7%) of females, and (15.7%) of males had diplomas. About (21.1% and 14.2%) of both females and males respondents had Ph.D. degrees. About (18.6% and 5.3%) of males and females had master degrees. Only (10.5%) of respondents had high school certificates. Findings revealed how males and females participated in the survey were highly educated as considerable numbers of them hold Bachelor, Master and Ph.D. degrees.

In terms of income, more than one third (34.6% and 31.6%) of males and females respondents had an income between 6000 and 10000 thousand Saudi Riyals (SR) per month. More than a quarter (29.7%) of males, and (21.1%) of females responded to the questionnaire had income between 11000 and 15000 thousand SR per month. The results show how (39.5%) of females, and (21.2%) of males had an income between 1000 and 5000 per month. Other respondents (9.6% and 2.6%) of males and females had income between 16000 and 20000 per month. Only very few respondents (5.3% and 4.9%) of females and males had an income more than 21 thousands SR per month. The income level was measured in Saudi Riyals (SR). During the study period (3.75) Saudi Riyals was equivalent to one (1) US$ Dollar. The findings revealed how females had slightly lower income compared with their counterparts the males.

The study revealed that (47.4%) of female and (39.8%) of males respondents had an account over 10 years. About (21.5%) of males and (15.8%) of females had a bank account between 4 and 6 years. While (21.1%) of females and (17.2%) of males had a

bank account between 1-3 years. About (16%) of males and (13.2%) of females were holding an account between 7 and 9 years. The table reports how only (5.5% and 2.6%) of surveyed male and female respondents were holding a bank account for less than a year. The findings showed how both males and females had a long relationship over 10 years holding banks' accounts. The respondents' long relationship with their banks provided a good indication that they must have, at least used one of the available e-banking services, and therefore, are qualified as bank customers to respond to the questionnaire.

4.2 Trust in the e-banking services

Table 2 describes the respondents' (males and females) views about their trust in the e-banking services including ATM, credit card, mobile SMS, phone banking and Internet banking. The null hypotheses had been presented for testing as follows:

H_o: *that there are no significant trust differences between males and females banks' customers in their use of e-banking services in Saudi banks*.

H_1: *that there are significant trust differences between males and females banks' customers in their use of e-banking services in Saudi banks*.

A Mann-Whitney U, and one-Way ANOVA tests for statistical significance were used to test for significant trust differences between males and females in e-banking services in Saudi commercial banks applying $p<0.05$ as statistical level of significance. The values of 'very high' and 'high' have been recoded as 'high' and the values of 'very low' and 'low' have been recoded as 'low' to enable hypotheses testing. Where percentages and numbers do not add up to overall total, this is due to the recoded values, in addition to use of one decimal point.

Table 2: Trust in the E-Banking Services

Electronic banking services	Males (344)		Females (38)		Total (382)	
	N	%	N	%	N	%
ATM						
High	299	86.9	34	89.5	333	87.2
Moderate	34	9.9	4	10.5	38	9.9
Low	1	0.3	0	0	1	0.3
Never used	10	2.9	0	0	10	2.6
Credit card						
High	157	45.6	10	26.3	167	43.7
Moderate	57	16.6	6	15.8	63	16.5
Low	28	8.1	2	5.3	30	7.9
Never used	102	29.7	20	52.6	122	31.9
Mobile SMS						
High	112	32.6	11	28.9	123	32.2
Moderate	48	14	2	5.3	50	13.1
Low	9	2.6	4	10.5	13	3.4
Never used	175	50.9	21	55.3	196	51.3
Phone banking						
High	131	38.1	13	34.2	144	37.7
Moderate	48	14	2	5.3	50	13.1
Low	13	3.8	1	2.6	14	3.7
Never used	152	44.2	22	57.9	174	45.5
Internet banking						
High	177	51.5	12	31.6	189	49.5
Moderate	61	17.7	2	5.3	63	16.5
Low	19	5.5	1	2.6	20	5.2
Never used	8	25.3	23	60.5	110	28.8

Tests Statistics	**One-Way ANNOVA**		**Mann-Whitney U**
	F	Sig.	Asymp. Sig. (2-tailed)
ATM	.941	.333	.614
Credit card	8.370	**.004**	**.006**
Mobile SMS	.610	.435	.500
Phone banking	1.901	.169	.235
Internet banking	18.130	**.000**	**.000**

Table 2, reports that vast majority 87.2% of respondents, of which 89.5% were females and 86.9% were males showed how they have high trust in the ATM service. While 10.5% of females and 9.9% of males believed that their trust in the ATM service is moderate. Only minor percentages have low trust or have never used the ATM service. The findings suggested that both males and females have high trust in the ATM service. Both the Mann-Whitney U and one-Way ANOVA tests results (*p-value 0.614 and 0.333 more than the critical value p<0.05*) indicates no significant differences between males and females in their use of the ATM service.

As for credit card about 43.7% of respondents of which 45.6% were males and 26.3% were females pointed out that they have high trust in the credit card service. About

16.6% of males and 15.8% of females indicated that their trust in the credit card is moderate. Very few males and females 8.1% and 5.3% respectively stated that their trust in the credit card is low. Remarkably, more than half 52.6% of females reported that they have never used the credit card compared with 29.7% of males have also reported that they have never used credit card service. The findings suggested that males have high trust in the credit card service compared with their counterpart the females. A Mann-Whitney U and ANOVA tests results (*p-value 0.006 and 0.004 less than the critical value p<0.05*) indicates significant differences between males and females.

In terms of mobile SMS, more than a half 51.3% of respondents of which females were 55.3% and males 50.9% both expressed that they have never used the mobile SMS service. More than one third 32.2% of respondents of which 32.6% were males and 28.9% were females indicated that they have high trust in the mobile SMS. Few males 14% and females 5.2% revealed that their trust in the mobile SMS is moderate. About 10.5% of females and only 2.6% of males stated that they have low trust in the mobile SMS service. The findings suggested that considerable numbers of both males and females have trust in the mobile SMS service. A Mann-Whitney U test and ANOVA results (*p-value 0.500 and 0.435 more than the critical value p<0.05*) indicates no significant differences between females and males. Surprisingly, almost half of both females and males have never used the mobile SMS.

With phone banking, 45.5% of respondents of which more than a half 57.9% of females and about 44.2% of males indicated that they have never used the phone banking. While 38.1% of males and 34.2% of females believed that they have high trust in phone banking. About 14%, 5.3% of both males and females respectively have moderate trust in the phone banking. Minor percentages 3.8% and 2.6% of males and females reported that they have low trust in the phone banking. The findings suggested that considerable percentages of both females and males expressed their views as never used the phone banking. A Mann-Whitney U and ANOVA tests results (*p-value 0.235 and 0.169 more than the critical value p<0.05*) indicates no significant differences between males and females. Reasonable numbers of respondents, both males and females have trust in phone banking.

With reference to Internet banking, 49.5% of respondents of which 51.5% of males and 31.6% of females expressed their views as having high trust in the Internet banking. About 17.7% of males and only 5.3% of females have moderate trust in the Internet banking. Very few 5.5% of males and 2.6% of females showed how they have low trust in the Internet banking. Almost two third 60.5% of females revealed that they have never used Internet compared with a quarter 25.3% of males who also indicated that they have never used Internet banking. The findings suggested how males have high trust in the Internet banking service compared with their counterpart the females. A Mann-Whitney U and ANOVA tests results (*p-value 0.000 and 0.000 less than the critical value p<0.05*) indicates significant differences between males and females.

The relationship between trust and customer's willingness to use e-banking is evident in the literature and has been reported in various theoretical and empirical studies for example Suh & Han (2002), Alsajjan & Dennis (2006), and Al-Somali et al. (2009). The results of this study showed how there are significant trust differences among respondents in their use of e-banking services in Saudi banks. The data analysis indicated how there are significant trust differences between males and females banks' customers in their use of credit cards and Internet banking services in Saudi banks. The results suggested how males have high trust in both the credit cards and the Internet banking services compared with their counterpart the females. These results support

Wong et al. (2009) study which showed how males have higher 'specific trust' in using e-banking than females regardless of income, age and qualification (Wong et al. 2009). The research results also revealed how females had lower income compared with their counterparts the males. This lower income could be one of the factors causing differences between males and females. No differences found in the age or education of respondents in this study. Further investigation to find out factors causing differences in trust between males and females is needed. Future research could focus on gender differences on trust in e-banking to get more evidences of why males have high trust than females in their use of e-banking services.

Moreover, banks should pay attention to trust including safety and security issues in designing reliable systems. A part from customers' direct experience with e-banking services, factors such as bank image, positive word of mouth, may impact on trust improvement. It is therefore, vital for Saudi banks to build an innovative image, as customers are most likely to trust an innovator and or a distinguished leading bank.

5. Conclusion

The study conducted in the eastern province of the Kingdom of Saudi Arabia (KSA) examined and presented findings from survey data on the trust in e-banking services in Saudi banks. Findings revealed that there are significant trust differences among respondents in their use of electronic banking services. The quantitative data seem to present very strong evidence to support the hypothesis that *there are significant trust differences between males and females banks' customers in their use of credit cards and Internet banking services in Saudi banks*. The findings suggested how males have high trust in the credit cards and the Internet banking services compared with their counterpart the females. A Mann-Whitney U and One-Way ANOVA tests' results (*p-value 0.006, 0.000, 0.004, and 0.000 less than the critical value p<0.05*) indicates significant differences between males and females. Males have high trust in their use of both credit cards and the Internet banking services compared with females' respondents. The study provides new empirical evidence and thus contributes to the limited literature on trust in e-banking in developing countries.

The limitations of this study appear in access difficulties in approaching females to collect primary data in Saudi Arabia. The legal and social constraints have limited this study in conducting further interviewees to provide more evidence to support differences between males and females. Also the findings generated form the study in the eastern province of the KSA may not be generalised. However, this study could help Saudi banks' managers to improve their technology strategies and enhance their competitive advantage in developing females trust in e-banking in the eastern province of the Kingdom.

Trust should be considered where sensitive financial information is used as it plays a key role in increasing the use of e-banking services. The implication of this study will be vital in helping Saudi banks' managers to evaluate the e-banking services offered and identify methods of improving trust in e-banking in Saudi banks. We would urge that banking practitioners and the e-banking services' providers, alike, should facilitate the provision of banking technology services particularly the credit cards and the Internet banking services to both indigenous and expatriate females working in Saudi Arabia. Also bank managers should facilitate and encourage the use of mobile SMS and phone banking as reasonable numbers of respondents, both males and females have never used these services. Saudi banks should advertise widely the trust comprising safety and security issues of e-banking rather than just focusing on building brand awareness. Finally, we

would argue that the insufficiency of literature in the area of banking technology in developing economies becomes central for academics to conduct further research in this field. A further study in developing countries that examines this area of technology is considered to be critical; for example, the impact of culture on e-banking services is an area in need of further research.

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