THE INTERNATIONAL JOURNAL OF BUSINESS & MANAGEMENT

Web-based Communication in Online Banking System: Perceived Ease of Use, Information Quality, and Interaction

Hilarius Bambang Winarko

Senior Lecturer, Department of Management and Coordinator of Investment Gallery, Faculty of Business, Sampoerna University, South Jakarta, Indonesia

Tunggul Pannindriya

Senior Lecturer, Department of Communication and Media, London School of Public Relations, Jakarta, Indonesia Vice Head, Thesis Department of Post Graduate Programme, London School of Public Relations, Jakarta, Indonesia

Christian Haposan Pangaribuan

Senior Lecturer, Department of Management and Coordinator of CEO-Talk Programme, Faculty of Business, Sampoerna University, South Jakarta, Indonesia

Abstract:

Nowadays the usage of web-based communication such as online services in various industries plays a more important role than ever. It has been used to drive better quality of communication with more transparent, productive and efficient. The study was conducted in Indonesia as a developing country that has been enjoying a great momentum of economic growth but relatively new in adopting web-based communication. It observes the behavior both existing customers who already use online banking services and those who have never use it before from its perceived of ease of use (PEOU), information quality and interaction. This research discusses on how web-based communication has been able to test the narrowing gap between the two groups. The results show that the behaviour of both groups is almost the same towards positive adoption or acceptance of web-based communication in general. At the same time, the study in more details found that there is actually a significant difference between the experienced users and non-experienced users group in terms of their perceived ease of use. Further, the online banking system has also been able to drive the cognitive and affective attitudes, because it contains messages and information that can be understood clearly and safe.

Keywords: Web-based communication, communication and technology, nonverbal communication, business communication, computer mediated communication, internet

1. Introduction

For centuries, social interactions had been developed based on direct face-to-face communications. But technology has been changed it by creating ways to deliver the information and long-distance. Now we are entering a century with new forms of communications and interactions which make us wondering although we have already been use it, such as: short message service and other social media platforms. The creation of new ways of communication has been contributing to communication experts debates over centuries on how the technology influences societies or communicies. Those who belong to pessimistic group criticize that the new way of communications may weaken traditional way of communications, make people away from overall human interactions with other people which are normal and necessary in the past. At the other hand, those who belong to optimistic group perceive that technology is only reinforcing, extending, and complementing the normal ways that shapes the connections.

Whether we like or not, technology has been changing the landscape of communities, from local into more global communities, whereas the world is becoming more transparent towards the information advancement, transportation and rapid changing of technologies, so people all over the world are able to be connected and interact easily through various communication platforms, including web-based communication. One of the growing more popular application in web-based communication is online banking or e-banking. Eight out of 10 household now are using this kind of web-based communication (Turban, 2012). The usage of this application could reach more than 116 million users by 2014 as reported by eMarketer. This kind of web-based communication application in banking might be developed further so it may change the landscape of financial industry structure globally in the future whereby it is predicted to be more integrated with other related industries, such as insurance and brokerages (Laudon and Traver, 2011).

Indonesia is an emerging archipelago democratic nation in Asia who has been transforming its society from agricultural into a more modernized society. As the fourth largest populated country in the world with around 250 million population, it is predicted that by year 2030 its economy would grow to be the seventh largest economy in the world as reported by McKinsey Global Institute in 2012. And largely due-to its consumption and productivity growth, it might have added around 90 million people from younger age category

which become the important consumption segment that contributes 30% of the whole country population. In the development of Internet active users has been fastly growing up to 34% of the population has been triggering more web-based communication applications used such as electronic commerce as well as the usage of online banking services with almost five hours of daily use of internet (We Are Social, Ltd., 2015).

E-banking services has been lately adopted by Indonesia since 1998 and then followed massively by national and government banks and be more commonly used by corporation and consumer to do financial transactions. The customers mainly use it to do fund transfer, various bill payments, and checking their balance, and other important fast-changing information such as foreign exchanges and stock changes. These kinds of web-based communication application have been regulated heavily by Bank Indonesia (state federal reserve) as well as Otoritas Jasa Keuangan (Financial Services Authority) which shows serious attention given by the government to manage the risks as impacted by the usage of information and communication technology (ICT) applications for financial transactions. It has been believed that web-based communication such as in banking area could provide many beneficial features, both for consumers and the industry players. For instance, it gives more benefit features to their clients or even reducing the transportation costs, the usage of paper and better customer service interfacing. Other advanced players such as Bank of America, Citibank, and Wels Fargo have been using self-service or automated services for their customers to see their cheques and invoice images, so as the customers has more independent to access or more conveniently doing financial transaction without leaving their daily works and keep productive. Nevertheless, in less developed regions in Indonesia, the web-based communication has been perceived as risky and not fully accepted due-to various plausible factors including financial risk, social and security risks, especially most part of the population are relatively newly adopted this kind of web-based communication.

With the growing economy of Indonesia that may impact to the growing financial transactions in the future, the authors saw the needs to do analytical research to understand deeper about the perceived ease of use, information quality and interaction of web-based communication in e-banking. The respondents were collected from various demographics (educational background, age, gender, and occupation) both for those who have already experienced and not experienced in using e-banking before. The result of this study is expected to give contribution to communication academic studies as well industry practitioners in banking, so they can formulate better strategies for their web-based communication platforms, by considering both positive and resistance factors that may be used in another web-based communication applications. However, there are some limitations on this study related the complexity of its methodology. Nevertheless, the authors hope that some basic findings in this study may extend other similar researches both academically and practically in the near future.

2. Theoretical Background

This study reviews some applications that being developed or rooted from theories of message processing that see humans are beings where cognition and emotion play integral roles in a complex message reception and message processing which have been used in behavioral science disciplines, including communication and marketing studies. It assumes that people are not blank slates in receiving messages or just like a simple machine processing the information they receive but they have perceptions that have been formed according to their value systems and environments for years. And according to Rogers and Shoemaker's paradigm of innovation-diffusion process, knowledge and persuasion are the important initial steps that contribute in people's decision in accepting or adopting any innovation as impacted by the existence of web-based communication (hypertext). The last step, confirmation, may reinforce the innovation decision he or she has made, and it may reverse his/her previous decision if exposed to conflicting messages about this innovation. Therefore, the user experience may occur during this confirmation step, and it will reflect on how satisfy the users in accepting new technology of web-based communication.

Rogers and Shoemaker's model of innovation diffusion propose the importance of encouraging the adoption of innovations for both developing and to more advanced societies because of the continuity of society as well as technology changing (McQuail and Windahl, 1993). Another model was also reported that most of public communication systems on the media regulation models: broadcasting, print, and common carrier, for reasons of public interest are regulated in-order to ensure the efficiency, quality and universality of service or protection of the consumer against monopoly were looking increasingly inconsistent and obsolete. More recent report from Rusciano and Xia (2013) critically argues that the different structure of print-base communication (text) versus web-based communication (hypertext) may changes the different way of thinking of society and make people uneasy in the use of new media.

Turban et. al (2012) in his book *Electronic Commerce*, defines that electronic banking is a series of activities either done at home or outside by using Internet connection; also known as e-banking, cyberbanking, virtual banking, online banking, or home banking. As regulated by Bank Indonesia, it also defines that electronic banking as services that enable bank customer to get information, do communications, and do banking transactions through electronic media such as: automated teller machines, phone banking, electronic fund transfer, internet banking, and mobile phone. All of these various system applications further developed by banking industry practitioners and can be categorized into five groups: first, as informative application; second, administrative application, whereby bankers able give administrative applications to new customers through online system; third, transactional application, whereby customers benefits from banking transactions effectively; fourth, portal application, whereby bankers provide links for various financial information, community, business, etc.; and fifth, various applications such as wireless services and search functions. Based-on the above definitions and categories, it concludes that online banking or e-banking is one of clearly defined web-based communication applications that being applied in this study.

Previous studies on online banking (Kuisma et al., 2007; Littler and Melanthiou, 2006) reported that it has many practical benefits and efficient for societies, but there always been part of society who are resistant to adopt its usage due-to several plausible risk factors,

especially its uncertainty and security issues. A behavioral study conducted towards online banking with benefits and risks approaches has been done in Taiwan towards 368 respondents who mostly have higher educational background (Lee, 2009). It uses an integrative theory approach developed such as Technology Acceptance Model (TAM) by Davis (1989), Theory of Planned Behavior (TPB) which develops by Ajzen (1991). The result of the study reported that the intention to use web-based communication through online banking positively affected mainly by the perceived benefits, attitudes, and its perceived usefulness. Nevertheless, the intention adversely affected mainly by the security risks and financial risks. Another study done in UK by Chau and Ngai in 2010 had done towards 164 respondents of younger age category (16-29 years), found that they significantly have positive attitudes and behavioral intention towards the usage of e-banking services compared to other age categories. It shows the consistent premise that younger generation category is having positive attitudes in adopting new technologies than the older one.

By using the above theoretical framework, this study was developed to evaluate the perceived ease of use (PEOU), information quality and interaction towards web-based communication platform in electronic banking application with different culture context both for those who have experienced in using web-based communication platform or not. Chau and Ngai (2010) defines perceived ease of use refers to the cognitive processes people use to respond to information technology regarding beliefs, attitudes, intention and behavior. People who feel easier to use the technology might feel that the technology is more useful for them. Based-on WebQual 4.0 as suggested by Barnes and Vidgen (2000), information quality is defined as the quality of the content of the site: the suitability of the information for the user's purposes, e.g. accuracy, format, relevancy. Further, interaction refers to service interaction quality that is defined as the experience of users as they delve deeper into the site, embodied by "trust" and "empathy"; for example, issues of transaction and information security, product delivery, personalization and communication with the site owner. Specifically, the objective of this research is to explore the differences between both group of respondents generally towards the web-based communication application and its perceived ease of use.

3. Research Model and Hypothesis Development

Firstly, descriptive statistical research model is developed through the literature reviews as mentioned earlier in-order to develop previous empirical studies towards both experience and non-experience user groups who are observed to understand deeply any significant behavior with simple statistical models. General evaluation towards group perception that observed based on Technology Acceptance Model (TAM) done by Malhotra & Galletta (1999). This tool that being used to measure that evaluation is using seven bipolar points of scale to measure the perception of each group towards their personal experience in using electronic banking application; i.e. either their experience was perceived as a good concept/not, useful/not, wise option/not.

The general difference between two groups therefore can be found by understanding the means value (average) on each measurement, especially on how their perception generally towards electronic banking services. The hypothesis developed in this research model is that generally both groups "accept" the web-based communication through electronic banking (minimum scale of 5). Furthermore, with Differences Analysis is applied by using Likert scale of 1-7 to evaluate deeper whether the two observed groups are significantly different or not. Hypothesis is developed within this model; in this case, the experienced user group of electronic banking perceives positively and significantly different compared to other group who are not experiencing in using online banking services.

Secondly, the evaluation of perceived ease of use (PEOU) was developed by using three reference questions associated to the perceived ease of use developed by Chau and Ngai (2010). They are whether web-based banking communication system that being used is clear and can be understood, how easy they might control it independently, and how easy to use it in overall. And similar to the method in Differences Analysis as mentioned earlier, the study aims to test any significance difference between these two groups with hypothesis that the two groups are significantly different in terms of their perceived ease of use.

Thirdly, the authors conduct additional similar tests to explore further other perceived usefulness variables in relation to other web-based communication elements, they are: information quality and interaction that felt by the experienced users group. In this study, the authors conducted further tests whether the experienced users feel that web-based communication through online banking provides information in timely manners, relevant, and easy to be understood. As well as whether they perceive that online banking is reputable, secure, and satisfactory towards its functional quality based on their personal experiences.

The respondent for this study are basically those who are from young age category (16-29 years), 30-39 years, 40-50 years, and more than 50 years and both who are experienced in using online banking services and those who were not becoming the users yet but registered as bank customers independently. Sampling method technique used in this study is purposive sampling throughout Indonesia. The survey has been done both through online survey and additionally face-to-face administered questionnaire survey from various background of occupations, starting from students, as well as those who are working in the offices including their families.

The result of the surveys produced 150 respondents who filled completely the main survey and another 30 sample respondents for preliminary tests of the reliability and validity of the questionnaire design. Few of the questionnaires found incomplete for the offline surveys due-to improper photocopy setting. Among the 150 respondents, there were 121 respondents who are experienced users and 29 respondents who are non-experienced users of online banking services, with 52.7% of them are male and 47.3% are female.

4. Discussion and Data Analysis

Based on research methodology and hypothesis discussed in prior sections, primary data were gathered and analyzed by using IBM SPSS software. Prior to do surveys, reliability and validity tests has been done, and the result of Pearson "r" correlation coefficient shows that the measurement towards questionnaire's dimensions with interval scales have identical responses from 30 sample respondents, as shown from the calculation of Cronbach's Alpha is more than 0.7. Therefore, this instrument can be continued to get population samples. And after primary data were gathered, then descriptive and differential analysis can be conducted to test

hypothesis towards the general perceptions, perceived ease of use (PEOU) for both two different groups, as well as information quality and interaction for experienced group.

4.1. General Perception

By using statistical One-Sample Test, this study reports that generally both experienced and non-experienced groups were "accepted" web-based communication application of online banking services as shown in the Table 1 and Table 2 with the 5 scales correspond to the sufficient "acceptance" level of hypothesis on the 7-point scale.

	One-Sample Statistics											
			N Mean		Std. Dev	viation		Std. Error Mean				
Good Con	cept		121	6.02	.94	4		.086				
Usefulne	ess		121	6.32	.81	9		.074				
Wise Opt	ion		121	5.87	.98	.983		.089				
	One-Sample Test											
					Test Value	= 5						
	t	df	Sig. ((2-tailed)	Mean Difference	95% Confidence Into		val of the Difference				
						Lowe	r	Upper				
Good Concept	11.942	120		.000	1.025	.85		1.19				
Usefulness	17.767	120		.000	1.322	1.17		1.47				
Wise Option	9.713	120	.000		.868	.69		1.04				

Table 1: One Sample-T Test of General Perception in Experienced Users

As shown in the Table 1 above, that all of general perception items are greater than 5; they are: good concept (mean value of 6.02), usefulness (mean value of 6.32), and wise option (mean value of 5.87). The three items show that they are significantly different from the test value of 5 (Sig. 2-tailed values are less than 0.05) which means that they are both more than agree in accepting this kind of online/web-based communication system.

					One-Sample	e Statistics				
	N		Mean		Std. Deviation			Std. Error Mean		
Good Concept	t		29	5.31		1.072			.199	
Usefulness			29	5.76		1.272			.236	
Wise Option	Wise Option 29		29		5.10		1.398		.260	
	One-Sample Test									
					Test Value = 5					
	t	df	Sig. (2-t	ailed)	Mean D	ifference	95% Confide	nce Inter	val of the Difference	
							Lower		Upper	
Good Concept	1.558	28	.13	0	.3	10	10		.72	
Usefulness	3.211	28	.00.	3	.7	59	.27	•	1.24	
Wise Option	.399	28	.69	3	.1	03	43		.64	

Table 2: One Sample-T Test of General Perception in Non-Experienced Users

The result produced by T test in the Table 2 shows that the two groups have similarities on their mean values with interval distance of 5.10 - 6.32. As all of the means are more than five (5), therefore the hypothesis towards the two groups can be accepted, or in other words, both groups relatively "accept" online banking services. It also found out that usefulness is the only item that significantly different compared to the test value of 5 within the non-experienced users group. Further, Independent-Samples Test as shown in the Table 3 is conducted to test whether both two experienced and non-experienced users groups were actually significantly different or not, in terms of their general perception.

The difference of significance level can be shown from Sig. 2-tailed value in the Table 3, respectively 0.000, 0.029, and 0.009, which reports that among the three values, there is no item has the similarity. It means that the difference is significant, because the Sig. (2-tailed) value is ≤ 0.05 . Therefore hypothesis is accepted, because it found that both groups have different significance level which is significantly different, although their means are above five (more than 5).

				Gro	up Statis	tics					
		User Expe		N	Mear	ı	Std. Deviation	S	Std. Error Mean		
Good Conce	ept	Experience	d User		121	6	.02		.944	.086	
		Non-Experier	nced User		29	5	.31		1.072		.199
Usefulnes	S	Experience	d User		121	6	.32		.819		.074
		Non-Experier	nced User		29	5	.76		1.272		.236
Wise Option	on	Experience	d User		121	5	.87		.983		.089
		Non-Experier	nced User		29	5	.10		1.398		.260
			Iı	ndepend	ent Samj	ples Test					
			Levene	's Test	t-test for Equality of Means						
			for Equ	-							
			Varia								
			F	Sig.	t	df	Sig. (2-	Mean	Std. Error	95% Co	
							tailed)	Difference	Difference		l of the
											rence
	1									Lower	Upper
Good Concept	Equal v	.931	.336	3.564	148	.000	.714	.200	.318	1.111	
	Equal variances not assumed				3.295	39.048	.002	.714	.217	.276	1.153
Usefulness	-	variances assumed	8.830	.003	2.958	148	.004	.564	.191	.187	.940
	Equal variances not assumed				2.276	33.757	.029	.564	.248	.060	1.067
Wise Option		variances assumed	4.337	.039	3.443	148	.001	.764	.222	.326	1.203
	Equal var	riances not assumed			2.785	34.915	.009	.764	.274	.207	1.322

Table 3: Independent Samples Test of General Perception for Both Two Groups

4.2. Perceived Ease of Use (PEOU)

Further discussion based-on Table 4 and 5 report the data analysis between both two groups of respondents who already experienced and not experienced in online banking services with One-Sample T test.

				One-Sample S	Statistics		
			N	Mean	Std. D	eviation	Std. Error Mean
Clarity & Under	stand		121	5.98	.957		.087
Easy to Contr	rol		121	6.06	.934		.085
Overall Easin	Overall Easiness			6.02	1.	037	.094
				One-Sampl	e Test		
					Test Value :	= 5	
	t	df	Sig. (2-tail	ed) Mea	n Difference	95% Confiden	ce Interval of the Difference
						Lower	Upper
Clarity & Understand	11.301	120	.000		.983	.81	1.16
Easy to Control	12.464	120	.000		1.058	.89	1.23
Overall Easiness	10.876	120	.000		1.025	.84	1.21

Table 4: One Sample T Test of Perceived ease of use (PEOU) in Experienced Users

Descriptively it can be figured out that the mean values of the experienced group are greater than those who have no experience. Easy to control (6.06), overall easiness (6.02), and clarity & understand (5.98) items respectively have greater mean values in the experienced group compared to those in non-experienced group respectively overall easiness (5.38), clarity & understand (5.24) and easy to control (5.21) as shown in the Table 5.

Similar to previous analysis in the general perception test shown in the Table 1 and Table 2, it reports that the first group (experienced users) is significantly different on each item (Sig. 2 tailed values of 0.000) compared to test value of 5 scale. But the second group (non-experienced users) reports that the three items is not significantly different (Sig. 2 tailed values is \geq 0.05) because the mean values are not too distant from 5 scales.

	One-Sample Statistics											
			N	Mean	Std. Deviation	n	Std. Error Mean					
Clarity & Unders	stand		29	5.24	1.431		.266					
Easy to Contr	ol		29	5.21	1.346	1.346		.250				
Overall Easine	ess		29	5.38	1.568			.291				
	One-Sample Test											
					Test Value $= 5$							
	t	df	Sig. (2-t	tailed)	Mean Difference	95% Co	nfidence Inter	val of the Difference				
						Lo	wer	Upper				
Clarity & Understand	.909	28		.371	.241	30		.79				
Easy to Control	.828	28	.415		.207		31	.72				
Overall Easiness	1.303	28		.203	.379		22	.98				

Table 5: One Sample T Test of Perceived ease of use (PEOU) in Non-Experienced Users

				Group	p Statist	ics					
		User Experience				Me	ean	Std. Deviation	on Ste	n Std. Error Mean	
Clarity & U	nderstand	Exper	ienced Us	er	12	1 5.9	98	.957		.087	
		Non-Exp	perienced	User	29	5.2	24	1.431		.266	
Easy to C	Control	Exper	ienced Us	er	12	1 6.0	06	.934		.085	
		Non-Exp	perienced	User	29	5.2	21	1.346		.250	
Overall E	asiness	Exper	ienced Us	er	12	1 6.0	02	1.037		.094	
		Non-Exp	perienced	User	29	5.3	38	1.568		.291	
			Inde	epende	nt Samp	les Test					
			Levene'	s Test			t-tes	t for Equality	of Means		
			for Equ	ıality							
			of Vari	ances							
			F	Sig.	t	df	Sig.	Mean	Std. Error	95	%
							(2-	Difference	Difference	Confi	dence
							tailed)			Interva	l of the
										Diffe	rence
										Lower	Uppe
Clarity &	Equal varianc	es assumed	8.640	.004	3.376	148	.001	.742	.220	.308	1.176
Understand	Equal variances			2.655	34.239	.012	.742	.280	.174	1.310	
Easy to Control	Equal varianc	6.285	.013	4.017	148	.000	.851	.212	.432	1.270	
	Equal variances	not assumed			3.223	34.718	.003	.851	.264	.315	1.38
Overall	Equal varianc	es assumed	12.588	.001	2.701	148	.008	.645	.239	.173	1.118
Easiness	Equal variances	not assumed			2.109	34.086	.042	.645	.306	.024	1.26

Table 6: Independent-Sample T Test of Perceived ease of use (PEOU) for Both Two Groups

Furthermore on differences analysis, the significance test result of Independent-Samples T Test towards the three items of perceived ease of use (PEOU) as reported in Table 6 shows that the first group (experienced users) is significantly different compared to the second group (non-experienced users). This significance can be shown from the Sig. 2-tailed test values whereby their measurements are 0.012, 0.003, and 0.042 respectively and thus, the hypothesis can be accepted. In other words, the experienced users group might feel more confident in terms of their perceived the ease of use (PEOU) of online banking services compared those who were not experienced it before.

4.3. Information Quality

Based on the analysis by using One-Sample T test shown in Table 7, this study reports how does experienced users group perceive the information quality of online banking services. The test results show that the means values are relatively similar but significantly different if the test value is five (Sig.2 tailed values are 0.000). The highest mean value of 5.93 shows that relevant information provided by online banking services is the most relevant items towards the content or messages, followed by timely information and easy to understand. This study reflects that current online banking system has a relatively stable functional quality, so that the customers feel that they are able to communicate efficiently and effectively through this kind of web-based comunication application.

	One-Sample Statistics											
						Std. Deviation		Std. Error Mean				
Timely			121	21 5.88		.971			.088			
Relevant	•		121	5.93	3	.9	23		.084			
Easy to under	stand		121	5.81		1.027		.093				
	One-Sample Test											
						Test Value	= 5					
	t	df	Sig. (2-	-tailed)	Mea	an Difference 95% C		% Confidence Interval of the Difference				
							Lower		Upper			
Timely	9.924	120	.000		•	.876	.70		1.05			
Relevant	11.026	120	.00	.000		.926	.76		1.09			
Easy to understand	8.673	120	.00	00	•	.810	.63		.99			

Table 7: One Sample-T Test of Information Quality for Experienced Users

4.4. Interaction

Similarly to previous measurement, as reported in One-Sample T Test in Table 8, this study found that the customers feel that current online banking system respectively satisfy with the quality of its functionality, feel secure and having good reputation as shown in the mean values of 5.87, 5.68 and 5.67. In other words, the communication interaction of experienced users group shows a positive result which the customers feel satisfactory towards the functional quality of web-based communication application as provided by online banking services.

	One-Sample Statistics												
		N	Mean	Std. Deviation		Std. Error Mean							
Good reputation		121	5.67	1.003		.091							
Feel secure		121	5.68	1.097		.100							
Overall satisfaction	1 .	121	5.87	.957		.087							
One-Sample Test													
				Test '	Value = 5								
	t	df	Sig. (2-tailed)	Mean Difference	959	% Confidence Interval of the Difference							
					Lower	Upper							
Good reputation	7.340	120	.000	.669	.49	.85							
Feel secure	6.795	120	.000	.678	.48	.88							
Overall satisfaction	9.975	120	.000	.868	.70	1.04							

Table 8: One Sample-T Test of Interaction for Experienced Users

5. Conclusion, Implication and Limitations

The first objective of this study is to explore the different general perception between both experienced and non-experienced users' groups in web-based communication application as provided by online banking services. First, the result shows that the first group has a similarity to the second group in the way they perceive online banking service in general, because they are both accepting online banking services as a good concept, useful and wise option. But when it is explored in more deeply, both groups show differences significantly. It means that the first group, because they have already experienced with this kind of web-based communication, already enjoyed the real benefits or positive impact compared those who haven't experienced it before. And it is consistent with previous study for young segmentation users as conducted by the first author. The result of this study is expected to help communication experts, such as marketers and/or public relations managers to consider the "user experience" factor in strategizing their products/services in-order to understand their customer communication behavior in more deeply. Further research such as the perception of options and quality offered by online banking services (for instance to compare it with a more conventional communication in banking services), may get more insights about the real needs and customer communication behavior in online banking services. Besides, this study might be used as reference in measuring customer loyalty in using various web-based communication service modes.

Secondly, in terms of the perceived ease of use (PEOU), the result of this study consistently reports that both groups are actually significantly different. It indicates that the experienced users group has greater mean values than the non-experienced users group. In other words, the first group feel that using web-based communication is not a new thing anymore and everybody no matters they are from which educational background, gender or age category they belong, are able to use web-based communication easily as offered by current online banking services. The implication of this findings can be beneficial to industrial practitioners to develop web-based communication applications, not limited to online banking system, because once the users get familiar or experienced with the new mode of web-based communication system, then the non-users group will make confirmation adopt it when they have the chance to experience it as suggest by Rogers and Shoemaker's model.

Thirdly, through further descriptive analysis on communication message or content, in this case: information quality and interaction, this study consistently reports that the experienced users group perceive that the functional quality of web-based communication in online banking services is relatively satisfactory as the mean scores are consistently above than five (5). It also indicates that on average they are satisfy with the information quality (timely, relevant, and easy to understand) more than the interaction (good reputation, feel secure and overall satisfaction). As implication, web-based communication experts should consider more improvement on their interaction functionality quality, such as maintaining good reputation, improving web security and keep tracking their customer satisfaction levels.

The use of web-based communication for banking system has shown its role in supporting customer services activities, though. The problem of the difference level of knowledge and understanding among the customers familiarity with online banking is solved. The creation of message in online banking service that can be understood comprehensively is playing a significant role. And finally, the Customer Services activity is no longer a problem since all customers has got a comprehensive understanding about the banking services through this kind of web-based communication application.

Considering that this study uses a more descriptive and inferential statistic methodology to explore the significance level between both two experienced and non-experienced users' groups, therefore more complex methodology such as experimental research design is suggested by author to dig new deep-down findings on web-based communication phenomenon. Furthermore, hopefully this study will be beneficial and balancing both academic and practical objectives, especially for web-based communication experts in this fast-changing information and communication technologies era.

6. References

- i. Ajzen I. (1991). The Theory of Planned Behavior, Organizational Behavior and Human Decision Processes Journal, 50(2), 121–79.
- ii. Barnes, S.J. and Vidgen, R.T. (2000), WebQual: an exploration of web site quality, Proceedings of the Eighth European Conference on Information System.
- iii. Burns, A.C & Bush, R.F. (2010). Marketing Research, Global Edition, 6th Ed, Pearson, New Jersey.

- iv. Chau, V.S, dan Ngai, L.W.L.C. (2010). The Youth Market for Internet Banking Services: Perceptions, Attitude and Behaviour, Journal of Services Marketing, 24(1), 42-60.
- v. Davis, F.D. (1989). Perceived Usefulness, Perceived ease of use and User Acceptance of Information Technology, Management Information System Quarterly, 13(3), 318–40.
- vi. Davis, F.D. & Venkatesh, V. (1996). A Critical Assessment of Potential Measurement Biases in The Technology Acceptance Model: Three Experiments, International Journal of Human-Computer Studies, 45(1), 19-45.
- vii. E-banking, retrieved from Wikipedia http://id.wikipedia.org/wiki/E-banking dated 4th of May, 2014.
- viii. Jackson, L.A., Ervin, K.S., Gardner, P.D., and Schmitt, N., (2001), "Gender and the Internet: women communicating and men searching", Sex Roles, 44, 363–380.
- ix. Jarvennpaa, S.L. and Todd, P.A. (1996), "Consumer reactions to electronic shopping on the world wide web", International Journal of Electronic Commerce, 1(2), 59-88.
- x. Kuisma T., Laukkanen T., and Hiltunen M. (2007). Mapping The reasons for Resistance to Internet Banking: A means-end approach, International Journal of Information Management, 27(2), 75–85.
- xi. Laudon, K.C & Traver, C.G. (2012). E-Commerce 2012: Business. Technology. Society, Eigth Ed., Prentice Hall, 752-763.
- xii. Lee, Ming-Chi. (2009). Factors Influencing the Adoption of Internet Banking: An Integration of TAM and TPB with Perceived Risk and Perceived Benefit, Journal of Electronic Commerce Research and Applications, 8, 130-141.
- xiii. Littler, D. & Melanthiou D. (2006). Consumer Perceptions of Risk and Uncertainty and The Implications for Behaviour Towards Innovative Retail Services: The Case of Internet Banking, Journal of Retailing and Consumer Services, 13(6), 431–43.
- xiv. Malhotra, Y. & Galletta, D.F. (1999). Extending the Technology Acceptance Model to Account for Social Influence: Theoretical Bases and Empirical Validation, Proceedings of 32nd Hawaii International Conference on System Sciences.
- xv. McQuail, D. & Windahl, S. (1993). Communication Models: for the study of mass communications, 2nd Edition. Addison Wesley Longman Limited.
- xvi. Oberman, R., Dobbs, R., Budiman, A., Thompson F., and Rosse, M., (2012), "The archipelago economy: Unleashing Indonesia's potential", McKinsey Global Institute Report.
- xvii. Page, K. L., Robson, M. J., and Uncles, M. D., (2012), "Perceptions of web knowledge and usability: When sex and experience matter", International Journal of Human-Computer Studies, 70, 907-919.
- xviii. Rusciano, F. L. & Xia, Y. (2013). Print-Based and Web-Based Communication: Different Ways of Thinking, Atlantic Journal of Communication, 21, 215-229
- xix. Schumacher, P. and Morahan-Martin, J., (2001), "Gender, Internet and computer attitudes and experiences", Computers in Human Behavior, 17, 95–110.
- xx. Turban, E. et al. (2012). Electronic Commerce 2012: A Managerial and Social Networks Perspective, Global Edition, Prentice Hall.