

***Cross-Cultural Study on the Value Structure of Mobile Internet Usage:
Comparison between Indonesia and Thailand***

Chalita Srinuan, King Mongkut's Institute of Technology Ladkrabang, Thailand
Ranti Yulia Wardani, STIE YKPN, Yogyakarta, Indonesia

The Asian Conference on Technology, Information & Society 2014
Official Conference Proceedings 2014

Abstract

This study aims to examine a pattern of mobile Internet usage from perspective of intercultural among developing countries. Data obtained from a survey of questionnaire which is distributed in both Thailand and Indonesia during 2013. The multiple regression analysis has been applied to identify between value structures (functional value, emotional value, social value and monetary value) and overall satisfaction in each country. Finding shows that functional value, emotional value, social value, and monetary value significantly affect satisfaction for Indonesia users which is similar to Thai users except the emotional value does not affect the satisfaction. A comparison test to examine the difference in value structure between Indonesia and Thailand has been analyzed. The results show that the functional value, emotional value, social value and monetary value between Indonesia and Thailand are different. The results of these differences are influenced by the perceptions of respondents in Indonesia and Thailand to the different mobile Internet usage pattern. In this case it turns out different cultures influence the way in perceiving the use of different technologies, especially in the mobile Internet usage pattern.

Keywords: Cross- culture, Mobile Internet, Thailand, Indonesia

iafor

The International Academic Forum

www.iafor.or

Introduction

Over the past years, information technology and communications (ICT) continue to spread throughout the world. Internet is one of the important tools in IT that help people doing their business, job, and many activities. Internet has a strong ability to help people find information. Internet provides a wealth of information from thousands of online publications such as newspapers, journals, reports, entertainment, and data. In addition, there are many websites that allow us to connect with many people in our life by using social networking sites such as Facebook and Twitter. Internet is easy to access, and can assist in communicating with users around the world.

Internet would lead people to the need of access Internet via cellular networks every time and everywhere. People who travel from place to another place to do some activities prefer to get information quickly using mobile Internet. One of the tools that people need to be able to access the Internet quickly anywhere and anytime is the mobile Internet. Based on ITU (2009) access to the Internet via mobile has been growing rapidly align with the developing availability of network infrastructure and devices, including mobile handsets and data cards that allow users to access Internet via mobile Internet devices.

ITU (2012) stated that between 2010 and 2011, mobile-cellular subscriptions registered continuous double-digit growth in developing country markets. Number of mobile-cellular subscriptions increased by more than 600 million, almost all of them in the developing world, to a total of around 6 billion, or 86 per 100 inhabitants, globally. In developing countries, mobile sector competition is getting stronger. This condition encourage by strong growth of mobile Internet usage. Prepaid services in developing countries lead to communication accessible by many low-income society. Mobile services slowly change fixed lines services. Moreover, more than 70 per cent of all mobile cellular subscriptions are prepaid (and as many as 87 per cent in developing countries).

A sharp increase in mobile broadband subscriptions growth reflects a handheld device that can access the Internet via smartphones or tablet, coupled with the launch of high-speed networks and mobile services (3G and above) in developing countries. As the network operators are working to increase and expand the scope of services, they can achieve an increase in the proportion of urban and rural population of the world.

Mobile phones also penetrate in some social hierarchy such as lower class, middle class, and upper class. Mobile phone is not only using middle class and upper class market but also using by lower class market. Duncombe & Boateng (2009) stated that mobile phones are becoming increasingly part of the everyday lives of the poor, it is argued that they have potential to become a low-cost accessible account or delivery channel for financial information, services and transactions, thus facilitating innovations including micro-payments (m-payments), electronic money (e-money), and a mobile banking channel (m-banking). Thus, mobile phones function becoming important in every single class society. It will encourage people in every single class society to use mobile phone function more than phone calls and integrated with Internet.

Previous studies have been conducted to investigate the cross-cultural differences in different academic fields, such as psychology, philosophy, and human resources. In some studies little attention is given to cross-cultural research in the field of ICT because there are difficulties in explaining and measuring cultural concepts related to ICT (Straub et al, 2002). This study will use mobile Internet as one of the tools of ICT and measure it with the cultural concepts. People from different countries will have different adoption of the mobile Internet usage pattern. Therefore it would be interesting to investigate the mobile Internet usage pattern in two different countries. This study is based on the following research questions:

1. Do functional value, emotional value, social value, and monetary value affect mobile Internet service satisfaction in Indonesia and Thailand, respectively?
2. Is there any difference in value structures between Indonesia and Thailand?

Literature review

Kalakota & Robinson (2002) are stated that mobile mostly used to imply that the device has an “always on” connection to the Internet. Moreover, Kalakota & Robinson (2002) explained that mobile phones with the Internet connections are commonly called wireless, thus implying that the experience is based on a real-time live Internet connection via satellite, cellular, or radio transmitters.

In this study mobile Internet can be measured with values structure construct of different culture. A consumption values consists of several components that affect the value of consumer choice behavior, for example: functional value, conditional value, social value, emotional value and value of knowledge (Sheth et al, 1991). In this study, the purpose of framework structure of value will be formulated in variety types of values that users try to satisfy by using the mobile Internet.

Kreitner and Kinicki (2007) stated that culture is the beliefs and values about how a community should do to perform actions. They also defined define a value is an enduring belief in the model of conduct or end-state. Structure values are analytical framework that consists of different types of value provided by the mobile Internet (Lee et al, 2002). Value can be recognized as a tool or a key parameter in the study to measure culture. Value not only can be used to understand human behavior, but also the value can be used to conduct business (Lee et al, 2002).

Value is a concept that consists of several sub-components that are heterogeneous (Sweeney & Soutar, 2001). There are four sub-values: functional value, emotional value, social value, and monetary value. The definition of functional value is functional or technical practical benefits that users can get from using the mobile Internet. Wardani & Warsono (2012) found that Japanese functional value is more likely to affect satisfaction and Indonesian social value is a high influential effect on satisfaction. Japanese respondents are exhibiting more utilitarian in pattern of mobile Internet usage. On the other hand Indonesian respondents are exhibiting more hedonic in pattern of mobile Internet usage. It can be explained from the result that shows Indonesian emotional value is significantly higher than Japanese emotional value. The emotional value is one of the indicators that people tend to use mobile Internet to fulfill their emotional need by accessing preferred website. Hedonic criteria are related to feelings and emotions such as fun, relaxation, or pleasure. This means that

Indonesian respondents perceived mobile Internet to fulfill their emotional need, which is higher than other values.

Emotional value is a mental or psychological need of mobile Internet users (Sweeney & Soutar, 2001). Arambewela, et al. (2005) examined differences in personal values among Asian postgraduate international students from China, India, Indonesia and Thailand who are studying in some universities in Australia. The study was conducted based on nationality and discuss the marketing implications of each difference. Personal value is one way which insights can be obtained from the students, especially those related to the needs and preferences. He found that Indonesia and Thailand college students have a tendency for greater importance to the values associated with hedonism.

Social value is social benefits gained by the user when they can connect to others via mobile Internet (Sheth et al, 1991). Indonesian society has high social network characteristics (Subagyo, 2009). Indonesian country is said to have high expression of family value. These models may include more than two hundred million people in Indonesia. Indonesian people who live together are in a spirit of kinship (Mulder, 2000). According to Nguyen (2005) Thai people really appreciate the friendship and tend to look for a permanent friendship. Thailand society almost has a similarity with other Asian cultures, Thailand worth more or less influenced by Confucianism. They are usually: devoted, respect for age, seniority and hierarchy, respect, dignity, ethical, true friendship, be averse to arrogance and vanity, have a preference to learn, and a belief in simplicity (Nguyen, 2005).

Monetary value means how satisfying mobile Internet service compared to the cost or time or effort which is spend in using of mobile Internet (Sweeney and Soutar, 2001). Monetary value should not be ignored because mobile Internet user must pay relatively high charges for mobile Internet services usage (Lee et al, 2002). According Information Telecommunication Union (ITU) in 2012, the ICT Price Basket (IPB) is a unique global measure that provides important information related to telecommunications and information technology services. The IPB consists of three components different prices: fixed line, mobile cellular and fixed broadband services. They are then calculated as a percentage of average gross national income (GNI) per capita. The IPB is the value calculated from the sum of the price of each sub-basket (in USD) as a percentage of a country's monthly GNI per capita divided by three. Calculated results by ITU indicated that cost of for mobile Internet services in Thailand and Indonesia are different both in Prepaid and Postpaid subscription. Thailand service providers offer a lower price plan of mobile internet prepaid subscription and higher price plan for postpaid subscription as compared to Indonesia service providers. Therefore, monetary value will affect their satisfaction using the mobile Internet unavoidably.

Satisfaction is the overall experience perceived by the customer from the beginning to the end use of the product or service usage of the product or service providers (Johnson & Fornell, 1991). Overall satisfaction using the mobile Internet is the overall value of mobile Internet service as experienced by the user. In this study satisfaction value is the dependent variable.

Data and method

The survey method is used in this study as a data collection technique. Data has been collected from the survey which undertaken in Indonesia and Thailand. The questionnaire was given to respondents in Thailand and Indonesia directly. There are four parts in the questionnaire: the user's demographic questions, usage behavior, four value and satisfaction. Sample size of this study was 300 samples and was divided 150 samples for each country. The response rate was 91.33 percent. The independent variables in this study are value variables and dependent variable is satisfaction. Culture will be treated as moderating variable. Multiple regression analysis is used to identify the relationship between value structures and overall satisfaction in each country. Independent samples T-test is also used in this research to test how different value structures between the two countries.

Results and discussion

The regression results show that the value structure (functional value, emotional value, social value, monetary value) has influence on the satisfaction of Indonesian mobile Internet user. Considering Thailand mobile Internet user, function value, social value and monetary value simultaneously affect the satisfaction of Thailand respondents. The emotional value is not significantly affecting the satisfaction of mobile Internet user as show in Table 1.

Table 1. Multiple Regressions

Model	Unstandardized Coefficients		Standardized Coefficients
	B	Std. Error	Beta
Indonesia			
(Constant)	0.258	0.940	
FVINA	0.167	0.045	0.301***
EVINA	0.111	0.045	0.205**
SVINA	0.082	0.032	0.153**
MVINA	0.240	0.042	0.350***
Thailand			
(Constant)	-0.022	0.943	
FVTHAI	0.215	0.046	0.371***
EVTHAI	-0.022	0.045	-0.038
SVTHAI	0.183	0.045	0.276***
MVTHAI	0.246	0.042	0.367***

*** , ** refers to significant level at 1% and 5% respectively

Independent samples T-test was also used in this study to test how different value structures between the two countries. Findings in Table 2 shows that there is functional value, emotional value, social value and monetary value difference between the respondent in Indonesia and Thailand

Table 2. Independent T-test

		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	df	Sig. (2- tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
FV	Equal variances assumed	0.922	0.338	5.221	272	0.000	3.711	0.711	2.312	5.111
	Equal variances not assumed			5.204	265.042	0.000	3.711	0.713	2.307	5.115
EV	Equal variances assumed	0.897	0.345	7.167	272	0.000	5.146	0.718	3.733	6.560
	Equal variances not assumed			7.137	263.346	0.000	5.146	0.721	3.727	6.566
SV	Equal variances assumed	7.591	0.006	3.127	272	0.002	2.139	0.684	0.792	3.485
	Equal variances not assumed			3.094	245.603	0.002	2.139	0.691	0.777	3.500
MV	Equal variances assumed	0.223	0.637	5.153	272	0.000	3.067	0.595	1.895	4.238
	Equal variances not assumed			5.152	269.654	0.000	3.067	0.595	1.895	4.238
SAT	Equal variances assumed	0.576	0.448	6.165	272	0.000	2.482	0.403	1.690	3.275
	Equal variances not assumed			6.157	268.299	0.000	2.482	0.403	1.689	3.276

Discussion

The results of regression analysis showed the similar finding from both Thailand and Indonesia between the relationship of the functional value, emotional value, social value, monetary value and satisfaction.

The functional value affects satisfaction for mobile Internet users both in Indonesia and Thailand. This implies that mobile Internet users realize or well perceived ability of mobile Internet and it affect the user satisfaction at the end.

Emotional value can significantly affect the satisfaction of respondents in Indonesia but not in the case of Thailand. Indonesian respondents shows that there is a tendency to use mobile Internet to meet their emotional needs, either by having the device or to access Internet services that they like. Hedonic criteria related to feelings and emotions such as excitement, relaxation or pleasure (Kim et al., 2004). Similarly, Arambewela et al. (2005) found Indonesian respondents have a tendency to greater interest to the values associated with hedonism. This is consistent with the results of multiple regression. However, this factor is insignificantly affecting the satisfaction of Thai mobile Internet user. It may imply that Thai mobile Internet users paid more attention to other factors when using mobile internet.

The result of Indonesian social value shows that significantly affect satisfaction. The test results of Indonesian social value align with the explanation of Subagyo (2009) that the people of Indonesia have high social network characteristics.. In Thailand, social value is also significantly affect satisfaction. This is consistent with Nguyen (2005) which states that the Thai people really appreciate the friendship and tend to look for a permanent friendship. In addition, the mobile Internet services most frequently and widely used by respondents in Thailand in this study are social networking.

In addition, the effect of monetary value on satisfaction is the same for both countries. Results indicate that monetary value can significantly affect satisfaction.

Monetary cost is an important to be considered by consumers of mobile Internet since they are hoping to get the best services in accordance with costs that they have to spend. Monetary value means how satisfactory mobile Internet services compared with the cost, time or effort to be spent in using the mobile Internet (Sweeney and Soutar, 2001).

However, there are the different between each value factors in these two countries according the t-test. The results of these differences are influenced by the perceptions of respondents in Indonesia and Thailand to the different mobile Internet usage pattern. In this case it turns out different cultures influence the way in perceiving the use of different technologies, especially in the mobile Internet usage pattern. The results of this research can provide us more knowledge about cultural differences in the usage patterns of mobile Internet, especially in Indonesia and Thailand. In the results of this study indicate that statistically there are differences in usage patterns of mobile Internet that is influenced by the culture of the measured value.

Conclusion

This study aims to examine factor influencing mobile Internet usage by including a perspective of intercultural in developing countries. Thailand and Indonesia mobile Internet user were the sample in this study. Data obtained from survey in 2013. The multiple regression analysis and t-test was employed to analyze the relationship between the value structures and overall satisfaction in each country. Results confirm that the value structure significant impact satisfaction of mobile Internet user in both country with different degree.

The results of this study can contribute to the government in order to assist in giving the communications department policies related to tariff policy in order to give more wisely tariff policy and more affordable for the whole society and its stakeholders. Findings also provide information to strategic manager of service providers regarding to the cost and pattern of usage in order to utilize the right strategies for each country. Future research is still needed. The different uses may also be caused by differences in demographics, the infrastructure of the mobile Internet, and mobile Internet services themselves. Thus, examining the relationship between the structure of values and behavior patterns of users could be considered as an additional study.

References

- Arambewela, R., Hall, J., Hede, A.M. (2005). Personal values of international postgraduate students from Asia: A Cross Cultural Study. In ANZMAC, Conference: Marketing Education.
- Duncombe, R. (2011). Researching impact of mobile phones for development: concepts, methods and lessons for practice. *Information Technology for Development*, 17 (4), 268–288.
- ITU (International Telecommunication Union). (2009). *Measuring the Information Society: The ICT Development Index*, Geneva, Switzerland
- ITU (International Telecommunication Union). (2012). *Measuring the Information Society*, Geneva, Switzerland.
- Johnson, M.D. & Fornell, C. (1991). A framework for comparing customer satisfaction across individuals and product categories. *Journal of economic psychology*, 12, 267-286.
- Kalakota, R. & Robinson, M. (2002). *M-Business: The Race to Mobility*. New York: McGraw-Hill Companies Inc.
- Kim, J., Lee, I., Lee, Y. & Choi, B. (2004). Exploring E-business implications of the mobile Internet: A cross-national survey of Hong Kong, Japan and Korea", *International Journal of Mobile Communication*, 2(1), 1-21.
- Kreitner, R. & Kinicki, A. (2007). *Organizational Behavior*, New York: McGraw-Hill.
- Lee, Y., Kim, J., Lee, I. & Kim, H. (2002). A cross-cultural study on the value structure of mobile Internet usage: Comparison between Korea and Japan. *Journal of Electronic Commerce Research*, 3(4).227-239
- Mulder, N. (2000). *Indonesian images, the culture of the public world*. Yogyakarta: Kanisius Publishing House.
- Nguyen, T. H. (2005). Thailand: Cultural background for ESL/EFL teachers. Retrieved from <http://bit.ly/XIBQwR> (2 February 2014)
- Sheth, J.D., B.I. Newman, & Gross, B.L. (1991). Consumption values and market choice. Cincinnati: South Western Publishing, Cincinnati.
- Subagyo, Y. (2009). *Pemberdayaan Masyarakat Melalui Posdaya Untuk Mengatasi Krisis Sosial*, Himpunan Pandu dan Pramuka Wreda (HIPPRADA),
- Sweeney, J.C. & Soutar, G.N. (2001). Consumer perceived value: The development of a multiple item scale. *Journal of Retailing*, 77, 203-220.
- Wardani, R., Warsono, S. (2012). A Cross-cultural study on the value structure of mobile Internet usage: Comparison between Indonesia and Japan, *Journal of Indonesian Economy and Business*, 27 (3), 355-372.

Contact email: kschalit@kmitl.ac.th, chalita.srinuan@gmail.com