

The Importance of Fluidity Utility Belief and Technology Cluster Ownership on Adoption of Mobile Communication among Youth

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Abstract

Recently, growing number of mobile communication ownership in Indonesia left a question: how the youth adopt these devices? Aside of the research on how the gadget changes communications among youth, to understand why the youth decide to use particular gadget would give insight on how they are going to use the gadget. At least, fluidity utility belief and technology cluster ownership plays important role in adoption of mobile technologies such as hand phone, smart phone, and tablet/pad. A survey to youth, high-school student, in Surabaya shows high cluster ownership and belief about the fluidity of technology. On the same track, adoption belief of particular mobile technologies receives high score.

Keywords: *Mobile Communication, New Media, Youth, Fluidity Utility Belief, Technology Cluster Ownership, Adoption of Innovation.*

Introduction

“If you are not mobile, then you are not part of us.”

Nowadays, this phrase seems to be an un-written consensus among youth. Ownership of first mobile gadget is not a matter of being mature, but decreasing to very young age (Goggin, 2013). Having a high-end gadget seems to be an ultimate dream for youth. On the other side, one gadget seems not enough to fulfill the communication needs. Therefore, entering the area of mobile technology ownership would be described as entering a racing circuit. It is an era of a race to the ownership of gadget, a race for the production of gadget, and a race of the application. By any means, this race seems has persuaded the youth to own a gadget.

With approximate of 250 millions population, Indonesia has become on of the largest market in mobile communication. Increasing number of mobile acquisition implies to potential change in human culture of communication. Mobile technology arguably increases the bond among society and decreases as well. Castel has shown the impact of wireless communication device to youth community and connectivity (Castells & Qiu, 2004). Recent study in Kerala, India also provides strong evidence on positive effect of mobile technology (Palackal et al., 2011). What about Indonesia?

Theoretically speaking, mobile technology influences the communication behavior, and socio-cultural aspect as well.

Aside of the effect of mobile technologies and persuasiveness of the race, there is a space of study about the technology itself. A study is not in the field of technical configuration, rather on what makes the people adopt the mobile technologies. The purpose is to examine the importance of particular quality of mobile technology in technological acquisition. This study of adoption would benefits to the continuation of the respected technologies. Mobile technologies such as hand phone, smart phone, and tablet are in the realm of a rapidly innovation rate, and competition as well. These technologies are competing to be adopted by the users. In this case, young people as the frontline of adopting new innovation (Livingstone, 2002).

Studying adoption of mobile technology would give insight on how the people, youth in particular, use the technologies. A growing concern of mobile uses of the youth would be best explained by the factors that persuade them to adopt the mobile technology. Growing up digitally in Indonesian society would place this youth as a prospective mobile communication phenomenon. Partially, their usage of technology remains problematic in recent cases. In short, what determines people to adopt a technology would provide clues to its uses.

Going mobile in established society

Indonesia has become a large market for mobile technologies. By the end of 2011, at least 240 million of mobile user in Indonesia (Nugraha, 2013). This number signifies a movement of fixed communication to mobile communication. Regardless the absence of correlation between the ownership of fixed media and mobile communication, ownership of mobile communication indicates 'fixed' society moving toward 'mobile' society. Literally, communications now take place everywhere as long as network presence. Therefore, we are facing the transition of 'fixed' society towards 'mobile' society.

Transition implies on differences in the usage of communication technology. Moreover, these differences trigger problematic cases that need to be understood wisely in both perspectives. It is a common practice in a dining room of a restaurant when a group of youth is busy with their gadget. Focusing on gadget may be seen in also a family dinner. In a seminar or maybe classroom, there is also cultural gap between the speaker and the participants. Speaker is explaining the topic and audience may focus on the gadget. These differences would be best understood if we learn why people adopt a gadget.

Going mobile in Indonesia is unavoidable in the abundance of gadgets. Indonesia becomes like a giant gadget supermarket. Displays of low-end, mid-end, and high-end gadgets are nicely arranged in small up to big store window display. Regardless to the price, the quality of the gadget becomes primer to user. Particular quality of gadget is the ability of gadget in supporting work, social activities, leisure activities, and interconnection.

By going mobile, user would like to confirm the ability of gadget to substitute or even go beyond the activities by ‘fixed’ media. Using PC, user can do the work, browse for articles, send email, and reading news. However, when adopting a new mobile gadget, user needs to confirm that the quality of gadget is able to at least do the same task as in PC (Donner, 2008). In supporting their social needs, using a more fixed technology would limit them in term of time and space. By using mobile technology, user may increase their social activities beyond the limitation of time and space (Schroeder, 2010). Leisure activities by gadget such as gaming are also enhanced by the presence of mobile technology (Livingstone, 2002). Gaming in mobile technology is practically handy. And as the nature of mobile communication, mobile technology should have quality to ensure the ability of talking, or even texting, as the excellent of fixed media (Leung & Wei, 2000).

Going mobile does not mean abandon the established activities by fixed media, it even enhance. In acquisition of mobile gadget, user would make sure that the technology has particular quality to support those activities.

Exploring the adoption of mobile technology

Taking account from the early work of Rogers, adoption is not a single-independent event but a result of series event (Rogers, 1983). There cognition processes before the decision of using a particular technology. Researchers have used this notion in their respective research to examine the adoption process of multimedia cable technologies (Lin & Jeffres, 1998), cell phone (Wei, 2001), interactive cable television (Li, 2006), and online radio (Lin, 2009). The innovativeness of mobile technology to the level of smart phone and tablet/pad provide another step to this research.

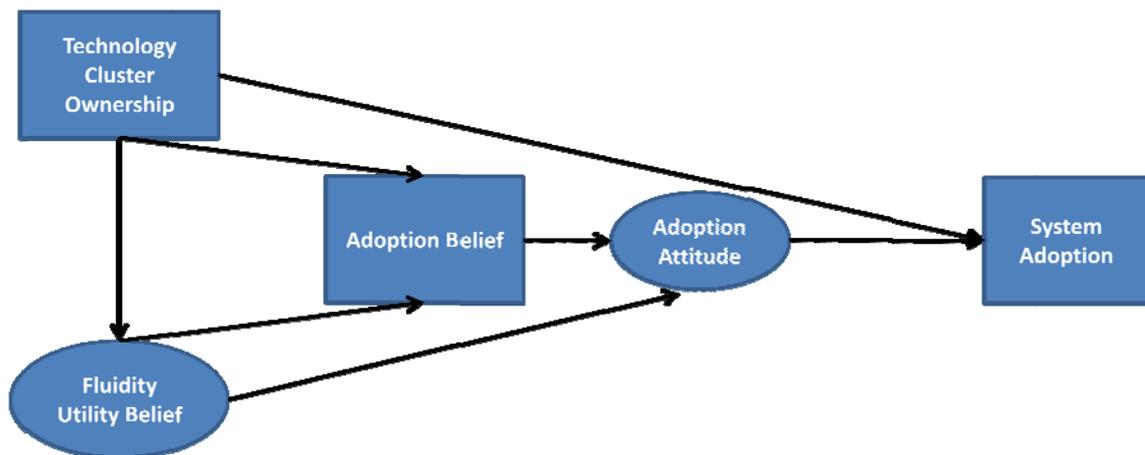


Figure 1 Proposed Model of Adoption Process

Using latest model in adoption process (Lin, 2009) as shows in Figure 1, researcher would like to testing relationship among the variables. According to previous research, if a new communication technology innovation shares interrelated attributes with other new technologies, then the adoption of one technology product may trigger the adoption of another to form unique technology cluster. Technical fluidity could be defined as the ability of inter-operable multifunctional and multitasking capability of a media technology. Fluidity of mobile technology is categorized from ability to record, receiving, and transmitting message from voice, text, pictures, and video. Even more in several high-end gadgets, there is ability to download and store the various type messages. In sort, fluidity of technology may increase the adoption belief of user.

Adapting the technology acceptance model, individual's beliefs about technology attributes can help shape his/her attitude about a technology system; this in turn influences the individual's intention to use/adopt it and subsequently motivates the individual to use the system (Lin, 2009).

Method

A survey has been conducted to youth in Surabaya. Purposively, 168 respondents has involved in filling the questionnaire. Aside of demographic profile, five variables has been employed to measure the importance of technological characteristics toward the adoption. Those variables are technology cluster ownership, system adoption, fluidity utility belief, adoption belief, and adoption attitude. Five-point Likert scale is used for the last three variables.

Descriptive data of each variable is presented by using Microsoft Excel and SPSS software. Multivariate analysis is used to explain relationship among variables. Researcher used Structural Equation Modeling to overcome the limitations of other multivariate techniques. PLS software is employed on testing the research model.

Result and Discussion

Online activities of respondents show social network as the top list of most accessed website. Stay connected to each other becomes a central concern in online communities among the user of websites. People involve in online community to gain mutual benefits such as strengthening social ties, circulating information, archiving experiences and exchanging opinions (Lee & Lee, 2010). With the advance of mobile technology, this activity would be enhanced beyond the time and space limit.

As seen in Table 2, 82% of respondent has smart phone to easy their access to the web, includes social network. Ability of smart phone to engage with third-party application i.e. facebook and twitter increases the level of fluidity. Also, the ability of smart phone to provide service of taking and sharing pictures, download and playing music gives added value. It is obvious when smart phone received highest score (4.12) in fluidity utility belief. These data shows the tendency of smart phone usage

in youth to support their social and entertainment activities. Consequently, the youth would use smart phone to mostly support socializing with their group, or even broader scope.

Tabel 1 Websites Accessed

Website accessed	%
Social Network (facebook, twitter,tumblr, formspring, goodreads)	34%
Search engine(google.com, yahoo.com)	26%
Video sharing (youtube)	11%
Online comic (anime44,mangastream,mangahere,mangafox.com,9gag)	9%
Others (pusheen, song lyric, play store,finance,fanfiction)	6%
Games websites (Megaxus, games.co.id, game faqs)	6%
News and information (detiksport.com, wikipedia, ensiklopedia, otomotif)	4%
Free download/sharing (4shared, the pirate bay, mp3skull, ganool)	3%
Blog	1%
Forum (kaskus, toko bagus, berniaga.com)	1%
Online magazine (bosmobil)	1%

The use of tablet as an instrument to support youth connectivity indicates a strong potential needs. Aside of the size, tablet is considered as a gadget with high level of multifunction. Specifically, the use of tablet is significant in gaming activities. In Apps store or Google play, top chart application for tablet is games. Games are popular as killing time activities or playing activities that connote for non-productive. However, in this era of mobile communication, games take place as productive activity. Playing games is not value only to spend money but make money. Make money by selling the game artifacts and game production. Games is shown as an arena for gamers pleasure, thrilling challenges, powerful social bonding, motivate the gamers, and even maximize the gamers potential (McGonigal, 2011)

Table 2 Mean Score of Variables

Variables	Hand Phone	Smart Phone	Tablet/Pad
Technology Cluster Ownership*	0,79	0,89	0,89
Fluidity Utility Belief	3,55	4,12	3,78
Adoption Belief	3,41	4,09	3,79
Adoption Attitude	3,22	3,55	3,40
System Adoption*	0,45	0,81	0,30

* scale 0 to 1

Table 2 provides information about the advance of smart phone based on respondents assessments. In any variables, smart phone receive the highest score. The ownership of smart phone becomes a major factor of this assessment. This data is supported by the fact that the respondent is categorized as middle to middle up economic level. This youth treats smart phone as a primary means of mobile communication and places hand phone or tablet as complementary gadget. Within five years, smart phone has replaced hand phone as a primary gadget. Development of clustered technology such as laptop, PC, internet connection, Bluetooth, and camera phone support this displacement.

How about the future of hand phone and tablet? Both are representing the simplicity and complexity. Hand phone with its simplicity has a strong base as the pioneer of talking and texting on the move. This is supported by the assessment respondent in the indicators of fluidity utility belief where sending SMS by hand phone is better by hand phone compare to the two other. On the other hand, complexity of tablet can be a strong point. According to respondent, visually-related activities such as accessing web, emailing, download or sharing video is highly appreciated. Dimension of tablet and storage capacity are the key factor to support the advance of tablet.

In completing this descriptive analysis, more advance analysis is needed. Multivariate analysis to provide evidence on the relationship of the variables would explain the process of mobile technology adoption.

Conclusion

Smartphone received higher score in all the variables. Fluidity utility belief of smart phone is considered as strong factor in the adoption of the mobile technology. This findings show the movement of primary gadget from hand phone to smart phone. Youth also shows their dominant usage of mobile technology in social network and entertainment. For youth, hand phone and tablet still has place in their simplicity and complexity. Hand phone is valued strong on talking and texting. Tablet is valued strong on visually-related activities.

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Short Biography

Jandy Luik.

I have been interested in new media field as well as the TV broadcasting and communication measurement. I have done research projects about blogging, social media, mobile communication, TV program, film, and communication measurement. Some of my previous works involve cultural and critical studies of communication works. My recent projects involving my students are New Media Solution and Live Broadcast Production.