

## The Impingement Factors of Perceived Usefulness Towards ICT Usage Among Rural Youth in Malaysia

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**Abstract:** The aim of this study is to identify the impingement factors of perceived usefulness towards ICT usage among rural youth in Malaysia. This is a quantitative research whereby via a simple random sampling, a total of 400 respondents age between 17-40 years were selected. The analysis performed has confirmed that only educational achievement has significant results with perceived usefulness while the other factors such as occupation, states, gender, income and number of household members did not record any significant relationship or difference. With the identified impingement factors, it is a hope that it can assist the concern parties in assisting the development of rural youth particularly with regard to their ICT usage.

**Key words:** ICT usage, community development, perceived usefulness, rural youth, particularly, analysis

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### INTRODUCTION

Musa (2008) has defined ICT as a combination of technology and communication that doubtlessly has benefited the community in diverse ways. For the younger generation, Information and Communication Technology (ICT) is a thing that most of them are familiar with. A majority of youth in Malaysia, regardless of their socio-economic background has become skillful and knowledgeable on ICT usage.

The Malaysian Communication and Multimedia Commission (MCMC) have introduced a new system that aims to promote the use of network services called Universal Service Provision (USP) around rural areas in Malaysia. Under this initiative, the availability and access to broadband and mobile service coverage are extended. Additionally, another USP initiative, namely the Community Broadband Centre (CBC) was established and aimed to provide broadband access centers collectively, especially in rural areas to enable rural communities to enjoy the advantages of the Internet as felt by the urban community.

CBC also provides training and computer software for rural communities to improve their social and economic status and more importantly to narrow down the digital gap between those in rural areas and their urban counterpart. Besides the CBC, the USP also provided

1Malaysia Internet Centre, Mini Community Broadband Centre, Community Broadband Libraries and 1Malaysia Wireless Village. These programs focus on all of rural residents throughout Malaysia, especially in the area with little or no coverage of communication services.

All these broadband projects are based on the National Policy Objectives for the Communications and Multimedia Industry. The policy attempts to place Malaysia as a major global center and hub for communication and multimedia information and content services. Via this ICT related policy, it is hoped that it can enhance community quality of life, strengthen national identity and global diversity to offer long term benefit for the community to offer ICT services at a minimal cost, to create a robust applications environment for the end users; to produce adequate number of skilled labour, capital knowledge and national assets to promote the development of capabilities and skills within Malaysia's convergence industries and to ensure information security and network reliability and integrity. According to Sahharon *et al.* (2014), the improvement of rural community in socio-economy will be the potential benefits of this programme.

**Factors affecting sustainability of internet usage among youth:** Hassan *et al.* (2011) have claimed that Information and Communication Technology (ICT) usage are

perceived as useful when an individual believes that utilizing a certain technology can assist them to be productive. Meanwhile, Musa (2008) have emphasized that rural community have started to use the ICT for their personnel and daily task and also for their job performing. ICT also became an important tool in giving exposure to rural communities to development. Based on Ministry of Rural and Regional Development, their main objectives is to increase the quality of life of rural community in term of income, job opportunities, knowledge and skills, physical infrastructure and basic facilities through the National Broadband Plan.

Salman *et al.* (2010) claimed that the influencing factors that sustain the internet usage are perceived and realized benefits of the internet. It includes the speed in sending email, information gathering capability and lower cost. It is supported by Rogers (2003) on rapid adoption of the internet, internet considerable relative advantages such as faster, better and cheaper compared to others (telephone, fax and postal letters). Besides with the internet, users will find it easier to search and exchange the information with other users for social development especially improving the knowledge and improve their socio-economic status such as expanding their contacts and business with potential stakeholders (Hassan *et al.*, 2008; Omar *et al.*, 2008; Sahharon *et al.*, 2014).

However, Safar-Hasim and Salman (2010) had claimed that there are three factors that influence the sustainability of the internet; interpersonal and social network, perceived and realized benefits and security concerns and interruptions. Interpersonal and social network are leading to the importance of colleagues, friends and place of work as well as the importance of existing social network. Perceived and realized benefit like communication capability, the speed in sending email and the capability to gather the information. The last one is the security concerns and interruptions such as the threat from computer virus attack, hacking and computer virus infection.

Within the scope of education, the internet acts as a motivating tool that encourage them to share their knowledge and information with other online members (Samah *et al.*, 2013). In addition, users also will be able to improve their skills in ICT, especially student where they can access the literature in their field. Besides, they also develop skills in accessing and using appropriate software such as Microsoft Office where they can arrange their learning in a creative and innovative way (Ahmad and Abidin, 2009).

Using the internet is not like the old media likes television or radio, internet facilitates the two-way communications as compared to television and radio. It

also can eliminate the border communication among rural communities, especially in contributing any ideas towards the national development (Sahharon *et al.* 2014). Furthermore, internet can help users minimize their time and money consuming-just by a click of a computer mouse they are already connected to their friends-regardless of geographical boundaries and time.

## **MATERIALS AND METHODS**

This is a cross sectional study and rely on developed questionnaire in collecting the required data. The questionnaire was developed based on review of literature and questions of past study. The questionnaire, then was pre-tested among 30 youths aged between 15-40 years old at Tanjung Karang, Selangor and resulted in the Cronbach alpha value of 0.809. After completed the pre-test, the questionnaire then was validated via. a series of instrument development meetings and workshops.

For this study, it is based on a simple random sampling whereby via. the sampling technique a total of 400 respondents was selected among youth aged 17-40 years old. The respondents were from four states namely Sabah (representing Sabah/Sarawak zone), Selangor (representing central zone), Negeri Sembilan (representing Southern zone) and Terengganu (representing East coast zone). The data collection process was conducted for 5 months (started from February 2014 and ended in July 2014) where by trained and experienced enumerators were hired to assist the researchers. The survey was the main data collection technique used. Descriptive and inferential analysis were then performed to analyze the data.

## **RESULTS AND DISCUSSION**

Of a total 400 respondents, 64% of them are male and 162 respondents are included in the age group of 20-30 years. In terms of educational achievement, the majority of the respondent (63.5%) possesses a secondary school certificate. It can be noted that a total of 68% of them are employed in three sectors namely government, private and self-employed. Meanwhile, it can be seen that a total of 32% of them are unemployed-this percentage is a combination of retiree/housewife (4.5%), unemployed (4.8%) and students (22.8%). The mean income recorded is RM 1355.42 and a total of 144 respondents earned between RM751-RM1500 in a month. A total of 82 of them have more than 8 numbers of household members while only 68 respondents have >4 numbers of household members (Table 1).

Table 1: Demographic factors

Factors	Frequencies	Percentage	Mean
<b>Gender</b>			
Male	256	64.0	
Female	144	36.0	
<b>Age</b>			
17-19	111	27.8	26.20
20-30	162	40.5	
31-40	127	31.7	
<b>Education achievement</b>			
Never been to school/primary school	13	3.3	
Secondary school	254	63.5	
Skill certificate	29	7.3	
Tertiary	104	26.0	
<b>Occupation</b>			
Government sector	46	11.5	
Private sector	94	23.5	
Self-employed	132	33.1	
Retiree/housewife	18	4.5	
Unemployed	19	4.8	
Students	91	22.8	
<b>Income</b>			
<RM750	54	21.5	1,355.42
RM751-RM1,500	144	57.4	
>RM1500	53	21.1	
<b>Number of household members</b>			
1-3	68	17.0	
4-5	143	35.8	
6-7	107	26.8	
>8	82	20.5	

Table 2: Level of perceived usefulness

Factors	Frequencies	Percentage	Mean	SD
Level	-	-	4.11	0.752
Low (1.00-2.33)	9	2.2	-	-
Moderate (2.34-3.67)	100	25.0	-	-
High (3.68-5.00)	291	72.8	-	-

Table 3: Statements measuring perceived usefulness

Statement	Mean score	SD
Enhance ICT knowledge and information	4.08	1.030
Enhance ICT skills	4.16	0.970
Save money	4.08	0.947
Save space	4.02	0.926
Increase work quality	4.19	0.877
Doubling the quantity of work	4.10	0.937
Saving data in a large capacity	4.12	0.922
Speed up the communication process	4.17	0.950
The computer software can minimize grammatical errors in writing letters, reports, statistics, schedule the task or activity schedule	4.10	0.967

Table 2 demonstrates the level of perceived usefulness among the respondent. The recorded mean score for perceived usefulness is 4.11 and based on the calculation of range of scores such mean score is regarded as high ( $M = >3.67$ ). Further, analysis has confirmed that all of the statements measuring the perceived usefulness recorded a high level of mean score (Table 3). The top three statements that recorded the highest mean score are enhance the ICT skills, increase the work quality and saving data in a large capacity. To have this finding is not surprising as it is supported by Hassan *et al.* (2011) who stated that perceived ICT is

Table 4: Comparison between selected independent variables

Changes	Mean score	F-values	p-values
<b>Education achievement</b>			
Never been to school/primary school	3.85	3.852	0.010
Secondary school	4.03		
Skill certificate	4.25		
Tertiary	4.29		
<b>Age group</b>			
17-19 (early youth)	4.13	0.72	0.931
20-30 (middle youth)	4.12		
31-40 (late youth)	4.09		
<b>Occupation</b>			
Government sector	4.22	0.873	0.499
Private sector	4.21		
Self-employed	4.05		
Retiree/housewife	3.95		
Unemployed	4.07		
Students	4.09		
<b>States</b>			
Perlis	4.16	1.893	0.130
Selangor	4.22		
Negeri sembilan	3.98		
Terengganu	4.09		

Table 5: Differences in perceived usefulness by using independent t-test

Changes	Mean score	t-test	p-value
<b>Gender</b>			
Male	4.09	0.847	0.397
Female	4.15		

useful to the user in term of saving a large capacity of data, increase work quality, enhance ICT knowledge and information, enhance ICT skills, enhance work productivity, speed up the communication process, ease the financial budget tasks, save money and save time.

Table 4 shows the comparison between selected independent variables and perceived usefulness. From the result, only educational achievement has a significant difference in the perceived usefulness at  $F = 0.01 > 0.05$  level of significance. Such results are not surprising as it is in line with previous study done by Safar Hasim and Salman (2010). Nevertheless, other independent variables such as age group, occupation and states have no significant difference with perceived usefulness at  $\alpha = 0.05$ .

Table 5 represents the result of the difference in perceived usefulness between genders. However, the result shows there is no significant difference in perceived usefulness between male and female at  $t = 0.847$  because the Sig.  $t = 0.397$  more than  $\alpha = 0.05$ . Having this result is not supported with has been claimed by Omar *et al.* (2008) who stressed a significance differences on gender with regard to perceived usefulness in using ICT.

Meanwhile, Table 6 is the result of the relationship between perceived usefulness and selected independent variables and the result also shows that there is no significant relationship between income, age and number of household members and perceived usefulness at 0.05 level of significance. Consequently, such results is

Table 6: Relationship between perceived usefulness and selected independent variables

Variables	R	p-values
Income	0.105	0.097
Age	0.005	0.927
No. of household members	0.017	0.737

not in line with what has been done Omar *et al.* (2008) and Samah *et al.* (2013) who claimed that those with higher income, younger people and bigger number of households perceived ICT as beneficial compared to the other groups.

### CONCLUSION

This study has specifically provided useful information to the relevant agencies on the group of community that they should focus on to further enhance the community usage of ICT particularly those in the rural areas. It can be concluded that should any ICT project to be implemented in the rural areas, one of the considerations that should be taken into account is including those in a higher education group as the target recipient of such project. To have this is vital as they are the group who realize the benefits offered to them by ICT while more ICT related courses and seminars should be targeted to lower education achiever especially to those who never been to school as they are still unclear on what ICT can offer to them. Understandably as other demographic groups demonstrate no significant results, it is a positive indication that the digital gap between the demographic groups in the community is minimized.

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