

A CASE STUDY ON INTERNET ADOPTION AMONG RURAL COMMUNITIES IN SRI LANKA

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ABSTRACT

Sri Lankan internet user percentage has lingered at a mere 18.3% according to World Bank Report, 2013. The aim of this paper is to identify the issues hindering Internet adoption among rural communities in Sri Lanka. This paper also will report results of correlation analysis regarding the relationship between Internet adoption and infrastructural facilities, adopter characteristics of rural communities, technology characteristics and affordability. A survey using questionnaire was used to obtain data from 400 respondents in Bibile, Monaragala district. The data was analysed using the Statistical Package for Social Sciences (SPSS version 20.0). From the correlation analysis all the nine variables have strong significant relationship with Internet adoption. There is a strong significant negative relationship between Internet adoption and infrastructural facilities, computer skills and affordability. The results show that Internet adoption among the rural communities was low due to lack of infrastructural facilities, problem of affordability and low in computer skills. Therefore, the government and non-government organizations should introduce ICT policies, infrastructural facilities and effective Island wide projects to change the attitudes and behavior of the rural communities in Sri Lanka. With proper infrastructure, better financial backing, English language skills and computer skills, the rural communities can easily connect to the internet for their development activities. Therefore this study suggests that attention should be given to the variable having effects on internet adoption among the rural communities in Sri Lanka.

Keywords: issues, internet adoption, rural communities, Sri Lanka, ICT policies

INTRODUCTION

The Internet also can be used for the purpose of facilitating rural development. In particular, we see that rural development with the Internet becomes a community participatory activity which bridges the information gap among people at grassroots level. Although information and communication technologies (ICTs) have the potential to address the concerns of rural areas in developing countries, there is a widening gap between the developed and developing world and between the urban and rural areas in terms of the dissemination of ICTs and the distribution of their benefits. A new medium such as the internet has to address the needs of the rural communities. Knowledge and

information are also becoming basic needs in this global information society. “The Internet serves as an agent of change in rural areas; it has positive effects on the livelihood and education of the rural people” (Zhao 2008: 17).

Some 81% of people in the United States of America have used the Internet for their development purposes. This was the highest internet usage in the world (World Bank Report, 2013) However, most of the Asian, African and Latin American countries are constrained in the development process without internet facilities.

The percentage of internet usage in Sri Lanka is very low when compared to other countries. Sri Lankan internet user percentage lingered at a mere 18.3% (World Bank Report, 2013). Sri Lanka hit 18% internet penetration by 2012 and the number of internet users in Sri Lanka shows a significant increase in the last few years (International telecommunication Union report, 2013). The rural people can benefit from the Internet to improve their skills, knowledge and create a positive behavioral and attitudinal usage to fulfill human, social, and economic needs. The percentage of internet usage in Sri Lanka was figured 18.3%, while Korea and Japan reported 84.1%, 79% respectively (World Bank Report, 2013). Developed countries being the owners of the ICTs, a certain form of new imperialism are being affected over the third world regarding the use of new information technologies.

Some studies have found that there are some issues in internet adoption in Sri Lanka. A report titled ‘Development of Information Technology for Human Enhancement’ submitted to the Sri Lankan government by Wattegama (2005) has identified a number of important issues that have prevented the successful distribution of the internet in Sri Lanka. They are the higher charges for internet usage in the rural sector, the low level of computer literacy in the rural areas, the difficulty of using the English Language by the rural communities, the misunderstanding among rural elders that the children get misled through the Internet, the lack of developed infrastructure in the rural areas and the very low living conditions of the rural communities.

Department of Census and Statistics of Sri Lanka have carried out a survey about the internet adoption in Sri Lanka in 2009. This survey revealed that the computer and internet skills are highly influenced by the proficiency in English and the educational level of the community. Many challenging issues and concerns associated with computing and communications are surfacing in Sri Lanka. The number of people who have access to ICT is severely limited. While it is true that new IT and other associated technologies are increasing in some areas, mainly in urban areas, considerable efforts are required to increase access in rural places where a majority of population lives.

Liyanage (2007) notes that NGOs do help to empower rural communities in Sri Lanka, but with less effect. At the moment there are some ICT programmes functioning to increase internet usage among rural communities in Sri Lanka. Most of the programmes are based in specific areas and they really don’t understand the information need of the rural communities. Gunasekera (2008) claims that infrastructure and affordability are critical problems in internet adoption among rural poor in Sri Lanka.

Galpaya (2011) finds that the non-English-speaking communities and people who attached to low social and economic states appear to be freeze out of the Internet.

The majority of rural people in Sri Lanka are facing numerous other problems hindering even their basic acquaintance with the internet such as: lack of infrastructural facilities, economic problems, lower literacy in computer usage and English, attitudinal constraints, and technological problems.

The purpose of this paper is to identify the issues hindering internet adoption among rural communities in Sri Lanka. This paper also will report descriptive results and results of correlation analysis regarding the relationship between internet adoption and infrastructural facilities, adopter characteristics of rural communities, technology characteristics and affordability.

METHOD

This study used the survey research method to obtain data from randomly selected rural communities (purposive random sample) in Bibile in Monaragala district, Sri Lanka. Viraj (2011) notes that Uva Province has the highest incidence of poverty (poverty head count index is 27%). Monaragala which is attached to the Uva Province is the poorest district (poverty headcount index 33.2 percent). There are 470 questionnaires distributed among the respondents in Bibile area. To get equal representation of gender, the sample consisted of equal number of males and females. The age component contains of three groups comprising 18-30, 31-40 and 41+. From the total of 413 collected questionnaires, 400 questionnaires were usable. The return rate of questionnaires was 87.87%. The data is analysed using Statistical Package for Social Sciences (SPSS version 20.0). Analysis includes both descriptive and inferential statistics. For the inferential statistics, correlation analysis was used. Internet adoption is the dependent variable. The independent variables include infrastructural facilities, adopter characteristics (needs, relevance, attitudes, computer skills and English Language skills), technology characteristics (ease of use, perceived benefits) and affordability.

RESULTS

This section discusses the results of this study. It explains the demography of the respondents and Correlation analysis between internet adoption and the independent variables.

Demography of the respondents

A total of 400 respondents were analysed, comprising 200 males (50 %) and 200 (50%) females. In terms of age, 131(32.8%) of the respondents belong to the 15-30 age group , 119 (29.8%) in 31- 40 age group, 101(25.2%) in 41-50 age group, and 49(12.2%) in 51-60 age group.

Majority of respondents, 67.5% (270) were employed, 29.5% (118) were unemployed and students made up 3% (12) of the respondents. In terms of qualification, 59% (236) have A/L and 5.3% (21) have O/L, 26 % (104) who have a Diploma, 8.8 % (35) have Bachelors, .8% have Masters qualification and .3% have PHD qualification.

Economically, majority of respondents, 30% (120) earn between Rs.20000-29999 monthly, 17.5 % (70) respondents who earn between Rs.10000-19999, 3 % (12) earn less than RS. 10000. 18.8% (75) earn between Rs.30000 to 39999 and 2% (8) earn above Rs.40000 but less than 49999. No income group made up 29.7% (119) of the respondents.

Correlation analysis between internet adoption and the independent variables

Correlation analysis is concerned with associations between variables. When an association is measured numerically, we get a correlation coefficient(r) that gives the strength and the direction of the relationship between two variables. In addition to the strength of a relationship, we might also be interested in the direction of an association such as being positive or negative. Strength of the association based upon the value of a coefficient. The correlation coefficient is scaled so that it is in somewhere between -1 and +1. Table 1 presents the pearson correlation analysis between internet adoption and independent variables.

Table 1 Pearson correlation analysis between internet adoption and the independent variables

Internet adoption	Infrastructure		needs		relevancy		attitudes		computer skills	
	r	p	r	p	r	p	r	p	r	p
	-960**	.000	927**	.000	873**	.000	898**	.000	-944**	.000
Internet adoption	English skills		ease of use		perceived benefits		affordability			
	r	p	r	p	r	p	r	p		
	857**	.000	927**	.000	948**	.000	-948**	.000		

N = 400

Correlation is significant at the 0.01(2-tailed)

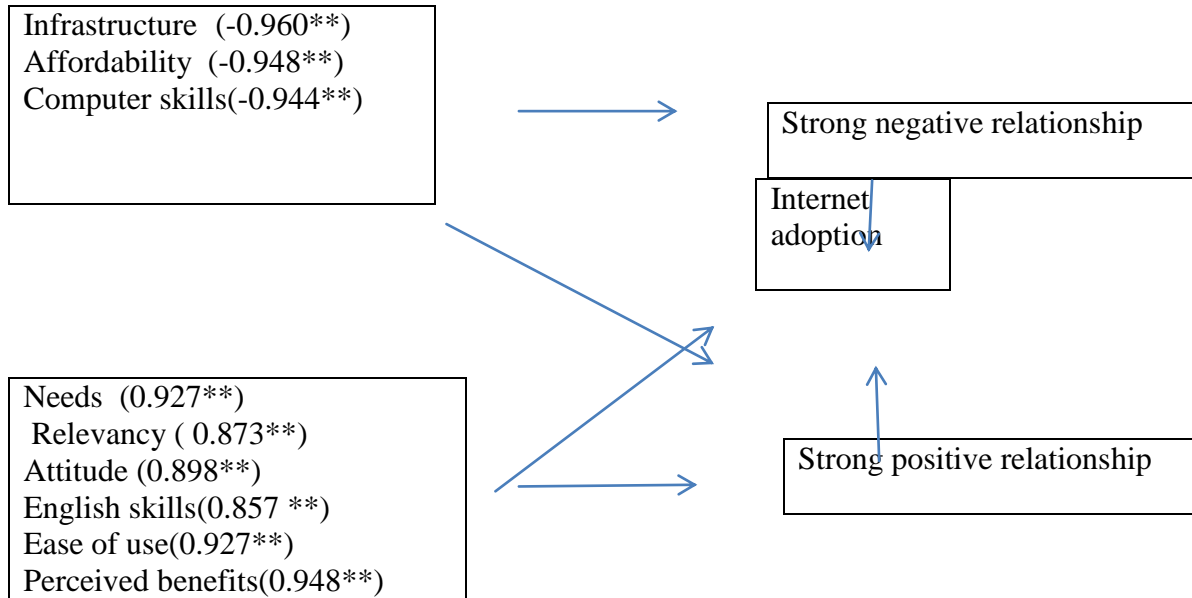
Table 1 shows there exists a significant negative relationship which is strong (r=-960**, p=.000) between internet adoption (DV) and infrastructure (IV). It can be concluded that infrastructure plays a negative role in influencing internet adoption among respondents in Bibile. In other words, it is a main issue on internet adoption among rural communities. There is a strong positive relationship between internet adoption and needs (r= 927**, p=.000). It can be determine that internet adoption is a major need of the respondents in Bibile. The results show that there is a strong relationship which is strong (r=873**, p=.000) between relevancy and internet adoption. Results of the correlation

indicate that internet adoption is highly relevance for respondents. There exists a significant positive relationship which is strong ($r=898^{**}$, $p=.000$) between internet adoption (DV) and attitudes (IV). There is a strong positive relationship between these two variables. It can be concluded that attitudes on internet adoption is high among respondents in Bibile. There is a strong positive relationship between internet adoption and English Language skills ($r= 857^{**}$, $p=.000$). It can be determined that English Language skills are high among the respondents in Bibile. There exists a significant negative relationship which is strong ($r=- 944^{**}$, $p=.000$) between internet adoption (DV) and computer skills (IV). There is a strong negative relationship between these two variables. It can be concluded that computer skills play a negative role in influencing internet adoption among respondents in Bibile. In other words, a computer skill is one of the major issues on internet adoption among these respondents.

The results show that there is a strong positive relationship which is strong ($r=927^{**}$, $p=.000$) between ease of use and internet adoption. Based on results presented in table 1, There is a strong positive relationship between internet adoption and perceived benefits ($r= 948^{**}$, $p=.000$). The results shows there exists a significant negative relationship which is strong ($r=- 948^{**}$, $p=.000$) between internet adoption (DV) and affordability (IV). It can be concluded that affordability plays a negative role in influencing internet adoption among respondents in Bibile. In other words, Affordability is also one of the major issues on internet adoption among these rural communities.

All the IVs have p below 0.05 and correlation coefficient above 0.8. Figure 1 presents the relationship between independent and dependent variables.

Figure 1 The relationship between independent and dependent variables



DISCUSSION

Internet usage in Sri Lanka began in 1990, but still the internet is an innovation in Sri Lanka. This study, therefore, found the issues in internet adoption among rural communities in Sri Lanka. Based on the results of the test, there are strong significant relationship between all independent variables such as infrastructural facilities, Adopter characteristics (needs, relevancy, attitudes, computer skills, and English languages skills), Technology characteristics (ease of use, perceived benefits) and affordability and dependent variable which is internet adoption. There are strong negative relationships between internet adoption and infrastructural facilities, computer skills, and affordability. Adopter characteristics (needs, relevancy, attitudes and English Languages skills), Technology characteristics (ease of use, perceived benefits) have positive relationships with internet adoption.

The results of the study have proven that there are some issues in internet adoption among these respondents. This means that infrastructural facilities, affordability and computer skills are negatively contributing to internet adoption. There should be a way to overcome these issues to have a positive internet adoption among these respondents. Therefore, suitable solutions should be taken by responsible government and private authorities to develop infrastructural facilities in rural areas, more effort should be put in to utilizing computer skills of the respondents and increase economic condition of

the respondents and provide some financial benefits by responsible governmental and private bodies in order to increase internet adoption.

Kapadia (2005) claims that some of these issues, like the lack of ICT infrastructure, are not issues that ICT programs can overcome independently; it needs considerable government involvement by building ICT infrastructure and capacity to use the technology. The government should also fund large-scale ICT education, just like it does regular education. This study concurs with Kapadia that utilizing ICT as a tool helps in transforming rural economy, create rural employment, political empowerment and peace building.

CONCLUSION

Majority of rural communities lack the experience of internet usage due to social, economic, human and technological factors. They remain separated from the facilities provided by internet. The internet has potential to bridge the digital divide among urban and rural communities in Sri Lanka and empower the rural communities. Therefore, efforts must be made to address the issues hampering the diffusion of the Internet among the rural communities.

The results shows, there are strong negative relationships between internet adoption and infrastructural facilities, computer skills, and affordability. Adopter characteristics (needs, relevancy, attitudes and English Languages skills), Technology characteristics (ease of use, perceived benefits) have positive relationships with internet adoption. This means that infrastructural facilities, affordability and computer skills are the issues in internet adoption among rural communities in Sri Lanka. Therefore, suitable solutions should be taken by responsible government and private authorities to overcome the problems of infrastructural facilities, computer skills, and affordability issues in order to increase internet adoption.

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